

Foreword

Thank you for purchasing a Mitsubishi Fuso FK/FM/FN series truck.

This owner's handbook explains proper vehicle handling, simple maintenance practices, and the periodical maintenance schedule to ensure that you are able to drive your vehicle safely and comfortably.

As improper use of the vehicle may result in a breakdown or cause an accident, we urge you to read this handbook thoroughly before operating the vehicle.

⚠ DANGER

⚠ WARNING

⚠ CAUTION

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Reading the handbook

- Please be acquainted with the model name and other specifics of your vehicle so that you will be able to read the applicable descriptions that are identified by vehicle type, model or engine model in this handbook.
- Because of differences in specifications and improvements that may be added after preparation of this manual, some of the explanations and illustrations in this handbook may not apply to your vehicle.
- The following symbol is used throughout this handbook:

⇒ □ : requests that reader should refer to the page of the number indicated.

- This manual contains important cautionary instructions and supplementary information under the following four headings which identify the nature of the instructions and information:

DANGER

Precautions that should be taken in handling potentially dangerous substances such as battery fluid and coolant additives.

WARNING

Precautionary instructions, which, if not observed, could result in serious injury or death.

CAUTION

Precautionary instructions, which, if not observed, could result in damage to or destruction of equipment or parts.

NOTE:

Suggestions or supplementary information for more efficient use of equipment or better understanding.

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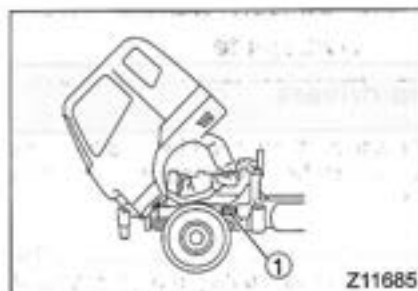
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Chassis number and engine numbers

If presented at the time of repair or parts order, the chassis number ① and engine number ② will facilitate the quick and smooth processing of your requests.

1 Chassis number

Your vehicle's chassis number is indicated by one of the following methods depending on the destination of the vehicle.

<Type 1>

The chassis number is indicated on the left frame, near the left front wheel.

Example: FK62FM □□□□□□

Chassis number
Vehicle model

<Type 2>

The vehicle identification number (VIN) ① is indicated on the left frame, near the front wheel.

Example: JLF FN63FU0K □□□□□□

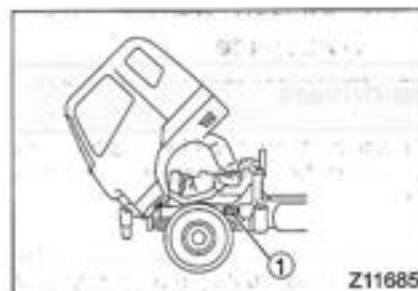
Chassis number
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2 Engine number

The engine number is stamped on the left side of crankcase.

Example: 6M60 - □□□□□□

Engine number
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Engine number
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Nameplate

<Type 1>

The nameplate which contains vehicle model number and the like is attached to the assistant driver's side door opening.

<Type 2>

The vehicle compliance and data plate are attached in the cab under the rear window. The compliance plate certifies that your vehicle complied with Australian Design Rules at the time of manufacture. In all correspondence related to your vehicle the following information should be quoted.

- The engine number.
- The vehicle identification number (V.I.N.) – shown on compliance plate.
- The S.O.A. No. (where applicable), option code, paint and trim codes located on data plate.



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Maintenance

Checking your vehicle at regular intervals is very important for maximizing performance and extending service life. It is recommended that you make a habit of performing the following inspections.

1 New vehicle inspection

After you have driven the first 2,000 km, your vehicle requires a special inspection and adjustments to compensate for the initial settlement of various parts. Have your vehicle inspected by an authorized MITSUBISHI FUSO distributor or dealer.

⇒ P. 15-1

2 Pre-operational check

Make a habit of checking your vehicle at the start of every day's operation. This will ensure safe and comfortable operation.

⇒ P. 12-18

3 Periodic inspection

- Always have the recommended inspections and services performed at the specified distance traveled or the specified time. When the vehicle is operated under severe conditions, it will be necessary to increase the frequency of inspections accordingly. ⇒ P. 16-1
- Mitsubishi gives a list of parts (brake hoses, fuel hoses, oil seals in brake related components, etc.) that should be replaced at regular intervals in order to ensure safe operation.

Though they have a direct bearing on safe vehicle operation, it is difficult to detect deterioration of these parts through ordinary inspections.

Rubber hoses, either for the brake system or the fuel system, in particular should be regularly inspected and serviced. Since they are liable to swell, chafe or crack over time, it is necessary that they be inspected by technicians according to the "Periodic inspection schedule" section, and that they be replaced at regular intervals for safety's sake. The hoses must be replaced immediately whenever they are worn or broken.



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The replacement frequencies of these parts are listed in the "Periodic inspection schedule" section. ⇨ P. 16-1

4 Rust and corrosion on vehicle

- Rust and corrosion of the undercarriage or underbody of the vehicle could cause an unexpected failure and even lead to an accident. They may develop rapidly especially on vehicles that are left unused for long periods, driven on coastal roads or roads on which road chemicals have been applied, or on vehicles used to transport marine products.
- Wash off road chemicals and other contamination thoroughly to ensure long life and reliable operation of your vehicle. It is also important to have your vehicle inspected each year for rust and corrosion and touch-up paint as necessary.
- A high-quality rust preventive coating is recommended if your vehicle is used under harsh conditions (e.g. frequently transporting fresh fish, lime, etc. or driving on roads where chemicals have been applied). Please contact an authorized MITSUBISHI FUSO distributor or dealer for details of high-quality rust preventive coating.

Fuels

1 Selection of fuel

Be sure to use low sulfur diesel fuel (diesel fuel with a sulfur content of no more than 50 ppm). In cold areas, use diesel fuel appropriate to the temperatures predominant in the area. When refueling, do not allow dirt and water to enter the fuel tank.

WARNING

Never use any fuel other than diesel fuel or a mixture of diesel fuel with gasoline or alcohol. Using other fuel could cause a fire or an explosion.

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⚠ CAUTION

- The vehicle is designed to use only low-sulfur diesel fuel. Do not use any fuel other than the specified type. Doing so would prevent the catalyst in the muffler from working effectively, and could lead to the functional deterioration and eventual failure of the exhaust gas aftertreatment. Never use an alternative fuel or a mixture of diesel fuel and kerosene. Such fuel has inferior lubricating properties. Using it would cause a malfunction. If you erroneously put fuel other than low-sulfur diesel fuel in the fuel tank, remove all of it.
- Never add any antifreezing agent or other additive to the fuel, as a damaged fuel injection system could result.

2 Refueling

⚠ WARNING

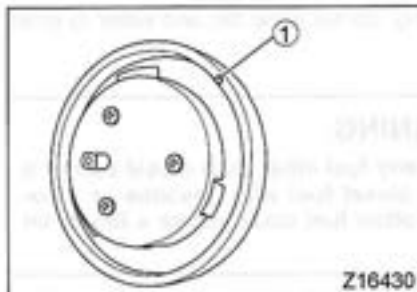
- Before refueling the vehicle, stop the engine and extinguish all cigarettes and other naked flames.
- If you have to refuel immediately after driving, do not touch with your bare hands the fuel tank cap, which may be very hot.

⚠ CAUTION

- When refueling the vehicle, take care to prevent dirt and water from entering the fuel tank.
- If the fuel tank cap and breather (air hole) ① become so dirty that the breather gets blocked, the fuel tank may deform and the fuel injection system may fail. Be sure to clean them regularly.
- Be careful not to allow the engine to run out of fuel. Engine stall resulting from an empty tank could cause damage to the fuel injection system.

NOTE:

Air will be present in the fuel system after the engine has run out of fuel. This air will prevent the engine from restarting even after it is adequately refueled. You must bleed the fuel system before the engine can be started. ⇨ P. 13-27



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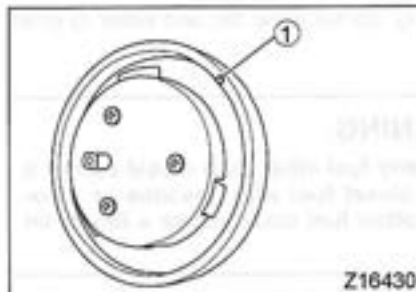
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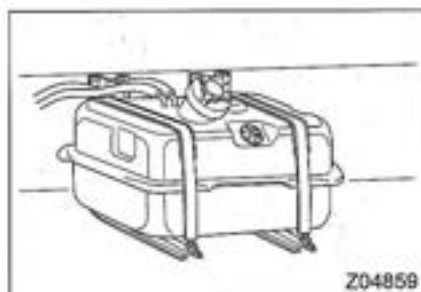
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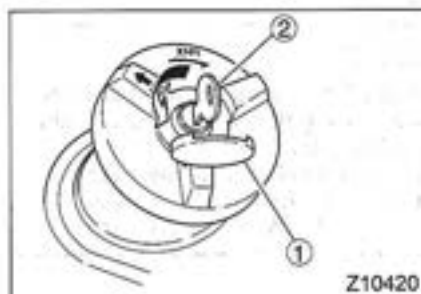
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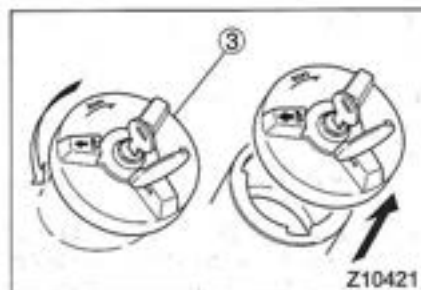
Model	Fuel tank capacity
FK, FM65FH, FN62	200 liters
FM65FM, FM65FS, FM65FP, FM67	300 liters
FN63, FN64	400 liters



1. Wipe off all dirt and mud from the fuel tank cap and its surrounding area.

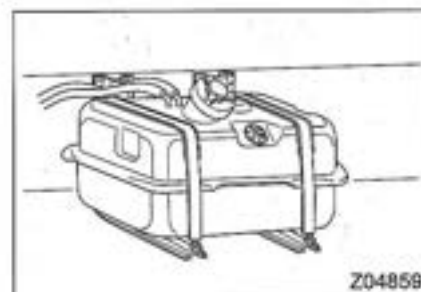


2. Open lock cylinder cap ①.
3. Insert key ② in the lock cylinder.

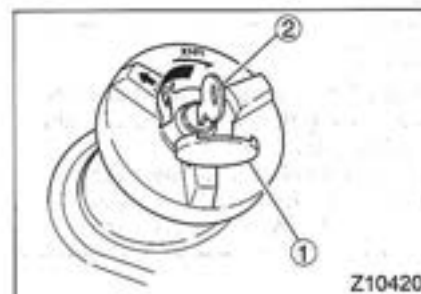


4. Rotate the key counterclockwise to unlock, and then rotate fuel tank cap ③ counterclockwise to remove.

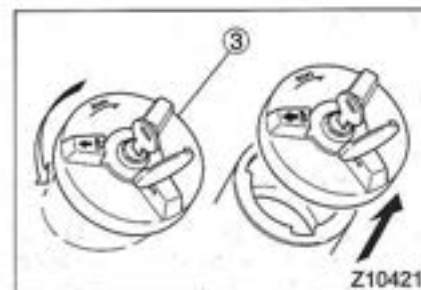
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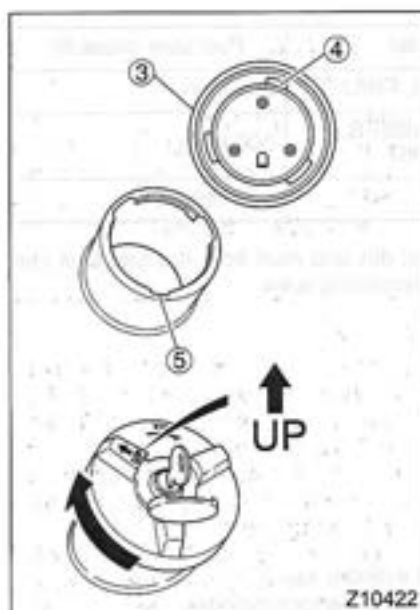
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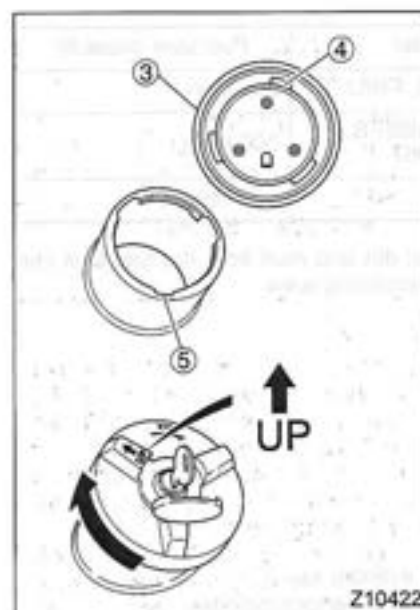


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Z10422

5. To close the fuel tank cap, fit the tabs ④ on the cap into the notches ⑤ in the filler and turn the cap clockwise. One of the tabs and one of the notches are smaller than the others. Be sure to fit the small tab into the small notch. Close the fuel tank cap so that the "UP" mark is positioned at the top. Turn the key clockwise, then remove the key and close the key cylinder cap.



Z10422

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AdBlue®

AdBlue® is sprayed into the exhaust gases in the muffler. The selective catalytic reduction (SCR) catalyst uses the AdBlue® in a process that breaks down nitrogen oxides (NOx) into water and nitrogen, thereby reducing NOx emissions.

☞ P. 8-9

! WARNING

AdBlue® is a colorless, transparent, odorless and harmless water solution (urea 32.5%, water 67.5%; Freezing temperature -11°C), so no problem will occur if you get it on your skin. However, some persons with delicate skin may in very rare cases get a rash, so carry out the following procedure.

- If AdBlue® gets on your skin, wash it off with water. If there is any change in your skin or it is painful, promptly see a doctor to receive treatment.
- In the event that you accidentally ingest AdBlue®, drink one to two cupfuls of water or milk, and promptly see a doctor to receive treatment.
- If AdBlue® gets into your eyes, immediately wash your eyes with a copious amount of water, then see a doctor to receive treatment.

AdBlue® : registered trademark of the Verband der Automobilindustrie e.V. (VDA)

1 AdBlue® used

Be sure to use AdBlue® that conforms to ISO 22241-1.

ISO: International Organization for Standardization.

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⚠ CAUTION

Do not carry out the following when using AdBlue® because this may cause damage to the BlueTec® exhaust gas aftertreatment.

- Do not dilute the AdBlue®.
- Do not mix the AdBlue® with another reagent.

Using a fluid other than the specified AdBlue® or driving a vehicle in a condition such that AdBlue® is intentionally not consumed constitutes a serious breach of the law.

If you use unspecified AdBlue®, the warning lamp will light. For details, refer to page 6-40.

2 Replenishing AdBlue®

⚠ WARNING

Do not pour anything other than AdBlue® into the urea tank. Particularly, never pour diesel fuel or gasoline into the urea tank, because this may cause a fire or damage the BlueTec® exhaust gas aftertreatment.

If you inadvertently add a fluid other than the specified AdBlue®, immediately contact an authorized MITSUBISHI FUSO distributor or dealer to have the incorrectly added fluid drained off and the vehicle inspected.

⚠ CAUTION

Do not rest your foot on the urea tank or step on it, because this may damage the tank.

NOTE:

- Replenish the AdBlue® well before it is used up.
- The rate of consumption of AdBlue® is approximately 1.5 liters per 100 km of driving, although it depends on the driving conditions.
- It is recommended that you obtain portable AdBlue® for use in the event that the urea tank becomes empty.
- You can obtain AdBlue® from an authorized MITSUBISHI FUSO distributor or dealer.

1. Turn the starter switch to the "LOCK" position and stop the engine.
2. Wipe away dirt, mud, or other contamination in the vicinity of the replenishment port.



Z21819

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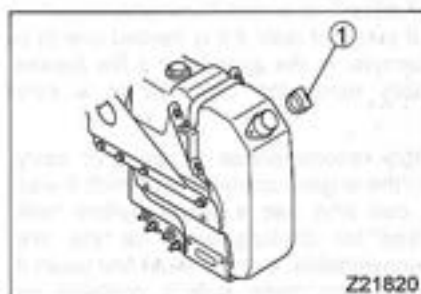
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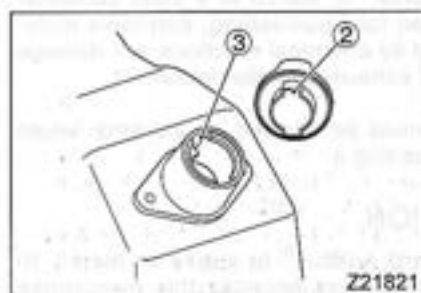
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3. Remove the cap ① by pushing it and turning it counterclockwise.

CAUTION

- Do not use a steel container to hold AdBlue®. AdBlue® reacts with steel and produces a corrosive material. If the tank is refilled with AdBlue® containing this corrosive material, the BlueTec® exhaust gas aftertreatment will be damaged.
- Containers and appliances used to handle AdBlue® must not have been used for other purposes. Impurities that may remain in them could adversely affect the quality of AdBlue®.



4. To close the cap, fit the claw ② on the cap into the slot ③ in the port and turn the cap clockwise.

NOTE:

- Turn the cap firmly until it locks.
- If you spill the AdBlue® during replenishment, wipe it away with a cloth, or the like, and then wash the area with water.

3 Storing the AdBlue®

- Seal the container, and store it indoors in a place that has a temperature lower than 25°C and is well ventilated and away from direct sunlight.

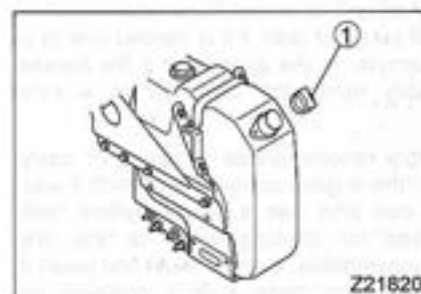
WARNING

Do not store AdBlue® in a high temperature location.

If the temperature is high, AdBlue® may release ammonia, which is toxic. When storing the container, seal it. Also, open it outdoors in a well-ventilated area. If a pungent odor is emitted from the container, do not carelessly go near it.

NOTE:

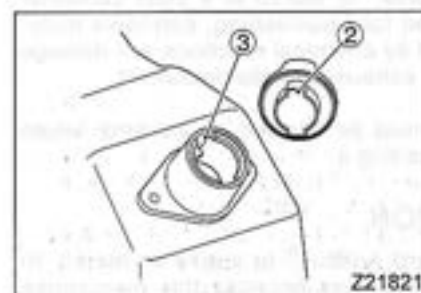
- You can use frozen AdBlue® after allowing it to thaw, without loss of quality.
- If you seal the container so as to prevent the water from evaporating, the quality of the AdBlue® will not change.



3. Remove the cap ① by pushing it and turning it counterclockwise.

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NOTE:

- You can use frozen AdBlue® after allowing it to thaw, without loss of quality.
- If you seal the container so as to prevent the water from evaporating, the quality of the AdBlue® will not change.

- Although AdBlue® is a non-flammable liquid, it may emit a pungent odor if it is heated due to a fire, for example. In the event that a fire breaks out, promptly move the container to a safe place.
- It is strongly recommended to store or carry AdBlue® in the original container in which it was sold. You can also use a polypropylene tank usually used for drinking water or the like instead if unavoidable, but you must first wash it with AdBlue® and make sure it contains no water, dirt, or other impurities.

⚠ CAUTION

Do not store AdBlue® in a non-specified container. If AdBlue® is stored in a steel container and then used for replenishing, corrosive material produced by chemical reactions will damage the BlueTec® exhaust gas aftertreatment.

- AdBlue® must be handled as industrial waste when discarding it.

⚠ CAUTION

Do not discard AdBlue® in a lake or marsh, in the sea, or in a river because this may cause environmental destruction.

Handling of the new vehicle

The way the vehicle is handled when new greatly affects its subsequent performance and service life. Observe the following precautions when handling the new vehicle.

1 Maintenance

Have the new vehicle inspected at the first 2,000 km.

The "new vehicle inspection" is very important for extending the service life of your vehicle. We strongly recommend that this inspection be performed by an authorized MITSUBISHI FUSO distributor or dealer according to the schedule specified in the "Initial Service on the New Vehicle During Run-in Period" section.

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During the initial run-in period, oil is quickly contaminated. Replace the following oils and oil filter elements at the time of the "new vehicle inspection."

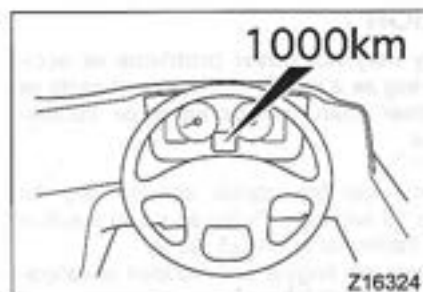
At the first 2,000 km

- Engine oil
- Oil filter element
- Manual transmission gear oil
- Differential gear oil
- Power steering fluid
- Power steering fluid filter element

2 Maximum engine speed during run-in period

To avoid overburdening the new engine, limit engine speed to less than 1,500 rpm for the first 1,000 km.

Then, run in your vehicle step by step at various speeds, beginning with low gears.



Preventing problems and accidents

⚠ WARNING

- Do not handle the vehicle in any way that is not shown in this manual. Failure to follow this instruction could cause a vehicle breakdown and lead to an unexpected accident.
- In the event of part damage, promptly have the necessary repair and/or replacement performed by an authorized MITSUBISHI FUSO distributor or dealer. Continuing to use the vehicle without having the necessary repair and/or replacement performed could cause a vehicle breakdown and lead to an accident.

- Replace oils at regular intervals. Prolonged use of contaminated oil may cause bearing seizure or other major problems. Use only the oil and grease recommended in this manual. Use of any other oil and grease could cause malfunctions and other problems.

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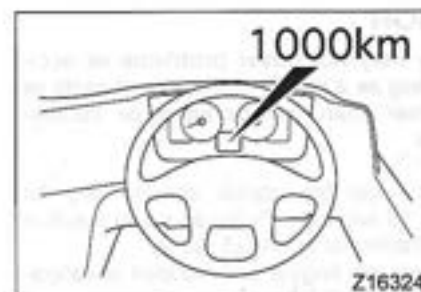
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**MITSUBISHI FUSO
GENUINE PARTS**

**MITSUBISHI MOTORS
GENUINE PARTS**

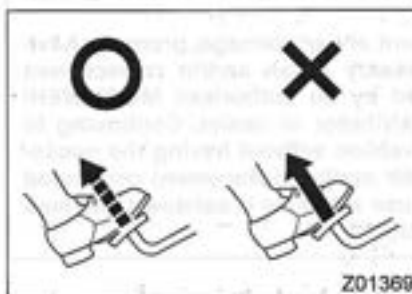
Z10153

- Replace or clean filters or filter elements at regular intervals. Clogged or damaged filters or filter elements could diminish performance or cause engine malfunction.
 - Always use only MITSUBISHI genuine parts as replacements. You can trust them as their quality is guaranteed by Mitsubishi.
- All MITSUBISHI genuine parts are identified by the shown mark or are contained in a carton bearing the same mark.

⚠ CAUTION

Our warranty may not cover problems or accidents occurring as a result of the use of parts or materials other than the genuine or recommended ones.

- Never turn over the starter continuously for more than 15 seconds. Doing so could result in run-down battery or burnt out starter.
- Avoid racing the engine and sudden acceleration immediately after the engine start.
- Do not stop the engine immediately after driving. Run the engine at idle for at least three minutes to cool down the turbocharger.
- Be sure to use the high quality engine oil (API classification CD or better) and to replace the engine oil and oil filter at the specified intervals. Failure to do so could result in a turbocharger malfunction such as seizure of the rotor shaft or emission of abnormal noise.
- Engage the clutch slowly when starting out. Engaging the clutch too quickly could shorten the life of the power train.
- Never drive with your foot on the clutch pedal. Such a practice will result not only in loss of power but also in shortened life of the clutch disc due to premature wear.
- When driving on rough roads, reduce speed sufficiently and avoid bumps and potholes as far as possible.
- Do not continue spinning the wheels after traction is lost. Put a rag or some other object under the tires to give sufficient traction to move forward.
- While the vehicle is in motion, do not try to disengage the clutch or shift the gear into neutral. Also, never operate the vehicle with engine switched off.



Z01369

**MITSUBISHI FUSO
GENUINE PARTS**

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GENUINE PARTS**

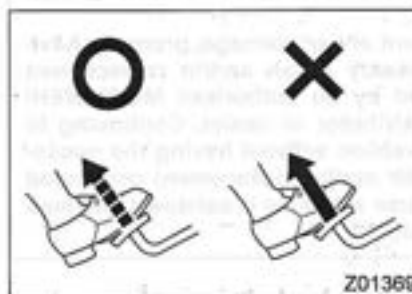
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Z01369

⚠ WARNING

Stopping the engine while the vehicle is moving is extremely dangerous. It stops the supply of compressed air to the brakes, possibly causing the brakes to stop working. It also makes the steering action extremely heavy.

- If strange noises, smells or vibrations are noted, stop as soon as it is safe to do so and check the vehicle for possible causes.
- On climbing or descending slopes, be cautious of engine overrevving which may occur upon downshifting or when the vehicle speed is excessive.
- Try to take maximum advantage of engine braking and exhaust brake features when descending a slope.
- Should any warning lamp light up or buzzer sound, pull the vehicle off the road as soon as it is safe to do so and take appropriate measures.
⇒ P. 6-26, 6-35
- During cold weather, be sure to use oil of a proper viscosity for the outside temperature. Also check for proper coolant and windshield washer fluid additive concentration, battery electrolyte specific gravity, etc.
- Do not carry containers of fuel or spray cans in the cabin.

⚠ WARNING

Carrying fuel in the cabin is extremely dangerous because an increase in the cabin temperature could cause fuel vapor to catch fire or cause the container to rupture.

- Do not attach any decorative panel or similar item to the windshield.

⚠ WARNING

Attaching a decorative panel or similar item to the windshield could impede driving and visibility. In addition, any suction cup on such an item could cause a fire by acting as a lens.

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- Do not exceed the maximum loading capacity. Overloading puts excessive stress on vehicle parts, shortening their service life. Also, avoid loading the vehicle improperly. Improperly loaded cargo not only is unstable but also may result in uneven weight distribution which could damage the cargo deck and frame.

WARNING

- When roping up cargo or covering it with a tarpaulin, make sure that neither the rope nor the end of the tarpaulin hang down between the cab and the cargo deck as a loosely hanging rope or tarpaulin could catch fire from the engine heat.
- Avoid placing wooden boards or the like in the gap between the cargo deck and frame; the heat of the exhaust pipe could set them on fire.
- When spreading the tarpaulin, take care not to let it cover or be drawn into the engine air intake duct.
- When loading heavy cargo, take adequate measures to stop it from slipping. Also use wire to secure it.

- Do not keep the steering wheel turned to the right or left stop for more than 10 seconds as doing so could lead to a failure of the power steering system.
- Do not try to forcefully turn the steering wheel when the front wheels are stuck against a curb-stone or other object. Doing so could cause the steering gearbox to fail.
- Never attempt to tune the engine yourself. The engine has been factory-tuned for optimal performance. Improper adjustments not only hurt engine performance, but also worsen exhaust emissions and increase exhaust noise.
- Your vehicle uses electronic devices. They are sufficiently protected against radio interference, but you must consult an authorized MITSUBISHI FUSO distributor or dealer if you wish to install radio equipment or any other strong RF power generating devices.

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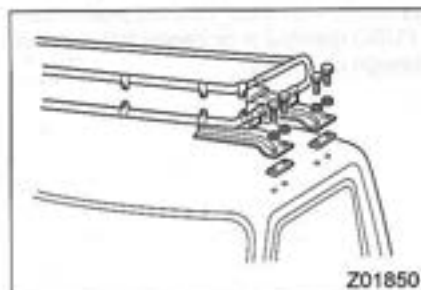
NOTE:

For the most part, mobile radio equipment operates on 12 volts, and cannot be directly connected to the vehicle's 24-volt rated power source. Consult an authorized MITSUBISHI FUSO distributor or dealer for instructions on how to install radio equipment in a vehicle with such a power rating.

- Do not attempt to install electrical wiring yourself. Instead have it done by your nearest authorized MITSUBISHI FUSO distributor or dealer.
- Be careful not to spill any drinks or other liquids on switches or other electrical equipment as wet electrical devices could malfunction and even cause a fire. If you accidentally spill a drink or other liquid on electrical equipment, have the vehicle inspected by an authorized MITSUBISHI FUSO distributor or dealer.

⚠ WARNING

If wiring is improperly installed upon installing some separately purchased electric device, originally installed equipment may malfunction and could possibly cause the electrical circuit to overheat.



Z01850

- When installing a roof deck, drag foiler or other equipment on the cab roof, use the holes provided in the roof for that purpose. The installed equipment including the luggage on it must be less than 70 kg in weight. The bolts (M8 x 1.25), washers, rubber packings and other parts used for installing the equipment must be of the specified material. After installation, the periphery of the bolts should be completely sealed with a sealant. For further information, please contact an authorized MITSUBISHI FUSO distributor or dealer.

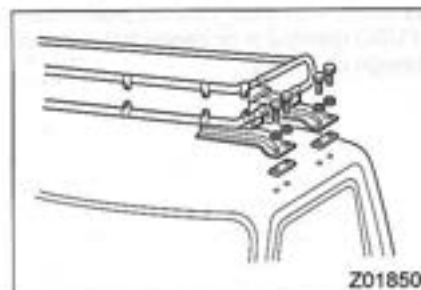
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Driving in foreign countries

It is important to point out to our valued customers that different countries throughout the world have vehicles designed to be more suited to the conditions which exist in a particular country.

If you are concerned in anyway, please contact your nearest authorized MITSUBISHI FUSO distributor or dealer for information on the country you will be visiting before your departure.

Local conditions or regulations may change for a particular countries in the following way:

- Local conditions and regulations covering fuels and lubricants may not be suitable for use in your vehicle. Damage may occur to your vehicle if the wrong fuels or lubricants are used.
- Due to local regulations or different driving conditions, modification of your vehicle may be required in some cases.
- The proper customer service for your particular vehicle may not be available due to the fact that the importer may not distribute our entire model line-up. Therefore, certain parts of your vehicle may not be available.

Because these things could inconvenience you, you should discuss them with your nearest authorized MITSUBISHI FUSO distributor or dealer before your departure to foreign countries.



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2. Warning labels

Locations in cab	2-3
Locations outside	2-5

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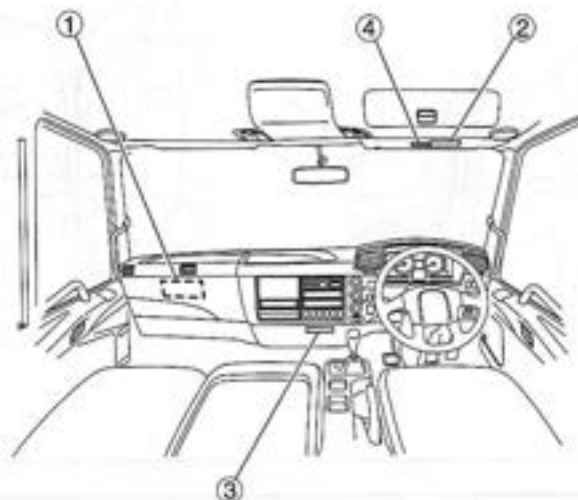
Locations in cab	2-3
Locations outside	2-5

- The caution and warning labels show important information. Be sure to read them before using the vehicle.
- If any label has peeled so it is difficult to read, is scratched or otherwise damaged, or has peeled off completely, please inform an authorized MITSUBISHI FUSO distributor or dealer. The warning and caution labels apply only to the vehicle itself, not to any equipment mounted on the vehicle. For information on caution and warning labels that apply to equipment mounted on the vehicle, please refer to the owner's handbook supplied by the manufacturer of the equipment.
- The caution and warning labels are located in the cab as shown below. Samples of these labels are indicated in this and following pages.

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Locations in cab

1 Inside



Z21692

Location	Category	Content	Ref. page
①	⚠ WARNING	Specified fuses	13-9
②	⚠ WARNING	Use of SRS air bags <Vehicles with SRS air bags>	4-13
③	⚠ CAUTION	Use of air suspension height control <Vehicles with air suspension on rear wheels>	5-40
④	⚠ CAUTION	AdBlue® level	6-5

Locations in cab

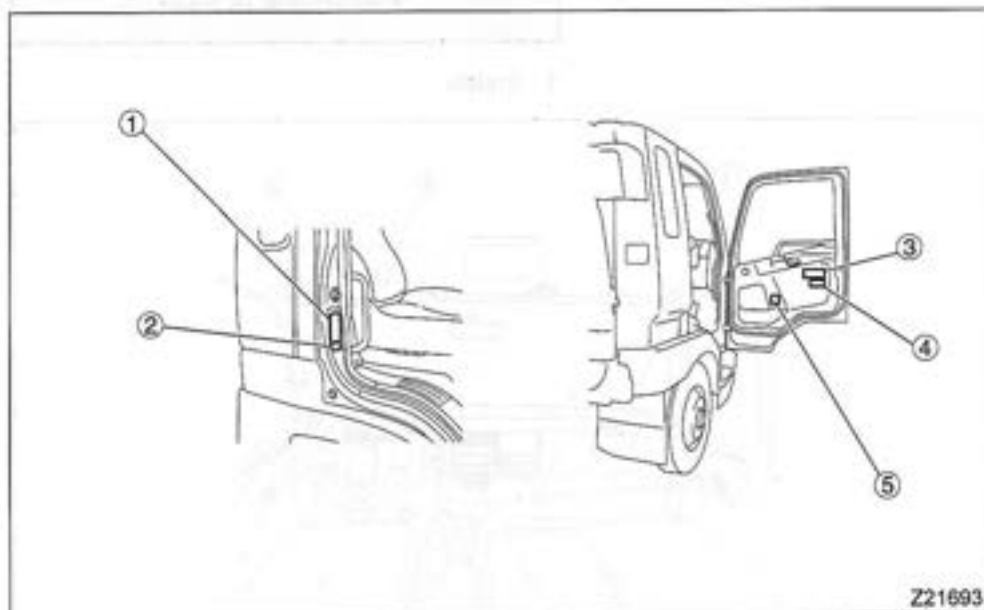
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Z21692

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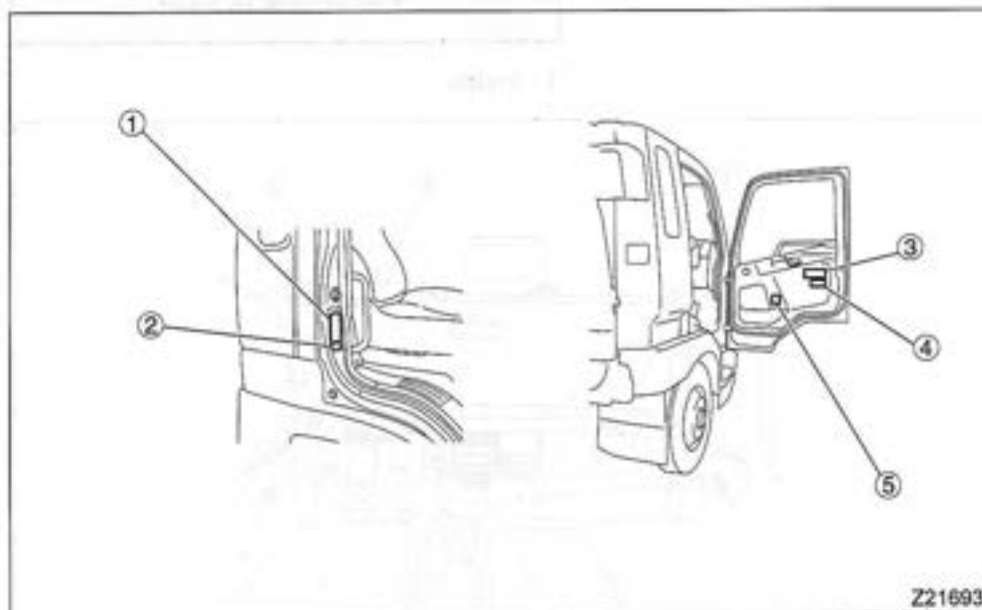
2 - Near driver's door



Z21693

Location	Category	Content	Ref. page
①	Standard values	Tire information sticker <Vehicles with tire information sticker>	12-79
②	⚠ WARNING	Use of limited slip differential <Vehicles with limited slip differential>	8-2
③	⚠ CAUTION	Use of air tank	12-78
④	⚠ CAUTION	Use of automatic transmission <Automatic transmission vehicles>	5-22
⑤	⚠ CAUTION	Use of hill start assist system <Vehicles with hill start assist system>	8-11

2 - Near driver's door

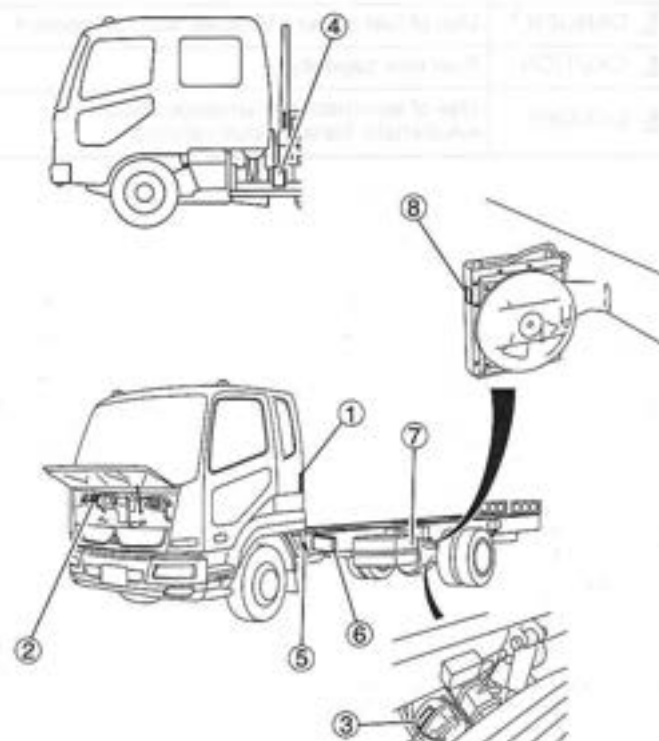


Z21693

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Locations outside

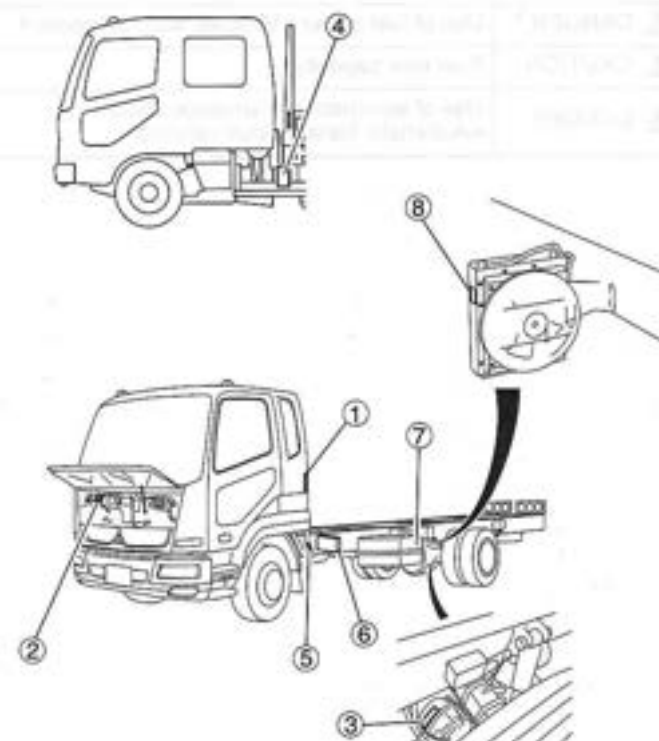
1 Outside



Z21694

Locations outside

1 Outside

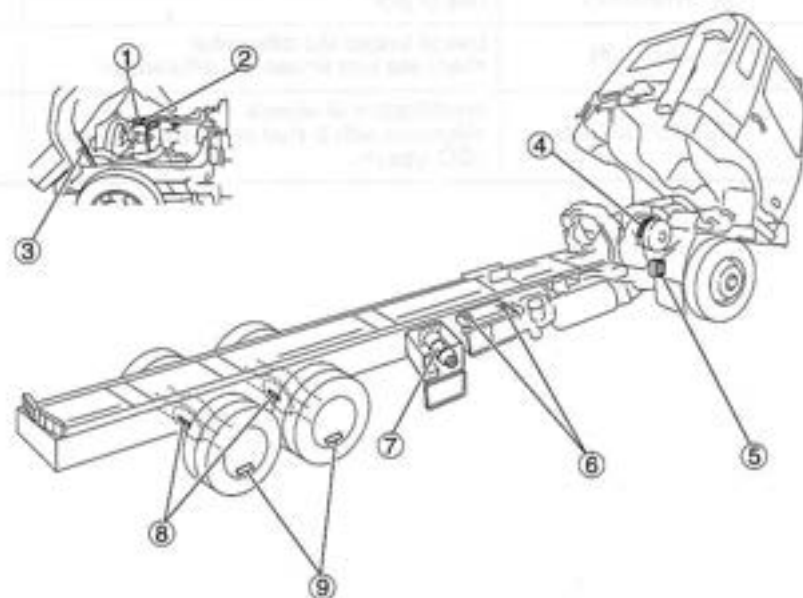


Z21694

Location	Category	Content	Ref. page
①	⚠ WARNING	Use of cab tilt mechanism <All except Crew-cab model vehicles>	12-7
②	⚠ WARNING	Handling of wiper links	12-5
③	⚠ WARNING	Handling of brake chamber <Vehicles with full air brakes>	13-23
④	⚠ WARNING	Use of cab tilt mechanism <Crew-cab model vehicles>	12-7
⑤	⚠ WARNING	Use of cab tilt mechanism <All except Crew-cab model vehicles>	12-7
⑥	⚠ DANGER	Use of fuel cooler <Vehicles with fuel cooler>	12-114
⑦	⚠ CAUTION	Fuel tank capacity	1-5
⑧	⚠ DANGER	Use of automatic transmission cooler <Automatic transmission vehicles>	12-114

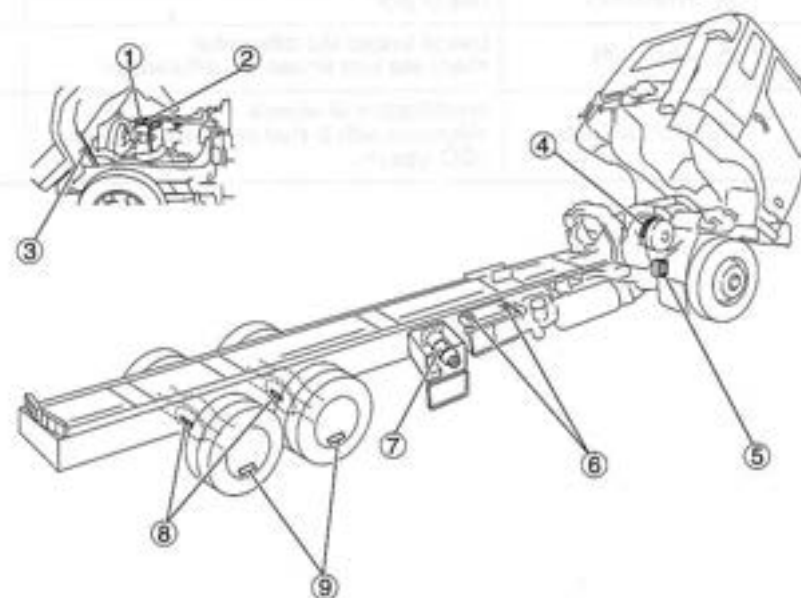
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⑥	⚠ DANGER	Use of fuel cooler <Vehicles with fuel cooler>	12-114
⑦	⚠ CAUTION	Fuel tank capacity	1-5
⑧	⚠ DANGER	Use of automatic transmission cooler <Automatic transmission vehicles>	12-114

2 Cab, engine



Z21695

2 Cab, engine



Z21695

Location	Category	Content	Ref. page
①	⚠ CAUTION	Specified engine oil	12-30
②	⚠ WARNING	High voltage	12-2
③	⚠ WARNING	Use of cab tilt mechanism <All except Crew-cab model vehicles>	12-7
④	⚠ CAUTION	Handling of air cleaner	12-53
⑤	⚠ WARNING	Specified high-current fuses	13-9
⑥	⚠ DANGER	Handling of battery	12-108
⑦	⚠ WARNING	Use of jack	12-81
⑧	⚠ CAUTION	Use of limited slip differential <Vehicles with limited slip differential>	12-39
⑨	IDENTIFICATION	Identification of wheels <Vehicles with 8-stud or 10-stud wheels (ISO type)>	12-81

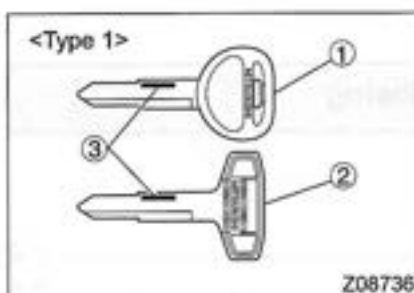
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①	⚠ CAUTION	Specified engine oil	12-30
②	⚠ WARNING	High voltage	12-2
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3. Opening and closing

Starter key	3-2
Doors	3-2
Keyless entry system	3-5
Entering and leaving the vehicle	3-8
Door window glass	3-10
Rear quarter window	3-13
Side-view confirmation window	3-13

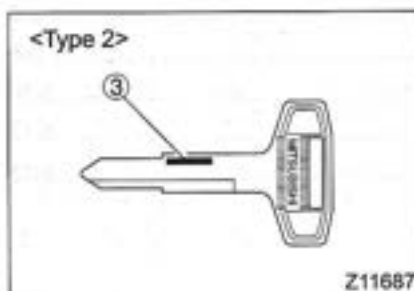
3. Opening and closing

Starter key	3-2
Doors	3-2
Keyless entry system	3-5
Entering and leaving the vehicle	3-8
Door window glass	3-10
Rear quarter window	3-13
Side-view confirmation window	3-13



Starter key

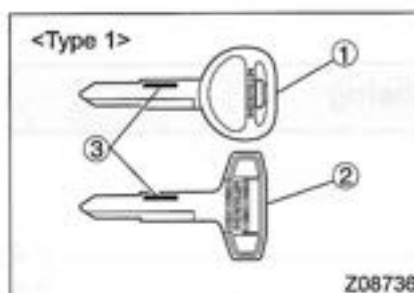
- Type 1: There are two different starter keys, i.e. a main key ① and a sub key ②.
- Type 2: There are two identical starter keys. You can use either of these starter keys for locking/unlocking the doors and starting/stopping the engine.
- Please make a note of the starter key number ③. You can purchase more starter keys if you inform an authorized MITSUBISHI FUSO distributor or dealer of this number.



Doors

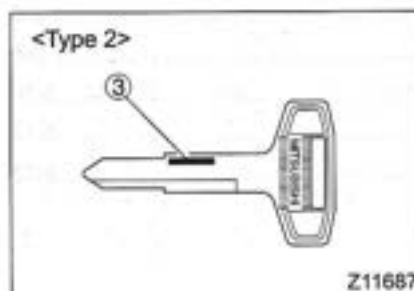
⚠ WARNING

- To help prevent accidents, always check for vehicles and pedestrians approaching from behind before opening the doors.
- Driving with a door ajar can be very dangerous. Make sure the doors are completely closed before starting.
- Exercise caution when opening a door in strong wind. Otherwise, the wind could catch the door and suddenly blow it open.
- Exercise caution when opening a door on a downward slope. Otherwise, the inclination of the vehicle could cause the door to suddenly fall open.
- When leaving the vehicle, take with you any child who was riding in the cab. Never leave a child in the cab. A child left in the cab could interfere with the vehicle, causing it to move or catch fire. Also, the cab gets extremely hot in sunshine and in hot weather so a child left in the cab could suffer heatstroke.
- When closing a door, be careful not to trap your hand or anything else.



Starter key

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- When closing a door, be careful not to trap your hand or anything else.

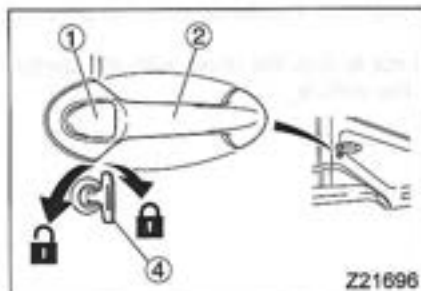
⚠ CAUTION

- Avoid applying undue force to a door when opening or closing it; otherwise the door could be damaged.
- Do not swing on or hang anything heavy on any of the doors. Doing so could damage the door components.

1 From the outside

- To open, pull outer handle ② toward you while pressing button ①.
- On vehicles with a side-view confirmation window, pull the outer handle ③ toward you.
- Use the starter key ④ to lock or unlock the door <not applicable to Crew-cab model's rear doors>.

When you use either the starter key or the lock knob to lock or unlock the driver's door, the assistant driver's door – and the rear-seat door in a Crew-cab model – will also lock or unlock accordingly.

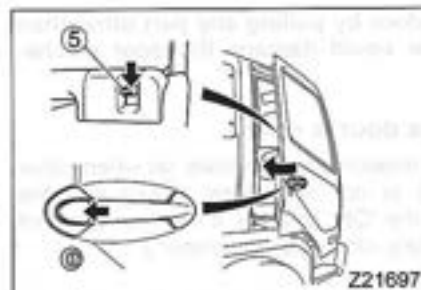


Z21696

<Vehicles with a side-view confirmation window>



Z22047



Z21697

- To lock the door without using starter key, press lock knob ⑤ to the lock position and then, while keeping the button on the outer handle pressed, close the door.

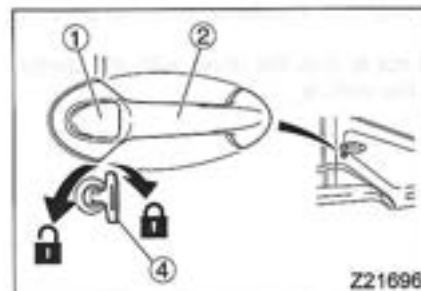
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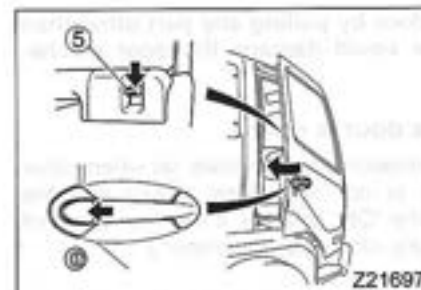


Z21696

<Vehicles with a side-view confirmation window>

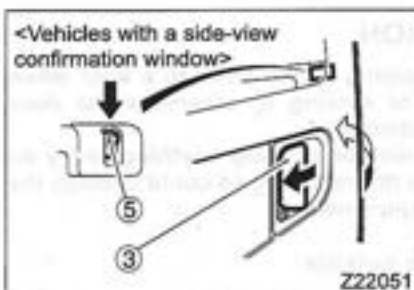


Z22047



Z21697

- To lock the door without using starter key, press lock knob ⑤ to the lock position and then, while keeping the button on the outer handle pressed, close the door.

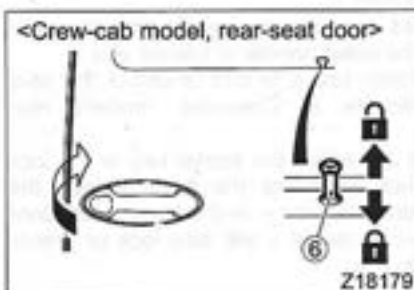


On vehicles with a side-view confirmation window, press lock knob ④ to the lock position and then close the door while keeping outer handle ③ pulled.

- To lock each rear door of Crew-cab models, press the lock knob ⑤ to the lock position and then close the door.

NOTE:

- When you leave your vehicle, be sure to remove the starter key from the starter switch to prevent theft.
- Be careful not to lock the doors with the starter key inside the vehicle.



2 From the inside

- To close, pull door waist bar ⑥. Be sure to close the door completely.
- To lock, press lock knob ④.
- To open, raise the lock knob and pull inner handle ⑦.

CAUTION

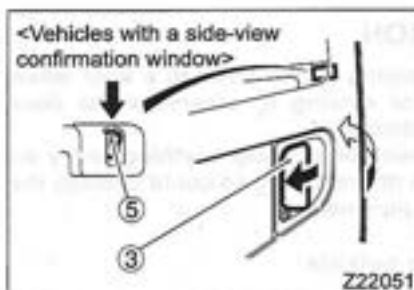
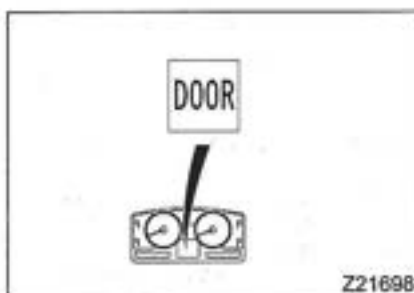
Closing the door by pulling any part other than the waist bar could damage the door mechanism.

3 When the door is open

The multi-information display shows when either door is open or not completely closed with the starter key in the "ON" position. If the door does not close completely, close it again properly.

NOTE:

When the interior lamp switch is in the "•" position, the interior lamp lights whenever a door is opened.

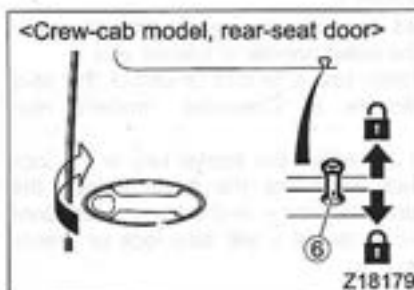


On vehicles with a side-view confirmation window, press lock knob ④ to the lock position and then close the door while keeping outer handle ③ pulled.

- To lock each rear door of Crew-cab models, press the lock knob ⑤ to the lock position and then close the door.

NOTE:

- When you leave your vehicle, be sure to remove the starter key from the starter switch to prevent theft.
- Be careful not to lock the doors with the starter key inside the vehicle.



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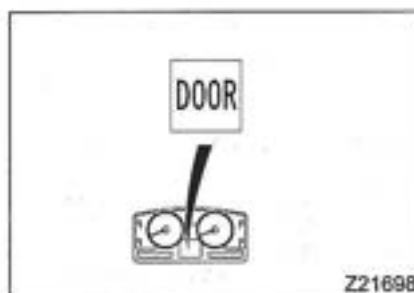
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Keyless entry system

<Vehicles with a keyless entry system>

1 Keyless entry system

The keyless entry system allows you to lock/unlock the doors of the driver's seat, assistant driver's seat and the rear seats (Crew-cab models) by operating the remote-control switch ①.

⚠ WARNING

If you carry the keyless entry remote control switch with you when traveling on an airplane, avoid pressing any button on the switch. If you keep the switch in a suit pocket or somewhere like a bag, prevent the switch buttons from being accidentally pressed, since the radio-wave signals emitted from the switch could interfere with normal operation of the airplane.

⚠ CAUTION

- Do not expose the remote control switch to water, disassemble it, or apply shock by dropping it.
- Do not leave the remote control switch in a place that is exposed to direct sunlight or where the temperature rises to 60°C or above. Doing so will shorten the life or cause failure of the remote control switch.
- Do not remove the cover from the remote control switch unless you replace the battery. Removing it for no reason could lead to a remote control switch malfunction.

2 How to operate the remote control switch

- Point the remote control switch toward the center of the cabin.
- Operate the remote control switch within 3 m from the center of the cabin.
- Press the "L" button ② to lock all doors.
- Press the "U" button ③ to unlock all doors.
- When you press the buttons, be sure to press them for at least one second. If a button does not work after one press, press the button again after one or two seconds.



Keyless entry system

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- After locking the doors with the remote control switch, always check that the doors are locked by lifting the outside handle of a door.
- You cannot lock the doors using the lock knob at the driver's seat if the starter key is inserted in the starter switch.
- You can check the locking/unlocking of the doors by the flashing of the hazard lamps and the room lamp. Leave the switch of the room lamp ① "•" (in the center "•" position). When the doors are locked, the room lamp and the hazard lamps flash twice. When the doors are unlocked, the hazard lamps flash once and the room lamp lights up for about 10 seconds.
- If you do not open a door within 30 seconds after unlocking with the remote control switch, the doors will automatically be locked again.

NOTE:

- The range in which you can operate the remote control varies somewhat depending on the surroundings, such as proximity to a TV tower, power station, broadcasting station, etc.
- If you lose the remote control switch or the switch does not work, please contact an authorized dealer to obtain a spare remote control switch.

The remote control switch does not work under the following conditions:

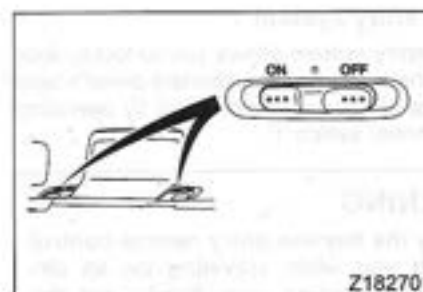
- A door is open or incompletely closed.
- When the starter key is in the position other than "LOCK".
- While the engine is running.

3 Replacing the remote control switch battery

The battery may have run down if the remote control switch does not lock or unlock the doors upon pressing the corresponding button. Replacing the battery will solve the problem.

WARNING

- Keep the batteries out of the reach of children. If a child swallows a battery, visit a doctor immediately.
- Do not disassemble, heat or drop the battery in water. Doing so could cause a fire or explosion.



- After locking the doors with the remote control switch, always check that the doors are locked by lifting the outside handle of a door.
- You cannot lock the doors using the lock knob at the driver's seat if the starter key is inserted in the starter switch.
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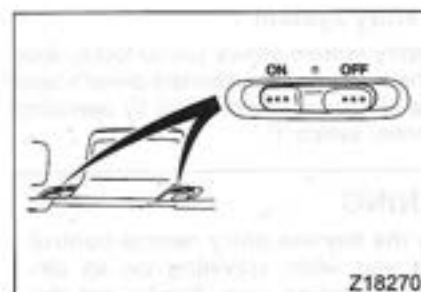
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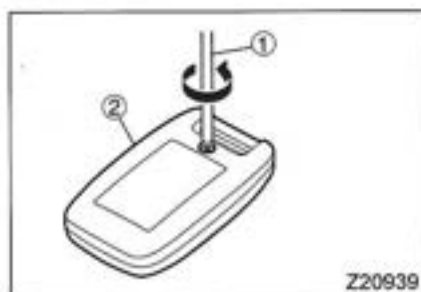
⚠ CAUTION

- Use the designated standard type of battery. If the battery is replaced with an incorrect type, the battery could explode.

Designated Battery	Quantity
Lithium Battery CR2032	1

- Attach the battery with the "+" mark facing upward.
- Do not use a metal tool such as tweezers to replace the battery. Doing so could cause a short circuit.
- Dispose of used batteries in accordance with local regulations. Inconsiderate disposal could adversely affect the environment. For disposal, wrap the battery with tape, vinyl sheet, etc. for insulation so that the battery cannot contact other metal objects or be exposed to water.
- Do not expose the inside of the remote control switch to water, and keep it away from dirt and dust. Otherwise, the switch could fail.

1. Use a crosshead screwdriver ① to turn the screw and remove the cover ②.



Z20939



Z20940

2. Place a new battery with the "+" mark facing upward.
3. Fit the cover on the remote control switch and fasten it with the screw.
4. Operate the remote control switch and check that it works correctly.

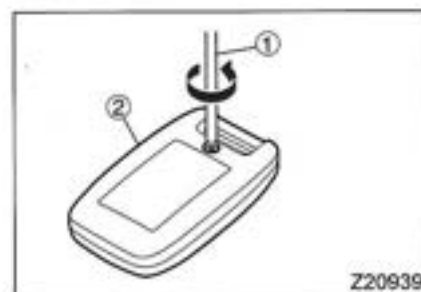
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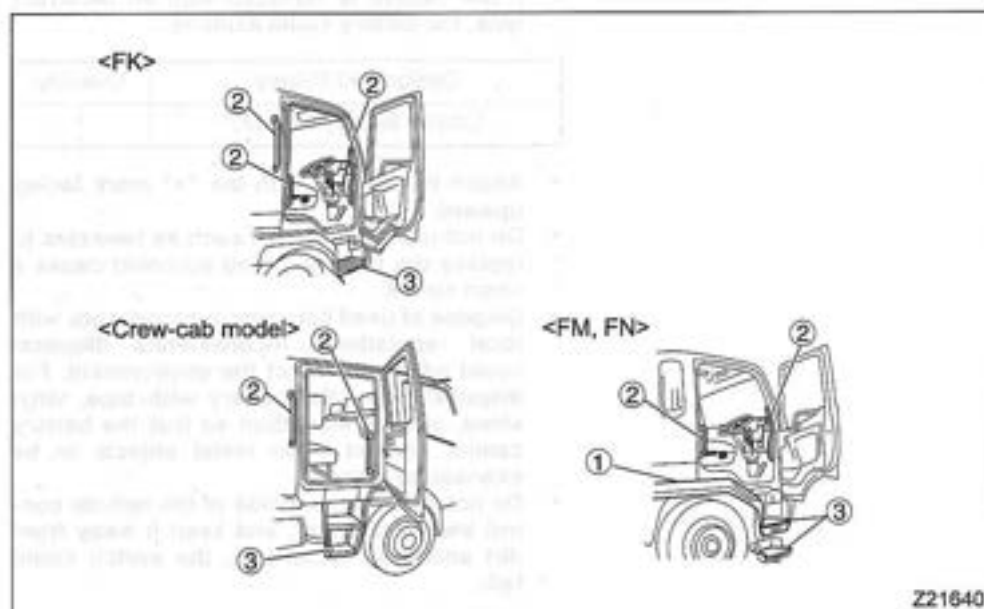
Z20939



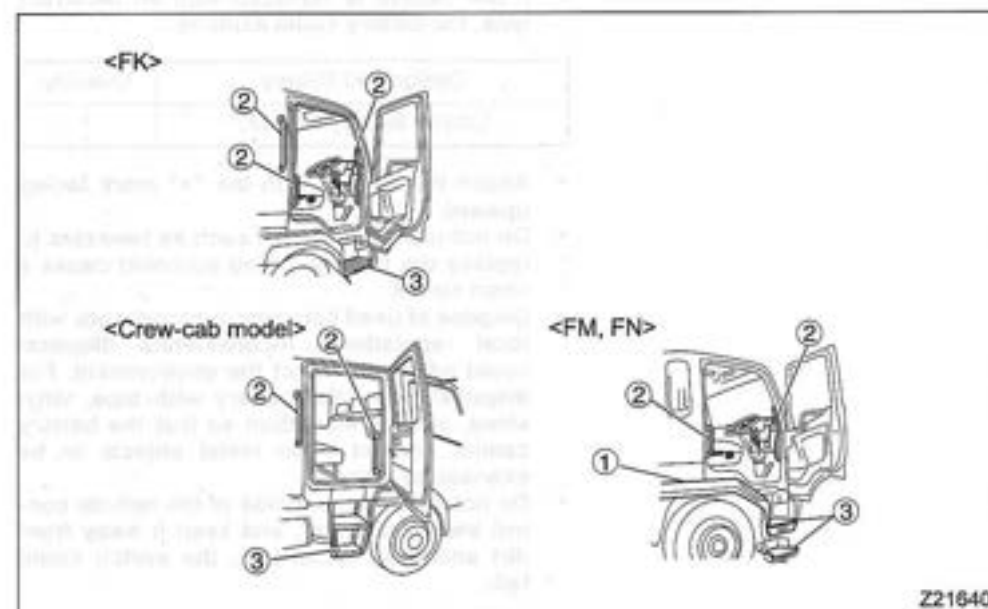
Z20940

2. Place a new battery with the "+" mark facing upward.
3. Fit the cover on the remote control switch and fasten it with the screw.
4. Operate the remote control switch and check that it works correctly.

Entering and leaving the vehicle



Entering and leaving the vehicle



⚠ WARNING

- Always use the step to climb into or down from the vehicle. Never put your foot on the wheel or tire since it could easily slip off.
- The step can become slippery in rain or snow. Firmly hold the grip while climbing into or down from the vehicle. Holding the grip is particularly important when snow has settled and frozen on the step.
- If the soles of your shoes are oily or greasy, you could slip when climbing down from the vehicle or when operating the brake or clutch pedal. Wipe any oil and grease off the soles of your shoes before entering or leaving the vehicle.
- Do not hold luggage or other items in your hands when entering or leaving the vehicle since this can be dangerous.
- Do not jump down from the vehicle. Jumping down from the vehicle could cause you to fall or sustain an injury.
- Take care when entering or leaving the vehicle on a slope or in a strong wind since the door could open or close suddenly.

⚠ CAUTION

- Hold onto the grip when entering or leaving the vehicle. Do not grasp any other part of the vehicle since it could break.
- Do not step on a fender ①. Doing so not only may damage the fender but also can be dangerous as it is slippery.

When climbing into and out of the cab, support your body by at least three points at a time by firmly gripping the handles ② and fully placing one or both of your feet on the step(s) ③.

⚠ WARNING

- Always use the step to climb into or down from the vehicle. Never put your foot on the wheel or tire since it could easily slip off.
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Door window glass

WARNING

Do not allow a child to put its hands or head out of a window. The child's head or hands could hit an object outside the vehicle, and the child could be seriously injured in the event of hard braking.

1 Power window switches <driver's door and assistant driver's door>

WARNING

- Always make sure that no one has their head or hands out of the window when closing it. A body part could be injured if caught in a closing window. Never allow a child to open or close the window.
- When a child is in the cab, be sure to press the power window lock switch to prevent the child from opening and closing the assistant driver's window. Otherwise, the child may accidentally operate the power window switch and get its hands or head trapped.

Door window glass

WARNING

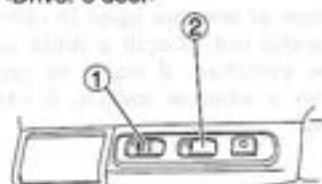
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1 Power window switches <driver's door and assistant driver's door>

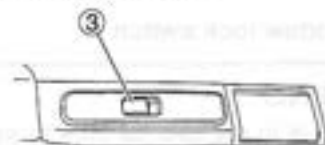
WARNING

- Always make sure that no one has their head or hands out of the window when closing it. A body part could be injured if caught in a closing window. Never allow a child to open or close the window.
- When a child is in the cab, be sure to press the power window lock switch to prevent the child from opening and closing the assistant driver's window. Otherwise, the child may accidentally operate the power window switch and get its hands or head trapped.

<Driver's door>



<Assistant driver's door>



Z21768

The power window switches function only when the starter switch is in the "ON" position.

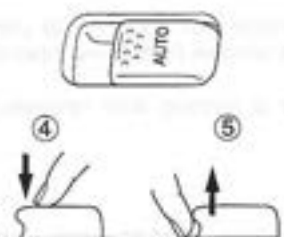
On the driver's door, there are two switches: switch ① for controlling the driver's window and switch ② for controlling the assistant driver's window.

③ Switch for assistant driver's window

1.1 Opening and closing the door windows

④ To open the window, press the switch lightly. The window glass will lower while you keep pressing the switch, and will stop when you release the switch.

⑤ To close the window, raise the switch lightly. The window glass will rise while you keep raising the switch, and will stop when you release the switch.

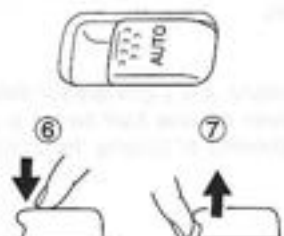


Z17177

1.2 Fully opening and closing the driver's window (one-motion operation)

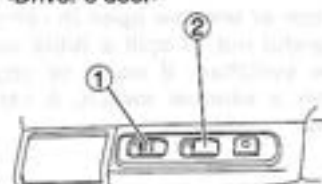
⑥ Firmly press the switch. The window glass will automatically lower fully. To stop the glass movement partway, raise the switch slightly.

⑦ Firmly raise the switch. The window glass will automatically rise fully. To stop the glass movement partway, press the switch slightly.

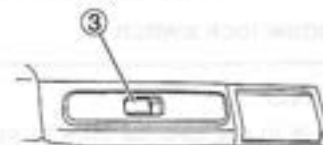


Z17176

<Driver's door>



<Assistant driver's door>



Z21768

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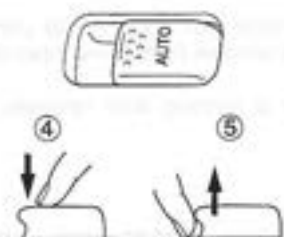
On the driver's door, there are two switches: switch ① for controlling the driver's window and switch ② for controlling the assistant driver's window.

③ Switch for assistant driver's window

1.1 Opening and closing the door windows

④ To open the window, press the switch lightly. The window glass will lower while you keep pressing the switch, and will stop when you release the switch.

⑤ To close the window, raise the switch lightly. The window glass will rise while you keep raising the switch, and will stop when you release the switch.

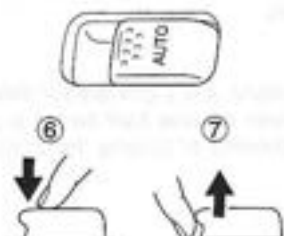


Z17177

1.2 Fully opening and closing the driver's window (one-motion operation)

⑥ Firmly press the switch. The window glass will automatically lower fully. To stop the glass movement partway, raise the switch slightly.

⑦ Firmly raise the switch. The window glass will automatically rise fully. To stop the glass movement partway, press the switch slightly.



Z17176

CAUTION

Do not keep any door or window open in rainy weather, and be careful not to spill a drink on any of the window switches. If water or any other liquid gets on a window switch, it can cause a malfunction.

NOTE:

In cold weather, the one-motion opening/closing function of the driver's window may temporarily stop working. If this occurs, open or close the window in the ordinary way.

2 Power window lock switch**WARNING**

When a child is in the cab, be sure to press the power window lock switch to prevent the child from opening and closing the assistant driver's window. Otherwise, the child may accidentally operate the power window switch and get its hands or head trapped.

Press the power window lock switch ① to prevent the assistant driver's window from being opened or closed.

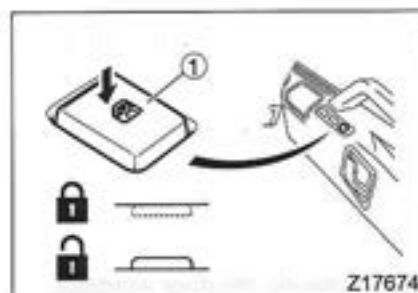
Pressing the switch a second time releases the lock.

CAUTION

Do not keep any door or window open in rainy weather, and be careful not to spill a drink on any of the window switches. If water or any other liquid gets on a window switch, it can cause a malfunction.

NOTE:

If a child is in your vehicle, it is important for safety's sake to press the power window lock switch to prevent the child from opening or closing the assistant driver's window.

**CAUTION**

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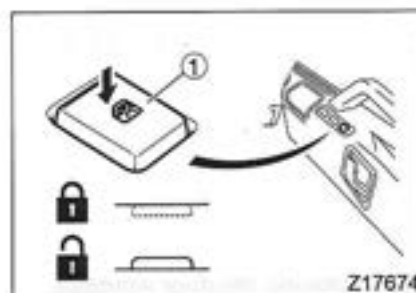
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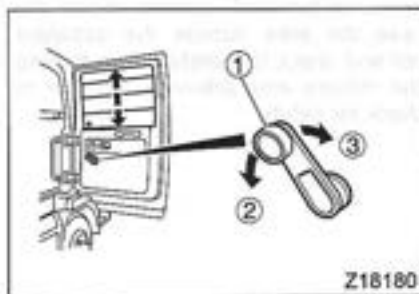
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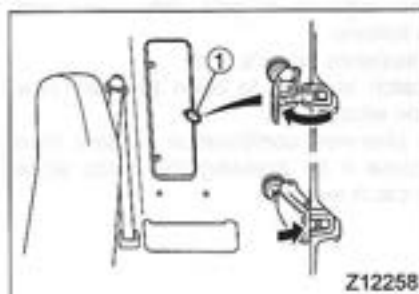


Z18180

3 Window regulator handle <Crew-cab model, rear-seat door>

Turn the window regulator handle ① to open or close the window.

- ② Open
- ③ Close



Z12258

Rear quarter window

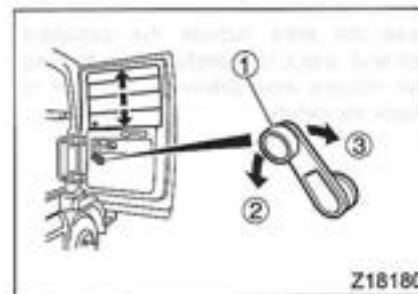
<All except Crew-cab model vehicles>
Pull latch ①, and push it outward to open.

Side-view confirmation window

<Vehicles with a side-view confirmation window>

⚠ WARNING

- Do not open or close the assistant driver's door window with the side-view confirmation window open. A hand or other body part could get trapped and seriously hurt by the window glass as it comes down.
- Do not stick labels or anything similar on the side-view confirmation window or put any object near the side-view confirmation window or in any position where it obscures the window. Doing so would impede visibility and could lead to an accident.

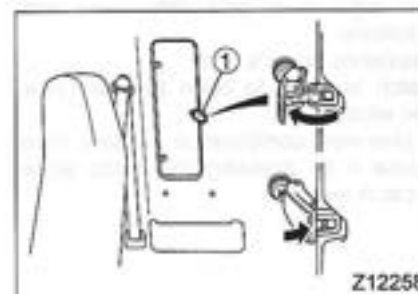


Z18180

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Z12258

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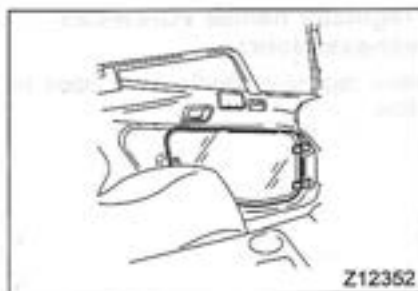
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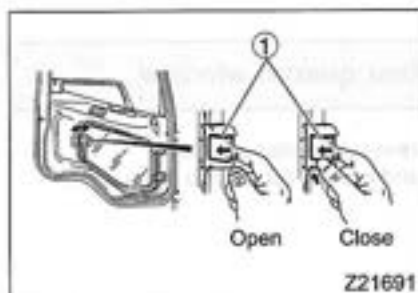
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⚠ WARNING

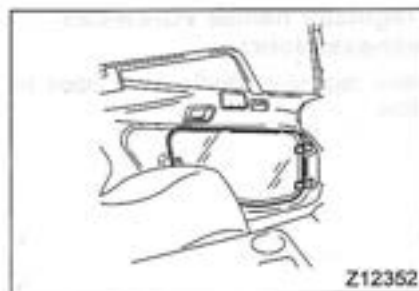
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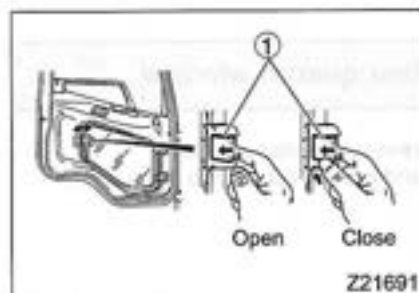
- The side-view confirmation window allows the driver to see the area outside the assistant driver's door and check for safety. When turning left, use the mirrors and side-view window to carefully check for safety.



- If the inside surface of the side-view confirmation window fogs up or gets dirty, open and clean it as follows:
 1. Open the assistant driver's door.
 2. Pull the catch lever ① to open the side-view confirmation window.
 3. Clean the side-view confirmation window, then securely close it by pressing the catch while pulling the catch lever.



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4. Adjustments of seat, steering wheel and rearview mirrors

Seats	4-2
Seat belts	4-8
Supplemental restraint system (SRS)-air bag and pretensioner equipped seat belt	4-13
Steering wheel	4-20
Rearview mirrors	4-21



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Seats

! WARNING

- Avoid adjusting the seat while the vehicle is moving since the seat may move more than you intend and cause an accident by impeding operation of the vehicle. Be sure to stop the vehicle and set the parking brake before performing any adjustment of the seat.
- After you have adjusted the seat, gently move or rock the seat to ensure that it is locked in the desired position.
- When adjusting the seat, keep your hands away from the bottom of the seat and from moving parts of the seat. Otherwise, you could suffer an injury by getting your hands and fingers trapped.
- When adjusting the angle of the seatback, keep your back or hand pressed against it. Otherwise, the seatback could suddenly return to its original position and injure you by hitting your face or other body parts.

1 Correct driving position

- Before driving the vehicle, adjust the driver's seat with reference to the following points:
 - ① Your back must touch the seatback, and you must be able to see the warning lamps and gauges.
 - ② You must be able to reach and firmly press the pedals.
 - ③ You must be able to operate the steering wheel and switches with ease.
 - ④ You must be able to operate the gearshift lever or range selector lever with ease.
 - ⑤ You must be able to fasten the seat belt correctly. ⇨ □ P. 4-8
- Adjust the steering wheel to a position at which you can operate it comfortably with your arms slightly bent. ⇨ □ P. 4-20



Seats

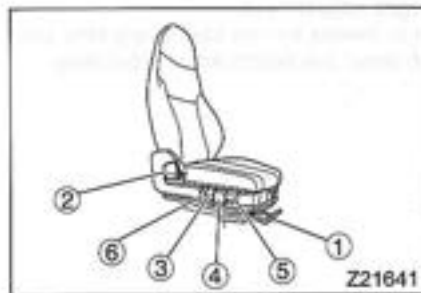
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2 Driver's seat <type 1>

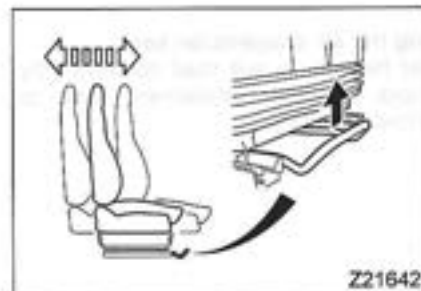
- ① Slide lever
- ② Reclining lever
- ③ Height adjustment lever
- ④ Tilt adjustment lever
- ⑤ Shock absorber adjustment lever
- ⑥ Quick lowering suspension lever

⚠ CAUTION

Do not jump on the seat.

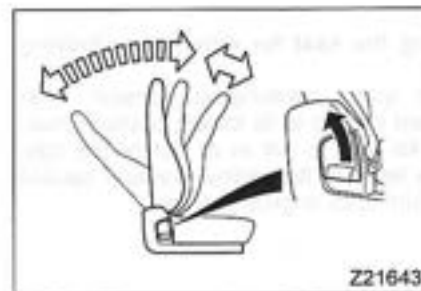
If you jump on the seat, the seat belt locking mechanism may be activated which will lock the seat belt and seat suspension. If this happens, lift your hips slightly to release the seat belt lock, which allows the seat belt and seat suspension to move.

If the seat belt remains locked and the seat suspension does not work, operate the seat height adjustment lever to the "Raise" side, which will unlock the seat belt and allow the seat belt and seat suspension to move.



2.1 Front/rear slide adjustment

With the slide lever pulled, slide the seat forward or backward to the desired position.

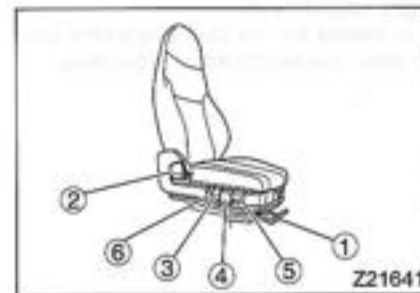


2.2 Recline adjustment

⚠ WARNING

When adjusting the recline angle, sit back against the seatback or place your hand on it. Unless restrained, the seatback could return forward suddenly and injure your face or other body parts.

Pull the reclining lever and set the seatback at the desired angle.



2 Driver's seat <type 1>

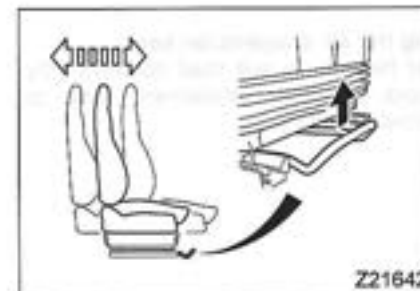
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- ⑥ Quick lowering suspension lever

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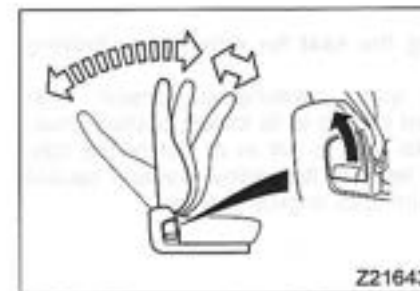
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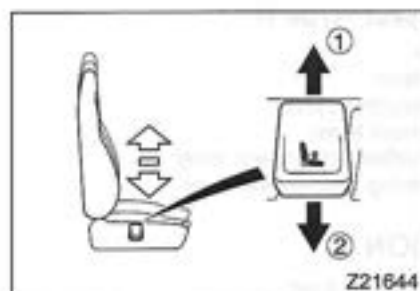


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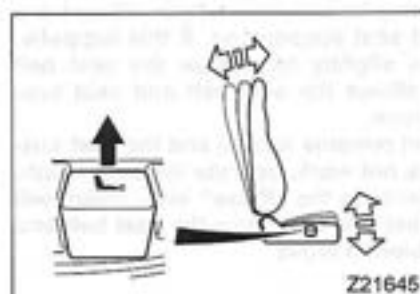
When adjusting the recline angle, sit back against the seatback or place your hand on it. Unless restrained, the seatback could return forward suddenly and injure your face or other body parts.

Pull the reclining lever and set the seatback at the desired angle.

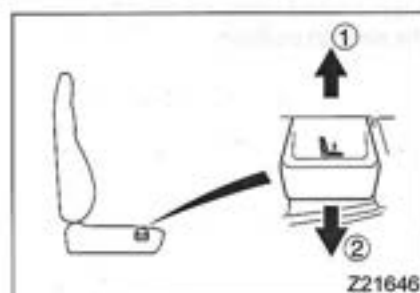
**2.3 Seat height adjustment**

The seat rises or lowers by one step every time you pull up or push down the height adjustment lever.

- ① To raise
- ② To lower

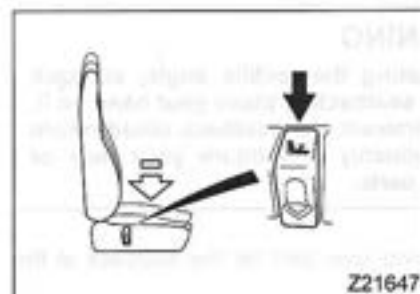
**2.4 Seat angle adjustment**

You can tilt the whole seat forward or backward while pulling the adjustment lever.

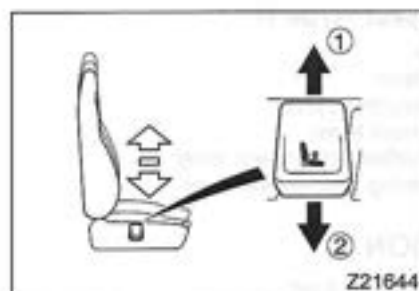
**2.5 Adjusting the air-suspension seat**

You can adjust the ride to suit road conditions by using the shock absorber adjustment lever to choose the following settings:

- ① Hard
- ② Soft

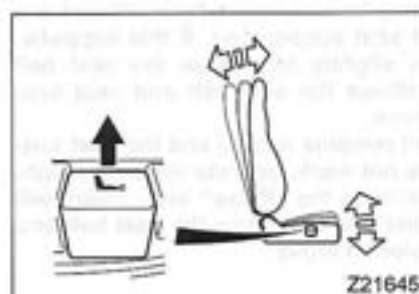
**2.6 Lowering the seat for entering or leaving the cab**

Pressing the quick lowering suspension lever causes the seat to drop to its lowest position, making it easier for you to get in or out of the cab. Returning the lever to its original position causes the seat to return to its original position.

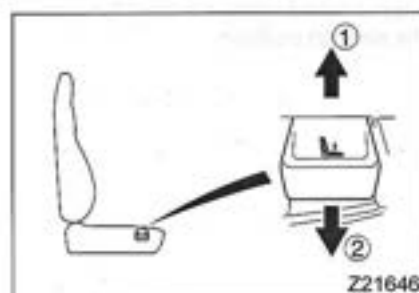
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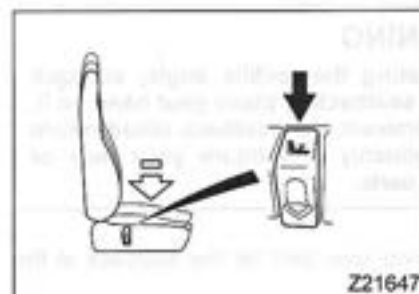
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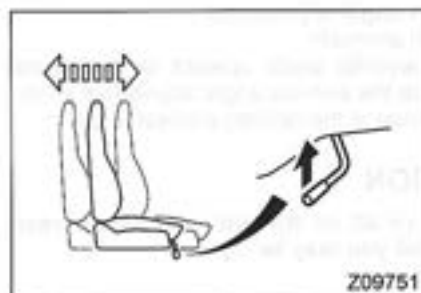
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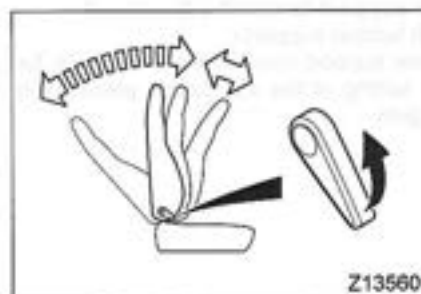
3 Driver's seat <type 2>

- ① Slide lever
- ② Reclining lever
- ③ Height adjustment lever
- ④ Tilt adjustment knob



3.1 Front/rear slide adjustment

With the slide lever pulled, slide the seat forward or backward to the desired position.

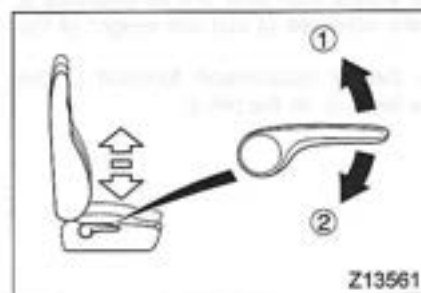


3.2 Recline adjustment

⚠ WARNING

When adjusting the recline angle, sit back against the seatback or place your hand on it. Unless restrained, the seatback could return forward suddenly and injure your face or other body parts.

Pull the reclining lever and set the seatback at the desired angle.



3.3 Seat height adjustment

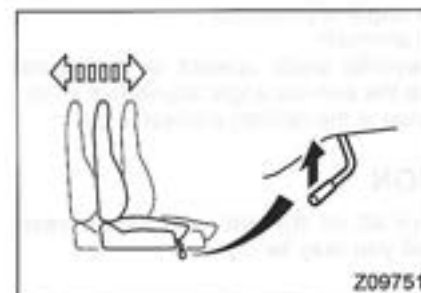
The seat rises or lowers by one step every time you pull up or push down the height adjustment lever.

- ① To raise
- ② To lower



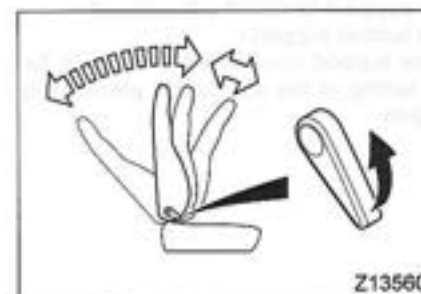
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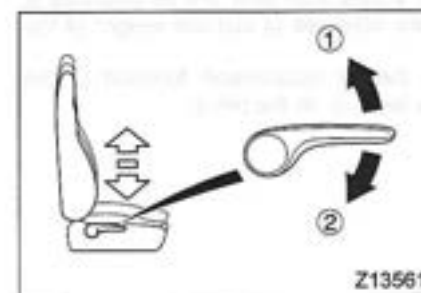


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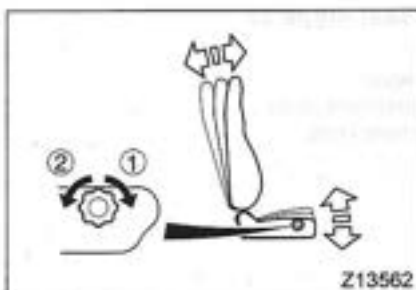
The seat rises or lowers by one step every time you pull up or push down the height adjustment lever.

- ① To raise
- ② To lower

3.4 Seat angle adjustment

You can tilt the whole seat forward or backward by turning the seat angle adjustment knob.

- ① To tilt backward
- ② To tilt forward

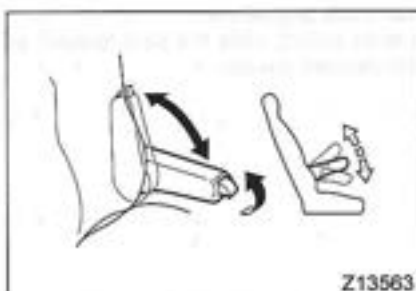
**3.5 Armrest angle adjustment**

<Vehicles with armrest>

Change the armrest angle upward or downward while pulling up the armrest angle adjustment knob. Release the knob at the desired armrest angle.

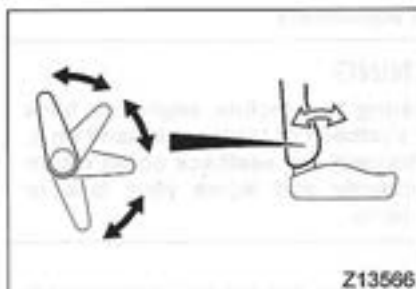
CAUTION

Do not step or sit on the armrest; the armrest may break and you may be injured.

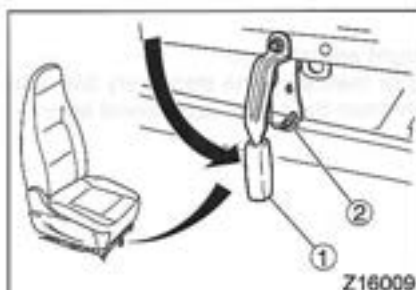
**3.6 Lumbar support firm/soft adjustment**

<Vehicles with lumbar support>

Turn the lumbar support lever in either direction for a firm or soft setting of the seatback's pressure in the lumbar region.

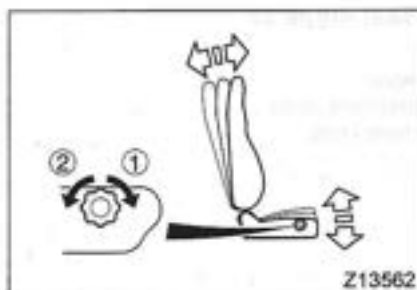
**3.7 Air-suspension seat**

- With an air suspension seat, the air pressure is automatically adjusted to suit the weight of the user.
- To cancel the air suspension function of the seat, fit the lever ① on the pin ②.

**3.4 Seat angle adjustment**

You can tilt the whole seat forward or backward by turning the seat angle adjustment knob.

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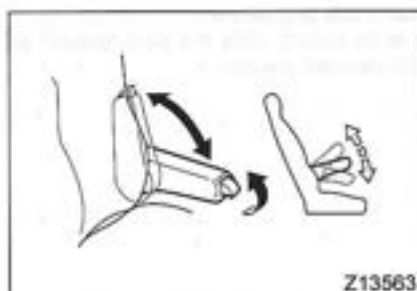
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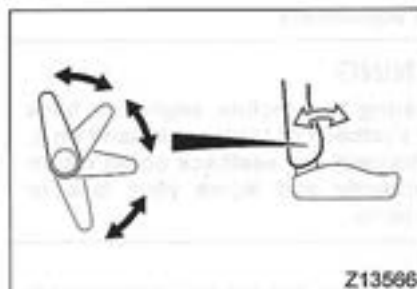
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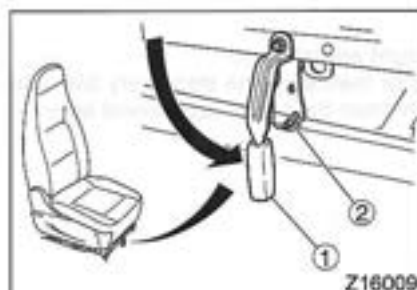
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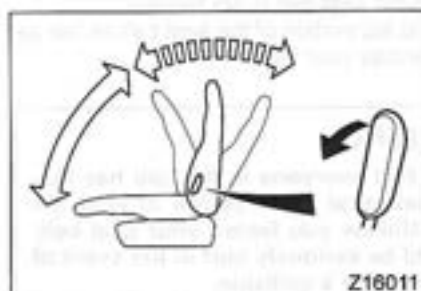




4 Assistant driver's seat

! WARNING

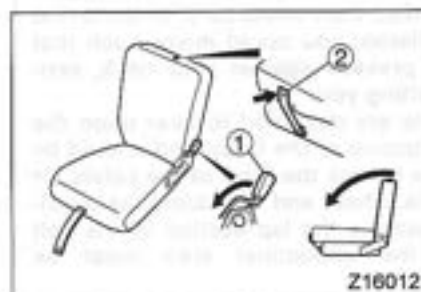
- During vehicle operation, the seatback must not be reclined further than necessary. In the event of sudden braking, the occupant could slide forward and suffer severe injuries.
- When adjusting the recline angle, sit back against the seatback or place your hand on it. Unless restrained, the seatback could return forward suddenly and injure your face or other body parts.



To adjust the angle of the seatback of the assistant driver's seat, move reclining lever ①.

NOTE:

The forward/backward adjusting feature is not adjustable on the assistant driver's seat.



5 Center seat

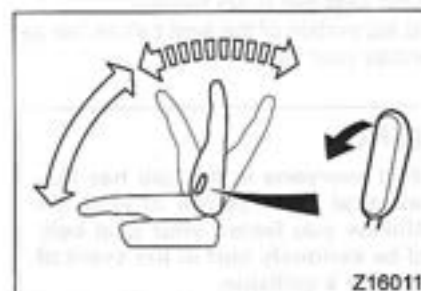
The seatback can be folded down by moving lever ①. Secure the folded seatback with strap ②.



4 Assistant driver's seat

! WARNING

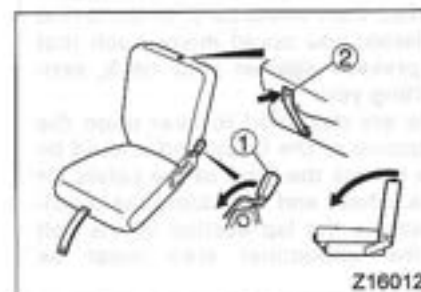
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The seatback can be folded down by moving lever ①. Secure the folded seatback with strap ②.



Seat belts

To minimize the extent of injuries in the event of a collision or sudden braking, the seat belts must be worn correctly.

Before the vehicle is driven, each occupant must fasten his/her seat belt in accordance with the following instructions and warnings:

- ① Position yourself as far back as possible in your seat, and sit up straight. Adjust the seat to the correct position.
- ② Make sure the seat belt passes across your shoulder (not across your neck or arm).
- ③ Make sure the seat belt is not twisted.
- ④ Position the lap portion of the seat belt as low as possible across your hips.

⚠ WARNING

- Be sure that everyone in the cab has fastened their seat belts before driving the vehicle. Unless you fasten your seat belt, you could be seriously hurt in the event of hard braking or a collision.
- Do not drive with your seatback tipped back further than necessary. In the event of a collision, you could move such that the belt presses against your neck, seriously hurting you.
- Seat belts are designed to bear upon the bony structure of the body, and should be worn low across the front of the pelvis, or the pelvis, chest and shoulders, as applicable; wearing the lap section of the belt across the abdominal area must be avoided.
- Seat belts should be adjusted as firmly as possible, consistent with comfort, to provide the protection for which they have been designed. A slack belt will greatly reduce the protection afforded to the wearer.
- Care should be taken to avoid contamination of the webbing with polishes, oils and chemicals, and particularly battery acid.
- Cleaning may safely be carried out using mild soap and water. The belt should be replaced if webbing becomes frayed, contaminated or damaged.



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! WARNING

- It is essential to replace the entire assembly after it has been worn in a severe impact even if damage to the assembly is not obvious.
- Replace any seat belt that is cut or frayed or has a buckle that does not work properly.
- Belts should not be worn twisted.
- Each seat belt assembly must only be used by one occupant; it is dangerous to put a belt around a child being carried on the occupant's lap.
- Expecting mothers and sick people must wear seat belts correctly in case of a mishap. In the case of an expecting mother, the seat belt could, if not worn properly, dig into the abdomen in the event of hard braking or a collision, possibly inflicting serious injuries on the expecting mother and unborn child and, in the worst possible case, causing death. Even when worn correctly, however, a seat belt can apply great pressure to certain parts of the body, so an expecting mother should consult a physician before using one.
- An expecting mother should wear her seat belt in basically the same way as other people. However, she should place the lap belt ① as low as possible, below the abdomen. Also, she should position the shoulder belt ② so it passes across her chest and not across the abdomen.
- Make sure any child riding in the cab wears a seat belt.
Fit an appropriate child restraint system (baby seat, child seat, or booster seat) on the assistant driver's seat for any child who rides in the cab if the seat belt passes across his/her neck, chin, or face or does not pass across his/her hips. Do not fit a child restraint system on the center seat. Doing so could impede driving.
Do not allow a child to be held on anyone's lap. In the event of hard braking or a collision, it would be impossible to adequately restrain the child, and the child could thus be injured.



Z14044

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Z14044

! WARNING

- **Warning:** No modifications or additions should be made by the user which will either prevent the seat belt adjusting devices from operating to remove slack, or prevent the seat belt assembly from being adjusted to remove slack.
- Do not attempt any form of modifications or repairs to seat belt components. If the retractor or other components do not operate correctly, call an authorized MITSUBISHI FUSO distributor or dealer; they will take the necessary corrective action.
- **Maintenance of Seat Belts:** when cleaning the seat belts, as recommended, avoid getting solutions into the buckle where they may attack the lubricant or cause corrosion. Do not attempt to bleach or re-dye belts, as this may affect the webbing strength.
- It is dangerous to fasten or unfasten your seat belt while driving since the momentary diversion of your attention could lead to a serious accident. Be sure to fasten and unfasten your seat belt while the vehicle is stationary.

1 Seat belt care

Periodically inspect the webbing, buckles, and tongues as well as emergency locking retractor (ELR) operation.

Replace seat belt if there is any sign of damage.

- Replace seat belts that have undergone shocks as the result of a collision.
- Keep sharp edged or potentially damaging objects away from webbing and other parts of the seat belts.
- Always keep the belts clean and dry. Use a mild soap and lukewarm water to clean seat belts. Use of solvents like gasoline and thinner can greatly weaken the seat belts.
- Never attempt to bleach or dye the seat belts, as this could weaken them considerably.

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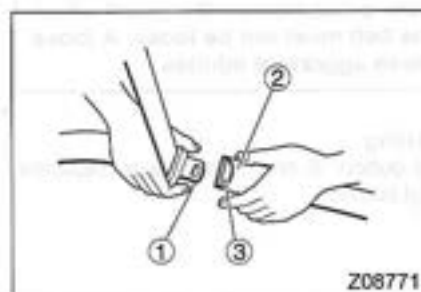
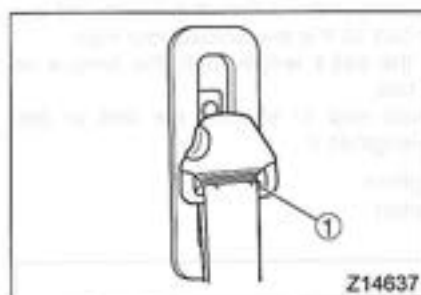
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2 3-point seat belts with emergency locking retractor (ELR)

NOTE:

- It is not necessary to adjust the length of these seat belts.
An ELR seat belt extends and retracts automatically as its wearer moves but locks automatically for protection in the event of a sudden stop or shock.
The belt's tightness should be adjusted automatically.
If there is any looseness, lift the belt gently and the mechanism will take up the slack. With the belt properly tightened, the risk of it slipping off in a collision is reduced.
- Pull the seat belt slowly when extending it. Pulling it rapidly could cause it to lock.
- If the seat belt's retracting action becomes weak, it may be because dirt on the shoulder belt where it passes through the loop at the side of the cab ① is causing resistance. Remove any dirt.



2.1 Fastening

- Hold tongue ① and gently extend the belt. If the belt locks or is difficult to extend, let it retract and pull it gently again.
- Taking care that the belt does not become twisted, insert the tongue into the buckle ② until you hear a click.
- Pull on the tongue to confirm that it is locked in.
- Adjust the belt so it is across your hips and shoulder.

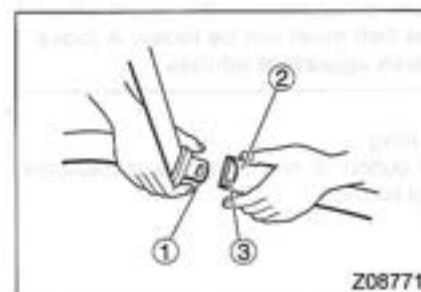
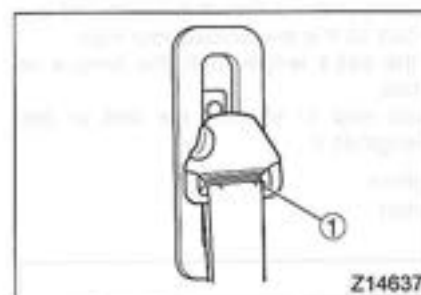
2.2 Unfastening

- Press the red button ③ to unlock the buckle.
- The belt automatically retracts when unlocked. To prevent the tongue causing damage or injury, hold it while the belt retracts.

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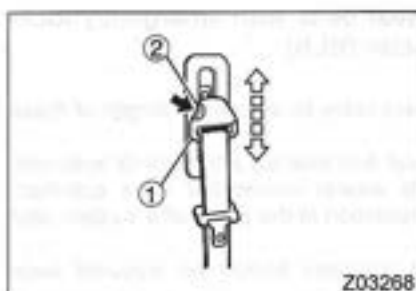


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Z03268

2.3 Adjustable seat belt anchor (driver's seat side only)

When the seat belt is not passing across your shoulder and is coming into contact with your neck or face, adjust the position of the seat belt anchor ①.

Move the anchor after pressing the lock button ②. When it has been adjusted to the desired position, rock it lightly by hand to confirm that it is securely locked in place.

3 2-point seat belt

3.1 Fastening

1. Taking care that the belt does not become twisted, insert the tongue ① into the buckle ② until you hear a click.
2. Pull on the tongue to confirm that it is locked in.
3. Adjust the belt so it is low across your hips.
4. To adjust the belt's length, hold the tongue at 90° to the belt. Pull the belt end to shorten the belt or the tongue to lengthen it.

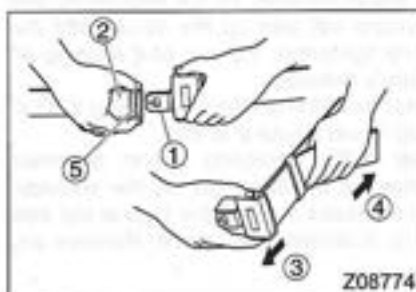
- ③ To lengthen
④ To shorten

⚠ WARNING

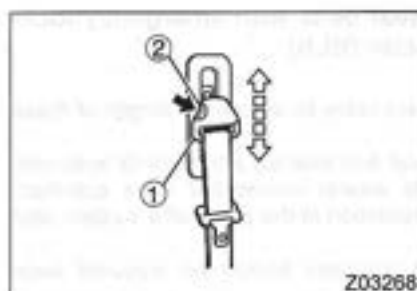
For maximum protection in the event of an accident, the belt must not be loose. A loose belt could even aggravate injuries.

3.2 Unfastening

Press the red button ⑤ on the buckle to separate the tongue and buckle.



Z08774



Z03268

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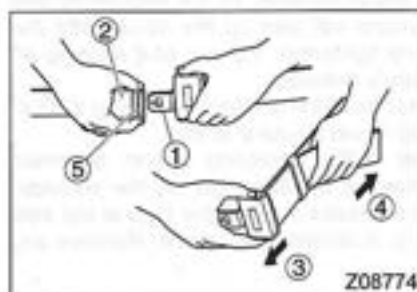
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Z08774

Supplemental restraint system (SRS)-air bag and pretensioner equipped seat belt

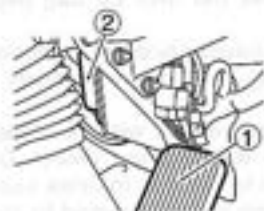
<Vehicles with an SRS air bag>

1 SRS air bag at driver's seat

- The SRS air bag at the driver's seat reduces the impact on the head of the driver and complements the pretensioner equipped seat belt in case of a strong shock from the front that could seriously injure the driver when the starter switch is "ON". SRS stands for Supplemental Restraint System.

WARNING

- The SRS air bag is not a substitute for the seat belt. You must wear the seat belt, otherwise your body may be thrown forward if you brake hard in a collision. In such a case, the SRS air bag will inflate and could fatally injure the driver.
- The seat belt will keep your body in the proper position when the SRS air bag inflates.
- Even if the air bag does not function, the seat belt will reduce the risk of injury and prevent you from being thrown out of the vehicle.
- Adjust the seat belt at the proper position and sit on the seat in the proper posture with your back touching the backrest. Because the SRS air bag inflates very rapidly, the expansion of the air bag could fatally injure the driver if the body is too close to the SRS air bag.
- The components of the SRS air bag and around them will be hot after the bag has inflated. Do not touch them to avoid burns.
- Do not splash water or apply shock to the computer ② of the SRS air bag near the brake pedal ①. Otherwise, the SRS air bag may malfunction, or may not function correctly in a collision, and could cause serious injuries.



Z05809

Supplemental restraint system (SRS)-air bag and pretensioner equipped seat belt

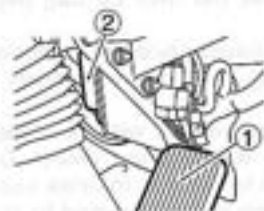
<Vehicles with an SRS air bag>

1 SRS air bag at driver's seat

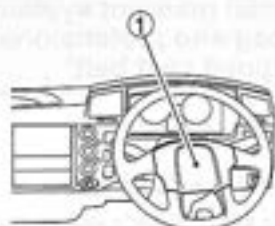
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Z05809



Z13569

! WARNING

- If you find damage or cracks around where the SRS air bag is installed ①, arrange for it to be inspected at an authorized MITSUBISHI FUSO distributor or dealer. Otherwise, you may be injured in a collision because of incorrect function of the SRS air bag.
- Because the SRS air bag inflates very rapidly, contact with the SRS air bag could cause a wound or bruising.

NOTE:

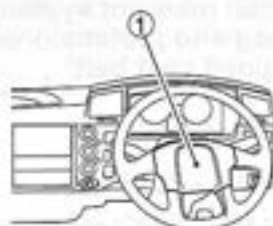
- When the SRS air bag inflates, it will make a very loud sound and emit white smoke, but this is not a fire and will not harm the human body either. However, a person with a weak respiratory system or weak skin may feel irritation in the throat or on the skin temporarily. If residue such as sediment adheres to your body such as the eyes and skin, wash it off with water as soon as possible. A person with weak skin may feel irritation in rare cases.
- The inflated SRS air bag will shrink immediately and will not obstruct the view.
- The SRS air bag cannot be used again after it has inflated once. Have the SRS air bag components replaced at an authorized MITSUBISHI FUSO distributor or dealer. Also, if the air bag did not inflate itself in a collision, have it inspected at an authorized MITSUBISHI FUSO distributor or dealer.
- The SRS air bag is installed in the steering wheel.



Z16580

! WARNING

- Do not replace the steering wheel, attach stickers to the SRS air bag storage area, or put a cover over the SRS air bag deployment area. Doing so may cause incorrect function of the SRS air bag, resulting in serious injuries.
- Do not drive the vehicle with your face or chest close to the steering wheel. Doing so could result in serious injuries such as burns on the arm or face caused by the air bag when it inflates.



Z13569

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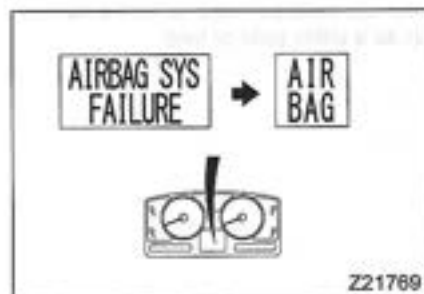
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Z16580

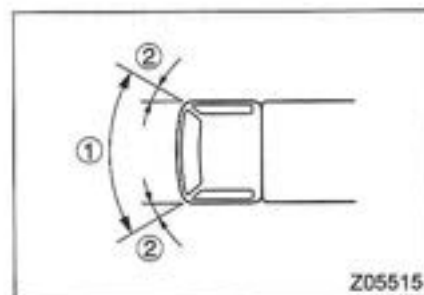
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2 SRS air bag warning display

If the multi-information display shows "AIRBAG SYS FAILURE" in the enlarged display mode then , there is an SRS air bag malfunction. Have the vehicle inspected by an authorized MITSUBISHI FUSO distributor or dealer.



3 Operational conditions of SRS air bag

3.1 When the SRS air bag functions

When a strong shock that could seriously injure a passenger was received from the front of the vehicle within 30 degrees

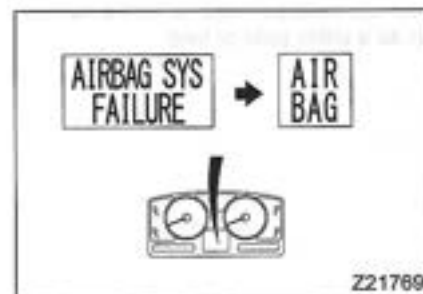
- ① Range of air bag functions
- ② About 30 degrees

NOTE:

- In some cases the SRS air bag does not function when the shock of collision is not severe depending on the situation, even if the vehicle suffers heavy deformation or damage in the collision.
- As the SRS air bag reduces shock to the head by supplementing the function of the seat belt, it will not immediately function in case of a collision in which the driver is wearing the seat belt correctly and there is no possibility of serious injury.

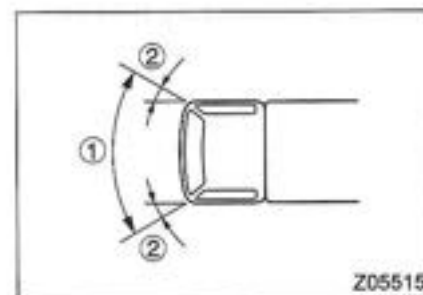
3.2 Cases in which the SRS air bag does not function

In some cases there will be no large shock to the passengers even if the front of the vehicle was largely deformed or damaged by the collision. In such cases, the deformation and damage to the vehicle may not correspond with the function of the SRS air bag.



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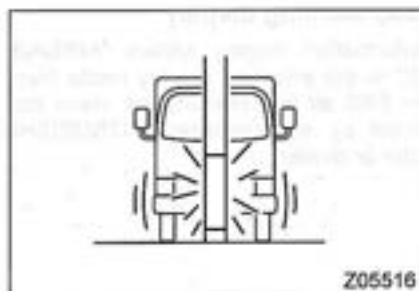
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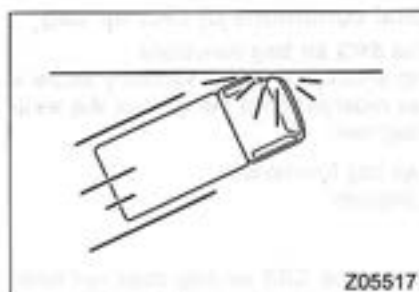
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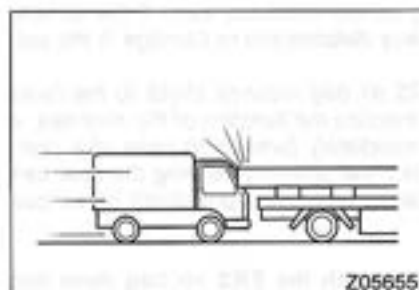
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- When the vehicle collides head-on with a narrow object such as a utility pole or tree



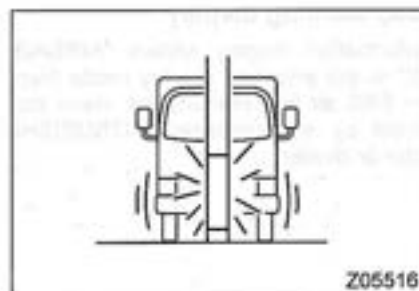
- When the vehicle collides obliquely at the front



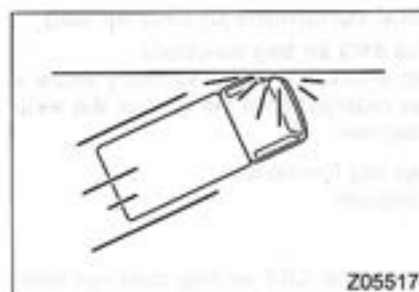
- When the vehicle collides with the rear deck of a vehicle such as a truck from part of the wind-shield glass



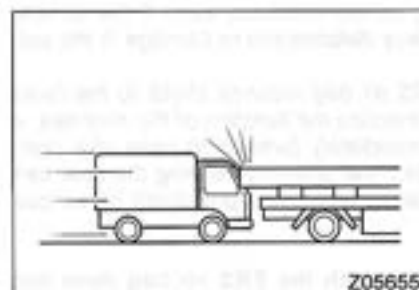
- When the vehicle collides with a hard object such as one made of concrete at a speed of about 25 km/h or lower



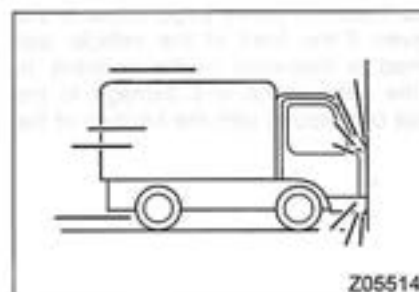
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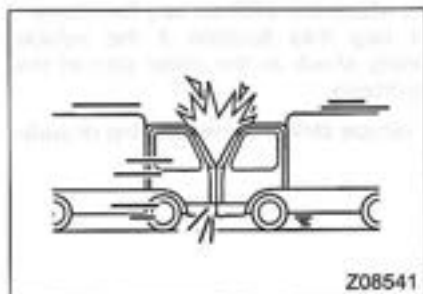
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- When the vehicle collides with a hard object such as one made of concrete at a speed of about 25 km/h or lower



- When the vehicle collides head-on with a parked vehicle of similar weight at a speed of about 50 km/h or lower

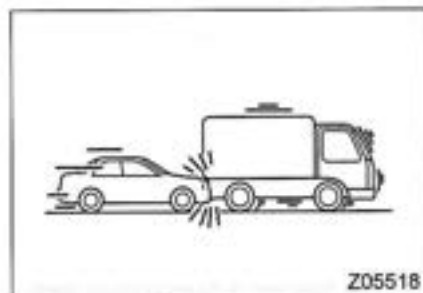
NOTE:

When the vehicle collides with an object that absorbs shock (such as those that are deformed or moved by shocks), the speed of collision (the car speed) will be higher if the SRS does not function.

3.3 When the SRS air bag does not have the intended effects

In the following cases, the SRS air bag may function, but will not protect passengers even when it inflates:

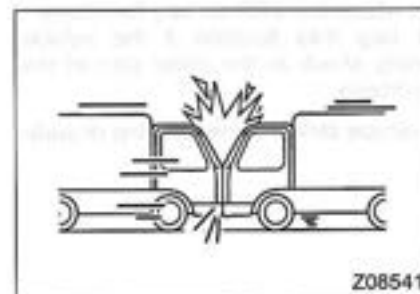
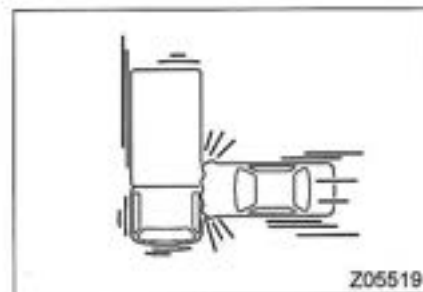
- When the vehicle is struck from the rear



- When the vehicle rolls or turns over



- When the vehicle is struck from the side



- When the vehicle collides head-on with a parked vehicle of similar weight at a speed of about 50 km/h or lower

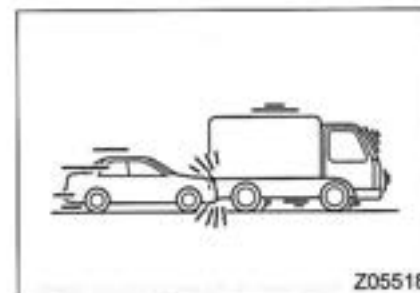
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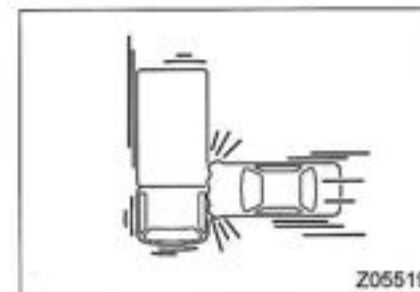
- When the vehicle is struck from the rear



- When the vehicle rolls or turns over



- When the vehicle is struck from the side

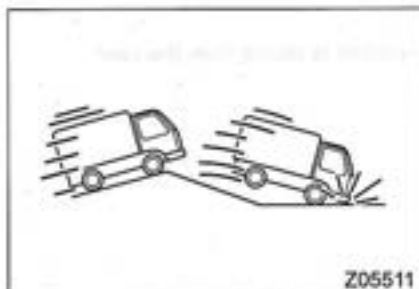


3.4 Cases in which the SRS air bag functions
The SRS air bag may function if the vehicle receives a strong shock at the lower part of the chassis during driving.

- When the vehicle strikes a median strip or curb-stone



- When the vehicle jumps and hits the ground



- When the vehicle falls into a deep hole or ditch

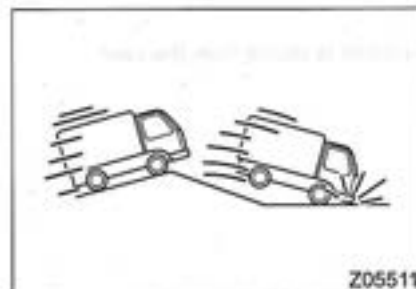


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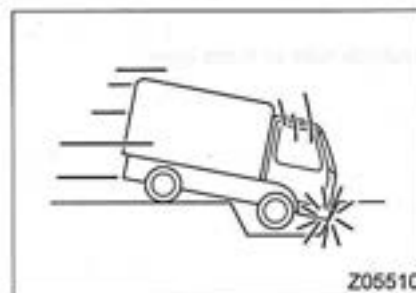
- When the vehicle strikes a median strip or curb-stone



- When the vehicle jumps and hits the ground



- When the vehicle falls into a deep hole or ditch



4 Notes on handling

! WARNING

- The SRS air bag system may be affected by the installation of audio equipment or similar items in the vicinity of the steering wheel or instrument panel and by repairs performed on the front of the vehicle. Please contact an authorized MITSUBISHI FUSO distributor or dealer for servicing.
- If stopping using the vehicle, please contact an authorized MITSUBISHI FUSO distributor or dealer. Otherwise, the SRS air bag may unexpectedly function and cause injuries.
- Do not diagnose the circuit of the SRS air bag with an electrical tester. It may cause the SRS air bag to malfunction.
- Do not modify the suspension. It may change the vehicle height and the hardness of suspension, causing the SRS air bag to malfunction.
- Do not attach a grill guard and winch to the front of the vehicle. It may affect the function of the SRS air bag.
- Do not apply excessive force, such as hitting the steering pad, to the inflating section of the SRS air bag. It may cause incorrect functioning of the SRS air bag and serious injuries.

NOTE:

If you sell the vehicle, please explain that the vehicle is equipped with an SRS air bag and ensure the instructions are provided with the vehicle.



Z16574

5 Seat belt with a pretensioner and energy absorber

- A pretensioner-equipped seatbelt is provided for the driver. In the event of a severe frontal impact of a type that causes the SRS air bag to inflate, the pretensioner instantaneously rewinds the seatbelt. By doing so, it securely restrains the driver, maximizing the effectiveness of the seatbelt and SRS air bag.
- Thereafter, when the seat belt is subjected to a load exceeding a certain level, the pretensioner and energy absorber function slackens the seat belt progressively to ease the impact on the wearer's chest.

4 Notes on handling

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Z16574

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- Thereafter, when the seat belt is subjected to a load exceeding a certain level, the pretensioner and energy absorber function slackens the seat belt progressively to ease the impact on the wearer's chest.

⚠ WARNING

- Observe the following to ensure the seat belt with a pretensioner and energy absorber is fully effective. Wear the seat belt correctly. Adjust the seat belt to the proper position.
- Do not attach, remove or disassemble the seat belt with a pretensioner and energy absorber. If the seat belt with a pretensioner and energy absorber requires repair, please contact an authorized MITSUBISHI FUSO distributor or dealer. Handling without care may cause the seat belt with a pretensioner and energy absorber to malfunction, resulting in injuries.
- If stopping using the vehicle, please contact an authorized MITSUBISHI FUSO distributor or dealer. Otherwise, the seat belt with a pretensioner and energy absorber may malfunction unexpectedly, resulting in injuries.

NOTE:

The seat belt with a pretensioner and energy absorber cannot be used again if it has functioned once. Have it replaced at an authorized MITSUBISHI FUSO distributor or dealer.

Steering wheel**⚠ WARNING**

- After every adjustment, try to move the steering wheel back and forth to make sure that it is securely locked. Unless the lever returns to its original position, the steering wheel may move while the vehicle is in motion and cause an accident.
- Make adjustments with the vehicle stationary. Adjusting the steering wheel while driving is dangerous since it could detract from your concentration or cause the steering wheel to move more than desired.

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- Observe the following to ensure the seat belt with a pretensioner and energy absorber is fully effective. Wear the seat belt correctly. Adjust the seat belt to the proper position.
- Do not attach, remove or disassemble the seat belt with a pretensioner and energy absorber. If the seat belt with a pretensioner and energy absorber requires repair, please contact an authorized MITSUBISHI FUSO distributor or dealer. Handling without care may cause the seat belt with a pretensioner and energy absorber to malfunction, resulting in injuries.
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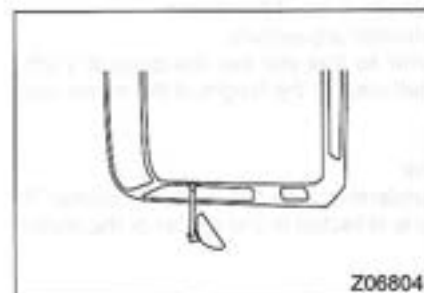
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- Make adjustments with the vehicle stationary. Adjusting the steering wheel while driving is dangerous since it could detract from your concentration or cause the steering wheel to move more than desired.

The steering wheel can be adjusted to the preferred height and tilted forward/backward. Adjust the steering wheel as well as the seat to the best positions for easy safe driving.

- Pull the lock lever ① to the adjusting position ②, then adjust the steering wheel to the height and angle that are most comfortable for you.
- Push the lock lever to the retaining position ③ to securely retain the steering wheel.



Rearview mirrors

<Type 1>

The side mirror stays can be swung inward if the side mirrors obstruct the vehicle's movement, for example, when negotiating a corner or passing another vehicle on a narrow street.

Check the view in the mirror after returning the mirror to its original position.

<Type 2>

NOTE:

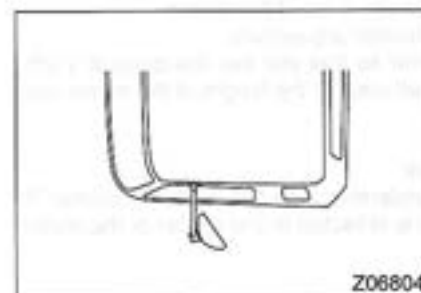
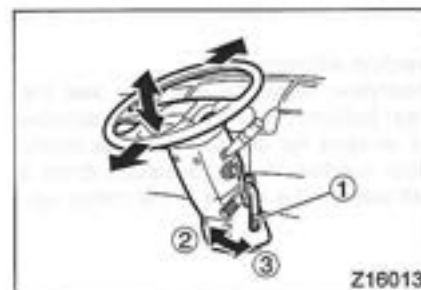
- When turning right or left, bear in mind the difference in tracking of the front and rear inner wheels, and use the rearview mirrors to confirm safety behind you.
- Pay attention to the extended rearview mirrors when driving on narrow roads. Take particular care to ensure that they do not hit pedestrians.
- In rainy weather, drops of water can adhere to the mirrors, detracting from rearward visibility. Stop the vehicle and wipe off the water to restore visibility.

1 Mirror adjustment

Before starting to drive, sit in the correct driving position and make sure you can see behind the vehicle, the sides of the vehicle, immediately in front of the vehicle, and immediately to the left of the vehicle. Also, make sure the mirror surfaces are not dirty.

The steering wheel can be adjusted to the preferred height and tilted forward/backward. Adjust the steering wheel as well as the seat to the best positions for easy safe driving.

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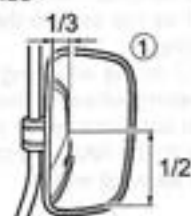
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<Driver's side>



<Assistant driver's side>



Z12397

1.1 Reflections**① Side mirrors****• Lateral-direction adjustment**

Adjust each rearview mirror so that you see the image of the vehicle's side within the inner one-third of the mirror.

• Vertical-direction adjustment

Adjust each rearview mirror so that you see the image of the rear bottom corner of the door window (the right door window for the driver's side mirror and the left door window for the assistant driver's side mirror) half way up the height of the mirror surface.

② Side undermirror**• Lateral-direction adjustment**

Adjust the mirror so that you see the vehicle's side within the inner one-third of the mirror.

• Vertical-direction adjustment

Adjust the mirror so that you see the bumper's left-hand corner half way up the height of the mirror surface.

③ Undermirror

Position the undermirror so the left-hand corner ④ of the bumper is reflected in the center of the mirror surface.

1.2 Adjustment method**CAUTION**

Make any necessary mirror adjustments before (not after) starting to drive.

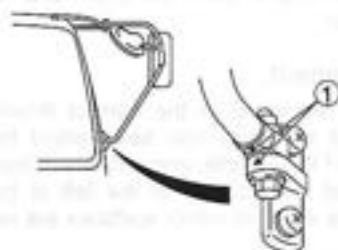
Adjust the mirror to the correct angle by pushing its edge up/down and left/right by hand.



Z16123

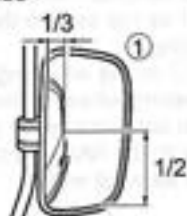
2 Retracting the rearview mirrors

The assistant driver's side rearview mirror can be retracted such as when turning a tight corner, passing an oncoming vehicle on a narrow road, and parking your vehicle.



Z05587

<Driver's side>



<Assistant driver's side>



Z12397

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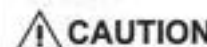
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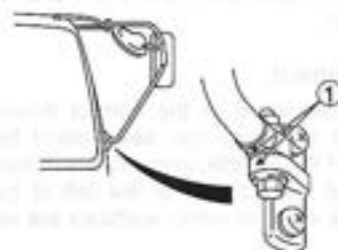
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Z16123

2 Retracting the rearview mirrors

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Z05587

 WARNING

Do not drive with the rearview mirrors retracted. The lack of the rearward visibility normally provided by the rearview mirrors could cause an accident.

Retract the rearview mirror by moving it inward by hand. When returning the mirror to the original position, move it outward until the marks ① on the mirror stay pipe and bracket are aligned with each other.

 WARNING

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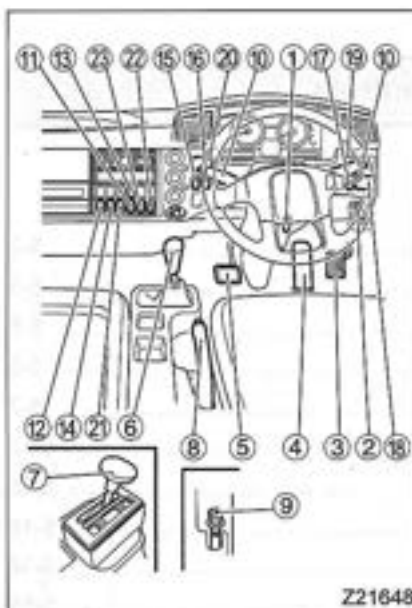
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5. Switches and controls

Arrangement of switches and controls	5-2
Starter switch	5-3
Cold start switch	5-5
Engine idling control volume	5-5
Starting the engine	5-7
Warming up the engine	5-12
Stopping the engine	5-15
Pedals	5-16
Gearshift lever	5-18
9-speed transmission	5-19
Automatic transmission	5-22
Parking brake	5-25
Combination switch	5-28
Front fog lamp switch	5-32
Power take-off switch	5-33
Power take-off lever	5-34
Differential lock switch	5-34
Cruise control	5-35
Air suspension height control	5-40
Remote-control mirror switch	5-42
Mirror heater switch	5-43
Speed limitation devices	5-43
Horn switch	5-44

5. Switches and controls

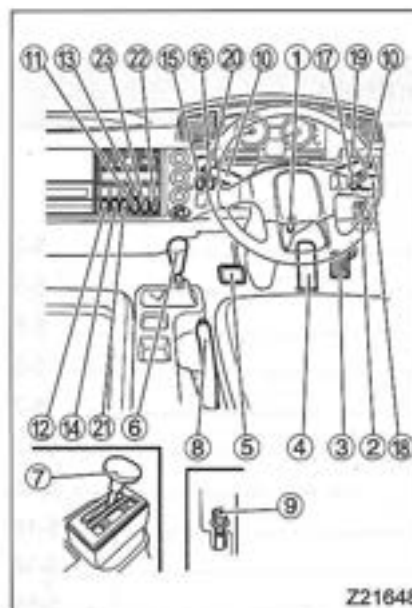
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Z21648

Arrangement of switches and controls

- ① Starter switch
- ② Engine idling control volume
- ③ Accelerator pedal
- ④ Brake pedal
- ⑤ Clutch pedal
- <Manual transmission vehicles>
- ⑥ Gearshift lever
- <Manual transmission vehicles>
- ⑦ Range selector lever
- <Automatic transmission vehicles>
- ⑧ Parking brake lever <Center brake type>
- ⑨ Parking brake lever <Wheel park brake type>
- ⑩ Combination switch
- ⑪ Differential lock switch <FN62, FN64>
- ⑫ Fluorescent lamp switch ⇒ P. 10-20
- ⑬ Mirror heater switch
- <Vehicles with mirror heater>
- ⑭ Air suspension height control switch
- <Rear air suspension vehicles>
- ⑮ Cruise control main switch
- <Vehicles with cruise control>
- ⑯ Cold start switch
- <Vehicles with cold start switch>
- ⑰ PTO switch
- <Vehicles with power take-off>
- ⑱ Remote-control mirror switch
- <Vehicles with remote-control mirror>
- ⑲ Front fog lamp switch
- <Vehicles with front fog lamps>
- ⑳ Multi-information display operation panel
- ㉑ ASR cutoff switch
- <Vehicles with an antispin regulator> ⇒ P. 8-7
- ㉒ Hill start assist system main switch
- <Vehicles with hill start assist system> ⇒ P. 8-11
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Z21648

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Starter switch

1 Starter switch position

WARNING

Never turn the starter switch to any position other than the "ON" position while driving the vehicle. Turning the starter switch to the "ACC" position would be dangerous because the engine would stop and the following problems would occur:

- The compressed air used to enhance braking ceases to be generated. This could significantly reduce the effectiveness of the brakes.
- The power steering system becomes inoperative, rendering steering dangerously sluggish.
- The fuel injection system can malfunction.
- The electrical circuits of the warning lamps, meters, etc. become inoperative, causing electric components to malfunction.

Removing the starter key causes the steering wheel to lock, making it impossible to steer the vehicle.

CAUTION

- If you attempt to turn the starter key from the "ACC" to "LOCK" position without pressing the reset button, the key will turn only to the position midway between the "ACC" and "LOCK" positions (marked "•"). Do not force the key.
When the reset button is pressed while in this position, the starter key can be turned to the "LOCK" position and then removed from the switch. Once the reset button is pressed, you need not keep it pressed to be able to turn the key.
- Do not turn the key to the "S" position while the engine is running since this could damage the starter.

Starter switch

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Never turn the starter switch to any position other than the "ON" position while driving the vehicle. Turning the starter switch to the "ACC" position would be dangerous because the engine would stop and the following problems would occur:

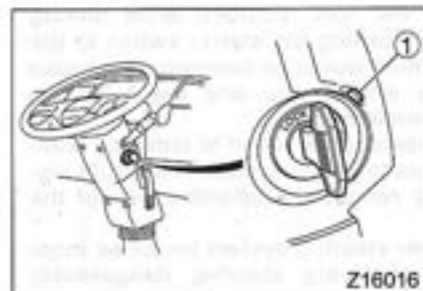
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- Do not turn the key to the "S" position while the engine is running since this could damage the starter.

- If you park the vehicle over an extended period of time, always place the starter key in the "LOCK" position and remove it from the starter switch, or keep it in the position midway between the "ACC" and "LOCK" positions (marked "•"). Leaving the key in the "ON" or "ACC" position could run down the battery.



Z16016

- **LOCK:**
Starter key can be inserted and removed only when it is in this position. To return the key to the "LOCK" position, first turn the key to the position midway between the "ACC" and "LOCK" positions (marked "•"), and after holding down reset button ①, turn it the rest of the way back to the "LOCK" position. When the starter key is removed, the steering wheel locks. The interior lamp, hazard warning lamps, and horn can be used.
- **ACC:**
The engine is made stopped or is not running in this position. The radio, CD player, and cigarette lighter can be used.
- **ON:**
The engine is running in this position. All electrical circuits are operable.
- **S:**
The engine is turned over and started in this position. Once the engine is running, release the starter key and the key will automatically return to the "ON" position.

NOTE:

- Insert the starter key fully in the starter switch before turning it.
- If you are unable to turn the starter key, gently turn the steering wheel clockwise and counter-clockwise as you turn the key.

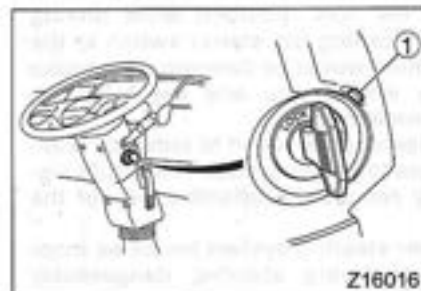
2 Starter key reminder alarm

A buzzer sounds if you open the door with the engine shut down and the key left in the starter switch. Remove the starter key from the switch and keep it with you whenever leaving the vehicle.



Z00046

- If you park the vehicle over an extended period of time, always place the starter key in the "LOCK" position and remove it from the starter switch, or keep it in the position midway between the "ACC" and "LOCK" positions (marked "•"). Leaving the key in the "ON" or "ACC" position could run down the battery.



Z16016

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Starter key can be inserted and removed only when it is in this position. To return the key to the "LOCK" position, first turn the key to the position midway between the "ACC" and "LOCK" positions (marked "•"), and after holding down reset button ①, turn it the rest of the way back to the "LOCK" position. When the starter key is removed, the steering wheel locks. The interior lamp, hazard warning lamps, and horn can be used.
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The engine is running in this position. All electrical circuits are operable.
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The engine is turned over and started in this position. Once the engine is running, release the starter key and the key will automatically return to the "ON" position.

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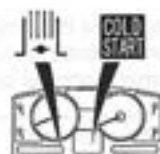
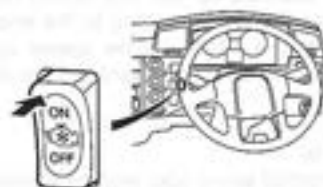
2 Starter key reminder alarm

A buzzer sounds if you open the door with the engine shut down and the key left in the starter switch. Remove the starter key from the switch and keep it with you whenever leaving the vehicle.



Z00046

Cold start switch



Z21771

<Vehicles with cold start switch>

When starting the engine in freezing temperatures, or when you want to shorten the warm-up time or boost interior heating during parking, press this switch to ON.

When the switch is turned to ON, the exhaust brake will be applied. This makes the engine warm up quicker after start-up.

The indicator lamp will come on, and the multi-information display will show .

NOTE:

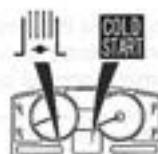
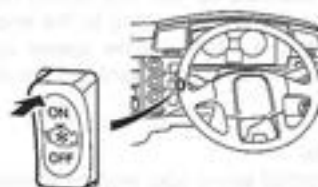
- Be sure to press the switch to OFF before driving the vehicle. If you started driving with the switch in the ON position, the multi-information display would show a "COLD START ACTIVE" warning in the enlarged display mode at vehicle speeds of 5 km/h and higher.
- In cold-temperature environments, white smoke in the exhaust gas may decrease for several minutes after pressing the cold start switch ON, then increase again after a while. When white smoke increases, press the switch to OFF.

Engine idling control volume

⚠ CAUTION

- Be sure to set the engine idling control volume to the AUTO position during driving. If you drive with the engine speed raised by the volume, abrupt starting or premature wear of the clutch may occur.
- Turn the engine control knob gently, as forcing it could damage the internal mechanism.
- If the idling speed is set too low using manual control, the engine may become excessively noisy. Make sure the idling speed is correct.

Cold start switch



Z21771

<Vehicles with cold start switch>

When starting the engine in freezing temperatures, or when you want to shorten the warm-up time or boost interior heating during parking, press this switch to ON.

When the switch is turned to ON, the exhaust brake will be applied. This makes the engine warm up quicker after start-up.

The indicator lamp will come on, and the multi-information display will show .

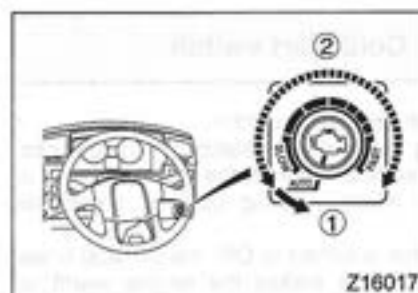
NOTE:

- Be sure to press the switch to OFF before driving the vehicle. If you started driving with the switch in the ON position, the multi-information display would show a "COLD START ACTIVE" warning in the enlarged display mode at vehicle speeds of 5 km/h and higher.
- In cold-temperature environments, white smoke in the exhaust gas may decrease for several minutes after pressing the cold start switch ON, then increase again after a while. When white smoke increases, press the switch to OFF.

Engine idling control volume

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- Be sure to set the engine idling control volume to the AUTO position during driving. If you drive with the engine speed raised by the volume, abrupt starting or premature wear of the clutch may occur.
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- If the idling speed is set too low using manual control, the engine may become excessively noisy. Make sure the idling speed is correct.



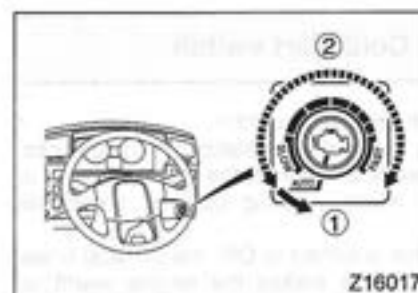
① Automatic control

Use automatic control while driving the vehicle and when starting the engine. The engine is warmed up with the speed being automatically controlled according to the engine coolant temperature. (The engine speed automatically decreases as the coolant temperature rises.)

② Manual control

Use manual control when you wish to manually adjust the engine's idling speed. Turn the knob counterclockwise to reduce the engine speed. Turn it clockwise to increase the engine speed. The engine idling control knob should normally be placed in the automatic control position.

Engine idling speed
Approx. 550 rpm



① Automatic control

Use automatic control while driving the vehicle and when starting the engine. The engine is warmed up with the speed being automatically controlled according to the engine coolant temperature. (The engine speed automatically decreases as the coolant temperature rises.)

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Use manual control when you wish to manually adjust the engine's idling speed. Turn the knob counterclockwise to reduce the engine speed. Turn it clockwise to increase the engine speed. The engine idling control knob should normally be placed in the automatic control position.

Engine idling speed
Approx. 550 rpm

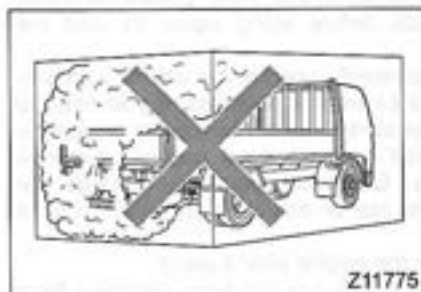
Starting the engine

⚠ WARNING

- Do not warm up the engine in a garage or other closed area. When starting the engine or entering or leaving a garage, do not run the engine for longer than is necessary as the accumulation of exhaust gas in closed areas is very dangerous. Exhaust emissions contain carbon monoxide (CO), which if breathed can cause unconsciousness or death.
- If you smell exhaust gases inside the cab, inspect the exhaust pipe and check whether exhaust gases are leaking through holes or cracks caused by corrosion or damage. If exhaust gases are leaking, have the exhaust pipe inspected by an authorized MITSUBISHI FUSO distributor or dealer.
If exhaust gases that have leaked from the exhaust pipe come into the cab, ventilate the cab with fresh air by opening the windows fully or by opening the doors.
- Do not warm up the engine or park the vehicle with the engine running in a place where there is dry grass, waste paper or any other flammables. The exhaust pipe, muffler and their surrounding parts become extremely hot and could cause flammables to catch fire in case of contact.
- When you start the engine, be sure to sit in the correct position on the driver's seat to wait for the engine to warm up. If you are leaning out of the door window or otherwise incorrectly seated and the vehicle suddenly moves, a serious accident could occur.

⚠ CAUTION

- It is dangerous to push-start the engine since, at the time of start, sufficient assist power is not available for both braking and steering. Only push-start the engine when it is unavoidable.
- It is impossible to push-start an automatic transmission vehicle, and attempting to do so could damage the transmission.

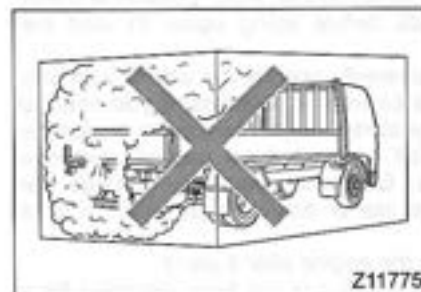


Z11775

Starting the engine

⚠ WARNING

- Do not warm up the engine in a garage or other closed area. When starting the engine or entering or leaving a garage, do not run the engine for longer than is necessary as the accumulation of exhaust gas in closed areas is very dangerous. Exhaust emissions contain carbon monoxide (CO), which if breathed can cause unconsciousness or death.
- If you smell exhaust gases inside the cab, inspect the exhaust pipe and check whether exhaust gases are leaking through holes or cracks caused by corrosion or damage. If exhaust gases are leaking, have the exhaust pipe inspected by an authorized MITSUBISHI FUSO distributor or dealer.
If exhaust gases that have leaked from the exhaust pipe come into the cab, ventilate the cab with fresh air by opening the windows fully or by opening the doors.
- Do not warm up the engine or park the vehicle with the engine running in a place where there is dry grass, waste paper or any other flammables. The exhaust pipe, muffler and their surrounding parts become extremely hot and could cause flammables to catch fire in case of contact.
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Z11775

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- It is impossible to push-start an automatic transmission vehicle, and attempting to do so could damage the transmission.

NOTE:

- Do not continue to turn over the starter for more than 15 seconds as this could damage the starter or wear down the battery.
- If you operate the starter continuously for 10 seconds and the engine still does not start, turn the starter switch to the "ACC" position and wait 30 seconds before trying again to start the engine.
- Do not repeatedly operate the starter with only short gaps between operations. If you need to operate the starter two or more times to start the engine, wait at least three seconds between operations. Otherwise, you may damage the engine and starter and/or cause them to work poorly.
- Do not rev the engine after it starts.
- On a vehicle that has not been operated for a long period, or after replacement of engine oil or engine oil filter element, be sure to crank the engine before turning it over. ⇨ P. 5-10

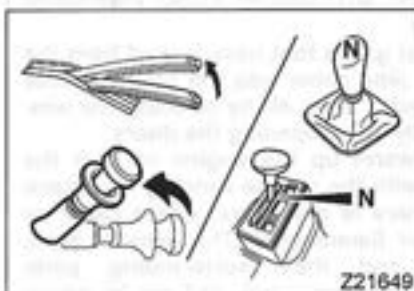
1 Pre-starting steps

1. Pull parking brake lever to fully apply the parking brake.
2. Manual transmission vehicle:
Place gearshift lever in the neutral position.
Automatic transmission vehicle:
Place range selector lever in the "N" position.

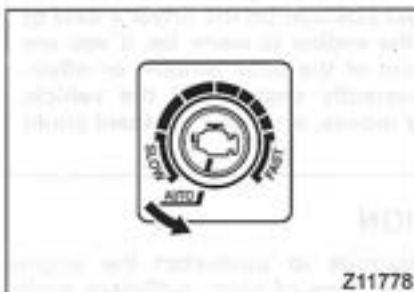
NOTE:

The engine of a vehicle with an automatic transmission cannot be started unless the range selector lever is in the "N" position.

3. Turn the engine idling control volume to the automatic control position.



Z21649



Z11778

NOTE:

- Do not continue to turn over the starter for more than 15 seconds as this could damage the starter or wear down the battery.
- If you operate the starter continuously for 10 seconds and the engine still does not start, turn the starter switch to the "ACC" position and wait 30 seconds before trying again to start the engine.
- Do not repeatedly operate the starter with only short gaps between operations. If you need to operate the starter two or more times to start the engine, wait at least three seconds between operations. Otherwise, you may damage the engine and starter and/or cause them to work poorly.
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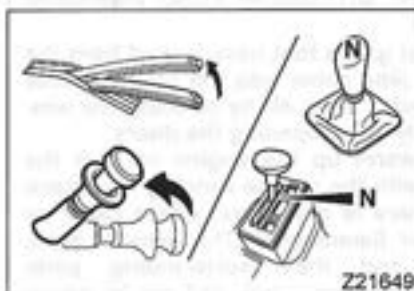
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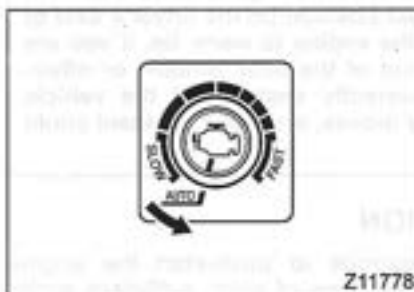
NOTE:

The engine of a vehicle with an automatic transmission cannot be started unless the range selector lever is in the "N" position.

3. Turn the engine idling control volume to the automatic control position.



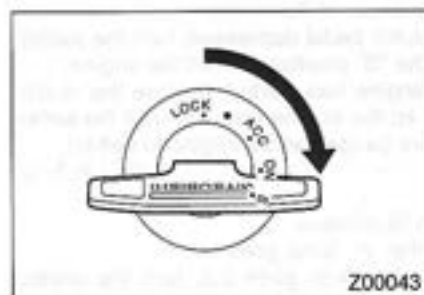
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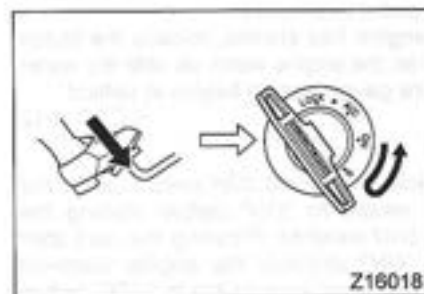
Z11778

2 Starting procedure

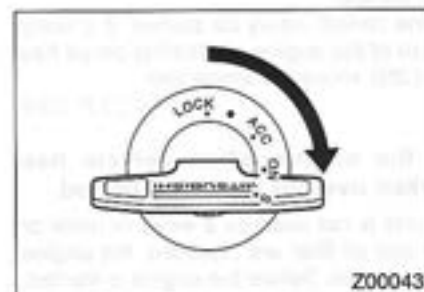
- Vehicles without engine preheating system
1. Turn the starter key to the "ON" position.



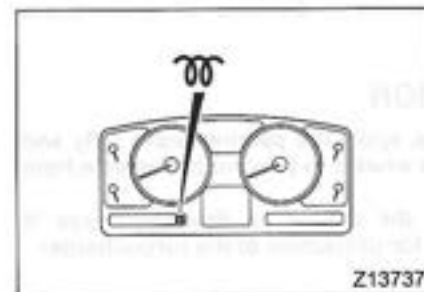
2. With the clutch pedal (in a manual transmission vehicle) or brake pedal (in an automatic transmission vehicle) depressed, turn the starter switch to the "S" position to start the engine. After the engine has started, let it warm up until the water temperature gauge needle begins to move. ⇒ P. 5-12



- Vehicles with engine preheating system
1. Turn the starter key to the "ON" position.

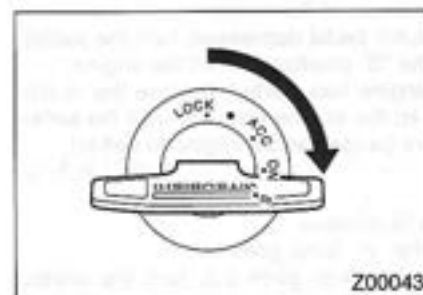


2. Check whether the "H" indicator lamp illuminates or not.

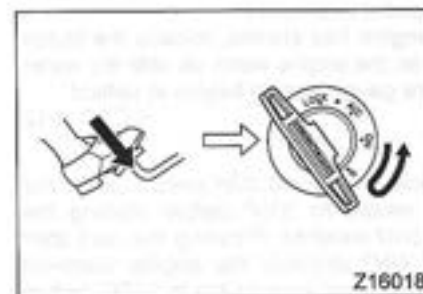


2 Starting procedure

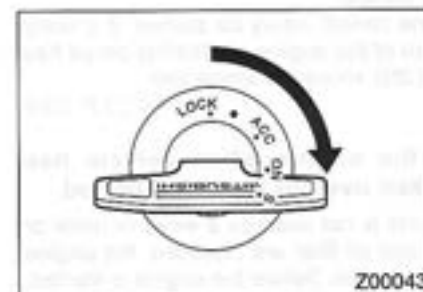
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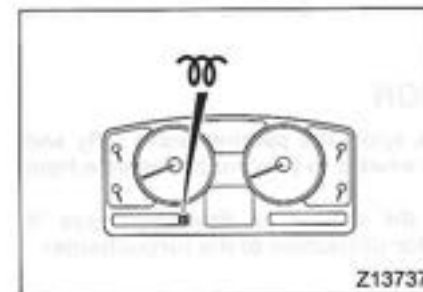
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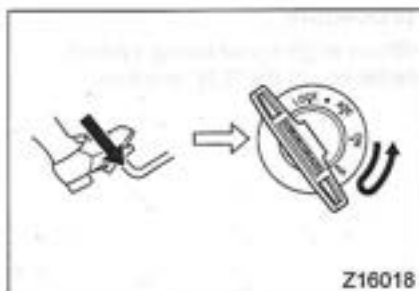


- Vehicles with engine preheating system
1. Turn the starter key to the "ON" position.



2. Check whether the "H" indicator lamp illuminates or not.





- If the lamp does not illuminate:
With the clutch pedal depressed, turn the starter switch to the "S" position to start the engine. After the engine has started, release the clutch pedal and let the engine warm up until the water temperature gauge needle begins to deflect.
⇒ P. 5-12
- If the lamp illuminates:
Wait until the lamp goes out. When the lamp goes out, turn the starter switch to the "S" position to start the engine with the clutch pedal depressed. After the engine has started, release the clutch pedal and let the engine warm up until the water temperature gauge needle begins to deflect.
⇒ P. 5-12

NOTE:

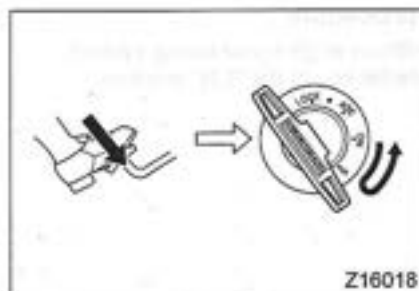
- If the vehicle has a cold start switch, press the cold start switch to "ON" before starting the engine in cold weather. Pressing the cold start switch to "ON" shortens the engine warm-up time. Press the cold start switch to "OFF" before driving the vehicle.
- If the engine cannot easily be started, it is likely that the fuse of the engine preheating circuit has blown, and this should be inspected.
⇒ P. 13-9

3 Starting the engine when vehicle has been parked over an extended period

When the vehicle is not used for a week or more or the engine oil and oil filter are replaced, the engine becomes starved of oil. Before the engine is started, therefore, it must be cranked in accordance with the following procedure to distribute oil to its various components.

CAUTION

- For safety, apply the parking brake fully and chock the wheels to prevent the vehicle from moving.
 - Cranking the engine as described here is essential for protection of the turbocharger.
1. Pull the parking brake lever or knob to fully apply the parking brake.
 2. Place the gearshift/range selector lever in the following position:
Manual transmission vehicle: Neutral position
Automatic transmission vehicle: "N" position



- If the lamp does not illuminate:
With the clutch pedal depressed, turn the starter switch to the "S" position to start the engine. After the engine has started, release the clutch pedal and let the engine warm up until the water temperature gauge needle begins to deflect.
⇒ P. 5-12
- If the lamp illuminates:
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⇒ P. 5-12

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- For safety, apply the parking brake fully and chock the wheels to prevent the vehicle from moving.
 - Cranking the engine as described here is essential for protection of the turbocharger.
1. Pull the parking brake lever or knob to fully apply the parking brake.
 2. Place the gearshift/range selector lever in the following position:
Manual transmission vehicle: Neutral position
Automatic transmission vehicle: "N" position

- Without pressing the accelerator pedal, turn the starter switch to the "S" position and crank the engine for about 15 seconds.
If the engine starts, release the starter key and do not depress the accelerator pedal for roughly 15 seconds.

4 Starting engine with the cab tilted

When you need to start the engine with the cab tilted for inspection or servicing purposes, be sure to observe the following safety precautions:

- Set the parking brake firmly, chock the wheels, and take other necessary measures to prevent the vehicle from moving.
- Make sure the gearshift/range selector lever is in the following position:
Manual transmission vehicle: Neutral position.
Automatic transmission vehicle: "N" position.
- Make sure nobody is near the engine compartment.
- Place the starter switch in the "S" position to start the engine.

- Without pressing the accelerator pedal, turn the starter switch to the "S" position and crank the engine for about 15 seconds.
If the engine starts, release the starter key and do not depress the accelerator pedal for roughly 15 seconds.

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Manual transmission vehicle: Neutral position.
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- Make sure nobody is near the engine compartment.
- Place the starter switch in the "S" position to start the engine.

Warming up the engine

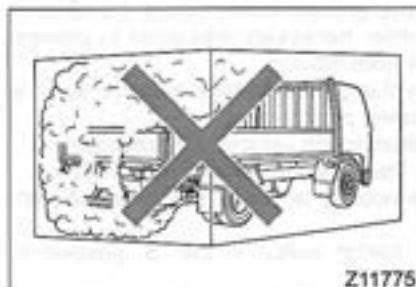
Do not drive the vehicle immediately after starting the engine. Allow the engine to warm up at least until the needle moves in the water temperature gauge.

WARNING

- Do not warm up the engine in a garage or other closed area. When starting the engine or entering or leaving a garage, do not run the engine for longer than is necessary as the accumulation of exhaust gas in closed areas is very dangerous. Exhaust emissions contain carbon monoxide (CO), which if breathed can cause unconsciousness or death.
- If you smell exhaust gases inside the cab, inspect the exhaust pipe and check whether exhaust gases are leaking through holes or cracks caused by corrosion or damage. If exhaust gases are leaking, have the exhaust pipe inspected by an authorized MITSUBISHI FUSO distributor or dealer.
If exhaust gases that have leaked from the exhaust pipe come into the cab, ventilate the cab with fresh air by opening the windows fully or by opening the doors.
- Make sure that there are no flammables such as dry grass under or behind the parked vehicle, especially close to the exhaust pipe. A fire could be started by the heat from the engine or exhaust pipe.

CAUTION

Racing the engine immediately after starting may cause rapid wear of cylinders and pistons, leading to engine failure. Be sure to follow the following warming up procedure.



Z11775

Warming up the engine

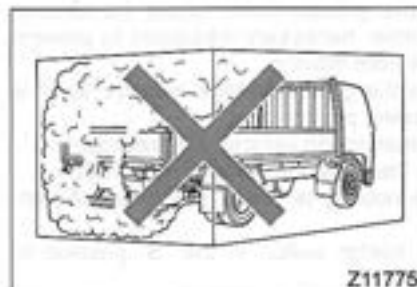
Do not drive the vehicle immediately after starting the engine. Allow the engine to warm up at least until the needle moves in the water temperature gauge.

WARNING

- Do not warm up the engine in a garage or other closed area. When starting the engine or entering or leaving a garage, do not run the engine for longer than is necessary as the accumulation of exhaust gas in closed areas is very dangerous. Exhaust emissions contain carbon monoxide (CO), which if breathed can cause unconsciousness or death.
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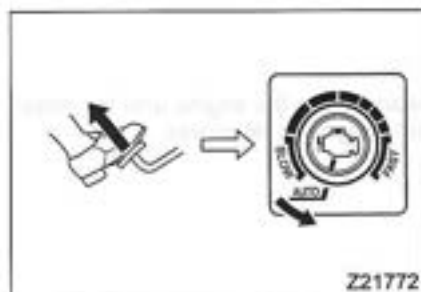
Z11775

NOTE:

- Immediately after starting, ignition is somewhat harder to take place due to the low temperature of the engine, which may cause knock, especially in cold regions.
- Idling the engine for long time wastes fuel, and is therefore detrimental to environmental protection and resource conservation. So shut down the engine whenever you leave the vehicle, even for a short period.

Furthermore, as a result of certain functional characteristics of the catalytic converter integrated into the muffler, the following may arise.

- White smoke may be emitted from the muffler when either moving off or accelerating after idling for an extended period of time.
- White smoke (water vapor) may also be emitted from the muffler in cold regions when moving off immediately after starting the engine.



Z21772

1. When the engine has started, remove your foot from the clutch pedal.
 - If the engine idling control volume is placed in the automatic control position, it automatically adjusts the engine speed.
 - When the engine idling control volume is in a manual control position, adjust the engine speed to the lowest at which the engine can operate stably.

NOTE:

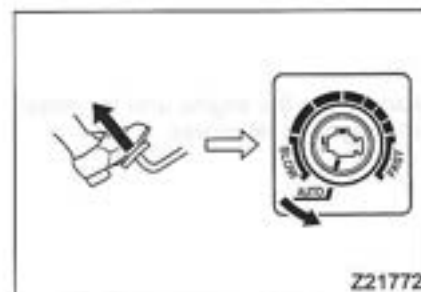
The engine idling control volume is normally set to the automatic control position; however, if the engine speed is unstable immediately after it is started, place the engine idling control volume in the manual position and turn the knob to stabilize the engine speed.

NOTE:

- Immediately after starting, ignition is somewhat harder to take place due to the low temperature of the engine, which may cause knock, especially in cold regions.
- Idling the engine for long time wastes fuel, and is therefore detrimental to environmental protection and resource conservation. So shut down the engine whenever you leave the vehicle, even for a short period.

Furthermore, as a result of certain functional characteristics of the catalytic converter integrated into the muffler, the following may arise.

- White smoke may be emitted from the muffler when either moving off or accelerating after idling for an extended period of time.
- White smoke (water vapor) may also be emitted from the muffler in cold regions when moving off immediately after starting the engine.

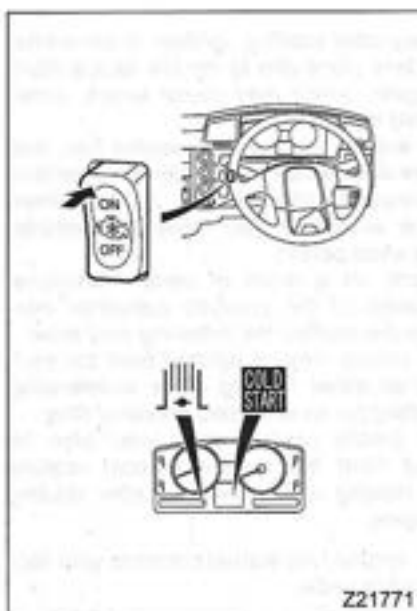


Z21772

1. When the engine has started, remove your foot from the clutch pedal.
 - If the engine idling control volume is placed in the automatic control position, it automatically adjusts the engine speed.
 - When the engine idling control volume is in a manual control position, adjust the engine speed to the lowest at which the engine can operate stably.

NOTE:

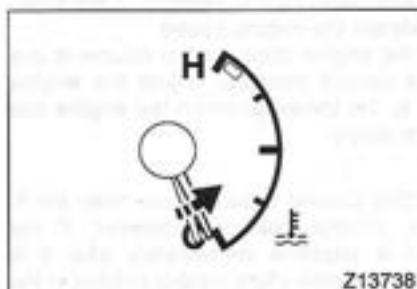
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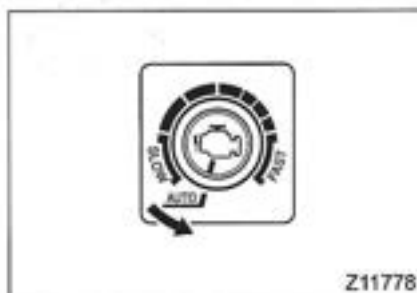
2. If you want to shorten the warm-up time and the vehicle has a cold start switch, press the cold start switch to "ON".

NOTE:

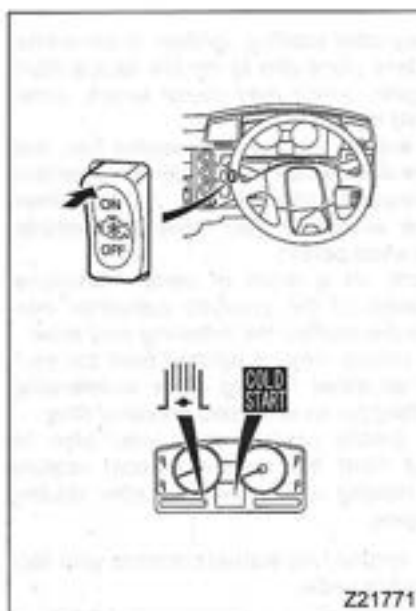
If you place the idling control volume in the manual position and increase the engine speed while the cold start switch is in the "ON" position, the vehicle may emit black smoke. Keep the idling control volume in the automatic control position.



3. Continue warming up the engine until the water temperature gauge needle moves.



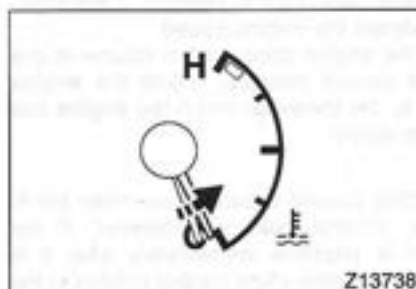
4. If you placed the engine idling control volume in the manual control position before starting the vehicle, place it in the automatic control position. Turn the cold start switch to OFF if the switch was turned to ON in step 2.



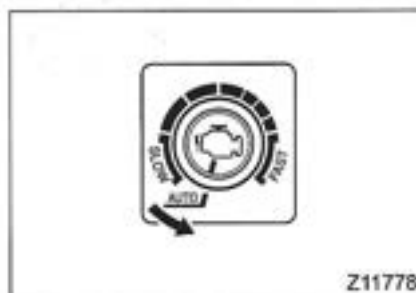
2. If you want to shorten the warm-up time and the vehicle has a cold start switch, press the cold start switch to "ON".

NOTE:

If you place the idling control volume in the manual position and increase the engine speed while the cold start switch is in the "ON" position, the vehicle may emit black smoke. Keep the idling control volume in the automatic control position.



3. Continue warming up the engine until the water temperature gauge needle moves.



4. If you placed the engine idling control volume in the manual control position before starting the vehicle, place it in the automatic control position. Turn the cold start switch to OFF if the switch was turned to ON in step 2.

Stopping the engine

WARNING

- Never allow the vehicle to coast with the engine stopped. There would be no supply of compressed air to the brakes, so the brakes might not work. Also, the steering action would become extremely heavy. This may also cause trouble in the fuel injection system.
- The engine and exhaust pipe are extremely hot just after stopping the vehicle. Avoid parking the vehicle where the exhaust pipe could set fire to materials such as dry grass.
- Do not stop the engine for parking with the steering wheel fully turned to either direction. This will cause the power steering system pressure to drop, thus causing the steering wheel to return rapidly, possibly injuring you.

CAUTION

- Allow the engine to idle for at least 3 minutes before stopping it. Not doing so could result in an engine malfunction.
- The engine should only be stopped from an idle. Stopping it at a high RPM could result in an engine malfunction.
- After stopping the engine, do not leave the starter switch in the "ON" or "ACC" position since this could drain the battery. Turn the switch to the "LOCK" position or to the position between the "ACC" and "LOCK" positions (marked with a "*").

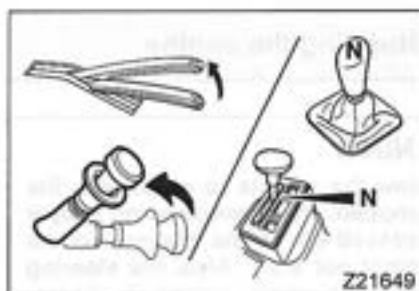
Stopping the engine

WARNING

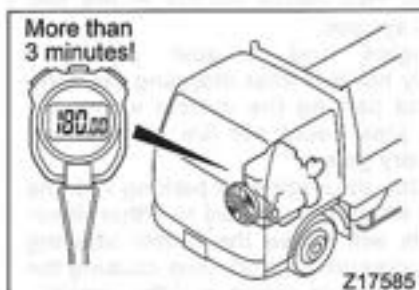
- Never allow the vehicle to coast with the engine stopped. There would be no supply of compressed air to the brakes, so the brakes might not work. Also, the steering action would become extremely heavy. This may also cause trouble in the fuel injection system.
- The engine and exhaust pipe are extremely hot just after stopping the vehicle. Avoid parking the vehicle where the exhaust pipe could set fire to materials such as dry grass.
- Do not stop the engine for parking with the steering wheel fully turned to either direction. This will cause the power steering system pressure to drop, thus causing the steering wheel to return rapidly, possibly injuring you.

CAUTION

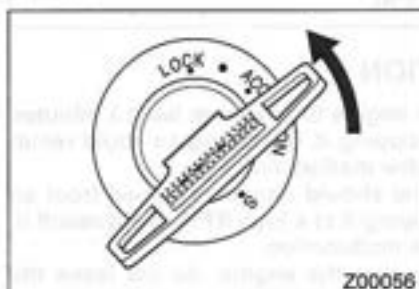
- Allow the engine to idle for at least 3 minutes before stopping it. Not doing so could result in an engine malfunction.
- The engine should only be stopped from an idle. Stopping it at a high RPM could result in an engine malfunction.
- After stopping the engine, do not leave the starter switch in the "ON" or "ACC" position since this could drain the battery. Turn the switch to the "LOCK" position or to the position between the "ACC" and "LOCK" positions (marked with a "*").



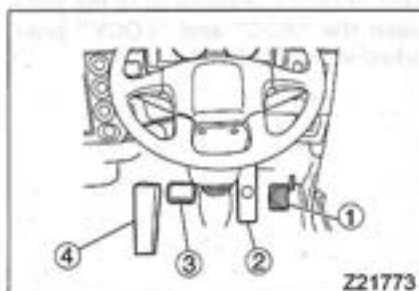
1. Apply the parking brake while depressing the brake pedal.
2. Manual transmission vehicle:
Place gearshift lever in the neutral position.
Automatic transmission vehicle:
Place range selector lever in the "N" position.



3. Allow the engine to idle for more than 3 minutes before stopping it.
When the vehicle is in motion, engine parts become extremely hot. This is particularly true during uphill or high-speed driving. Therefore, let the engine cool down sufficiently by allowing it to idle for a time before stopping it.



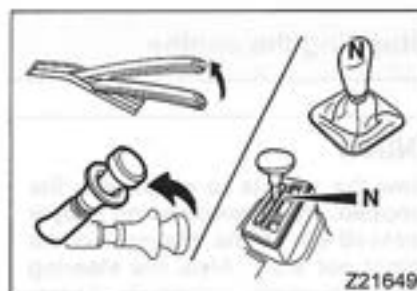
4. Turn the starter switch to the "ACC" position to stop the engine.



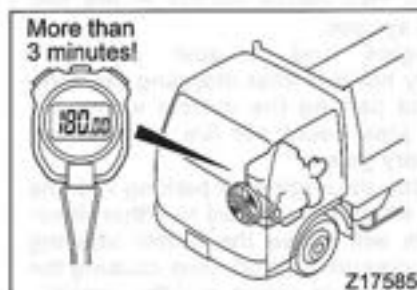
Pedals

① Accelerator pedal

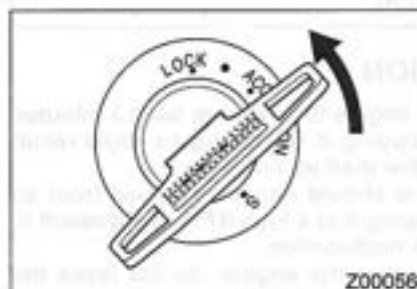
Do not rev up the engine immediately after starting it since this wastes fuel and can cause the engine to break down.



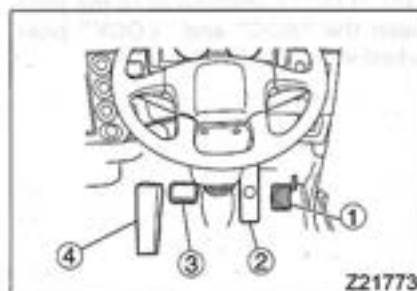
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Pedals

① Accelerator pedal

Do not rev up the engine immediately after starting it since this wastes fuel and can cause the engine to break down.

⚠ WARNING

If you use a floor mat, lay it correctly and make sure it is suitable for the size of the vehicle. It is dangerous for a floor mat to cover the accelerator pedal or for floor mats to be laid in multiple layers since the accelerator pedal may be prevented from returning when released.

- ② Brake pedal
Use the brake pedal correctly.

⇨ P. 7-6

⚠ WARNING

- Do not allow empty beverage cans or other objects to get under the brake pedal as they will interfere with braking action. Keep the floor free of any objects obstructive to operation of the pedal.
- The space below the brake pedal must be free of mud, dirt, or a floor mat which, if caught under the pedal, will prevent the pedal from returning fully and cause the brakes to drag. Press the brake pedal by hand and check that it moves without hindrance.



- ③ Clutch pedal
<Manual transmission vehicles>

⚠ CAUTION

- Do not operate the vehicle with your foot on the clutch pedal as doing so can shorten the service life of the clutch. It may also cause the engine braking and exhaust braking performance to deteriorate.
- Depress the clutch pedal fully whenever changing gear. If you do not depress the pedal completely, the clutch will slip and the clutch disc will be damaged, which could lead to an accident.

- ④ Foot rest

⚠ WARNING

If you use a floor mat, lay it correctly and make sure it is suitable for the size of the vehicle. It is dangerous for a floor mat to cover the accelerator pedal or for floor mats to be laid in multiple layers since the accelerator pedal may be prevented from returning when released.

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⇨ P. 7-6

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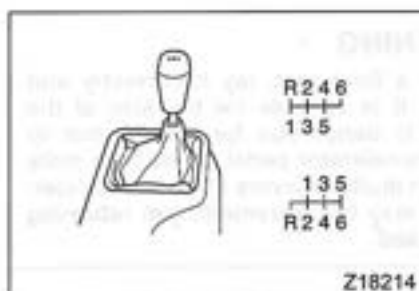


- ③ Clutch pedal
<Manual transmission vehicles>

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- ④ Foot rest



Gearshift lever

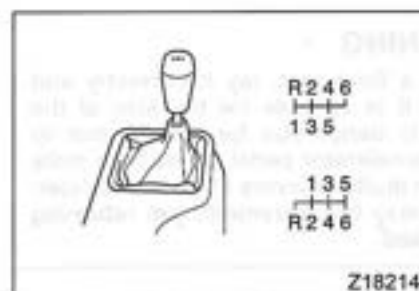
<Manual transmission vehicles>

WARNING

When the gearshift lever is in the neutral position, never keep your hand on it. Such forward or backward pressure on the lever could cause the vehicle to move accidentally, possibly leading to an accident.

CAUTION

- Shifting from a forward gear to the reverse gear or vice versa, should be done only after the vehicle has come to a complete stop. When backing up, always double check to make sure that there is nothing in your path.
- When the gearshift lever is in the neutral position, never keep your hand on it. Such forward or backward pressure on the lever could cause the transmission to malfunction, especially if you use a gearshift lever extender because the gearshift lever is very likely to move even if the pressure on the extender is slight.
- Depress the clutch pedal fully whenever changing gear. If you do not depress the pedal completely, the clutch will slip and the clutch disc will be damaged, which could lead to an accident.
- The gear pattern is inscribed on gearshift lever.
- When the gearshift lever is placed in the reverse "R" position, the backup lamps light up and the backup buzzer sounds simultaneously.



Gearshift lever

<Manual transmission vehicles>

WARNING

When the gearshift lever is in the neutral position, never keep your hand on it. Such forward or backward pressure on the lever could cause the vehicle to move accidentally, possibly leading to an accident.

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9-speed transmission

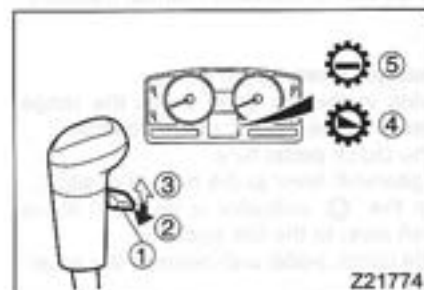
<Vehicles with 9-speed transmission>

The 9-speed transmission has two speed ranges: "LOW" and "HIGH". The LO and reverse gears can be used only in the "LOW" range, and the other gears can be used in both the "LOW" and "HIGH" ranges.

1 Gearshift lever

The range selection lever ① on the gearshift lever allows selection of the LOW ② and HIGH ③ ranges. The ④ indicator is shown when the LOW range is selected. The ⑤ indicator is shown when the HIGH range is selected.

Read the "Gearshifting" section for information on appropriate use of the ranges.



Z21774

2 Shift pattern

The shift pattern is indicated on the top of the gearshift lever knob.

LOW range: LO - 1 - 2 - 3 - 4 Reverse "R"

HIGH range: 5 - 6 - 7 - 8

N: Neutral position

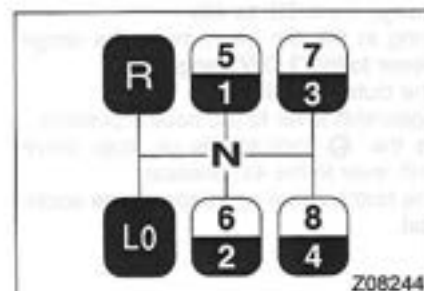
3 Gearshifting

⚠ CAUTION

Depress the clutch pedal fully whenever changing gear. If you do not depress the pedal completely, the clutch will slip and the clutch disc will be damaged, which could lead to an accident.

• Standing start

1. Select the "LOW" range with the range selection lever.
2. Check that the ④ indicator is on.
3. Depress the clutch pedal fully.
4. Move the gearshift lever from the neutral position to the LO or 1st position.
5. Release the clutch pedal slowly and depress the accelerator pedal.



Z08244

9-speed transmission

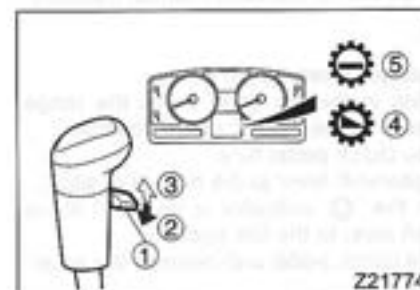
<Vehicles with 9-speed transmission>

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Z21774

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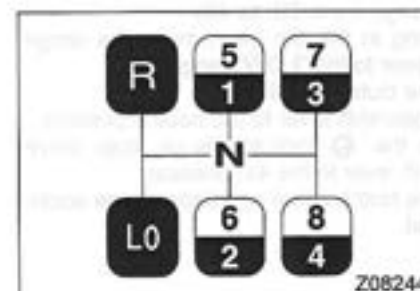
3 Gearshifting

⚠ CAUTION

Depress the clutch pedal fully whenever changing gear. If you do not depress the pedal completely, the clutch will slip and the clutch disc will be damaged, which could lead to an accident.

• Standing start

1. Select the "LOW" range with the range selection lever.
2. Check that the ④ indicator is on.
3. Depress the clutch pedal fully.
4. Move the gearshift lever from the neutral position to the LO or 1st position.
5. Release the clutch pedal slowly and depress the accelerator pedal.



Z08244

CAUTION

The "LOW" range must be selected when the LO gear is used. Make sure the  indicator is on before moving the gearshift lever to the LO position.

- **Upshifts and downshifts (LO ↔ 4th; 5th ↔ 8th)**
Operate the gearshift lever and pedals in the same way as with a standard manual transmission.
- **Range changes from 4th to 5th**
 1. While driving in the 4th gear, move the range selection lever to the "HIGH" range position.
 2. Depress the clutch pedal fully.
 3. Move the gearshift lever to the neutral position.
 4. Make sure the  indicator is on, then move the gearshift lever to the 5th position.
 5. Release the clutch pedal and depress the accelerator pedal.
- **Range change from 5th to 4th**
 1. While driving in the 5th gear, move the range selection lever to the "LOW" range.
 2. Depress the clutch pedal fully.
 3. Move the gearshift lever to the neutral position.
 4. Make sure the  indicator is on, then move the gearshift lever to the 4th position.
 5. Release the clutch pedal and depress the accelerator pedal.

CAUTION

- Range changes from "LOW" to "HIGH" and vice versa take place when the gearshift lever passes through the neutral position after the range selection lever has been moved to the "HIGH" or "LOW" position.
- Whenever you change the range, move the range selection lever to the "LOW" or "HIGH" position first and then move the gearshift lever as desired.
- When the gearshift lever is in the neutral position, never keep your hand on the lever, as a forward or backward pressure resulting from this practice could cause malfunction of the transmission.

CAUTION

The "LOW" range must be selected when the LO gear is used. Make sure the  indicator is on before moving the gearshift lever to the LO position.

- **Upshifts and downshifts (LO ↔ 4th; 5th ↔ 8th)**
Operate the gearshift lever and pedals in the same way as with a standard manual transmission.
- **Range changes from 4th to 5th**
 1. While driving in the 4th gear, move the range selection lever to the "HIGH" range position.
 2. Depress the clutch pedal fully.
 3. Move the gearshift lever to the neutral position.
 4. Make sure the  indicator is on, then move the gearshift lever to the 5th position.
 5. Release the clutch pedal and depress the accelerator pedal.
- **Range change from 5th to 4th**
 1. While driving in the 5th gear, move the range selection lever to the "LOW" range.
 2. Depress the clutch pedal fully.
 3. Move the gearshift lever to the neutral position.
 4. Make sure the  indicator is on, then move the gearshift lever to the 4th position.
 5. Release the clutch pedal and depress the accelerator pedal.

CAUTION

- Range changes from "LOW" to "HIGH" and vice versa take place when the gearshift lever passes through the neutral position after the range selection lever has been moved to the "HIGH" or "LOW" position.
- Whenever you change the range, move the range selection lever to the "LOW" or "HIGH" position first and then move the gearshift lever as desired.
- When the gearshift lever is in the neutral position, never keep your hand on the lever, as a forward or backward pressure resulting from this practice could cause malfunction of the transmission.

• Reversing

1. With the gearshift lever in the neutral position, move the range selection lever to the "LOW" range position. Make sure the  indicator is on.
2. Depress the clutch pedal fully.
3. Move the gearshift lever to the reverse position. The backup lamp will illuminate and the buzzer will sound.
4. Release the clutch pedal slowly and depress the accelerator pedal.

⚠ CAUTION

- The LOW range must be selected for reversing. Make sure the  indicator is on before moving the gearshift lever to the "R" position.
- Never move the range selection lever to the "HIGH" position while reversing the vehicle. The vehicle speed would be dangerously high with the "HIGH" range selected.
- Shifting from a forward gear to the reverse gear or vice versa, should be done only after the vehicle has come to a complete stop. When backing up, always double check to make sure that there is nothing in your path.

• Skipshifting

You can skip gears when upshifting or downshifting to a desired gear. With a downshift, first make sure the engine speed is low enough for the engine not to overrev.



• Reversing

1. With the gearshift lever in the neutral position, move the range selection lever to the "LOW" range position. Make sure the  indicator is on.
2. Depress the clutch pedal fully.
3. Move the gearshift lever to the reverse position. The backup lamp will illuminate and the buzzer will sound.
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- The LOW range must be selected for reversing. Make sure the  indicator is on before moving the gearshift lever to the "R" position.
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You can skip gears when upshifting or downshifting to a desired gear. With a downshift, first make sure the engine speed is low enough for the engine not to overrev.



Automatic transmission

<Automatic transmission vehicles>

Please refer to the attached Allison Operator's Manual for instructions not covered in this manual.

- ① Range selector lever
- ② Digital display
- ③ Mode button
- ④ Mode indicator
- ⑤ Shift indicator
- ⑥ Selector position indicator
- ⑦ Engaged gear indicator
- ⑧ Transmission oil temperature warning indicator
- ⑨ Transmission warning indicator

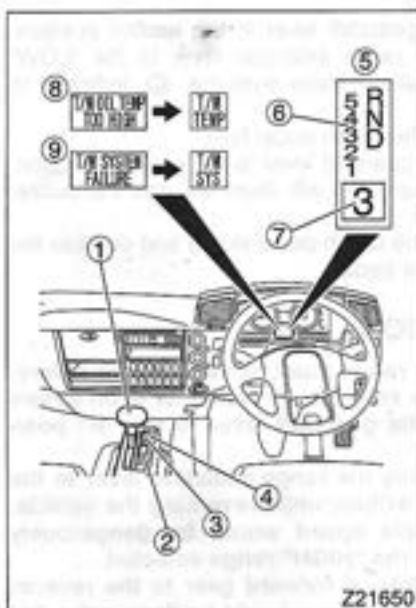
1 How to use the range selector lever

⚠ WARNING

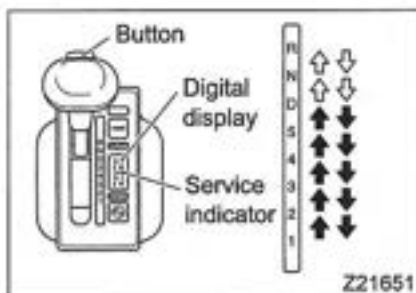
- When shifting from the "N" position to other positions, be sure to keep the brake pedal depressed or set the parking brake.
- Do not move the range selector lever to the "D" or "R" position when the engine speed is high during engine warm-up, during operation of the urea piping heater or the air conditioner, or by depressing the accelerator pedal.

The range selector lever is used to select gear ranges. Select lever positions carefully to ensure proper engagement of each gear. When the gearshift lever is placed in the reverse "R" position, the backup lamps light up and, if provided, the backup buzzer sounds simultaneously and the multi-information display shows "BACK BUZZER".

- ⬆ Push the button and move the lever.
- ⬆ Move the lever without pushing the button.



Z21650



Z21651

Automatic transmission

<Automatic transmission vehicles>

Please refer to the attached Allison Operator's Manual for instructions not covered in this manual.

- ① Range selector lever
- ② Digital display
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- ⑤ Shift indicator
- ⑥ Selector position indicator
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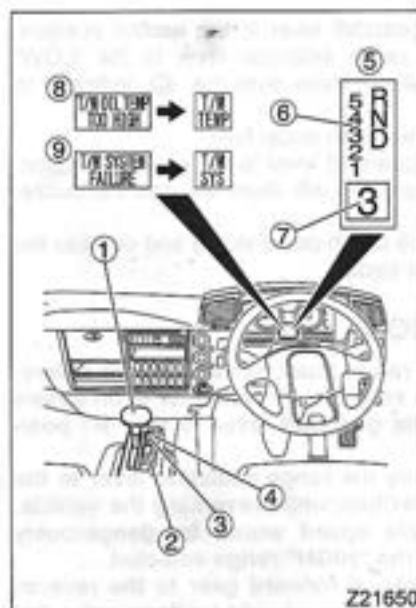
1 How to use the range selector lever

⚠ WARNING

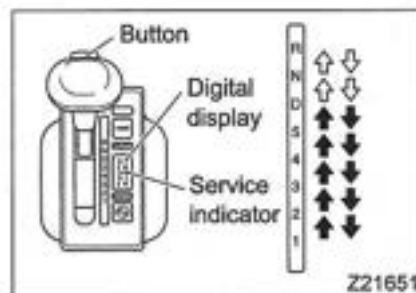
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- ⬆ Move the lever without pushing the button.



Z21650



Z21651

BACK BUZZER



Z21934

- Digital display**
The upper and lower areas of the digital display individually show the following:
Upper area: Displays the position where the range selector is placed. Note that it displays "6" when you select the "D" range.
Lower area: Displays the range that is currently being used by the transmission.
- Service indicator:**
The service indicator shows when the automatic transmission fluid, oil filter, or a transmission component needs to be replaced. If it lights up or flashes, promptly have the relevant item(s) replaced by an authorized MITSUBISHI FUSO distributor or dealer.

Service indicator	Item to be replaced
Illuminated (Comes on when the starter switch is turned to "ON" and stays illuminated for 2 minutes after the "D" range is first selected.)	Automatic transmission fluid and oil filter
Flashing (Starts flashing when the starter switch is turned to "ON" and stays flashing for 2 minutes after the "D" range is first selected.)	Oil filter
Illuminated (Comes on when the starter switch is turned to "ON" and stays illuminated during operation of the vehicle.)	Transmission component(s)

NOTE:

- Before starting to move the vehicle forward or backward, you must depress the brake pedal and wait until the engine speed reaches a regular idling speed before placing the range selector lever in the "D" or "R" position. If you try to move the range selector lever to the "D" or "R" position while the engine is running faster than a regular idling speed or the vehicle is in motion, the safety system may cause the transmission to remain in neutral. If this happens, a buzzer sounds and the multi-information display shows "A/T BUZZER", and you must then perform the range selector lever operation again.

A/T BUZZER



Z21933

BACK BUZZER



Z21934

- Digital display**
The upper and lower areas of the digital display individually show the following:
Upper area: Displays the position where the range selector is placed. Note that it displays "6" when you select the "D" range.
Lower area: Displays the range that is currently being used by the transmission.
- Service indicator:**
The service indicator shows when the automatic transmission fluid, oil filter, or a transmission component needs to be replaced. If it lights up or flashes, promptly have the relevant item(s) replaced by an authorized MITSUBISHI FUSO distributor or dealer.

Service indicator	Item to be replaced
Illuminated (Comes on when the starter switch is turned to "ON" and stays illuminated for 2 minutes after the "D" range is first selected.)	Automatic transmission fluid and oil filter
Flashing (Starts flashing when the starter switch is turned to "ON" and stays flashing for 2 minutes after the "D" range is first selected.)	Oil filter
Illuminated (Comes on when the starter switch is turned to "ON" and stays illuminated during operation of the vehicle.)	Transmission component(s)

NOTE:

- Before starting to move the vehicle forward or backward, you must depress the brake pedal and wait until the engine speed reaches a regular idling speed before placing the range selector lever in the "D" or "R" position. If you try to move the range selector lever to the "D" or "R" position while the engine is running faster than a regular idling speed or the vehicle is in motion, the safety system may cause the transmission to remain in neutral. If this happens, a buzzer sounds and the multi-information display shows "A/T BUZZER", and you must then perform the range selector lever operation again.

A/T BUZZER



Z21933

- If you continue driving with the service indicator illuminated or flashing, the multi-information display in the meter cluster will show "T/M SYSTEM FAILURE" in the enlarged display mode and then .

2 Mode button

A choice of two driving modes is available to suit the road conditions and the load being carried. Pressing the mode button changes the mode back and forth between Power mode and Normal mode. When the transmission is in Power mode, the mode indicator illuminates.

- **Power mode**
This is used when a powerful driving force is needed, such as in mountainous areas, when carrying heavy loads, and when overtaking safely on expressways.
- **Normal mode**
This is used for normal driving, and provides a smoother, quieter, and more economical ride.

3 Shift indicator

The multi-information display shows the selected range and the engaged gear.

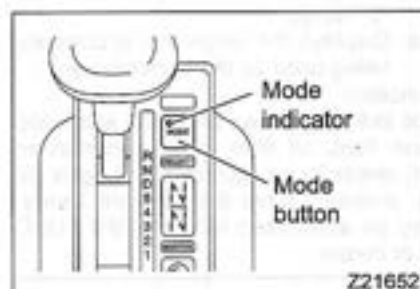
- **Selector position indicator:**
Shows the range (R, N, D, 5, 4, 3, 2, or 1) selected with the range selector lever.
- **Engaged gear indicator:**
Shows the gear currently in engagement (1, 2, 3, 4, 5, or 6).

4 Learning function of automatic transmission

- The learning function enables the automatic transmission to sense road and driving conditions and optimize gearshifts accordingly.
- Learning continuously takes place while the engine is running and while the automatic transmission fluid temperature is in the range from 10°C to 120°C.

NOTE:

- If shift shock is detected a number of times under the same conditions, the learning function causes subsequent shift shock under those conditions to be smaller.
- Even if the vehicle is driven a long distance, shift shock can occur in conditions that the learning function has not encountered before.



ZZ1652

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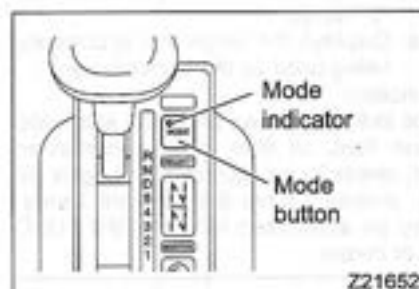
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- Even if the vehicle is driven a long distance, shift shock can occur in conditions that the learning function has not encountered before.



ZZ1652

- Learning initially proceeds at a relatively fast pace. When a certain amount of learning has taken place, it slows down.
- If you feel that shift shock is not decreasing well, you may be able to speed up the reduction by having the learning data reset and starting the learning again. You can have the learning data reset by an authorized MITSUBISHI FUSO distributor or dealer or by an Allison service dealer.

5 Warning indications

If a warning is shown, there is a system malfunction. Stop the vehicle in a safe place and take corrective action. ⇨ □ P. 6-32, P. 6-33

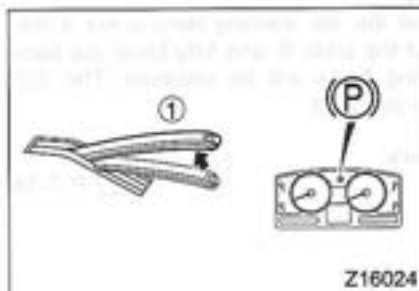
Parking brake

⚠ WARNING

Except in an emergency, never apply the parking brake while the vehicle is moving since the vehicle could spin and/or overturn.

1 Parking brake lever <Center brake type parking brake>

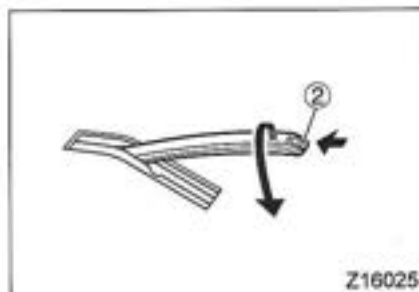
- To set for parking
The parking brake ① is activated when the parking brake lever is pulled. At the same time, indicator lamp ② lights up.



- To release
To release the parking brake, press the button ② at the end of the lever while raising the latter slightly. Then, with the button pressed, return the lever to its original position.

- How to park

⇨ □ P. 7-14



- Learning initially proceeds at a relatively fast pace. When a certain amount of learning has taken place, it slows down.
- If you feel that shift shock is not decreasing well, you may be able to speed up the reduction by having the learning data reset and starting the learning again. You can have the learning data reset by an authorized MITSUBISHI FUSO distributor or dealer or by an Allison service dealer.

5 Warning indications

If a warning is shown, there is a system malfunction. Stop the vehicle in a safe place and take corrective action. ⇨ □ P. 6-32, P. 6-33

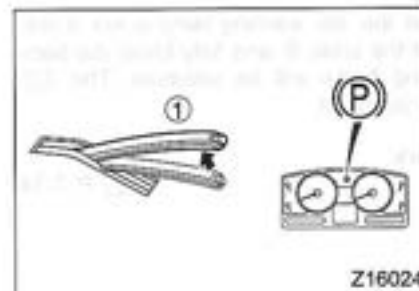
Parking brake

⚠ WARNING

Except in an emergency, never apply the parking brake while the vehicle is moving since the vehicle could spin and/or overturn.

1 Parking brake lever <Center brake type parking brake>

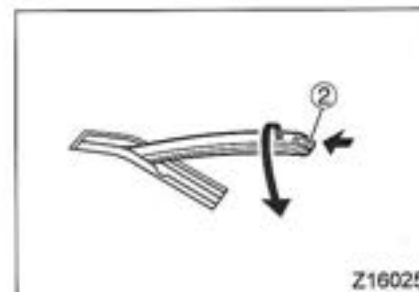
- To set for parking
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To release the parking brake, press the button ② at the end of the lever while raising the latter slightly. Then, with the button pressed, return the lever to its original position.

- How to park

⇨ □ P. 7-14



⚠ CAUTION

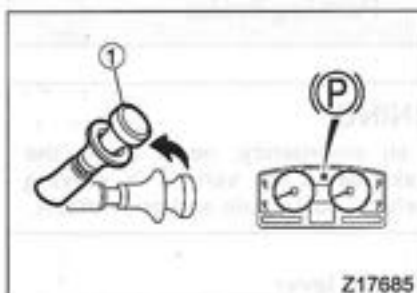
- Illumination of indicator lamp (P) does not necessarily indicate that the parking brake has been fully activated. Be sure to pull the lever all the way.
- Before putting the vehicle in motion, check that the (P) indicator lamp is not illuminated. If you accidentally drove the vehicle with the parking brake applied, the parking brake would wear prematurely and overheat, leading to reduced effectiveness and the risk of a fire.

2 Hand control valve

<Wheel park brake type parking brake>

• To set for parking

Pull up the handle ① to apply the parking brake. The (P) indicator lamp will illuminate.



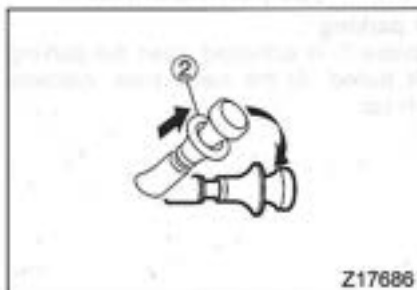
Z17685

• To release

Make sure that the (P) warning lamp is not illuminated. Pull out the knob ② and fully lower the handle; the parking brake will be released. The (P) indicator lamp goes out.

• How to park

☞ P. 7-14



Z17686

⚠ CAUTION

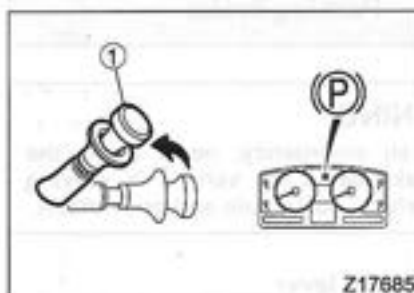
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Z17685

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• How to park

☞ P. 7-14



Z17686

⚠ WARNING

- When applying the parking brake, pull the handle upward until it locks in position. If you stop pulling the handle partway, it will return to its released position and the parking brake will not be applied.
- Brake line air pressure may temporarily drop after a release of the parking brake. Always check the air pressure before driving.
- When the  warning lamp is illuminated, do not attempt to release the parking brake. With the  warning lamp still lit, the brakes are not completely released even if the handle is in the fully lowered position. Driving under such a condition may cause the brakes to drag. If the vehicle is driven with the brakes dragging, the brakes can become hot and cause a fire.

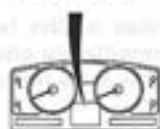
⚠ CAUTION

Before pulling away, check that the  indicator lamp is not illuminated. Driving the vehicle without first releasing the parking brake could cause the brakes to drag.

3 Parking brake warning

- If you drive the vehicle at a speed of 12 km/h or faster without releasing the parking brake for 3 seconds, a buzzer (intermittent beep) will sound and the multi-information display will show "PARK BRAKE".
- If the buzzer sounds, immediately stop the vehicle in a safe place and release the parking brake.

PARK BRAKE



Z21935

⚠ WARNING

- When applying the parking brake, pull the handle upward until it locks in position. If you stop pulling the handle partway, it will return to its released position and the parking brake will not be applied.
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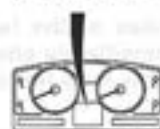
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PARK BRAKE



Z21935



Combination switch

1 Arrangement of switches

- ① Lighting switch
Turn signal lamp switch
Passing signal/dimmer switch
Cruise control SET/RESUME switch
<Vehicles with cruise control>
Cruise control cancel switch
<Vehicles with cruise control>
- ② Wiper and washer switch
Hazard warning lamp switch
Exhaust brake switch

2 Lighting switch

The lighting switch can be used with the starter switch in "ON" position. Turning the knob at the end of the lever controls the illumination of lamps as follows:

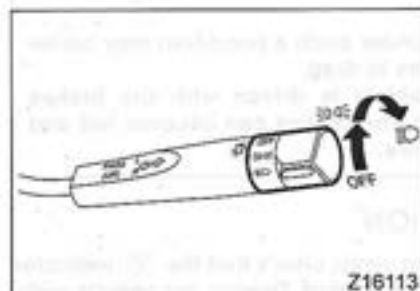
	Clearance, tail, license and meter illumination lamps	Headlamps
☰ position	On	Off
☷ position	On	On

⚠ WARNING

Do not touch the lenses of the headlamps while they are lit or immediately after turning them off, as they become very hot and could burn you.

⚠ CAUTION

Remember to switch lamps off when they are not needed. Leaving lamps switched on when the engine is not running can result in a flat battery.



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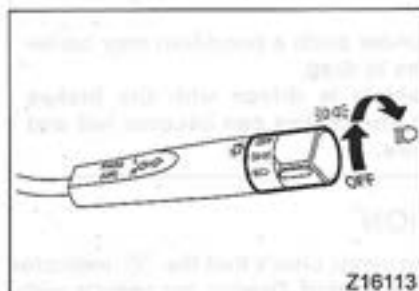
	Clearance, tail, license and meter illumination lamps	Headlamps
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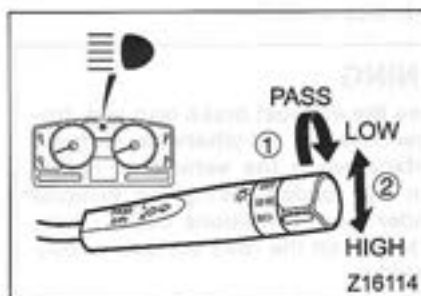
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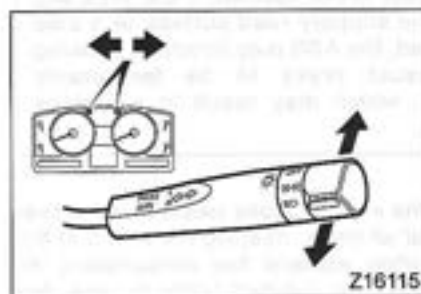
3 Passing signal/dimmer switch

• Passing signal ①

Pulling the lever up activates the high beams. When the high beams are on, indicator lamp $\equiv \circ$ lights up. Use this to flash a signal when overtaking another vehicle.

• Dimmer ②

With the headlamps illuminated, pushing the lever down activates the headlamp high beams and pulling it back to the original position reactivates the low beams.



4 Turn signal lamp switch

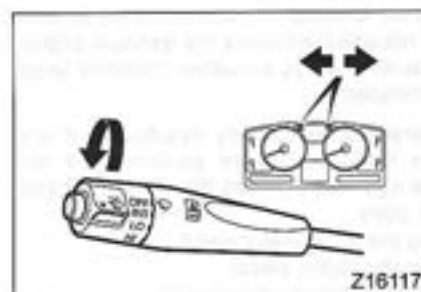
• Turn signal

Moving the lever forward or backward activates the corresponding turn signal causing it to flash. At the same time, the corresponding indicator lamp $\diamond \diamond$ flashes.

When the steering wheel is returned to the neutral position after a right or left turn, the switch automatically moves back to the neutral position and the lamp stops flashing. After making a moderate turn, however, the switch will sometimes not return automatically. In this case, put the switch in the neutral position by hand.

• Lane changer

Lightly pushing the lever forward or backward causes the corresponding turn signal lamp to flash while the lever is held in this position.



5 Hazard warning lamp switch

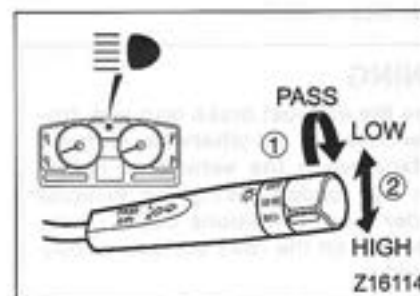
The hazard warning lamps may be used as a warning to other vehicles when you suddenly find it necessary to stop your vehicle in emergencies.

The lamps can flash in any of the starter switch positions.

Pulling the lever up causes all turn signal lamps to flash simultaneously. At the same time, indicator lamps $\diamond \diamond$ start flashing. Pulling the lever another time causes the lamps to stop flashing.

⚠ CAUTION

The battery may be discharged and the engine impossible to restart if the hazard warning lamps are operated for an extended period of time.



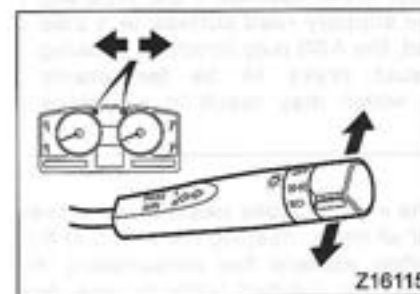
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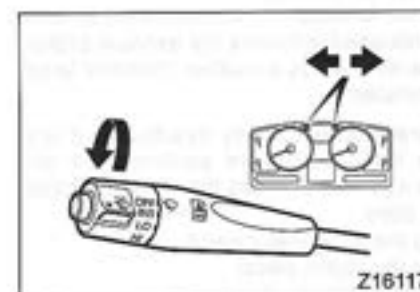
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6 Exhaust brake switch

! WARNING

- Do not use the exhaust brake on a wet, frozen, snow-covered, or otherwise slippery road surface when the vehicle is lightly loaded or not loaded. Using the exhaust brake under such conditions could cause the tires to slip on the road surface, resulting in a skid.
- Reduce speed sufficiently before negotiating a curve. When negotiating a curve with the exhaust brake applied, if the tires slip due to the slippery road surface or a step in the road, the ABS may function, causing the exhaust brake to be temporarily released, which may result in a serious accident.

NOTE:

Do not keep the exhaust brake switch in the activation position at all times. Keeping the switch in the activation position worsens fuel consumption, as doing so causes the exhaust brake to work frequently and thus the vehicle to decelerate and accelerate frequently.

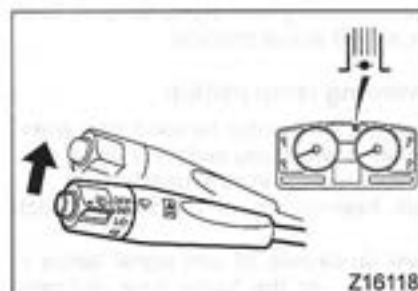
Save fuel by using the exhaust brake switch appropriately according to road and traffic conditions.

The exhaust brake enhances engine braking. Use it as an auxiliary braking means on downhill stretches or during high-speed driving.

Pushing the lever forward with both accelerator and clutch pedals released activates the exhaust brake. While the exhaust brake is activated, indicator lamp  stays illuminated.

The exhaust brake is temporarily deactivated if any of the actions listed below are performed. It will become active again as soon as the vehicle returns to its previous state.

- Depressing the accelerator pedal
- Depressing the clutch pedal
- <Manual transmission vehicles>
- Moving the gearshift lever or selector lever to the neutral position
- Driving at a very low speed or reversing
- <Automatic transmission vehicles>
- The anti-lock brake system is activated.



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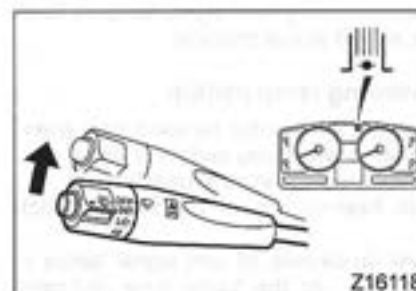
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NOTE:

If you activate the exhaust brake while driving an automatic transmission vehicle in 6th gear, the transmission will shift down to 5th gear.

7 Wiper and washer switch**! WARNING**

- Do not operate the windshield wipers or washer when you are servicing your vehicle with the front panel opened as the wiper link inside is potentially dangerous.
- In cold weather, warm the windshield with the heater before operating the washer since washer fluid could otherwise freeze onto the windshield and obstruct your vision.

! CAUTION

- Operating the wipers when the windshield is dry damages the windshield glass. If the glass is dry, be sure to squirt it with washer fluid before operating the wipers.
- Never operate the wipers and washer with the wiper arms raised. The arms could be damaged.
- Do not operate the wipers when the rubber parts of the wiper blades are frozen onto the windshield or otherwise stuck to the windshield. The wiper blades could get damaged, and the wiper motor could fail.
- When the wipers are not used for a long time, dust, sand, and other substances can collect between the wiper blades and windshield. Clean the wipers before using them. Otherwise, the windshield may get scratched.
- Do not operate the washer continuously for more than 20 seconds or when there is no fluid in the reservoir. Doing so could burn out the washer motor.
- Before operating the washer switch, check the conditions around your vehicle. Washer fluid may splash about under certain conditions.

NOTE:

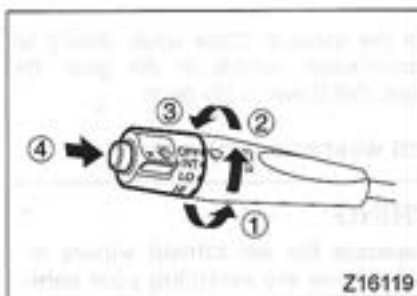
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- Rotating the grip at the end of the lever activates the windshield wipers in one of the following three modes:

INT ①:

Wipers operate intermittently at 3 to 5 second intervals.

LO ②:

Wipers operate at a slow speed.

HI ③:

Wipers operate at a rapid speed.

- If the wipers chatter on the windshield or wipe the windshield unevenly, replace the wiper blades. ⇨ P. 12-106
- To activate the windshield washer, push ④ the button at the end of the lever; the washer fluid will be sprayed and the wiper will operate one or two strokes automatically.
- Refill the washer fluid reservoir if the fluid level is low. ⇨ P. 12-108
- If there is washer fluid in the reservoir but none is sprayed when you operate the washer, the nozzles may be blocked. Clean the nozzles using a piece of thin wire. If fluid is still not sprayed when you operate the washer, have the vehicle inspected by an authorized MITSUBISHI FUSO distributor or dealer.

Front fog lamp switch

<Vehicles with front fog lamps>

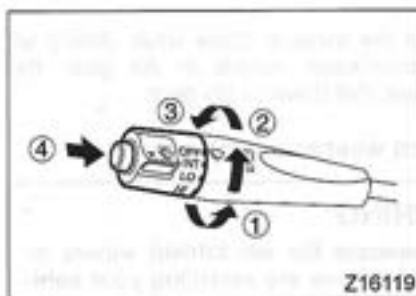
Use the front fog lamps when you drive in fog, snow, or other poor visibility conditions. The front fog lamps operate only when the lighting switch is in the or position.

When the "ON" side of the front fog lamp switch is pressed, the indicator lamp comes on simultaneously with the front fog lamps. To turn off the front fog lamps, press the "OFF" side of the switch.



WARNING

Do not touch the lenses of the front fog lamps while they are lit or immediately after turning them off, as they become very hot and could burn you.



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CAUTION

Use the front fog lamps only in fog or other poor visibility conditions. They can dazzle other drivers when used in other conditions.

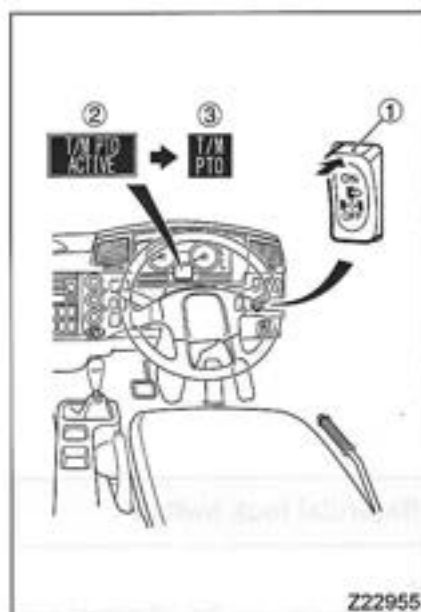
Power take-off switch

<Vehicles with power take-off>

This switch ① is used to engage and disengage the power take-off device that transfers engine power through the transmission.

CAUTION

- To engage power take-off, turn on the switch only after depressing the clutch pedal.
- Never attempt to engage the power take-off while the vehicle is in motion. Disengage the power take-off before driving the vehicle. It is dangerous to drive the vehicle with the power take-off engaged because vehicle-mounted equipment that is driven through the power take-off could operate. Also, the vehicle-mounted equipment could fail. If you drive at a speed of 20 km/h or higher with the power take-off engaged, the multi-information display will show "T/M PTO ACTIVE" ② in the enlarged display mode and a buzzer will sound a warning.
- Pressing switch to the ON position with the clutch pedal depressed engages the power take-off. When the power take-off is engaged, the multi-information display shows ③.
- To disengage the power take-off, turn the switch OFF with the clutch pedal depressed. Check that the ③ indication has disappeared.



Z22955

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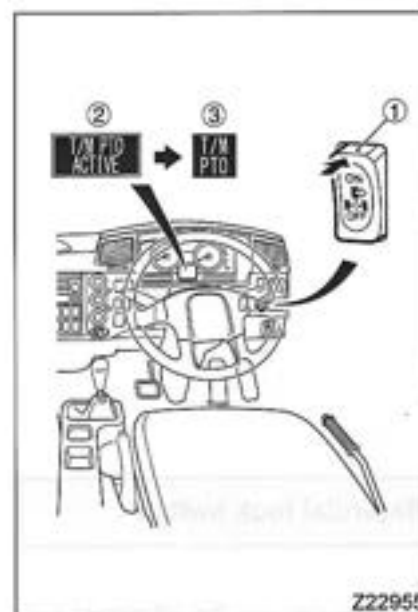
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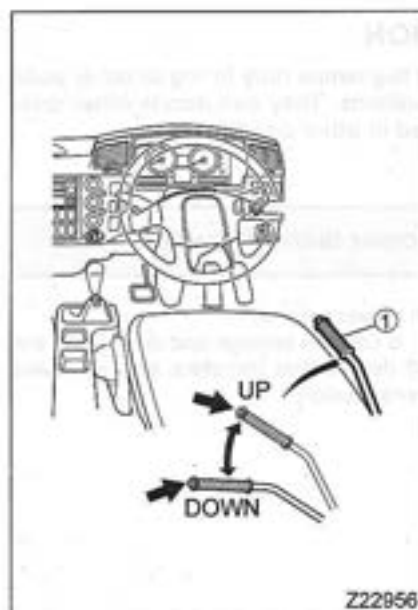
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Z22955



Z22956

Power take-off lever

<Vehicles with power take-off lever>

The button on the end of the lever must be pressed when operating the lever ①.

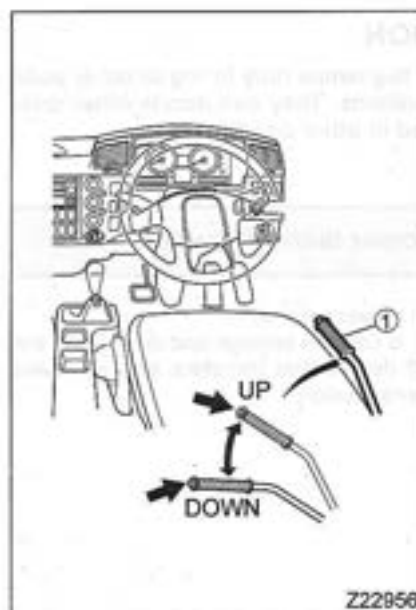
Differential lock switch

<FN62, FN64>

When necessary, you can use the differential lock switch to prevent both rear axles from turning at different speeds. Locking the differential is useful when driving on muddy, snowy, icy and other slippery surfaces.

⚠ CAUTION

- If wheels start spinning, stop the vehicle at once and then turn "ON" the differential lock switch to move out of the slippery area. Letting the wheels spin for long time is dangerous because the differential could be seized up.
- On normal roads, avoid driving with the differential lock switch in the "ON" position. Driving with the differential locked over a long distance will result in premature wear of tires.



Z22956

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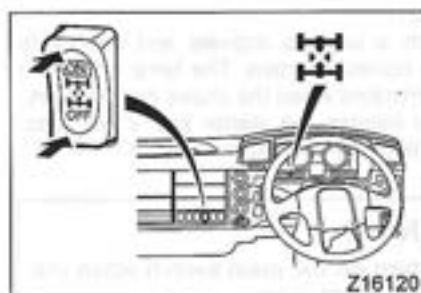
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- Before entering a slippery area, stop the vehicle and turn "ON" the differential lock switch. When the differential lock switch is "ON", the lamp in the switch and the  indicator lamp light up. Restart the vehicle and drive in low gears. If any of driving wheels starts spinning when the differential lock switch is in the "OFF" position, do not turn "ON" the switch directly but be sure to stop the vehicle once and then activate the differential lock.
- After the vehicle has pulled itself out of a slippery area, be sure to turn "OFF" the differential lock switch.

Cruise control

<Vehicles with cruise control>

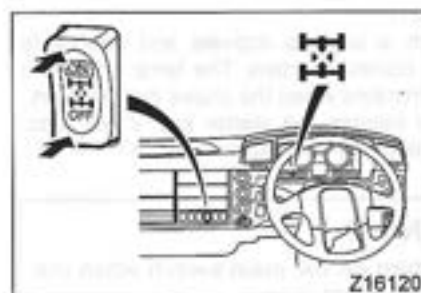
Cruise control memorizes any desired speed between approximately 40 and 100 km/h and maintains that speed automatically without operating the accelerator pedal. It is especially useful for freeway driving that involves almost no chances of pulling over and stopping.

NOTE:

For the sake of safety, do not use the cruise control in the following driving conditions:

- In heavy traffic which does not allow sufficient vehicle to vehicle distance
- On roads with sharp turns or poor visibility
- On icy, snow-covered, or otherwise slippery roads
- Steep downhill road

The vehicle speed may become higher than the set speed on a steep downhill road. Stop using the cruise control if this occurs.



- Before entering a slippery area, stop the vehicle and turn "ON" the differential lock switch. When the differential lock switch is "ON", the lamp in the switch and the  indicator lamp light up. Restart the vehicle and drive in low gears. If any of driving wheels starts spinning when the differential lock switch is in the "OFF" position, do not turn "ON" the switch directly but be sure to stop the vehicle once and then activate the differential lock.
- After the vehicle has pulled itself out of a slippery area, be sure to turn "OFF" the differential lock switch.

Cruise control

<Vehicles with cruise control>

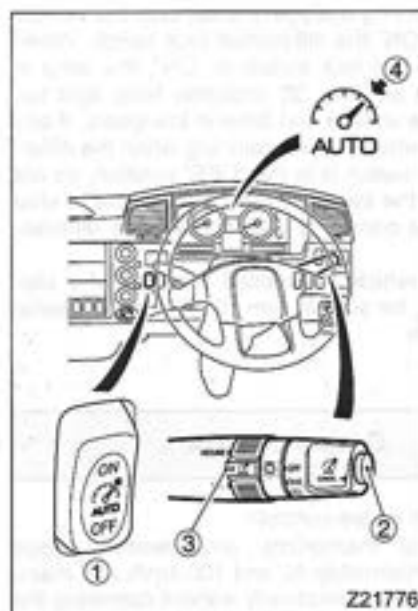
Cruise control memorizes any desired speed between approximately 40 and 100 km/h and maintains that speed automatically without operating the accelerator pedal. It is especially useful for freeway driving that involves almost no chances of pulling over and stopping.

NOTE:

For the sake of safety, do not use the cruise control in the following driving conditions:

- In heavy traffic which does not allow sufficient vehicle to vehicle distance
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- On icy, snow-covered, or otherwise slippery roads
- Steep downhill road

The vehicle speed may become higher than the set speed on a steep downhill road. Stop using the cruise control if this occurs.



① Main switch

This switch is used to activate and deactivate the cruise control function. The lamp inside the switch illuminates when the cruise control is on. When you release the starter key, it will automatically return to the neutral position.

⚠ WARNING

For safety, turn off the main switch when the cruise control is not in use.

② Cancel switch

Used to terminate cruise-control operation.

③ SET/RESUME switch

SET position:

Used to set a desired speed and to reduce the set speed.

RESUME position:

Used to increase the set speed and to return to a previously memorized speed.

④ Cruise control indicator lamp

If the cruise control is activated, this lamp illuminates during driving.

NOTE:

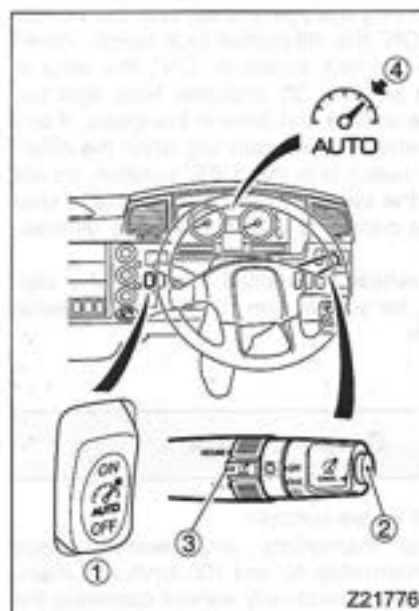
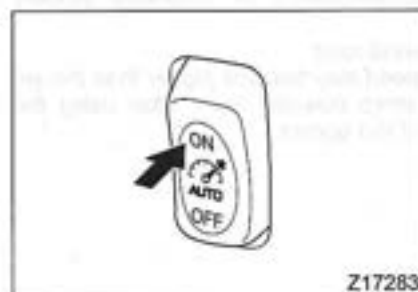
The  indicator lamp will light up when the starter switch is turned to the ON position and the engine is not running. It will go out in a few seconds if there are no problems.

1 To set a desired speed

1. Check that the exhaust brake switch is in the OFF position. If the switch is in the ON position, place it in the OFF position. Press the ON side of the main switch. The lamp inside the switch will illuminate.

NOTE:

Before pressing the ON side of the main switch to set a desired speed, make sure the exhaust brake switch is in the OFF position. You will not be able to set the speed if the exhaust brake switch is in the ON position. When driving with the cruise control active, exhaust braking can be used as usual, but the cruise control function will be deactivated while exhaust braking is being used.



① Main switch

This switch is used to activate and deactivate the cruise control function. The lamp inside the switch illuminates when the cruise control is on. When you release the starter key, it will automatically return to the neutral position.

⚠ WARNING

For safety, turn off the main switch when the cruise control is not in use.

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Used to terminate cruise-control operation.

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If the cruise control is activated, this lamp illuminates during driving.

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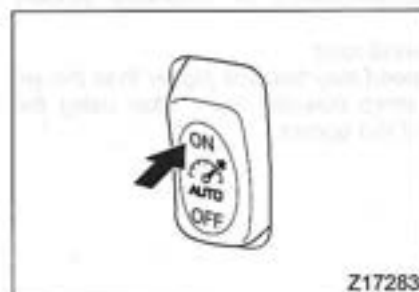
The  indicator lamp will light up when the starter switch is turned to the ON position and the engine is not running. It will go out in a few seconds if there are no problems.

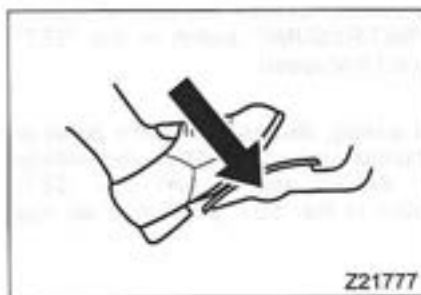
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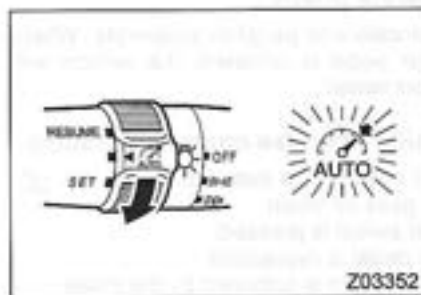
NOTE:

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2. Depress the accelerator pedal until the desired speed is reached.



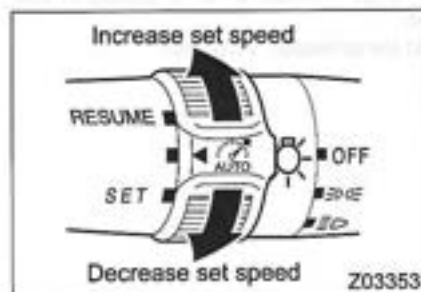
3. When the desired speed is reached, turn the "SET/RESUME" switch to the "SET" position. The indicator lamp will illuminate indicating that the cruise control is activated. Now the desired speed is memorized, so release the accelerator pedal. The vehicle will run maintaining that speed automatically.

NOTE:

When setting the desired speed, the gearshift lever in a manual transmission vehicle must be in the 4th or higher gear position.

2 Changing the set speed

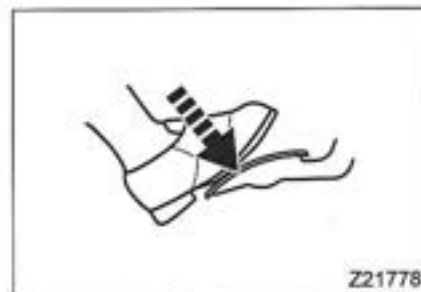
To increase or decrease the set speed during cruise control operation, take the following steps:



2.1 Using the SET/RESUME switch

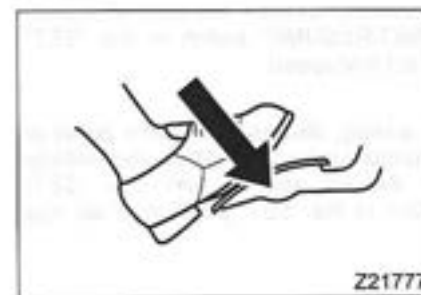
Increase: Turn the "SET/RESUME" switch to the "RESUME" position. The vehicle will accelerate. When the vehicle reaches the desired speed, release the switch to set that speed.

Decrease: Turn the SET/RESUME switch to the SET position. The vehicle will decelerate. When the vehicle reaches the desired speed, release the switch to set that speed.

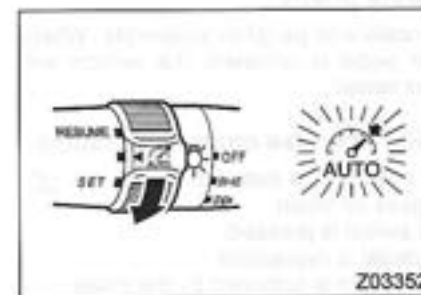


2.2 Using the accelerator pedal

1. Depress the accelerator pedal to increase the vehicle speed.



2. Depress the accelerator pedal until the desired speed is reached.



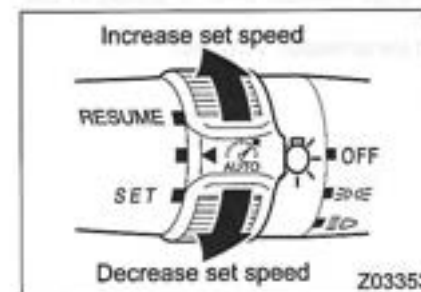
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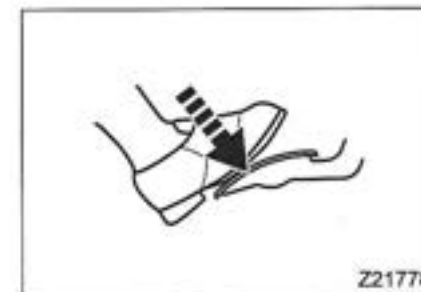
To increase or decrease the set speed during cruise control operation, take the following steps:



2.1 Using the SET/RESUME switch

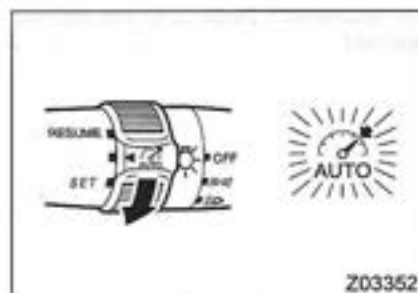
Increase: Turn the "SET/RESUME" switch to the "RESUME" position. The vehicle will accelerate. When the vehicle reaches the desired speed, release the switch to set that speed.

Decrease: Turn the SET/RESUME switch to the SET position. The vehicle will decelerate. When the vehicle reaches the desired speed, release the switch to set that speed.



2.2 Using the accelerator pedal

1. Depress the accelerator pedal to increase the vehicle speed.



- When the vehicle reaches the desired speed, turn the "SET/RESUME" switch to the "SET" position to set that speed.

NOTE:

To decelerate quickly, depress the brake pedal to stop cruise control operation. When the vehicle reaches the desired speed, turn the "SET/RESUME" switch to the "SET" position to set that speed.

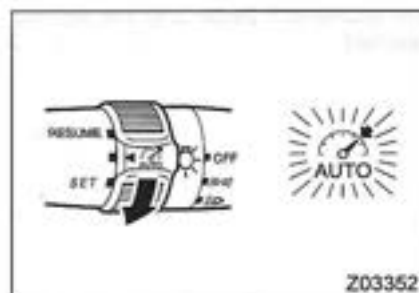
3 To accelerate briefly

Depress the accelerator pedal to accelerate. When the accelerator pedal is released, the vehicle will return to the set speed.

4 Suspension of cruise control operation

Cruise control operation is suspended and the indicator light goes off when

- The cancel switch is pressed;
- The brake pedal is depressed;
- The exhaust brake is activated by the driver;
- The clutch pedal is pressed;
- <Manual transmission vehicles>
- The gear shift lever is moved to the neutral position.
- <Manual transmission vehicles>
- When the range selector lever is placed in the "N" position
- <Automatic transmission vehicles>



- When the vehicle reaches the desired speed, turn the "SET/RESUME" switch to the "SET" position to set that speed.

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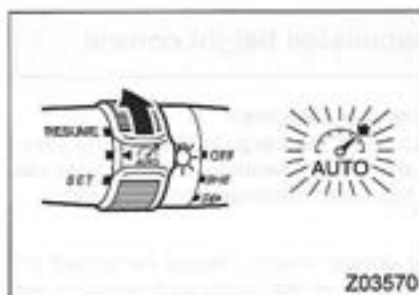
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Z03570

5 To resume cruise control operation after suspension, set the cruise control system again.

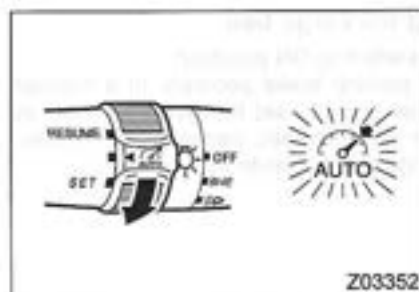
5.1 To cruise at the formerly set speed

1. Make sure that the exhaust brake switch is OFF.
2. Turn the "SET/RESUME" switch to the "RESUME" position. The indicator lamp will illuminate, and the vehicle will again move at the set speed.

NOTE:

Under any of the following conditions, you cannot resume the set speed by performing the above operation. In these situations, perform the speed setting procedure from the beginning.

- The vehicle speed is lower than 30 km/h.
- The 3rd or lower speed gear is selected.



Z03352

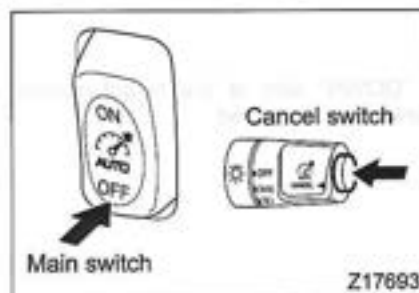
5.2 To set a desired speed again for cruise control operation

1. Make sure that the exhaust brake switch is OFF.
2. Depress the accelerator pedal and when the vehicle reaches the desired speed, turn the "SET/RESUME" switch to the "SET" position. The indicator lamp will illuminate, and the vehicle will continue moving at the set speed.

6 To stop cruise control operation

To stop cruise control operation, take either of the following steps:

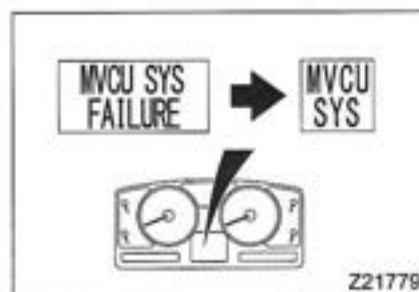
- Press the cancel switch.
- Turn OFF the main switch.



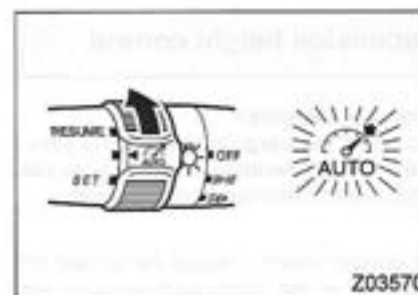
Z17693

7 Warning indications

If the multi-information display shows "MVCU SYS FAILURE" in the enlarged display mode and then , there is a malfunction in the vehicle's electrical control system or in the fuel injection system. Stop the vehicle in a safe place and take corrective action. P. 6-34



Z21779



Z03570

5 To resume cruise control operation after suspension, set the cruise control system again.

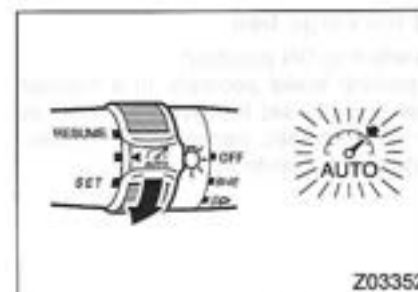
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Z03352

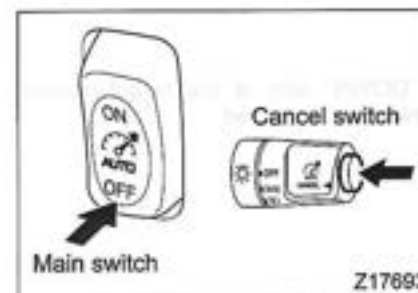
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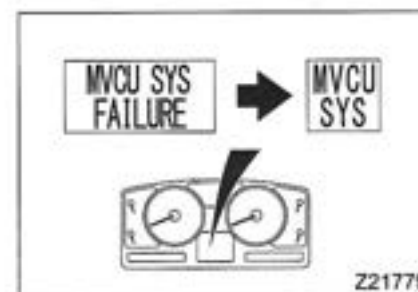
- Press the cancel switch.
- Turn OFF the main switch.



Z17693

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Z21779

Air suspension height control

<Rear air suspension vehicles>

It is possible to lower the cargo bed while the vehicle is stationary. This operation is also possible when the key has been removed from the ignition.

NOTE:

- The height control switch should be turned off when adjustment of the cargo bed height is not being performed.
- Compressed air will be required to move the cargo bed back to driving height. It is important, therefore, that the engine be started up.
- Extended periods of use while the engine is not running can be the cause of flat batteries.

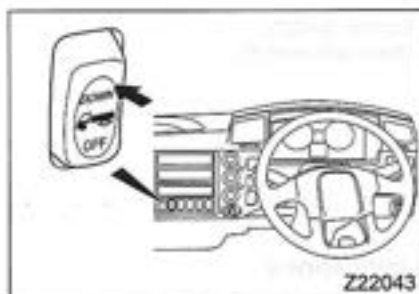
1 Lowering the cargo bed

1.1 Starter switch in ON position

1. Apply the parking brake securely. In a manual transmission vehicle, set the gearshift lever in neutral. In an automatic transmission vehicle, set the range selector lever in "N" range.



2. Push the "DOWN" side of the height control switch to lower the cargo bed.



Air suspension height control

<Rear air suspension vehicles>

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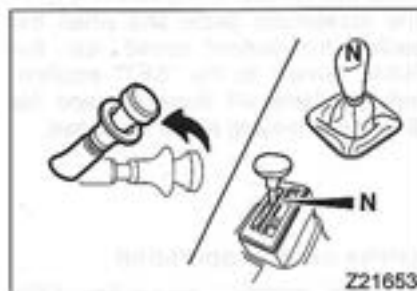
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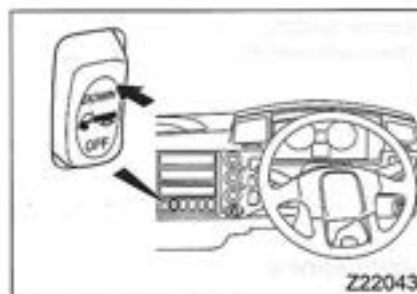
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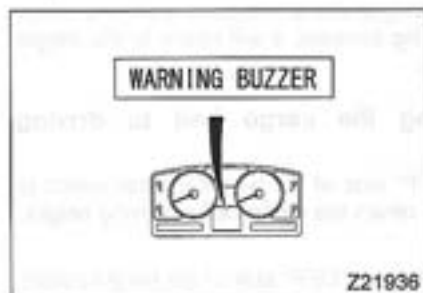


2. Push the "DOWN" side of the height control switch to lower the cargo bed.



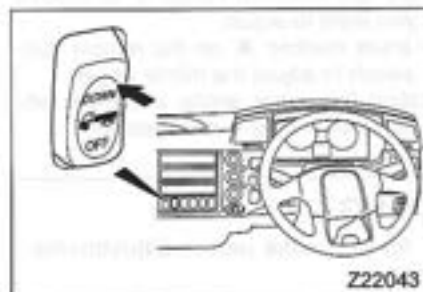
NOTE:

- The system will prevent the cargo bed from lowering if the vehicle is in any of the following conditions.
 - The parking brake is not applied.
 - The gear shift lever is not in "neutral" (vehicle with manual transmission).
 - The range selector lever is not in the "N" range (vehicle with automatic transmission).
- A buzzer will sound and the multi-information display will show "WARNING BUZZER" if the parking brake is released while the starter switch is in the "ON" position and the "DOWN" side of the height control switch is depressed.
- If either of the following operations are performed during the lowering process, the cargo bed will automatically return to driving height.
 - The parking brake is released. A buzzer will sound and the multi-information display will show "WARNING BUZZER" if the starter switch is in the "ON" position.
 - The gear shift lever is moved out of "neutral" (vehicle with manual transmission).
 - The range selector lever is moved out of the "N" range (vehicle with automatic transmission).



1.2 Starter switch not in ON position

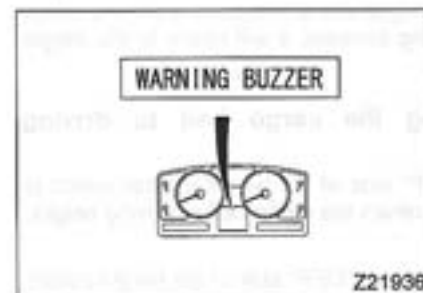
- Fully apply the parking brake and move the gear shift lever to the neutral position.



- Push the "DOWN" side of the height control switch to lower the cargo bed.

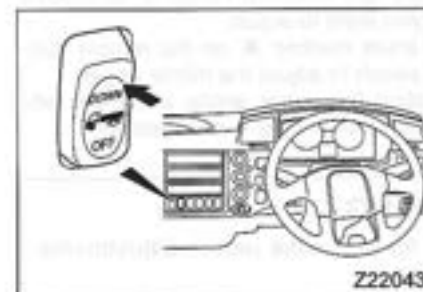
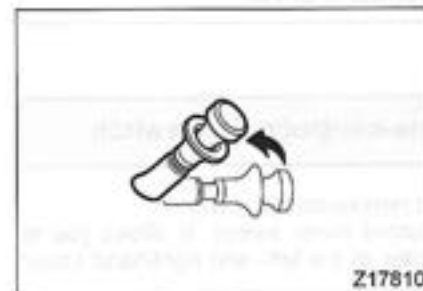
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 - The gear shift lever is moved out of "neutral" (vehicle with manual transmission).
 - The range selector lever is moved out of the "N" range (vehicle with automatic transmission).



1.2 Starter switch not in ON position

- Fully apply the parking brake and move the gear shift lever to the neutral position.



- Push the "DOWN" side of the height control switch to lower the cargo bed.

NOTE:

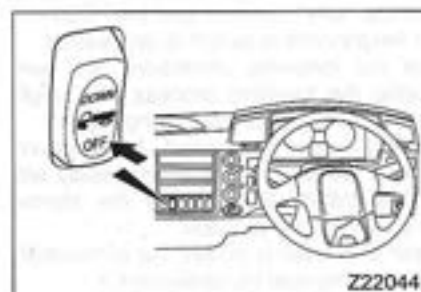
- The mechanism will not function if the parking brake is released.
- Within 30 seconds after turning the starter switch from the "ON" position to another position, if the parking brake lever is released while pushing the "DOWN" side of the height control switch, a buzzer sounds.
- If the parking brake is released while the cargo bed is being lowered, it will return to the height for driving.

2 Returning the cargo bed to driving height

Push the "OFF" side of the height control switch to automatically return the cargo bed to driving height.

NOTE:

Be sure to push the "OFF" side of the height control switch before the vehicle is driven.



⚠ WARNING

The air suspension height control system uses compressed air from the brake system. It is important to confirm that the warning lamp is not lit and that no buzzer is sounding before the vehicle is driven.

Remote-control mirror switch

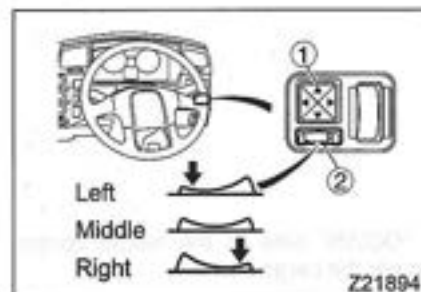
<Vehicles with remote-control mirror>

The remote-control mirror switch ① allows you to adjust the angles of the left- and right-hand upper mirrors.

1. Push the left/right selection switch ② to choose the mirror you want to adjust.
2. Press the areas marked ▲ on the remote-control mirror switch to adjust the mirror angle.
3. After adjusting the mirror angle, place the left/right selection switch in its middle position.

⚠ WARNING

For safety, do not make mirror adjustments while driving.



NOTE:

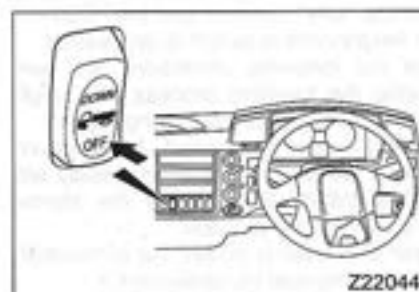
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Remote-control mirror switch

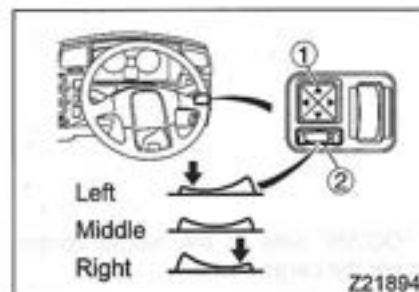
<Vehicles with remote-control mirror>

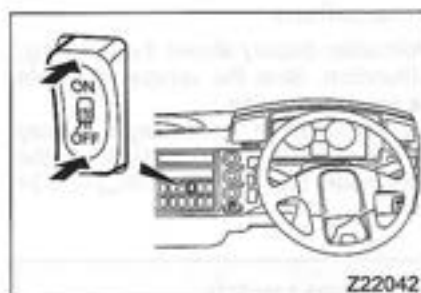
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⚠ WARNING

For safety, do not make mirror adjustments while driving.





Mirror heater switch

<Vehicles with mirror heater>

When the mirrors are misted up, turn ON the switch to activate the mirror heaters. Turn OFF the switch when the mirrors are clear.

CAUTION

To avoid draining the battery, do not use the mirror heaters unless the engine is running.

Speed limitation devices

<Vehicles with speed limitation device>

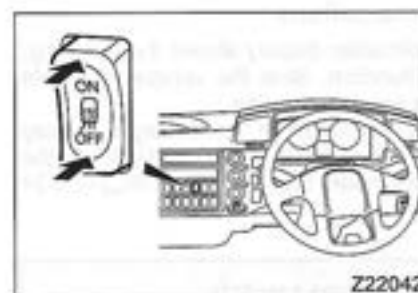
This vehicle's maximum speed is restricted to 60 km/h <Type 1> or 100 km/h <Type 2>. On a level or uphill road, the vehicle will not exceed this speed limit even if the accelerator pedal is fully depressed. The vehicle may exceed the speed limit on a downhill road. Use the exhaust brake and service brakes to keep the speed down.

CAUTION

- Do not make any modification that disables the speed limitation device from functioning. Such modification is illegal.
- Certain modifications to the speed limitation device's control unit, engine, transmission, differential, wheels, etc. could adversely affect the operation of the speed limitation device and also could be illegal. Be sure to consult authorized MITSUBISHI FUSO distributor or dealer before modifying such components.

NOTE:

The vehicle's maximum speed is restricted to 60 km/h <Type 1> or 100 km/h <Type 2>. Bear the speed limit in mind when overtaking other vehicles.



Mirror heater switch

<Vehicles with mirror heater>

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This vehicle's maximum speed is restricted to 60 km/h <Type 1> or 100 km/h <Type 2>. On a level or uphill road, the vehicle will not exceed this speed limit even if the accelerator pedal is fully depressed. The vehicle may exceed the speed limit on a downhill road. Use the exhaust brake and service brakes to keep the speed down.

CAUTION

- Do not make any modification that disables the speed limitation device from functioning. Such modification is illegal.
- Certain modifications to the speed limitation device's control unit, engine, transmission, differential, wheels, etc. could adversely affect the operation of the speed limitation device and also could be illegal. Be sure to consult authorized MITSUBISHI FUSO distributor or dealer before modifying such components.

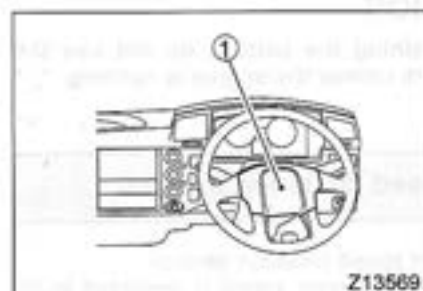
NOTE:

The vehicle's maximum speed is restricted to 60 km/h <Type 1> or 100 km/h <Type 2>. Bear the speed limit in mind when overtaking other vehicles.

1 Warning indications

If the multi-information display shows the following, there is a malfunction. Stop the vehicle in a safe place and take corrective action.

"ENGINE SYS FAILURE" in the enlarged display mode, then ①, or "MVCU SYS FAILURE" in the enlarged display mode, then ②. ⇨ P. 6-34



Horn switch

⚠ WARNING

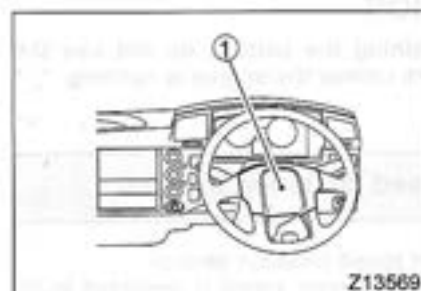
On vehicle with SRS air bag, do not apply excessive force, such as hitting the steering pad, to the storage area of the SRS air bag. It may cause incorrect functioning of the SRS air bag and serious injuries.

Press the horn switch pad ① at the center of the steering wheel to sound the horn.

1 Warning indications

If the multi-information display shows the following, there is a malfunction. Stop the vehicle in a safe place and take corrective action.

"ENGINE SYS FAILURE" in the enlarged display mode, then ①, or "MVCU SYS FAILURE" in the enlarged display mode, then ②. ⇨ P. 6-34



Horn switch

⚠ WARNING

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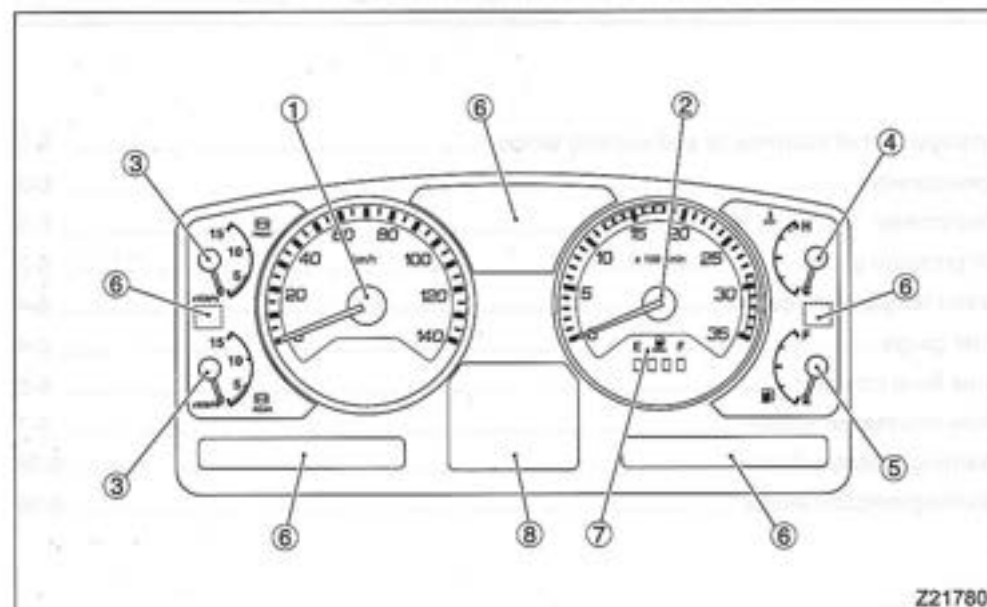
6. Instruments and warning lamps

Arrangement of instruments and warning lamps	6-2
Speedometer	6-2
Tachometer	6-3
Air pressure gauge	6-3
Water temperature gauge	6-4
Fuel gauge	6-4
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6. Instruments and warning lamps

Arrangement of instruments and warning lamps	6-2
Speedometer	6-2
Tachometer	6-3
Air pressure gauge	6-3
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Arrangement of instruments and warning lamps



- ① Speedometer
- ② Tachometer
- ③ Air pressure gauge
- ④ Water temperature gauge
- ⑤ Fuel gauge
- ⑥ Warning/indicator lamps
- ⑦ Urea level indicator
- ⑧ Multi-information display

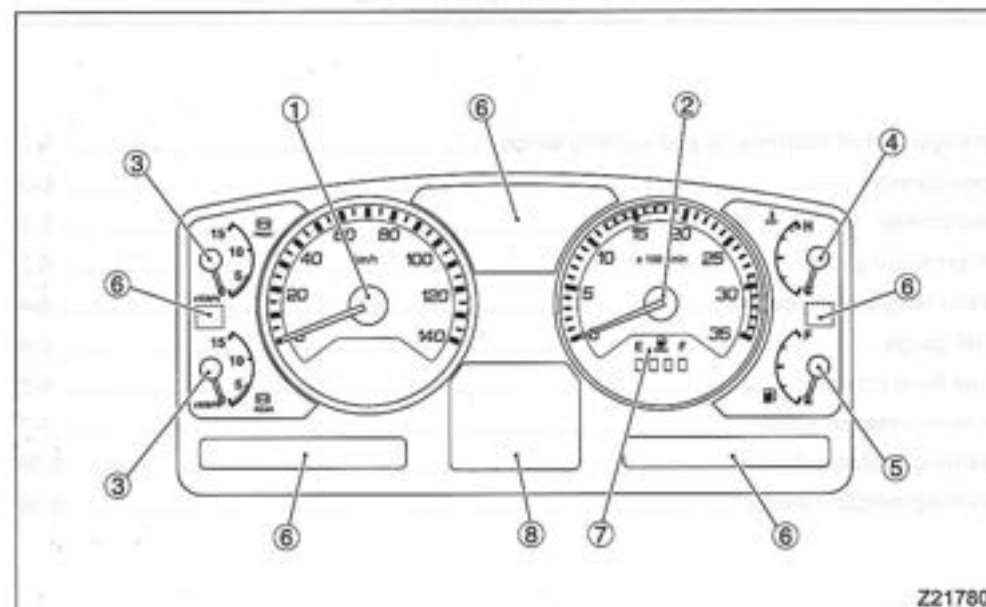
Speedometer

The speedometer indicates vehicle speed in kilometers per hour.



Z20068

Arrangement of instruments and warning lamps



- ① Speedometer
- ② Tachometer
- ③ Air pressure gauge
- ④ Water temperature gauge
- ⑤ Fuel gauge
- ⑥ Warning/indicator lamps
- ⑦ Urea level indicator
- ⑧ Multi-information display

Speedometer

The speedometer indicates vehicle speed in kilometers per hour.



Z20068

Tachometer



Z21938

- The tachometer indicates engine speed in revolutions per minute.
- The green zone ① indicates the engine speed that is a rough guide for economic operation.
- The engine is over-revving if the needle is in the red zone ② (above 2,900 rpm). Carefully check your speed and gear control when driving downhill or downshifting to prevent the needle from entering the red zone.
- On vehicles with 9-speed transmission, a buzzer will sound and the multi-information display will show "OVER RUN" when the engine speed exceeds 3,400 rpm.

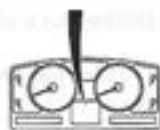
CAUTION

Persistent overrevving can lead to an engine breakdown.

NOTE:

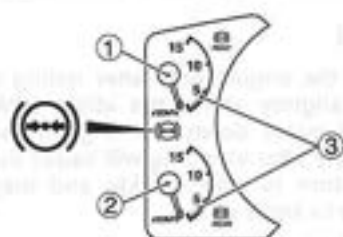
The term "overrev" refers to rotation of the engine at an RPM exceeding the maximum limit. This occurs when the engine is driven by the wheels during downhill driving or downshifting.

OVER RUN



Z21939

Air pressure gauge



Z21781

The air pressure gauge indicates the amount of air pressure in the air tank. The upper gauge ① indicates the front brake line air pressure, and the lower gauge ② indicates the rear brake line pressure. Red zone ③ indicates that air pressure is too low.

- If the needle deflects into the red zone ③, warning lamp  lights up and a buzzer sounds. The buzzer stops when the starter switch is put in the "ACC" or "LOCK" position.

WARNING

Never drive the vehicle when the  warning lamp is illuminated since the brakes are dangerously ineffective.

Tachometer



Z21938

- The tachometer indicates engine speed in revolutions per minute.
- The green zone ① indicates the engine speed that is a rough guide for economic operation.
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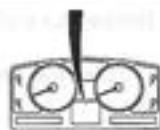
CAUTION

Persistent overrevving can lead to an engine breakdown.

NOTE:

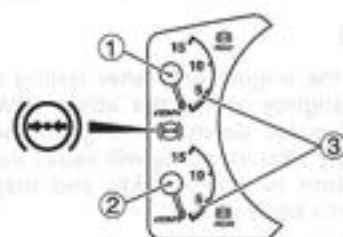
The term "overrev" refers to rotation of the engine at an RPM exceeding the maximum limit. This occurs when the engine is driven by the wheels during downhill driving or downshifting.

OVER RUN



Z21939

Air pressure gauge



Z21781

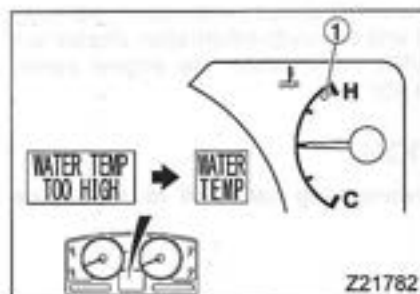
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WARNING

Never drive the vehicle when the  warning lamp is illuminated since the brakes are dangerously ineffective.

- Whenever the  warning lamp lights up, pull off the road as soon as you can safely do so, and let the engine rotate at a speed in the intermediate range until air pressure builds to a normal level.
- If the air pressure fails to increase, takes an abnormally long time to increase, or exceeds approx. 930 kPa (9.5 kgf/cm²), the air compressor and/or pressure regulator may be faulty. Contact the nearest authorized MITSUBISHI FUSO distributor or dealer for advice.



Water temperature gauge

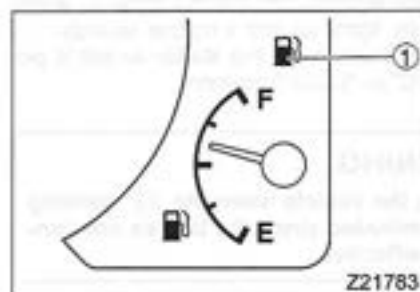
This gauge indicates the temperature of the engine coolant.

With the engine running normally, the needle should be in the center of the scale.

If the needle points in the red zone ①, the multi-information display shows  after showing "WATER TEMP TOO HIGH" in the enlarged display mode and a buzzer sounds, indicating that the engine has overheated. The buzzer will stop sounding when you apply the parking brake. Should this occur, pull off the road as soon as you can safely do so and let the engine rotate at a speed above idling speed to cool it down. If the air conditioner is operating, turn it off. ⇨ P. 13-8

CAUTION

Be sure to stop the engine only after letting it run at a speed slightly above the idling RPM until the coolant cools down. Turning off the engine immediately after stopping will cause the coolant temperature to rise quickly and may cause the engine to seize up.



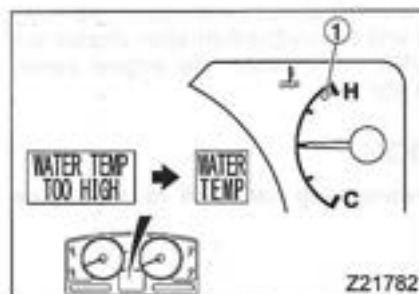
Fuel gauge

The fuel gauge indicates the amount of fuel still remaining in the fuel tank.

F: Full
E: Empty

When the needle approaches the "E" mark or , warning lamp ① is illuminated, refuel as soon as possible. ⇨ P. 1-5

- Whenever the  warning lamp lights up, pull off the road as soon as you can safely do so, and let the engine rotate at a speed in the intermediate range until air pressure builds to a normal level.
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Water temperature gauge

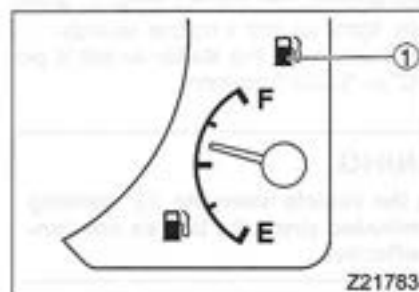
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F: Full
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When the needle approaches the "E" mark or , warning lamp ① is illuminated, refuel as soon as possible. ⇨ P. 1-5

If the fuel tank becomes completely empty, air will enter the fuel system, necessitating bleeding of the system before the tank can be filled and the engine started. ⇨ P. 13-27

⚠ CAUTION

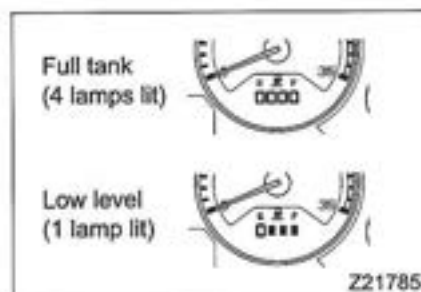
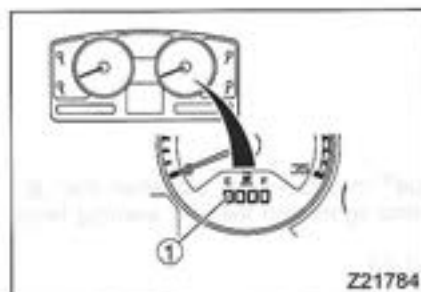
The fuel injection system may fail if the engine stops due to lack of fuel.

Urea level indicator

NOTE:

Replenish the AdBlue® well before it is used up.

- Urea level indicator ① indicates the amount of AdBlue® in the tank.
F: (4 lamps light): Tank full
(Only 1 lamp lights): Low urea level in tank. Replenish the AdBlue®.
E: (All lamps go out): Empty



- When the tank is filled with AdBlue®, all four urea indicator lamps light. As the level progressively drops, the lamps go out one at a time.

If the fuel tank becomes completely empty, air will enter the fuel system, necessitating bleeding of the system before the tank can be filled and the engine started. ⇨ P. 13-27

⚠ CAUTION

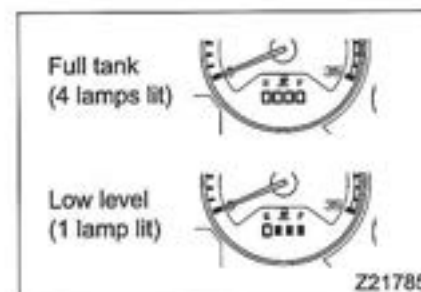
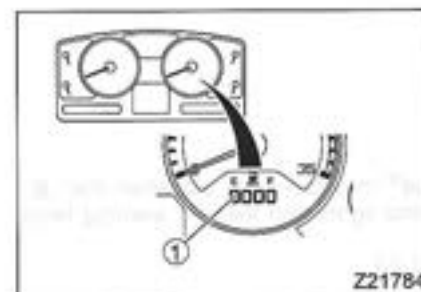
The fuel injection system may fail if the engine stops due to lack of fuel.

Urea level indicator

NOTE:

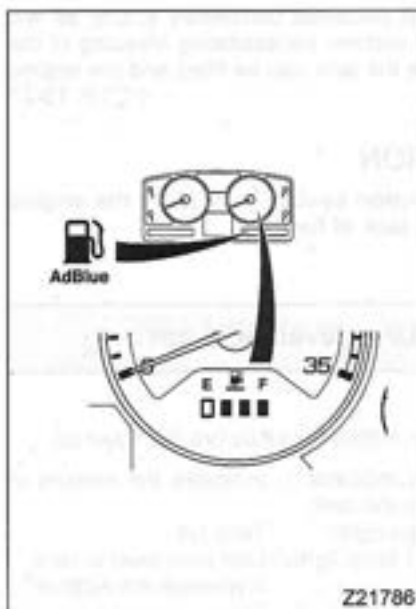
Replenish the AdBlue® well before it is used up.

- Urea level indicator ① indicates the amount of AdBlue® in the tank.
F: (4 lamps light): Tank full
(Only 1 lamp lights): Low urea level in tank. Replenish the AdBlue®.
E: (All lamps go out): Empty

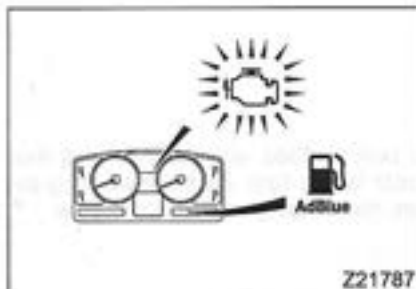


- When the tank is filled with AdBlue®, all four urea indicator lamps light. As the level progressively drops, the lamps go out one at a time.

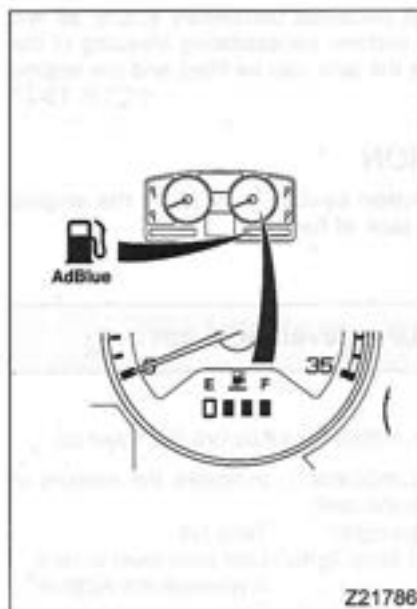
- Some time later after the AdBlue® level has become critically low (only 1 lamp lights), the  warning lamp will light up. When the warning lamp lights, promptly replenish the AdBlue®. For the method of replenishing the AdBlue®, refer to page 1-10.



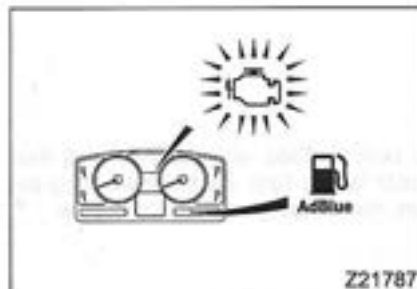
- The AdBlue® may have run out when the  warning lamp lights and the  warning lamp flashes. See page 1-10.



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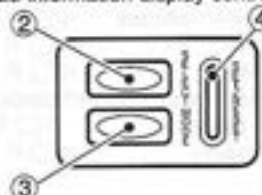
- The AdBlue® may have run out when the  warning lamp lights and the  warning lamp flashes. See page 1-10.



Multi-information system



Multi-information display control panel



Z21788

The multi-information display ① on the meter cluster shows the following information:

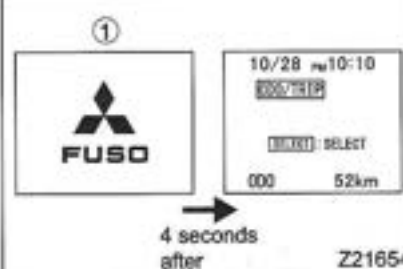
- **Normal information display**
Shows odometer/trip meter, clock, operation management information, etc.
- **Warning/indicator display**
When a system is malfunctioning or activated, the display shows the corresponding warning or indicator instead of the normal information.
- A warning buzzer also sounds in case of danger of accident or vehicle breakdown.

To switch the mode or select a function of the display, use the corresponding switch on the multi-information display control panel.

- ② "SELECT" switch
- ③ "MODE" switch
- ④ "SET/RESET" switch

1 Multi-information display

- When you turn the starter switch from "ACC" to "ON", opening screen ① will be displayed for about 4 seconds.
Then, the opening screen will be replaced by the normal information last displayed on the screen. If any warning/indicator display condition exists, the corresponding warning/indicator will be displayed instead of the normal information.

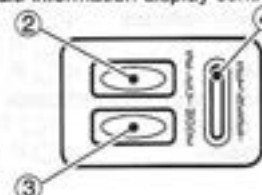


Z21654

Multi-information system



Multi-information display control panel



Z21788

The multi-information display ① on the meter cluster shows the following information:

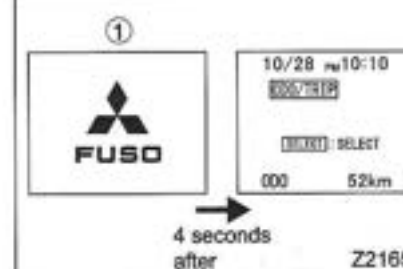
- **Normal information display**
Shows odometer/trip meter, clock, operation management information, etc.
- **Warning/indicator display**
When a system is malfunctioning or activated, the display shows the corresponding warning or indicator instead of the normal information.
- A warning buzzer also sounds in case of danger of accident or vehicle breakdown.

To switch the mode or select a function of the display, use the corresponding switch on the multi-information display control panel.

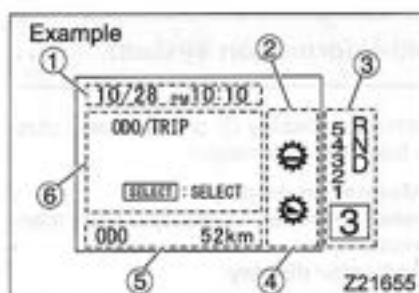
- ② "SELECT" switch
- ③ "MODE" switch
- ④ "SET/RESET" switch

1 Multi-information display

- When you turn the starter switch from "ACC" to "ON", opening screen ① will be displayed for about 4 seconds.
Then, the opening screen will be replaced by the normal information last displayed on the screen. If any warning/indicator display condition exists, the corresponding warning/indicator will be displayed instead of the normal information.



Z21654



- The screen of the multi-information display is arranged like this:

① Information selection

One of the following information items (1) to (4) can be selected for display. ⇨ P. 6-24

- (1) Clock and calendar
- (2) Average fuel consumption
- (3) Average vehicle speed
- (4) Instantaneous fuel consumption

Buzzer indications ⇨ P. 6-27

- ② 9-speed transmission vehicles
- ③ Automatic transmission vehicles
- ④ Transmission information

9-speed transmission vehicles ⇨ P. 5-19

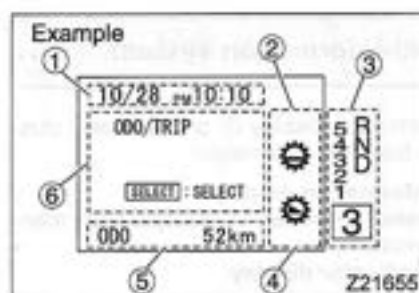
Automatic transmission vehicles ⇨ P. 5-22

- ⑤ Odometer/Trip meter ⇨ P. 6-11
- ⑥ Meter failure display ⇨ P. 6-29

⑥ Normal information or warning/indicator

Normal information display ⇨ P. 6-9

Warning/indicator display ⇨ P. 6-26



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- (1) Clock and calendar
- (2) Average fuel consumption
- (3) Average vehicle speed
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Buzzer indications ⇨ P. 6-27

- ② 9-speed transmission vehicles
- ③ Automatic transmission vehicles
- ④ Transmission information

9-speed transmission vehicles ⇨ P. 5-19

Automatic transmission vehicles ⇨ P. 5-22

- ⑤ Odometer/Trip meter ⇨ P. 6-11
- ⑥ Meter failure display ⇨ P. 6-29

⑥ Normal information or warning/indicator

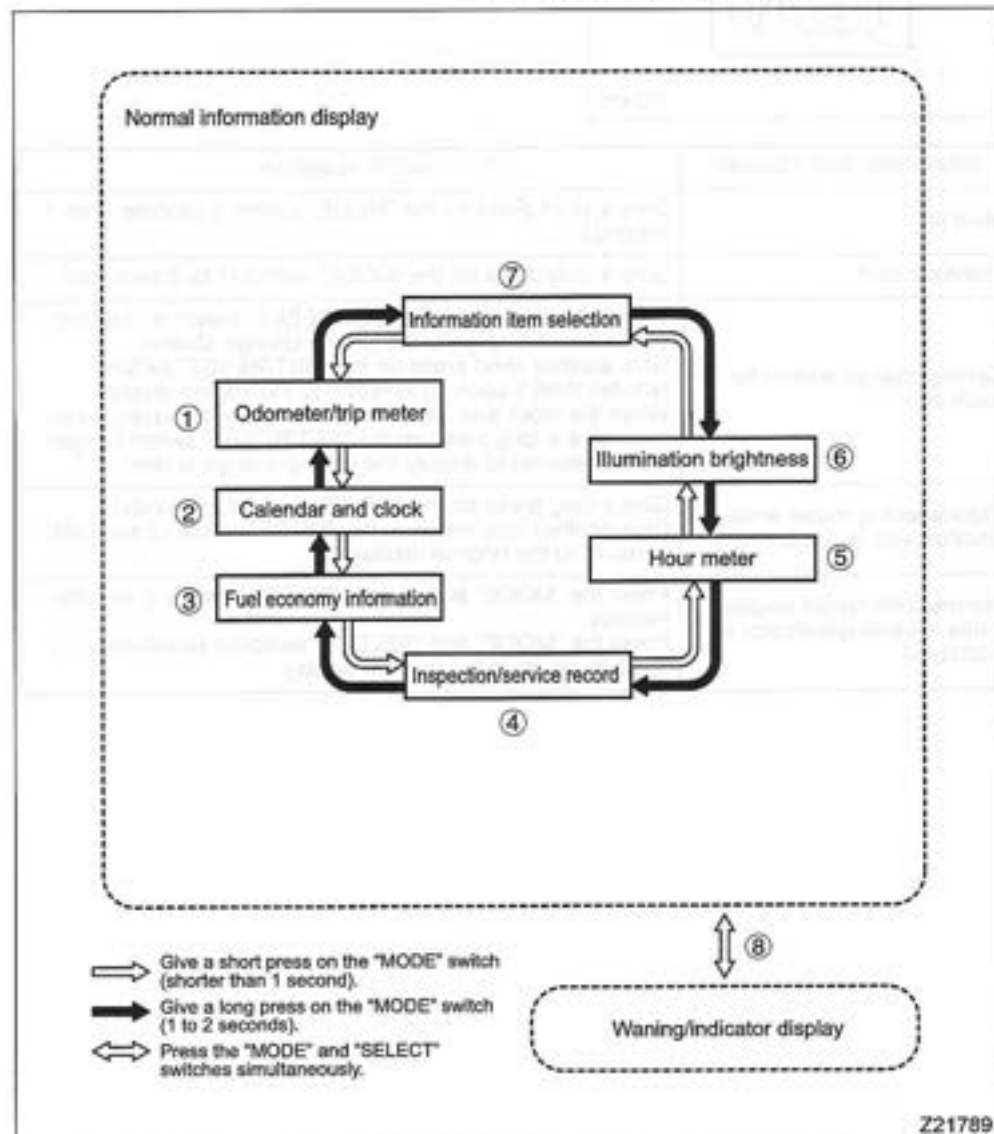
Normal information display ⇨ P. 6-9

Warning/indicator display ⇨ P. 6-26

2 Normal information display

The items of normal information displayed are as shown below.

If any warning/indicator display condition exists, the corresponding warning/indicator will be displayed instead of the normal information.



Z21789

- ① ⇨ P. 6-11
② ⇨ P. 6-12
③ ⇨ P. 6-14

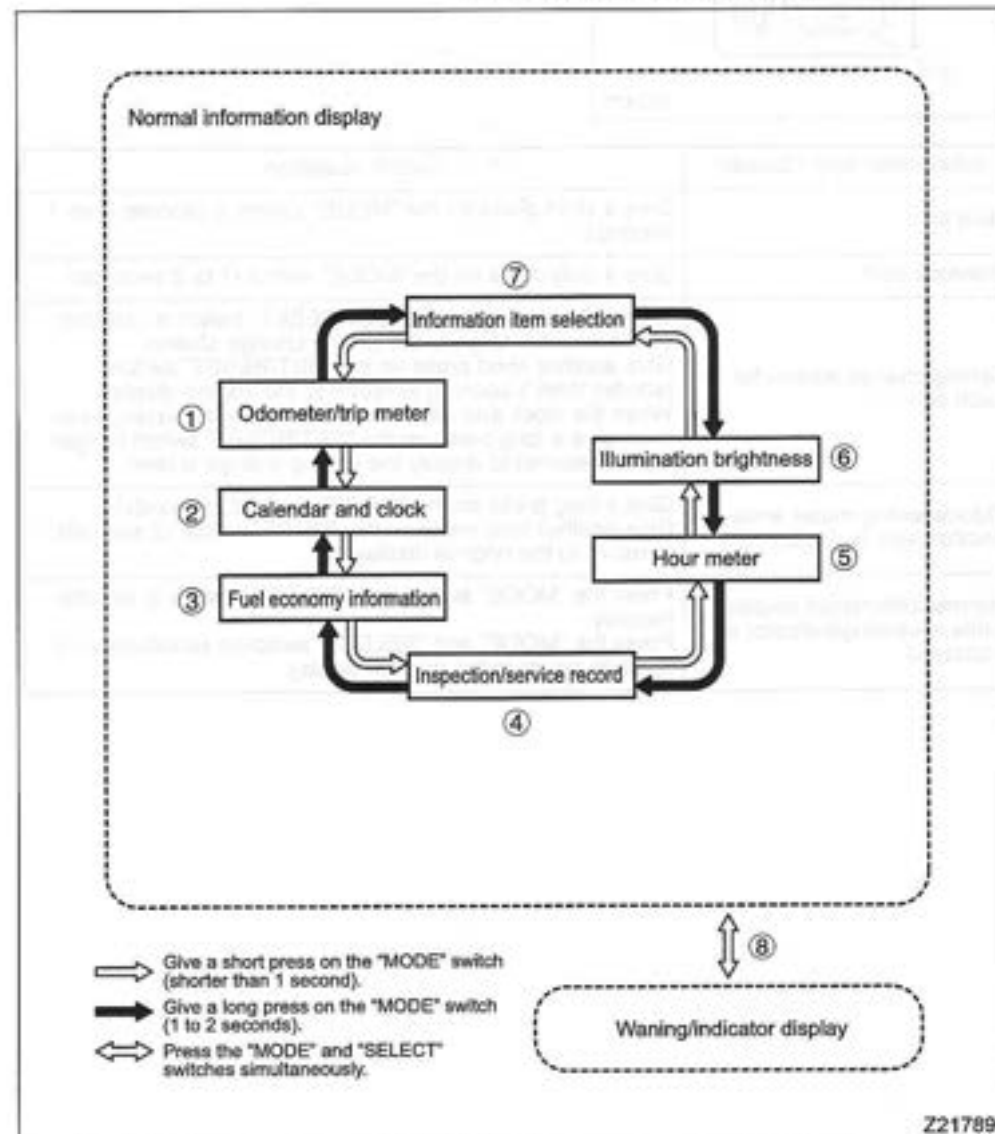
- ④ ⇨ P. 6-17
⑤ ⇨ P. 6-22
⑥ ⇨ P. 6-22

- ⑦ ⇨ P. 6-24
⑧ ⇨ P. 6-26

2 Normal information display

The items of normal information displayed are as shown below.

If any warning/indicator display condition exists, the corresponding warning/indicator will be displayed instead of the normal information.

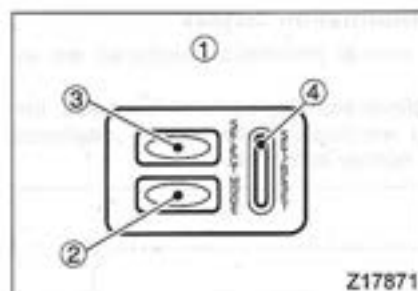


Z21789

- ① ⇨ P. 6-11
② ⇨ P. 6-12
③ ⇨ P. 6-14

- ④ ⇨ P. 6-17
⑤ ⇨ P. 6-22
⑥ ⇨ P. 6-22

- ⑦ ⇨ P. 6-24
⑧ ⇨ P. 6-26

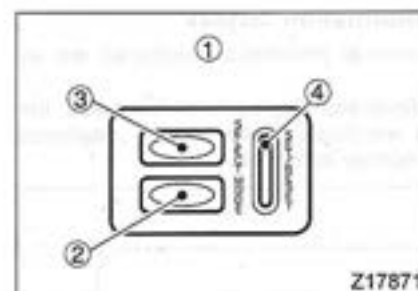


2.1 Switching the information item

Use one (or more if necessary) of the switches on multi-information display control panel ① to switch the normal information item from the currently displayed item to another.

Z17871

Information item / Screen	Switch operation
Next item	Give a short press on the "MODE" switch ② (shorter than 1 second).
Previous item	Give a long press on the "MODE" switch (1 to 2 seconds).
Setting change screen for each item	Give a short press on the "SET/RESET" switch ④ (shorter than 1 second) to go to the setting change screen. Give another short press on the "SET/RESET" switch (shorter than 1 second) to return to the original display. When the clock and calendar are currently displayed, however, give a long press on the "SET/RESET" switch (longer than 1 second) to display the setting change screen.
Odometer/trip meter while another item is displayed	Give a long press on the "MODE" switch (2 seconds). Give another long press on the "MODE" switch (2 seconds) to return to the original display.
Normal information display while a warning/indicator is displayed	Press the "MODE" switch and "SELECT" switch ③ simultaneously. Press the "MODE" and "SELECT" switches simultaneously again to return to the original display.

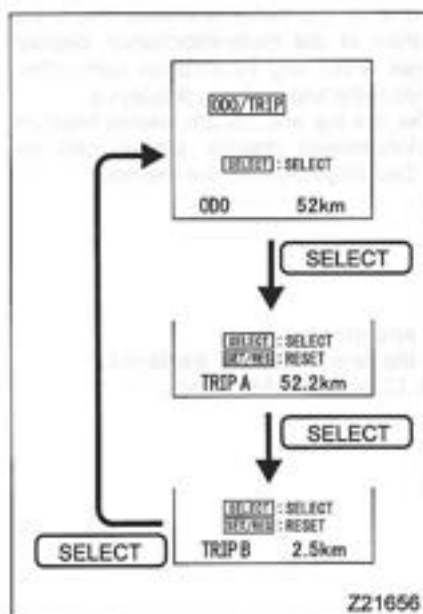


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Use one (or more if necessary) of the switches on multi-information display control panel ① to switch the normal information item from the currently displayed item to another.

Z17871

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Setting change screen for each item	Give a short press on the "SET/RESET" switch ④ (shorter than 1 second) to go to the setting change screen. Give another short press on the "SET/RESET" switch (shorter than 1 second) to return to the original display. When the clock and calendar are currently displayed, however, give a long press on the "SET/RESET" switch (longer than 1 second) to display the setting change screen.
Odometer/trip meter while another item is displayed	Give a long press on the "MODE" switch (2 seconds). Give another long press on the "MODE" switch (2 seconds) to return to the original display.
Normal information display while a warning/indicator is displayed	Press the "MODE" switch and "SELECT" switch ③ simultaneously. Press the "MODE" and "SELECT" switches simultaneously again to return to the original display.



Z21656

2.2 Selection and setting within the same information item screen

• Odometer/trip meter

The odometer, trip meter A or trip meter B is displayed.

The display switches each time the "SELECT" switch is pressed.

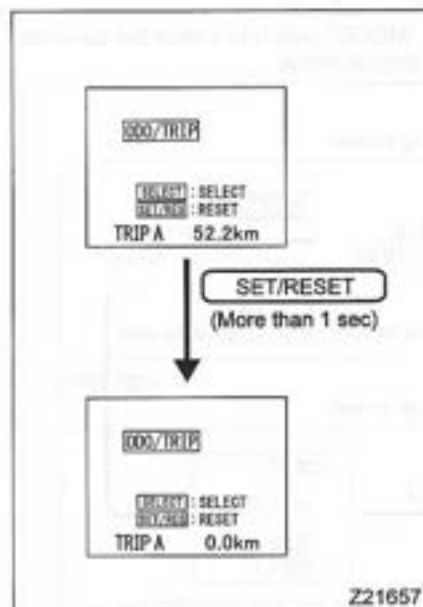
Even when the starter switch is not in the "ON" position, the odometer/trip meter will be displayed for about 30 seconds if you press the "MODE", "SELECT" or "SET/RESET" switch.

• Odometer

Indicates the total distance covered by the vehicle, to the nearest kilometer.

• Trip meters A and B

Indicates the distance covered by the vehicle from a selected point to the present point, to the nearest 0.1 kilometer.

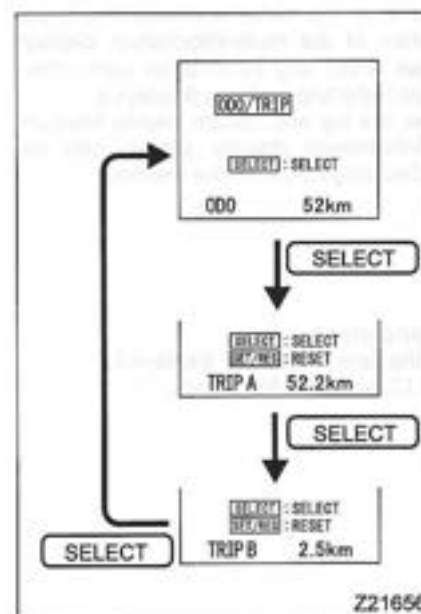


Z21657

- Press the "SET/RESET" switch for at least 1 second to reset the trip meter to zero.

NOTE:

The trip meter will be reset to zero when the battery is disconnected or the high-current fuse is removed.



Z21656

2.2 Selection and setting within the same information item screen

• Odometer/trip meter

The odometer, trip meter A or trip meter B is displayed.

The display switches each time the "SELECT" switch is pressed.

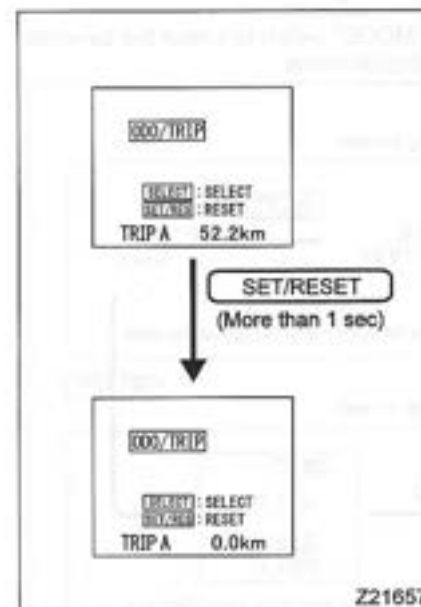
Even when the starter switch is not in the "ON" position, the odometer/trip meter will be displayed for about 30 seconds if you press the "MODE", "SELECT" or "SET/RESET" switch.

• Odometer

Indicates the total distance covered by the vehicle, to the nearest kilometer.

• Trip meters A and B

Indicates the distance covered by the vehicle from a selected point to the present point, to the nearest 0.1 kilometer.

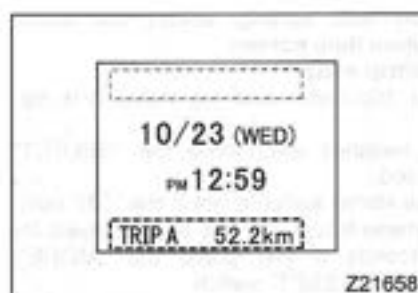


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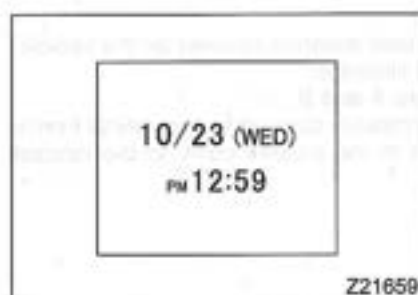
- Press the "SET/RESET" switch for at least 1 second to reset the trip meter to zero.

NOTE:

The trip meter will be reset to zero when the battery is disconnected or the high-current fuse is removed.



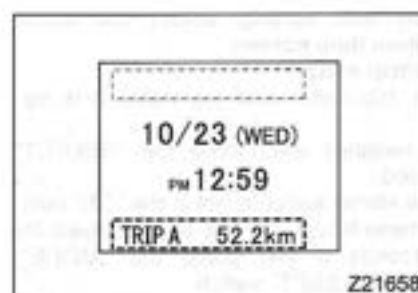
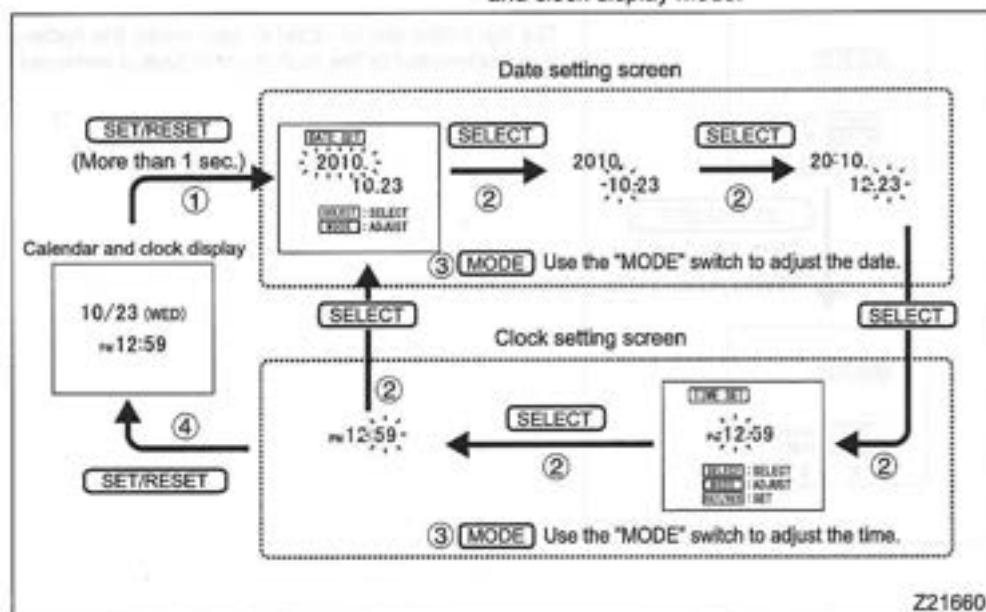
- The odometer or trip meter is always displayed at the bottom of the multi-information display screen even when any information item other than the odometer/trip meter is displayed. If you prefer, the top and bottom display lines on the multi-information display screen can be swapped. See page 6-26 for the method.



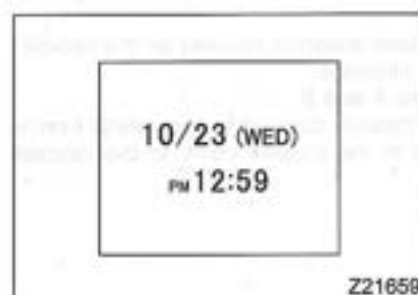
- Calendar and clock**
The date and the time of day are displayed. The clock is a 12-hour (AM/PM) clock.

• Date and time adjustment

- Press the "MODE" switch to select the calendar and clock display mode.



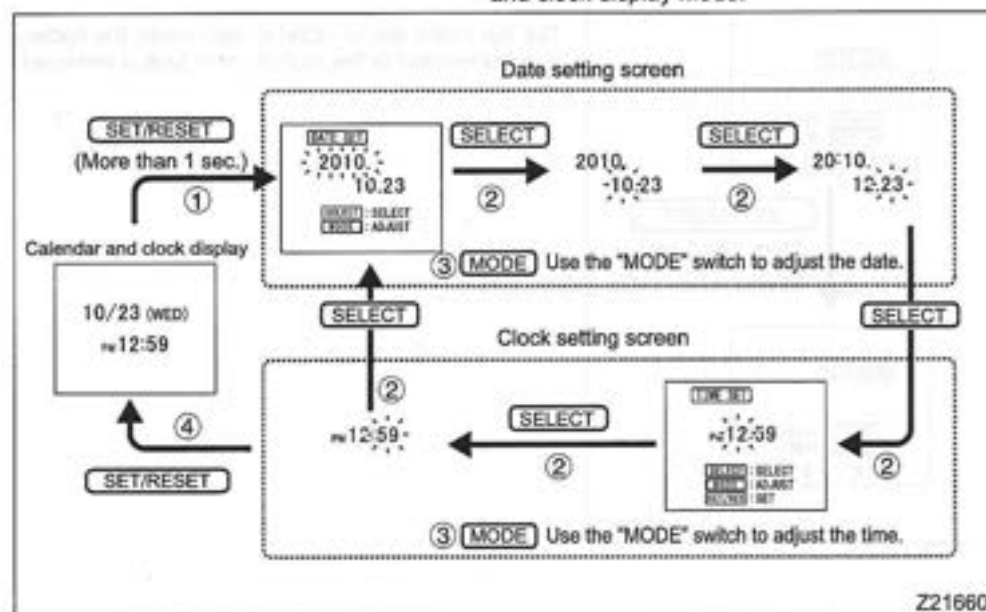
- The odometer or trip meter is always displayed at the bottom of the multi-information display screen even when any information item other than the odometer/trip meter is displayed. If you prefer, the top and bottom display lines on the multi-information display screen can be swapped. See page 6-26 for the method.



- Calendar and clock**
The date and the time of day are displayed. The clock is a 12-hour (AM/PM) clock.

• Date and time adjustment

- Press the "MODE" switch to select the calendar and clock display mode.



2. Press the "SET/RESET" switch ① for at least 1 second to go to the date setting screen. The year zone blinks first.
3. Each time you press the "SELECT" switch ②, the blinking zone cyclically changes in this order: year → month → day → hour → minute. After making the desired zone blink, press the "MODE" switch for adjustment. Hold the "MODE" switch ③ to fast-forwarding.
4. When "TIME SET" is displayed after completing all necessary adjustments, press the "SET/RESET" switch ④. The date and time will be displayed and the clock will start counting beginning with 0 second.

• Adjusting the clock to a time signal

While the display is in the calendar and clock mode, you can adjust the clock to a time signal by pressing the SET/RESET switch and releasing the switch simultaneously with a time signal.

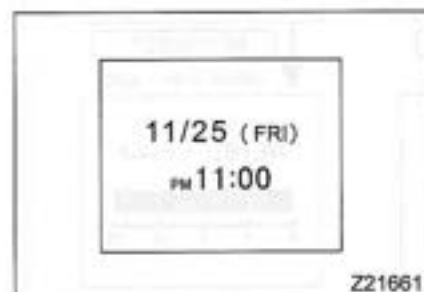
Example:

The clock will be adjusted to "11/25 (FRI) PM 11:00" if its current indication is between 11:00 and 11:29 p.m.

The clock will be adjusted to "11/26 (SAT) AM 0:00" if its current indication is between 11:30 and 11:59 p.m.

NOTE:

- If the date is set, the day of the week will be automatically adjusted to the new date.
- The time will be reset to "0:00" when the battery is disconnected or the high-current fuse is removed. In this case, you must adjust the time again.
- The calendar can be adjusted to between January 1, 2010 and December 31, 2039.



2. Press the "SET/RESET" switch ① for at least 1 second to go to the date setting screen. The year zone blinks first.
3. Each time you press the "SELECT" switch ②, the blinking zone cyclically changes in this order: year → month → day → hour → minute. After making the desired zone blink, press the "MODE" switch for adjustment. Hold the "MODE" switch ③ to fast-forwarding.
4. When "TIME SET" is displayed after completing all necessary adjustments, press the "SET/RESET" switch ④. The date and time will be displayed and the clock will start counting beginning with 0 second.

• Adjusting the clock to a time signal

While the display is in the calendar and clock mode, you can adjust the clock to a time signal by pressing the SET/RESET switch and releasing the switch simultaneously with a time signal.

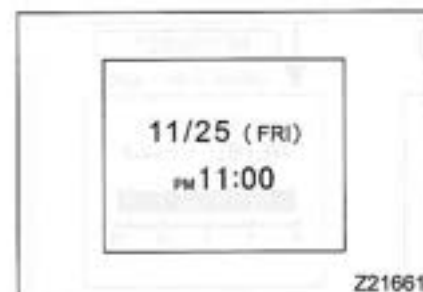
Example:

The clock will be adjusted to "11/25 (FRI) PM 11:00" if its current indication is between 11:00 and 11:29 p.m.

The clock will be adjusted to "11/26 (SAT) AM 0:00" if its current indication is between 11:30 and 11:59 p.m.

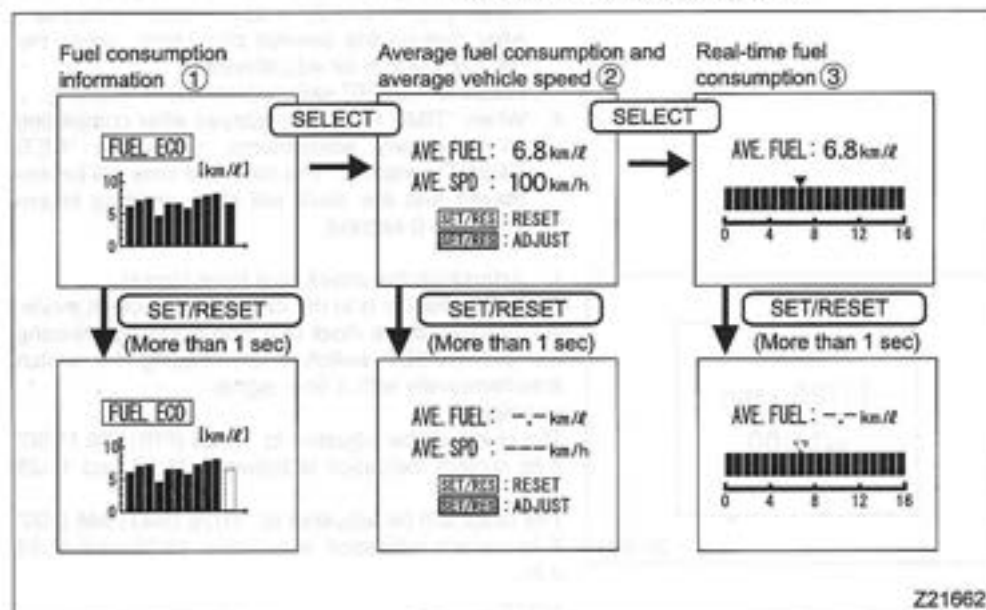
NOTE:

- If the date is set, the day of the week will be automatically adjusted to the new date.
- The time will be reset to "0:00" when the battery is disconnected or the high-current fuse is removed. In this case, you must adjust the time again.
- The calendar can be adjusted to between January 1, 2010 and December 31, 2039.



Fuel economy information

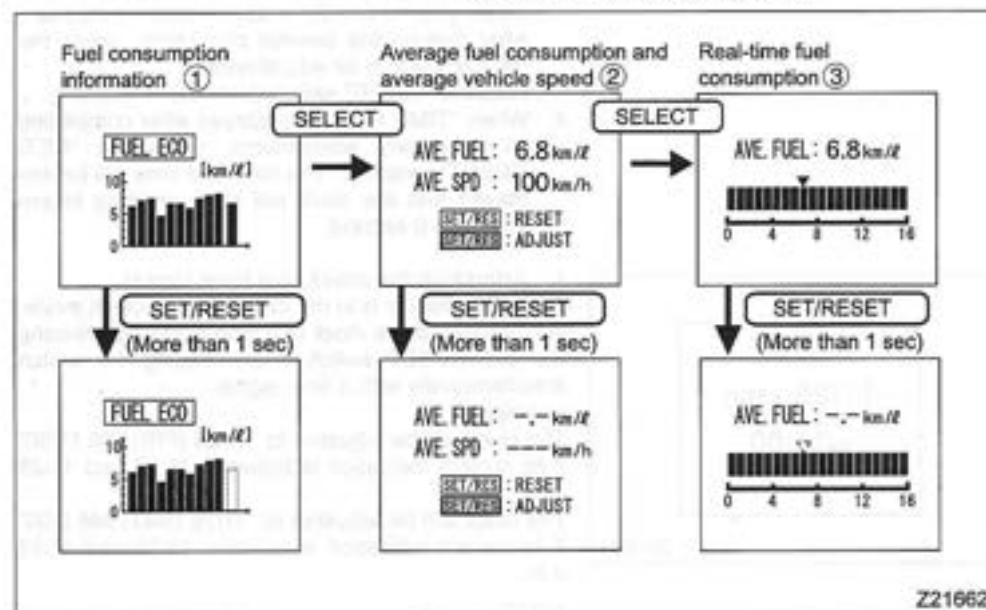
In the fuel economy information mode, the display shows the fuel consumption information ①, average fuel consumption and average vehicle speed ②, and real-time fuel consumption ③.



- Each time the "SELECT" switch is pressed, the display will change in the following order: Fuel consumption information (graphs showing the instantaneous fuel consumption in every minute and the average fuel consumption) → Average fuel consumption and average vehicle speed → Real-time fuel consumption (graphs showing the real-time fuel consumption and the average fuel consumption) → Fuel consumption information (graphs showing the instantaneous fuel consumption in every minute and the average fuel consumption).
- If you press the "SET/RESET" switch (for at least 1 second), the average fuel consumption and average vehicle speed are reset. For the 1-minute period after resetting the average fuel consumption and average vehicle speed, dashes and a dot (—.—) will be displayed instead of the average fuel consumption and dashes (—) will be displayed instead of the average vehicle speed. During this period, the display will show a blank instead of the graph of average fuel consumption.

Fuel economy information

In the fuel economy information mode, the display shows the fuel consumption information ①, average fuel consumption and average vehicle speed ②, and real-time fuel consumption ③.



- Each time the "SELECT" switch is pressed, the display will change in the following order: Fuel consumption information (graphs showing the instantaneous fuel consumption in every minute and the average fuel consumption) → Average fuel consumption and average vehicle speed → Real-time fuel consumption (graphs showing the real-time fuel consumption and the average fuel consumption) → Fuel consumption information (graphs showing the instantaneous fuel consumption in every minute and the average fuel consumption).
- If you press the "SET/RESET" switch (for at least 1 second), the average fuel consumption and average vehicle speed are reset. For the 1-minute period after resetting the average fuel consumption and average vehicle speed, dashes and a dot (—.—) will be displayed instead of the average fuel consumption and dashes (—) will be displayed instead of the average vehicle speed. During this period, the display will show a blank instead of the graph of average fuel consumption.

- The display is updated every minute while the engine is running. The real-time fuel consumption is updated every 0.5 second.

- The rightmost bar (light blue) ④ in the fuel economy graph shows the average fuel consumption. The bars (green) ⑤ to the left of the light-blue bar show the instantaneous fuel consumption for each minute of the last 10 minutes, and the rightmost green bar shows the data for the last 1 minute.
- The instantaneous fuel consumption represents the amount of fuel consumed during a 1-minute period in km/liter.

- The graph of real-time fuel consumption (green) ⑥ shows the current fuel consumption. The segment marked by a downward-pointing triangle (light blue) ⑦ above it represents the average fuel consumption.

NOTE:

The displayed values of instantaneous fuel consumption, average fuel consumption, and real-time fuel consumption may not correspond to the actual values under certain conditions including the driving and loading conditions.

- Instantaneous fuel consumption**

Shows the amount of fuel consumed in a 1-minute period in km/liter.

- Average fuel consumption**

Shows the average amount of fuel consumed during the period from the time of resetting to the present time in km/liter.

- Average vehicle speed**

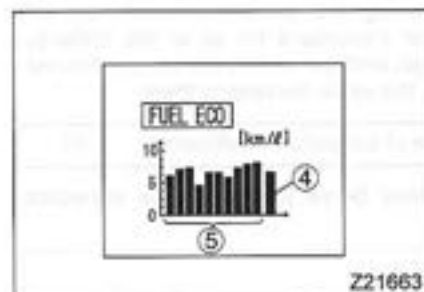
Shows the average vehicle speed during the period from the time of resetting to the present time in km/h.

- Real-time fuel consumption**

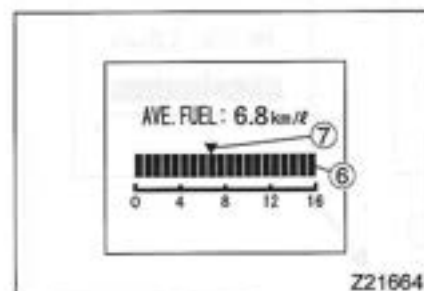
Shows the amount of fuel consumed in a 0.5-second period in km/liter.

- Correction coefficient**

If necessary, you can change the correction coefficient for data of the instantaneous fuel consumption, average fuel consumption, and real-time fuel consumption.



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- The display is updated every minute while the engine is running. The real-time fuel consumption is updated every 0.5 second.

- The rightmost bar (light blue) ④ in the fuel economy graph shows the average fuel consumption. The bars (green) ⑤ to the left of the light-blue bar show the instantaneous fuel consumption for each minute of the last 10 minutes, and the rightmost green bar shows the data for the last 1 minute.
- The instantaneous fuel consumption represents the amount of fuel consumed during a 1-minute period in km/liter.

- The graph of real-time fuel consumption (green) ⑥ shows the current fuel consumption. The segment marked by a downward-pointing triangle (light blue) ⑦ above it represents the average fuel consumption.

NOTE:

The displayed values of instantaneous fuel consumption, average fuel consumption, and real-time fuel consumption may not correspond to the actual values under certain conditions including the driving and loading conditions.

- Instantaneous fuel consumption**

Shows the amount of fuel consumed in a 1-minute period in km/liter.

- Average fuel consumption**

Shows the average amount of fuel consumed during the period from the time of resetting to the present time in km/liter.

- Average vehicle speed**

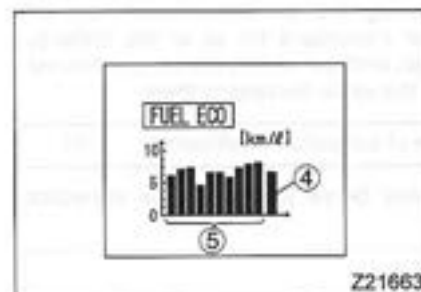
Shows the average vehicle speed during the period from the time of resetting to the present time in km/h.

- Real-time fuel consumption**

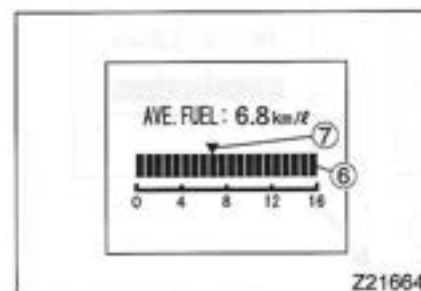
Shows the amount of fuel consumed in a 0.5-second period in km/liter.

- Correction coefficient**

If necessary, you can change the correction coefficient for data of the instantaneous fuel consumption, average fuel consumption, and real-time fuel consumption.



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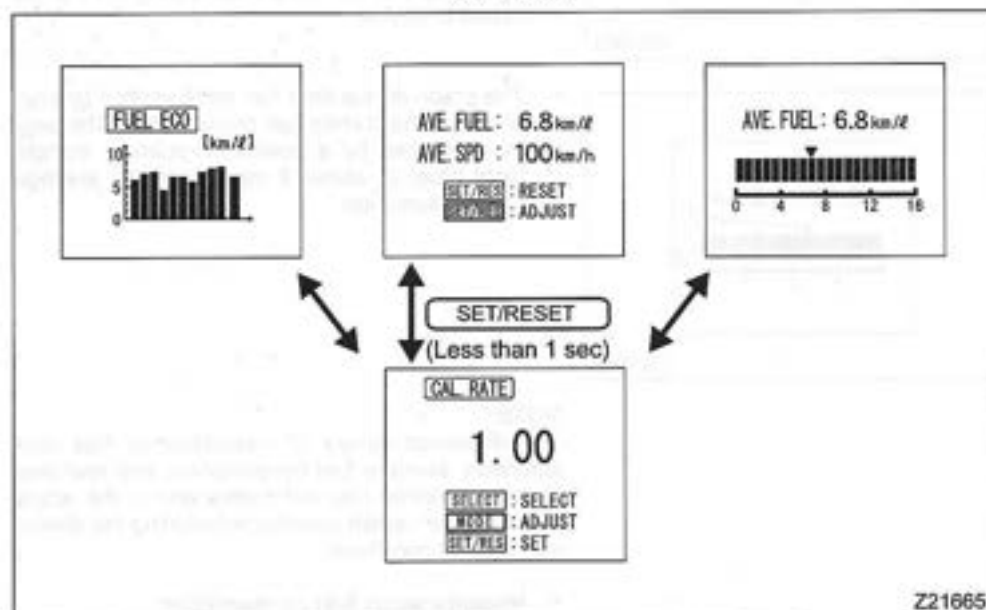


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Usually, there is no need to change the correction coefficient. However, the coefficient should be changed if you notice any significant difference between the actual and indicated fuel consumption values. Increasing the correction coefficient will result in larger indications for all of the instantaneous, average, and real-time fuel consumption values; reducing the value decreases them.

Default value of correction coefficient	1.00
---	------

Follow the steps below to change the correction coefficient.

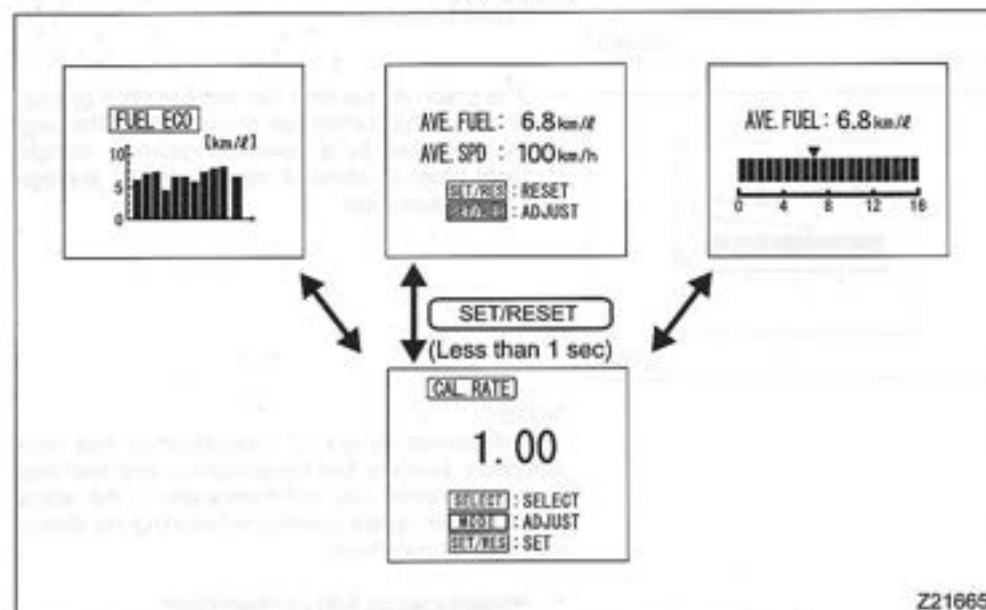


1. While the fuel economy information is displayed, press the "SET/RESET" switch (shorter than 1 second); the correction coefficient screen will appear. The ones digit starts blinking. Do not press the "SET/RESET" switch for more than 1 second; otherwise the average fuel consumption and average vehicle speed will be reset.
2. Each time the "SELECT" switch is pressed, the blinking digit place will cyclically change in this order: ones digit → first decimal digit → second decimal digit. Make the desired digit blink, then press the "MODE" switch as many times as necessary. Hold the "MODE" switch pressed for fast-forwarding.

Usually, there is no need to change the correction coefficient. However, the coefficient should be changed if you notice any significant difference between the actual and indicated fuel consumption values. Increasing the correction coefficient will result in larger indications for all of the instantaneous, average, and real-time fuel consumption values; reducing the value decreases them.

Default value of correction coefficient	1.00
---	------

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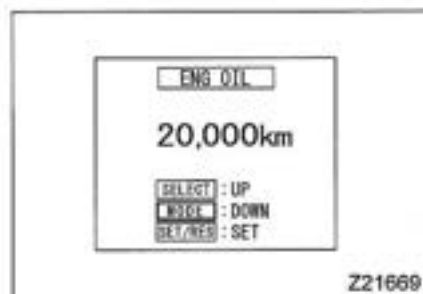
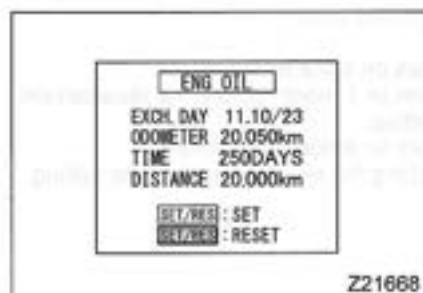
1. While the fuel economy information is displayed, press the "SET/RESET" switch (shorter than 1 second); the correction coefficient screen will appear. The ones digit starts blinking. Do not press the "SET/RESET" switch for more than 1 second; otherwise the average fuel consumption and average vehicle speed will be reset.
2. Each time the "SELECT" switch is pressed, the blinking digit place will cyclically change in this order: ones digit → first decimal digit → second decimal digit. Make the desired digit blink, then press the "MODE" switch as many times as necessary. Hold the "MODE" switch pressed for fast-forwarding.

- Each time the "SELECT" switch is pressed, the display will change from the current item to the next item in the following sequence:
ENG OIL (engine oil) → T/M OIL (manual transmission oil) <Manual transmission vehicles> → DIFF OIL (differential oil) → BRK FLUID (brake fluid) <Vehicles with air-over hydraulic brakes> → CLUTCH FLD (clutch fluid) <Manual transmission vehicles> → P/S OIL (power steering oil) → ENG COOLANT (engine coolant) → AIR FILTER (air cleaner) → ENG OIL FLTR (engine oil filter) → FUEL FILTER (fuel filter) → UREA FILTER (urea filter) → PCV FILTER (blow-by gas filter element of PCV valve)
- Date of replacement (EXCH.DAY)**
Shows the date on which the indicated oil, engine coolant, or filter/filter element was last replaced.
- Total distance covered (ODOMETER)**
Shows the current odometer reading (total distance covered) to the nearest kilometer.
- Time of use (TIME)**
Shows the number of days after the indicated oil, engine coolant, filter, etc. was last replaced.
- Distance of use (DISTANCE)**
Shows the distance covered after the indicated oil, engine coolant, filter, etc. was last replaced, to the nearest kilometer.
- How to set the service alarm intervals**
Set the replacement interval for each item referring to the table below.

Item		Replacement interval
Engine oil	Vehicles for Australia and New Zealand	30,000 km
	Vehicles for Hong Kong and Singapore	10,000 km
Manual transmission oil		50,000 km
Differential gear oil		50,000 km
Brake fluid <Air-over hydraulic brake vehicles>		12 month
Clutch fluid <Manual transmission vehicles>		12 month
Power steering oil		50,000 km
Engine coolant		24 month
Air cleaner		80,000 km or 12 month
Engine oil filter	Vehicles for Australia and New Zealand	60,000 km
	Vehicles for Hong Kong and Singapore	20,000 km
Fuel filter	Vehicles for Australia and New Zealand	50,000 km
	Vehicles for Hong Kong and Singapore	30,000 km
Urea filter		200,000 km or 24 month
PCV valve element		30,000 km or 12 month

- Each time the "SELECT" switch is pressed, the display will change from the current item to the next item in the following sequence:
ENG OIL (engine oil) → T/M OIL (manual transmission oil) <Manual transmission vehicles> → DIFF OIL (differential oil) → BRK FLUID (brake fluid) <Vehicles with air-over hydraulic brakes> → CLUTCH FLD (clutch fluid) <Manual transmission vehicles> → P/S OIL (power steering oil) → ENG COOLANT (engine coolant) → AIR FILTER (air cleaner) → ENG OIL FLTR (engine oil filter) → FUEL FILTER (fuel filter) → UREA FILTER (urea filter) → PCV FILTER (blow-by gas filter element of PCV valve)
- Date of replacement (EXCH.DAY)**
Shows the date on which the indicated oil, engine coolant, or filter/filter element was last replaced.
- Total distance covered (ODOMETER)**
Shows the current odometer reading (total distance covered) to the nearest kilometer.
- Time of use (TIME)**
Shows the number of days after the indicated oil, engine coolant, filter, etc. was last replaced.
- Distance of use (DISTANCE)**
Shows the distance covered after the indicated oil, engine coolant, filter, etc. was last replaced, to the nearest kilometer.
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Differential gear oil		50,000 km
Brake fluid <Air-over hydraulic brake vehicles>		12 month
Clutch fluid <Manual transmission vehicles>		12 month
Power steering oil		50,000 km
Engine coolant		24 month
Air cleaner		80,000 km or 12 month
Engine oil filter	Vehicles for Australia and New Zealand	60,000 km
	Vehicles for Hong Kong and Singapore	20,000 km
Fuel filter	Vehicles for Australia and New Zealand	50,000 km
	Vehicles for Hong Kong and Singapore	30,000 km
Urea filter		200,000 km or 24 month
PCV valve element		30,000 km or 12 month



- Follow the steps below to change the replacement interval:

1. Select the inspection/service record mode by pressing the "MODE" switch.
2. Press the "SELECT" switch to select the oil, engine coolant, filter, or any other item for which you wish to change the replacement interval.

3. Press the "SET/RESET" switch. The screen for entering a replacement interval will appear.
4. Press the "SELECT" or "MODE" switch to change the value.
SELECT: Increases the value by 5,000 km or 1 month.
MODE: Decreases the value by 5,000 km or 1 month.
Hold the switch for fast-forwarding.
5. After entering a new replacement interval, press the "SET/RESET" switch to confirm the value. If you press the "SET/RESET" switch for more than one second, the replacement interval will return to the default value.

NOTE:

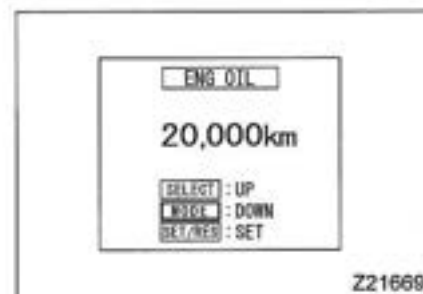
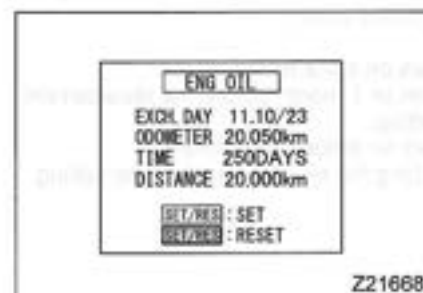
Replace the oils, coolants, filters, etc. periodically in accordance with the replacement intervals indicated in this manual.

NOTE:

- Replacement intervals can be adjusted to any value between 0 and 500,000 km or between 0 and 60 months.
- The replacement interval settings will remain in memory even when the battery or high-current fuse is removed.

• Service alarms

If you reset the inspection/service record display after replacing a periodic replacement item such as the oil, engine coolant, or filter, an alarm will be displayed at 3,000 km or 1 month before the set distance or period of time is reached. An alarm will also be displayed upon reaching the distance or period of time.



- Follow the steps below to change the replacement interval:

1. Select the inspection/service record mode by pressing the "MODE" switch.
2. Press the "SELECT" switch to select the oil, engine coolant, filter, or any other item for which you wish to change the replacement interval.

3. Press the "SET/RESET" switch. The screen for entering a replacement interval will appear.
4. Press the "SELECT" or "MODE" switch to change the value.
SELECT: Increases the value by 5,000 km or 1 month.
MODE: Decreases the value by 5,000 km or 1 month.
Hold the switch for fast-forwarding.
5. After entering a new replacement interval, press the "SET/RESET" switch to confirm the value. If you press the "SET/RESET" switch for more than one second, the replacement interval will return to the default value.

NOTE:

Replace the oils, coolants, filters, etc. periodically in accordance with the replacement intervals indicated in this manual.

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• Service alarms

If you reset the inspection/service record display after replacing a periodic replacement item such as the oil, engine coolant, or filter, an alarm will be displayed at 3,000 km or 1 month before the set distance or period of time is reached. An alarm will also be displayed upon reaching the distance or period of time.

- The service alarms are displayed in either of the following two color combinations according to the timing of the alarm.

White letters on black background:
At 3,000 km or 1 month before the replacement interval setting.
Black letters on amber background:
Upon reaching the replacement interval setting.

<Service alarm types>

ENGINE OIL EXCHANGE	T/M OIL EXCHANGE
DIFF OIL EXCHANGE	BRAKE FLUID EXCHANGE
CLUTCH FLD EXCHANGE	P/S OIL EXCHANGE
COOLANT EXCHANGE	AIR FILTER EXCHANGE
OIL FILTER EXCHANGE	FUEL FILTER EXCHANGE
UREA FILTER EXCHANGE	PCV FILTER EXCHANGE

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- You must set the inspection/service record before service alarms can be displayed. See page 6-20 for the method.
- A service alarm will be displayed whenever the alarm condition is met for an item every time the starter switch is turned to "ON". The alarm will go off as soon as the parking brake is released. If there are two or more service alarms to display, they will be displayed one after another, for 3 seconds each.
- Replace oils, engine coolant, filters, or other items when indicated by service alarms, then reset the inspection/service record display. See page 6-21 for the method.

• **How to set the inspection/service record**

In the default state, the instruments do not have parameter settings for the date when the inspection/service function is started or the odometer count, both of which are necessary for service alarms to be displayed. By setting the inspection/service record function as described below, the function will provide service alarms based on the date and odometer reading.

- Select the inspection/service record mode by pressing the "MODE" switch.

- The service alarms are displayed in either of the following two color combinations according to the timing of the alarm.

White letters on black background:
At 3,000 km or 1 month before the replacement interval setting.
Black letters on amber background:
Upon reaching the replacement interval setting.

<Service alarm types>

ENGINE OIL EXCHANGE	T/M OIL EXCHANGE
DIFF OIL EXCHANGE	BRAKE FLUID EXCHANGE
CLUTCH FLD EXCHANGE	P/S OIL EXCHANGE
COOLANT EXCHANGE	AIR FILTER EXCHANGE
OIL FILTER EXCHANGE	FUEL FILTER EXCHANGE
UREA FILTER EXCHANGE	PCV FILTER EXCHANGE

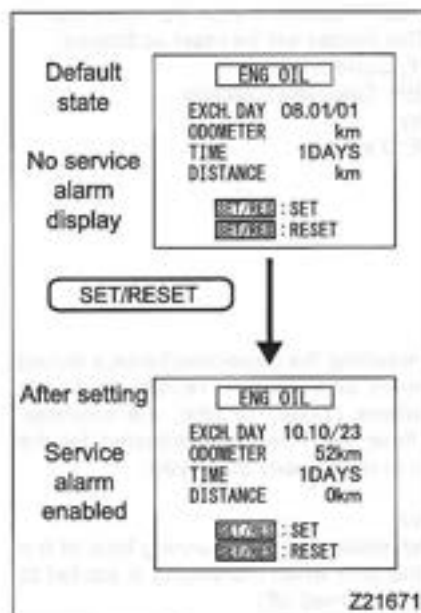
Z21670

- You must set the inspection/service record before service alarms can be displayed. See page 6-20 for the method.
- A service alarm will be displayed whenever the alarm condition is met for an item every time the starter switch is turned to "ON". The alarm will go off as soon as the parking brake is released. If there are two or more service alarms to display, they will be displayed one after another, for 3 seconds each.
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• **How to set the inspection/service record**

In the default state, the instruments do not have parameter settings for the date when the inspection/service function is started or the odometer count, both of which are necessary for service alarms to be displayed. By setting the inspection/service record function as described below, the function will provide service alarms based on the date and odometer reading.

- Select the inspection/service record mode by pressing the "MODE" switch.



- Press the "SELECT" switch to select the oil, engine coolant, filter, or other item for which you desire a service alarm to be displayed.
Example: Select the engine oil display if you want a service alarm for the engine oil.
- Press the "SET/RESET" switch (for more than 1 second). Parameters are set as follows:
EXCH.DAY: Current date
ODOMETER: Current odometer reading
TIME: 1 day
DISTANCE: 0 km

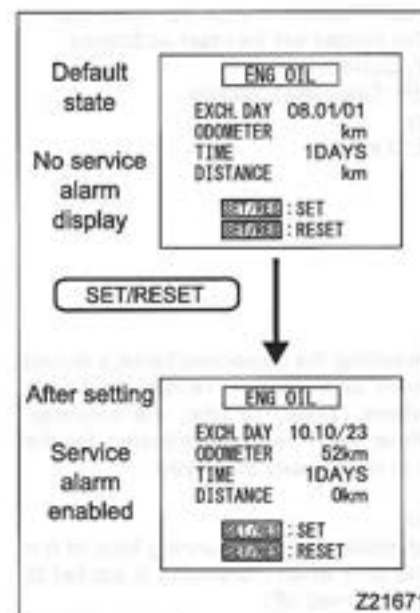
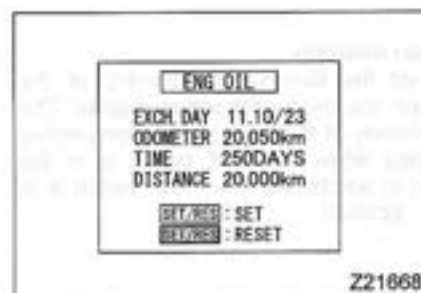
NOTE:

To disable the service alarm function, set the replacement interval to 0 km or 0 months. See page 6-18.

• **How to reset the inspection/service record**

When a periodic replacement item such as engine oil, engine coolant or filter has been replaced, reset the inspection/service record as follows.

- Select the inspection/service record mode by pressing the "MODE" switch.
- Press the "SELECT" switch to display the item that has been replaced.
Example: If the engine oil has been replaced, select the engine oil display.



- Press the "SELECT" switch to select the oil, engine coolant, filter, or other item for which you desire a service alarm to be displayed.
Example: Select the engine oil display if you want a service alarm for the engine oil.
- Press the "SET/RESET" switch (for more than 1 second). Parameters are set as follows:
EXCH.DAY: Current date
ODOMETER: Current odometer reading
TIME: 1 day
DISTANCE: 0 km

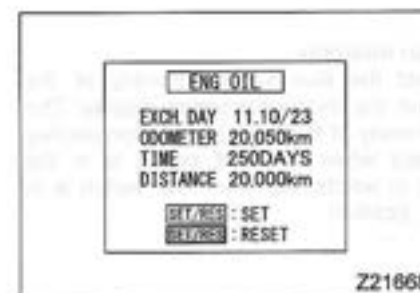
NOTE:

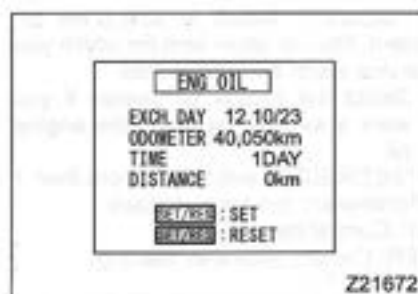
To disable the service alarm function, set the replacement interval to 0 km or 0 months. See page 6-18.

• **How to reset the inspection/service record**

When a periodic replacement item such as engine oil, engine coolant or filter has been replaced, reset the inspection/service record as follows.

- Select the inspection/service record mode by pressing the "MODE" switch.
- Press the "SELECT" switch to display the item that has been replaced.
Example: If the engine oil has been replaced, select the engine oil display.





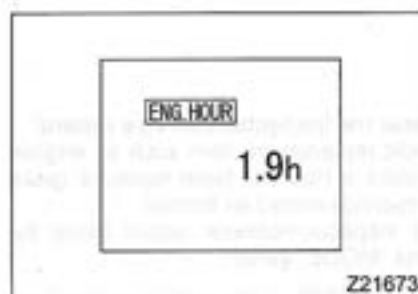
- Press the "SET/RESET" switch (for more than 1 second). The display will be reset as follows:
EXCH.DAY: Current date
ODOMETER: Odometer reading
TIME: 1 day
DISTANCE: 0 km

NOTE:

In addition to resetting the inspection/service record upon replacement of a periodic replacement item such as oil, engine coolant or filter, the calendar/clock should have been correctly adjusted for the service alarms to be properly displayed.

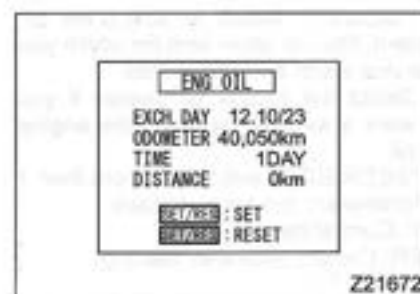
- Hour meter**

The hour meter shows the total running time of the engine (from the time when the engine is started to the time when it is turned off).



- Illumination intensity**

You can adjust the illumination intensity of the instruments and the multi-information display. The illumination intensity of the multi-information display can be adjusted when the light switch is in the "OFF" position in addition to when the switch is in the  or  position.



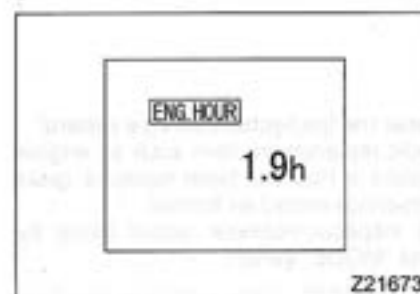
- Press the "SET/RESET" switch (for more than 1 second). The display will be reset as follows:
EXCH.DAY: Current date
ODOMETER: Odometer reading
TIME: 1 day
DISTANCE: 0 km

NOTE:

In addition to resetting the inspection/service record upon replacement of a periodic replacement item such as oil, engine coolant or filter, the calendar/clock should have been correctly adjusted for the service alarms to be properly displayed.

- Hour meter**

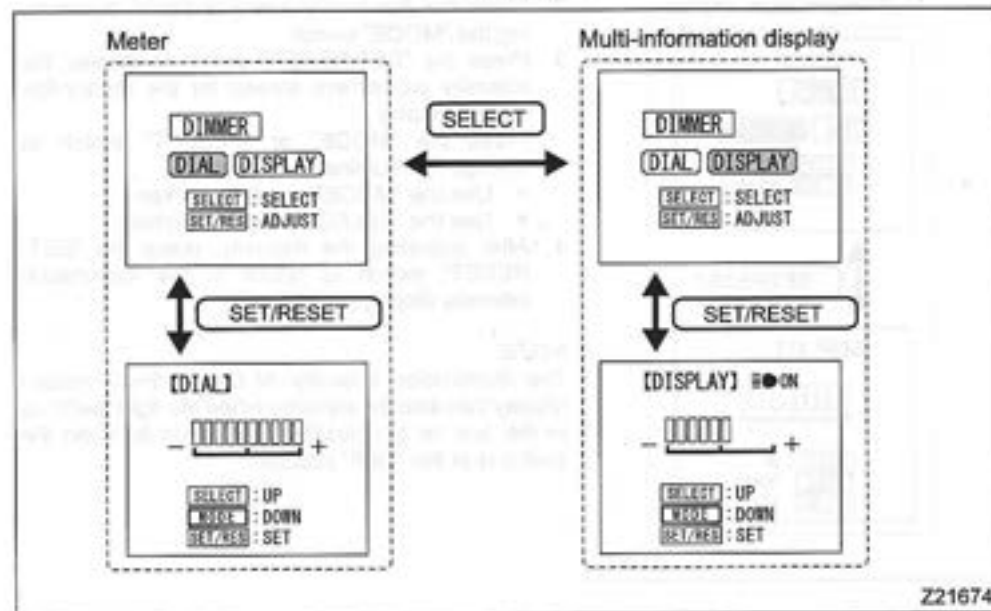
The hour meter shows the total running time of the engine (from the time when the engine is started to the time when it is turned off).



- Illumination intensity**

You can adjust the illumination intensity of the instruments and the multi-information display. The illumination intensity of the multi-information display can be adjusted when the light switch is in the "OFF" position in addition to when the switch is in the  or  position.

- Adjusting the illumination intensity with the light switch in the $\odot$ or $\equiv$ position (for both instruments and multi-information display)

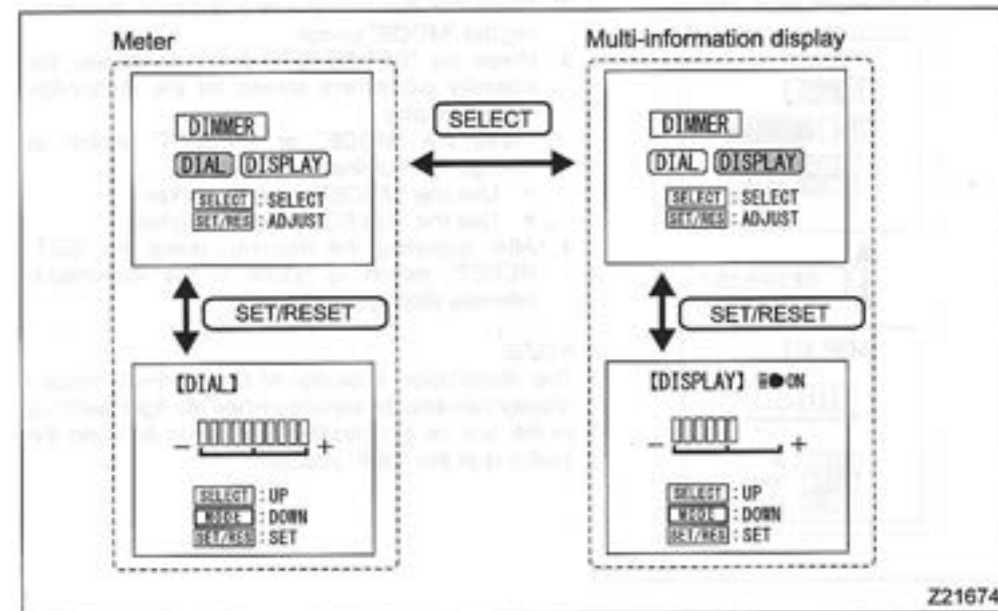


- Place the light switch in the $\odot$ or $\equiv$ position.
- Select the illumination intensity display by pressing the "MODE" switch.
- Press the "SELECT" switch to select "Meter" or "Multi-information display".
- Press the "SET/RESET" switch to display the intensity adjustment screen for the instruments or multi-information display. Press the "MODE" or "SELECT" switch to change the illumination intensity.
 - Use the "MODE" switch to darken.
 - Use the "SELECT" switch to lighten.
- After adjusting the intensity, press the "SET/RESET" switch to return to the illumination intensity display.

NOTE:

The illumination intensity of the instruments can be adjusted only when the light switch in the $\odot$ or $\equiv$ position. It cannot be adjusted with the light switch in the "OFF" position.

- Adjusting the illumination intensity with the light switch in the $\odot$ or $\equiv$ position (for both instruments and multi-information display)



- Place the light switch in the $\odot$ or $\equiv$ position.
- Select the illumination intensity display by pressing the "MODE" switch.
- Press the "SELECT" switch to select "Meter" or "Multi-information display".
- Press the "SET/RESET" switch to display the intensity adjustment screen for the instruments or multi-information display. Press the "MODE" or "SELECT" switch to change the illumination intensity.
 - Use the "MODE" switch to darken.
 - Use the "SELECT" switch to lighten.
- After adjusting the intensity, press the "SET/RESET" switch to return to the illumination intensity display.

NOTE:

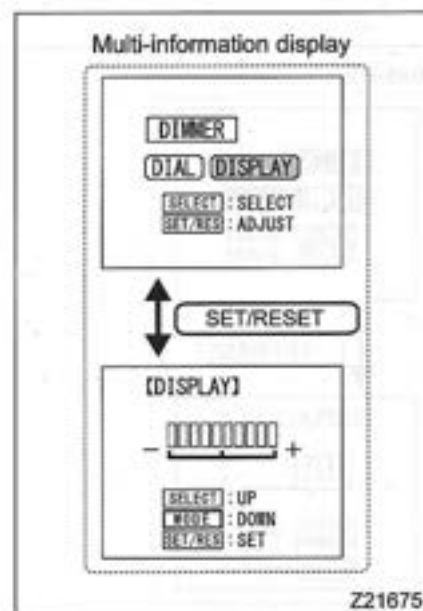
The illumination intensity of the instruments can be adjusted only when the light switch in the $\odot$ or $\equiv$ position. It cannot be adjusted with the light switch in the "OFF" position.

- Adjusting the illumination intensity with the light switch in the "OFF" position (only for multi-information display)

- Place the light switch in the "OFF" position.
- Select the illumination intensity display by pressing the "MODE" switch.
- Press the "SET/RESET" switch to display the intensity adjustment screen for the multi-information display. Press the "MODE" or "SELECT" switch to change the illumination intensity.
 - Use the "MODE" switch to darken.
 - Use the "SELECT" switch to lighten.
- After adjusting the intensity, press the "SET/RESET" switch to return to the illumination intensity display.

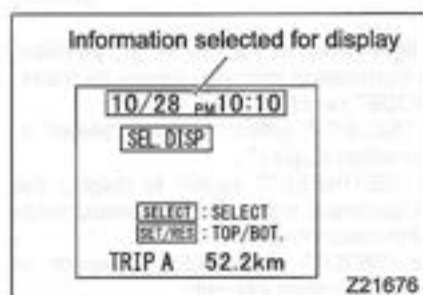
NOTE:

The illumination intensity of the multi-information display can also be adjusted when the light switch is in the $\odot$ or $\ominus$ position in addition to when the switch is in the "OFF" position.



- Selecting information at the top of the screen

You can select the information displayed at the top of the multi-information display screen.

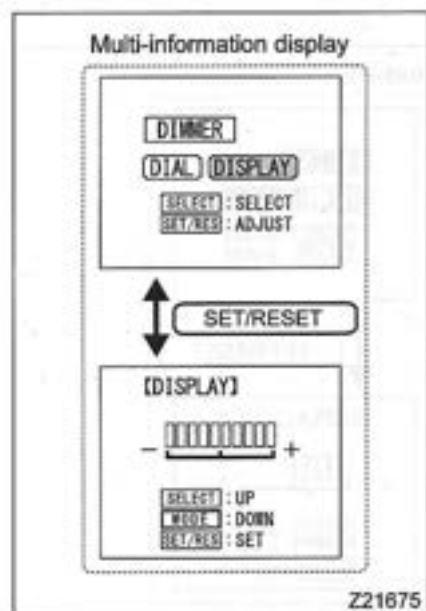


- Adjusting the illumination intensity with the light switch in the "OFF" position (only for multi-information display)

- Place the light switch in the "OFF" position.
- Select the illumination intensity display by pressing the "MODE" switch.
- Press the "SET/RESET" switch to display the intensity adjustment screen for the multi-information display. Press the "MODE" or "SELECT" switch to change the illumination intensity.
 - Use the "MODE" switch to darken.
 - Use the "SELECT" switch to lighten.
- After adjusting the intensity, press the "SET/RESET" switch to return to the illumination intensity display.

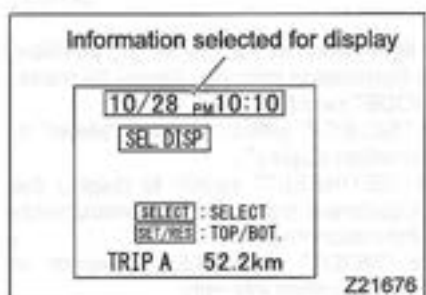
NOTE:

The illumination intensity of the multi-information display can also be adjusted when the light switch is in the $\odot$ or $\ominus$ position in addition to when the switch is in the "OFF" position.



- Selecting information at the top of the screen

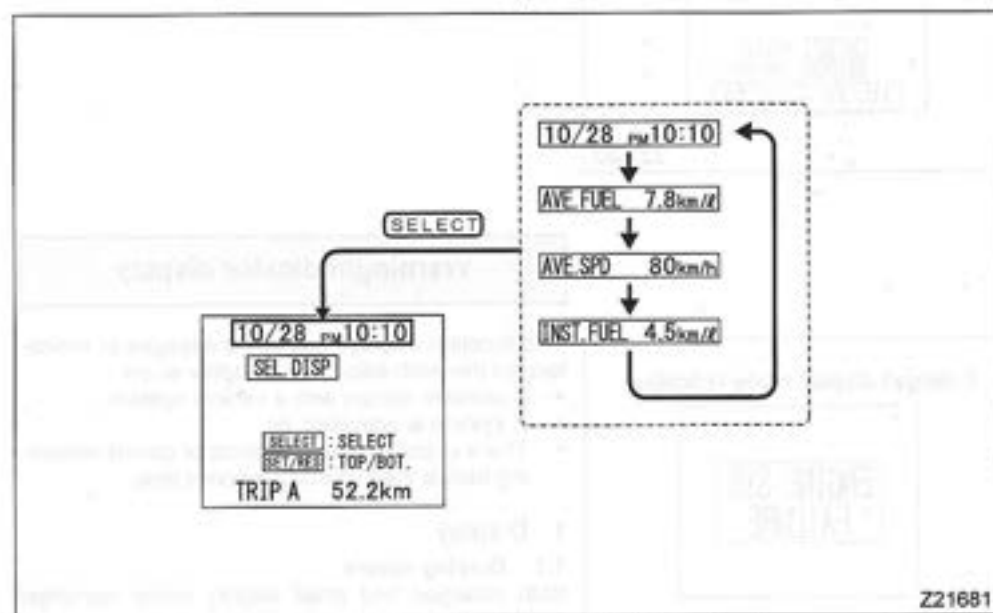
You can select the information displayed at the top of the multi-information display screen.



You can select one of items (1) to (4) listed below for display at the top of the screen.

No.	Display	Information	Ref. page
(1)	10/28 PM 10:10	Clock and calendar (normal information display item)	6-12
(2)	AVE FUEL 7.8km/l	Average fuel economy from fuel economy information (normal information display item)	6-14
(3)	AVE SPD 80km/h	Average vehicle speed from fuel economy information (normal information display item)	6-14
(4)	INST FUEL 4.5km/l	Instantaneous fuel economy from fuel economy information (normal information display item)	6-14

- How to select information for display at the top of the screen

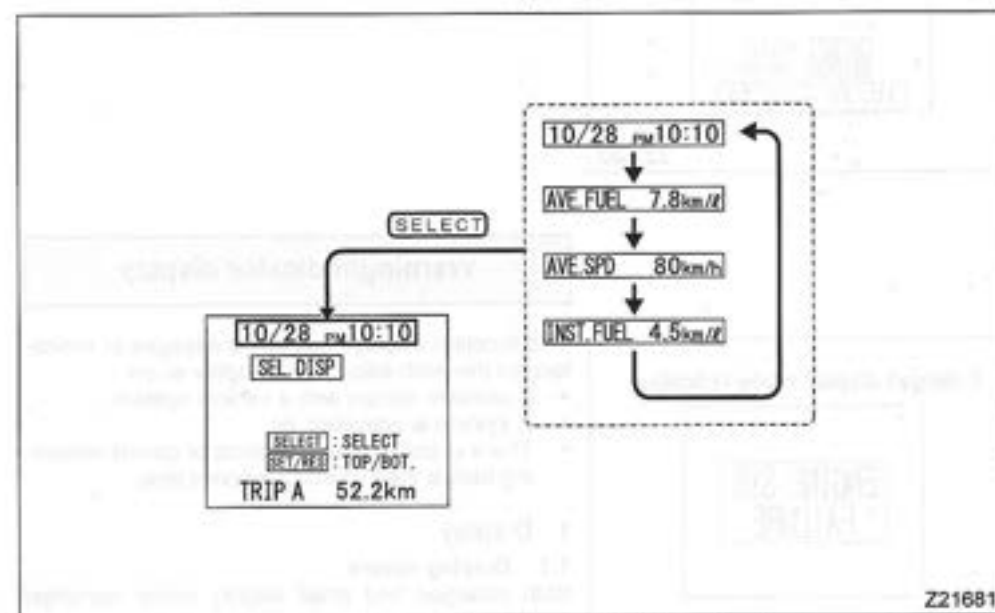


1. Select the display selection screen by pressing the "MODE" switch.
2. Each time the "SELECT" switch is pressed, the displayed item of information changes to the next one.

You can select one of items (1) to (4) listed below for display at the top of the screen.

No.	Display	Information	Ref. page
(1)	10/28 PM 10:10	Clock and calendar (normal information display item)	6-12
(2)	AVE FUEL 7.8km/l	Average fuel economy from fuel economy information (normal information display item)	6-14
(3)	AVE SPD 80km/h	Average vehicle speed from fuel economy information (normal information display item)	6-14
(4)	INST FUEL 4.5km/l	Instantaneous fuel economy from fuel economy information (normal information display item)	6-14

- How to select information for display at the top of the screen



1. Select the display selection screen by pressing the "MODE" switch.
2. Each time the "SELECT" switch is pressed, the displayed item of information changes to the next one.

- **Swapping the top and bottom display lines**
Each time the "SET/RESET" switch is pressed on the display selection screen, the top (selected information) and bottom (odometer or trip meter) display lines will be swapped.



SET/RESET



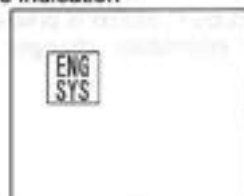
Z21682

Warning/indicator display

Enlarged display mode indication



Small display mode indication
↓ After 3 seconds



Z21683

This function displays warning messages or indicators on the multi-information display when:

- A problem occurs with a vehicle system,
- A system is activated, or
- There is only a small distance or period remaining before the inspection/service time.

1 Display

1.1 Display colors

Both enlarged and small display mode warnings/indicators are shown in the following colors depending on their categories:

- White letters on red background
- Black letters on amber background
- Amber letters on black background

- **Swapping the top and bottom display lines**
Each time the "SET/RESET" switch is pressed on the display selection screen, the top (selected information) and bottom (odometer or trip meter) display lines will be swapped.



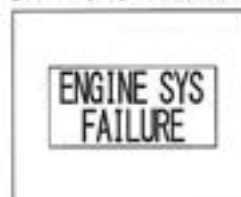
SET/RESET



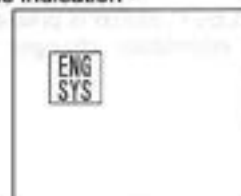
Z21682

Warning/indicator display

Enlarged display mode indication



Small display mode indication
↓ After 3 seconds



Z21683

This function displays warning messages or indicators on the multi-information display when:

- A problem occurs with a vehicle system,
- A system is activated, or
- There is only a small distance or period remaining before the inspection/service time.

1 Display

1.1 Display colors

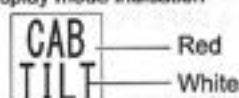
Both enlarged and small display mode warnings/indicators are shown in the following colors depending on their categories:

- White letters on red background
- Black letters on amber background
- Amber letters on black background

Enlarged display mode indication



Small display mode indication



Z21684

1.2 Enlarged and small display mode indications

- When a situation requiring indication of a warning or indicator occurs, the corresponding warning/indicator is first displayed in the enlarged display mode for 3 seconds, then it is displayed in the small display mode.
- The  warning is not indicated in the enlarged display mode; it is indicated only in the small display mode as soon as the corresponding situation occurs.
- If there are 4 or more warnings/indicators to display, they will be displayed one after another for 3 seconds each.

Buzzer

For warnings/indicators associated with situations that could lead to an accident or vehicle breakdown, a buzzer also sounds to warn you. A buzzer indication appears on the multi-information display when a buzzer sounds for any of the following warnings/indications.

Item	Indication
Hill start assist system warning Air suspension system warning	WARNING BUZZER
Parking brake lever unreleased warning	PARK BRAKE
Engine speed overrun warning	OVER RUN
Back up	BACK BUZZER
Automatic transmission overrun warning	AT BUZZER

WARNING BUZZER

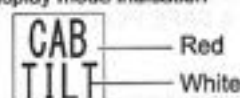


Z21936

Enlarged display mode indication



Small display mode indication



Z21684

1.2 Enlarged and small display mode indications

- When a situation requiring indication of a warning or indicator occurs, the corresponding warning/indicator is first displayed in the enlarged display mode for 3 seconds, then it is displayed in the small display mode.
- The  warning is not indicated in the enlarged display mode; it is indicated only in the small display mode as soon as the corresponding situation occurs.
- If there are 4 or more warnings/indicators to display, they will be displayed one after another for 3 seconds each.

Buzzer

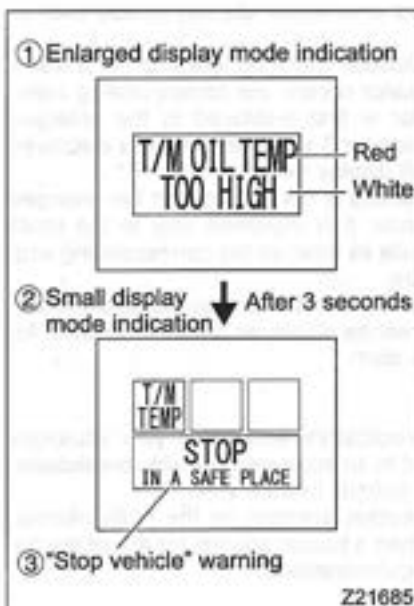
For warnings/indicators associated with situations that could lead to an accident or vehicle breakdown, a buzzer also sounds to warn you. A buzzer indication appears on the multi-information display when a buzzer sounds for any of the following warnings/indications.

Item	Indication
Hill start assist system warning Air suspension system warning	WARNING BUZZER
Parking brake lever unreleased warning	PARK BRAKE
Engine speed overrun warning	OVER RUN
Back up	BACK BUZZER
Automatic transmission overrun warning	AT BUZZER

WARNING BUZZER



Z21936



1.3 "Stop vehicle" warning

If a situation requiring indication in white letters on a red background ① in the enlarged display mode occurs while driving, a "stop vehicle" warning ③ appears at the same time as the indication changes to small display ②. The "stop vehicle" warning will go off when the vehicle is stopped. The warning appears as "STOP IN A SAFE PLACE".

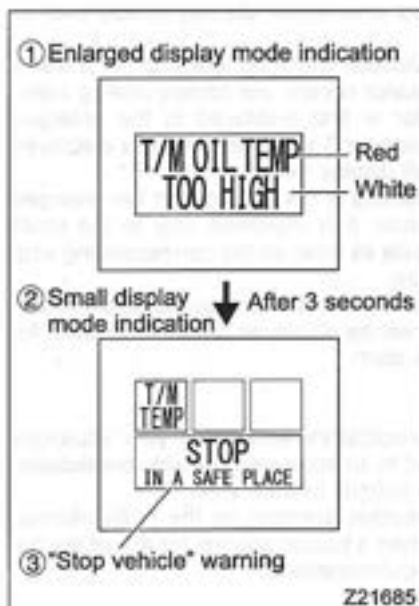
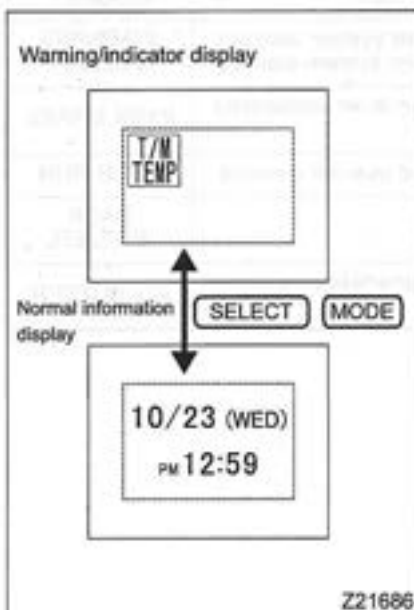
NOTE:

If a new warning/indicator display condition occurs while the "stop vehicle" warning is displayed, the warning/indicator is not shown in the enlarged display mode; it is displayed only in the small display mode as soon as the condition occurs.

1.4 Switching between warning/indicator display and normal information display

The display switches between the warning/indicator display and normal information display each time the "MODE" and "SELECT" switches are pressed simultaneously. However, you cannot switch the display when:

- No warning/indicator display conditions are present, or
- A warning/indicator is displayed in the enlarged display mode or the "stop vehicle" warning is displayed.



1.3 "Stop vehicle" warning

If a situation requiring indication in white letters on a red background ① in the enlarged display mode occurs while driving, a "stop vehicle" warning ③ appears at the same time as the indication changes to small display ②. The "stop vehicle" warning will go off when the vehicle is stopped. The warning appears as "STOP IN A SAFE PLACE".

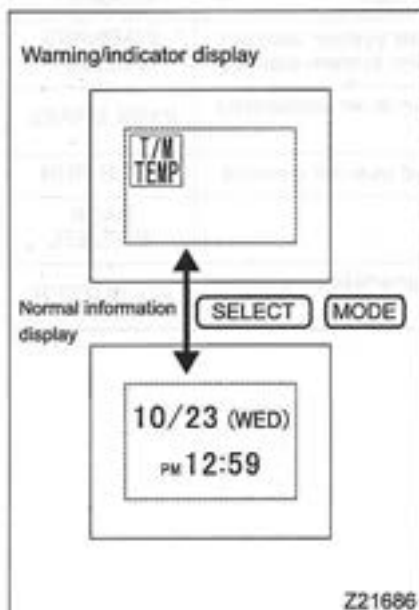
NOTE:

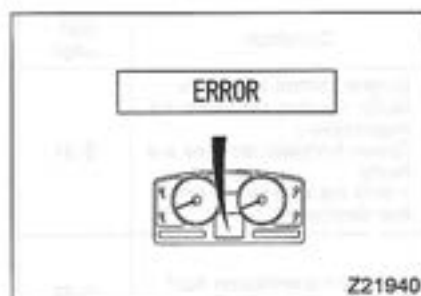
If a new warning/indicator display condition occurs while the "stop vehicle" warning is displayed, the warning/indicator is not shown in the enlarged display mode; it is displayed only in the small display mode as soon as the condition occurs.

1.4 Switching between warning/indicator display and normal information display

The display switches between the warning/indicator display and normal information display each time the "MODE" and "SELECT" switches are pressed simultaneously. However, you cannot switch the display when:

- No warning/indicator display conditions are present, or
- A warning/indicator is displayed in the enlarged display mode or the "stop vehicle" warning is displayed.





1.5 Meter failure indications

If there is a failure in the meter control system, the multi-information display shows "ERROR". If this is displayed, follow the steps below.

- Stop the vehicle in a safe place.
- Set the starter switch to the "ACC" or "LOCK" position for at least 5 seconds, and then set the switch to the "ON" position. If the indication goes off, there is no problem.
- If the indication remains displayed or if it appears repeatedly, have your vehicle inspected by an authorized MITSUBISHI FUSO distributor or dealer as soon as possible. While "ERROR" remains displayed, drive carefully as the meters may not function correctly.

2 Warnings/indicators displayed

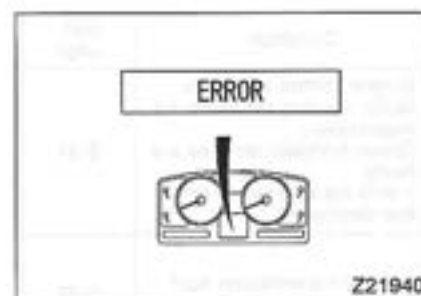
2.1 White letters on red background and black letters on amber background

WARNING

Indications in white letters on a red background require you to immediately stop the vehicle in a safe place and take necessary actions. Continuing to drive without taking necessary actions could lead to a serious accident.

CAUTION

Indications in black letters on an amber background alert you to a malfunction or degraded functionality of components. You should continue to drive carefully for the rest of the trip and then take necessary actions as soon as possible.



1.5 Meter failure indications

If there is a failure in the meter control system, the multi-information display shows "ERROR". If this is displayed, follow the steps below.

- Stop the vehicle in a safe place.
- Set the starter switch to the "ACC" or "LOCK" position for at least 5 seconds, and then set the switch to the "ON" position. If the indication goes off, there is no problem.
- If the indication remains displayed or if it appears repeatedly, have your vehicle inspected by an authorized MITSUBISHI FUSO distributor or dealer as soon as possible. While "ERROR" remains displayed, drive carefully as the meters may not function correctly.

2 Warnings/indicators displayed

2.1 White letters on red background and black letters on amber background

WARNING

Indications in white letters on a red background require you to immediately stop the vehicle in a safe place and take necessary actions. Continuing to drive without taking necessary actions could lead to a serious accident.

CAUTION

Indications in black letters on an amber background alert you to a malfunction or degraded functionality of components. You should continue to drive carefully for the rest of the trip and then take necessary actions as soon as possible.

Enlarged display	Small display	Warning/indicator	Condition	Ref. page
		Engine control warning	- Engine control system is faulty. (Driving may become impossible.) - Speed limitation devices are faulty. <Vehicles with speed limitation devices>	6-31
		Automatic transmission fluid temperature warning	Automatic transmission fluid temperature is too high.	6-32
		Cab tilt warning	- Cab tilt lock is not completely engaged. - When the vehicle speed exceeds 5 km/h, the enlarged display is shown.	12-7
—		Door warning	A door is not completely closed.	3-2
		Coolant level warning	The engine coolant level is too low. (A buzzer will sound.)	12-61
		Coolant temperature warning	The engine coolant temperature is abnormal. (A buzzer will sound.)	6-33
		CAN communication system warning	Failure has occurred in the cab electric system.	6-33
		Automatic transmission control warning	Failure has occurred in the transmission electric control system	6-33
		Vehicle speed control system warning	Failure has occurred in the vehicle electric control system.	6-34
		SRS air bag warning	Failure has occurred in the air bag electric system.	4-15
		Oil filter warning	Engine oil filter is clogged.	12-46
		Air cleaner warning	Air cleaner is clogged.	12-53
		Fuel filter warning	Fuel filter contains too much water.	12-57

Enlarged display	Small display	Warning/indicator	Condition	Ref. page
		Engine control warning	- Engine control system is faulty. (Driving may become impossible.) - Speed limitation devices are faulty. <Vehicles with speed limitation devices>	6-31
		Automatic transmission fluid temperature warning	Automatic transmission fluid temperature is too high.	6-32
		Cab tilt warning	- Cab tilt lock is not completely engaged. - When the vehicle speed exceeds 5 km/h, the enlarged display is shown.	12-7
—		Door warning	A door is not completely closed.	3-2
		Coolant level warning	The engine coolant level is too low. (A buzzer will sound.)	12-61
		Coolant temperature warning	The engine coolant temperature is abnormal. (A buzzer will sound.)	6-33
		CAN communication system warning	Failure has occurred in the cab electric system.	6-33
		Automatic transmission control warning	Failure has occurred in the transmission electric control system	6-33
		Vehicle speed control system warning	Failure has occurred in the vehicle electric control system.	6-34
		SRS air bag warning	Failure has occurred in the air bag electric system.	4-15
		Oil filter warning	Engine oil filter is clogged.	12-46
		Air cleaner warning	Air cleaner is clogged.	12-53
		Fuel filter warning	Fuel filter contains too much water.	12-57

2.2 Indications in amber letters on black background

NOTE:

These indications are displayed when the corresponding systems have been activated. Some of these indications will change to displays in the enlarged display mode for warning if you perform incorrect operation that could lead to an accident or vehicle breakdown while they are on the screen.

Enlarged display / Indication	Small display	Condition	Ref. page
 ASR <Vehicles with ASR>		ASR is in operation.	8-6
 COLD START <Vehicles with cold start switch>		- Cold start switch is "ON". - Will change to enlarged display to give warning if vehicle speed exceeds 5 km/h with the switch in the "ON" position.	5-5
 Transmission PTO <Vehicles with transmission PTO>		- Transmission PTO is engaged. - Will change to enlarged display to give warning if vehicle speed exceeds 20 km/h with PTO engaged.	5-33

2.3 Engine control warning

This warning is displayed when a failure has occurred in the engine control system. (Driving may become impossible.)

On vehicles with speed limitation devices, this warning is also displayed in the case of a failure in the speed limitation devices.

If this warning is displayed while driving, stop the vehicle in a safe place and do the following.

1. Hold the starter switch in the "ACC" or "LOCK" position for at least 5 seconds, then restart the engine.
2. If the indication goes off, there are no problems.
3. If the indication remains displayed, turn off the engine and contact an authorized MITSUBISHI FUSO distributor or dealer.

ENGINE SYS
FAILURE

ENG
SYS

Z21883

2.2 Indications in amber letters on black background

NOTE:

These indications are displayed when the corresponding systems have been activated. Some of these indications will change to displays in the enlarged display mode for warning if you perform incorrect operation that could lead to an accident or vehicle breakdown while they are on the screen.

Enlarged display / Indication	Small display	Condition	Ref. page
 ASR <Vehicles with ASR>		ASR is in operation.	8-6
 COLD START <Vehicles with cold start switch>		- Cold start switch is "ON". - Will change to enlarged display to give warning if vehicle speed exceeds 5 km/h with the switch in the "ON" position.	5-5
 Transmission PTO <Vehicles with transmission PTO>		- Transmission PTO is engaged. - Will change to enlarged display to give warning if vehicle speed exceeds 20 km/h with PTO engaged.	5-33

2.3 Engine control warning

This warning is displayed when a failure has occurred in the engine control system. (Driving may become impossible.)

On vehicles with speed limitation devices, this warning is also displayed in the case of a failure in the speed limitation devices.

If this warning is displayed while driving, stop the vehicle in a safe place and do the following.

1. Hold the starter switch in the "ACC" or "LOCK" position for at least 5 seconds, then restart the engine.
2. If the indication goes off, there are no problems.
3. If the indication remains displayed, turn off the engine and contact an authorized MITSUBISHI FUSO distributor or dealer.

ENGINE SYS
FAILURE

ENG
SYS

Z21883



Z21884

2.4 Automatic transmission fluid temperature warning <Automatic transmission vehicles>

This warning is displayed when the automatic transmission fluid temperature is too high.

If the warning is displayed while driving, immediately stop the vehicle in a safe place and follow the steps below.

1. Engage the parking brake firmly and place the range selector lever in the "N" position.
2. Use the idling adjustment button to run the engine at a speed slightly higher than the ordinary idling speed to allow it to cool down.
3. You can drive the vehicle if the warning goes out.
4. If the indication remains displayed or if it appears repeatedly, the cooling system may be faulty. Avoid continuing to drive and contact an authorized MITSUBISHI FUSO distributor or dealer immediately.

⚠ CAUTION

- Do not turn off the engine too quickly, otherwise the transmission could seize.
- Wait until the indication goes off before stopping the engine.

While cooling the transmission, perform the following inspection:

1. Check that the electric fans on both sides of vehicle are operating.

⚠ WARNING

Never touch the fan even if it is not turning. The fan could suddenly start operating and cause injury.

2. If the fan is not operating, check the fuse; replace it if blown. ⇨ P. 13-9
Check the oil cooler for mud or other dirt, and clean it if necessary. ⇨ P. 12-114
3. Check the automatic transmission for fluid leakage. If any leakage is found, call an authorized MITSUBISHI FUSO distributor or dealer for repair.



Z21884

2.4 Automatic transmission fluid temperature warning <Automatic transmission vehicles>

This warning is displayed when the automatic transmission fluid temperature is too high.

If the warning is displayed while driving, immediately stop the vehicle in a safe place and follow the steps below.

1. Engage the parking brake firmly and place the range selector lever in the "N" position.
2. Use the idling adjustment button to run the engine at a speed slightly higher than the ordinary idling speed to allow it to cool down.
3. You can drive the vehicle if the warning goes out.
4. If the indication remains displayed or if it appears repeatedly, the cooling system may be faulty. Avoid continuing to drive and contact an authorized MITSUBISHI FUSO distributor or dealer immediately.

⚠ CAUTION

- Do not turn off the engine too quickly, otherwise the transmission could seize.
- Wait until the indication goes off before stopping the engine.

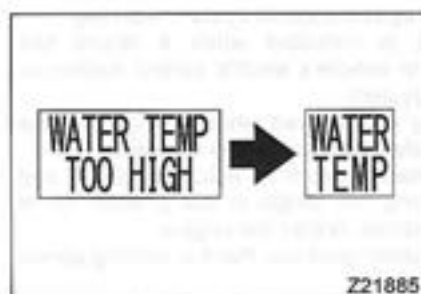
While cooling the transmission, perform the following inspection:

1. Check that the electric fans on both sides of vehicle are operating.

⚠ WARNING

Never touch the fan even if it is not turning. The fan could suddenly start operating and cause injury.

2. If the fan is not operating, check the fuse; replace it if blown. ⇨ P. 13-9
Check the oil cooler for mud or other dirt, and clean it if necessary. ⇨ P. 12-114
3. Check the automatic transmission for fluid leakage. If any leakage is found, call an authorized MITSUBISHI FUSO distributor or dealer for repair.

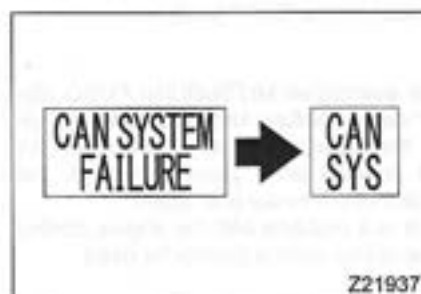


2.5 Coolant temperature warning

This warning is displayed when the engine coolant temperature is abnormal.

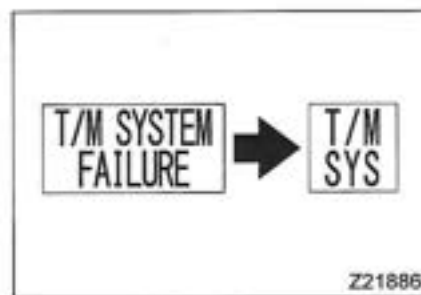
If the warning is displayed while driving, stop the vehicle in a safe place and follow the steps below. The buzzer will stop sounding when the parking brake is engaged.

1. If the needle of the water temperature gauge is in the red zone, take actions against overheating. ⇨ □ P. 13-8
2. If the needle of the water temperature gauge indicates a normal temperature, check the coolant level. Replenish the coolant if the level is too low. ⇨ □ P. 12-62



2.6 CAN communication system warning

This warning is displayed when a failure has occurred in the cab electric system. Have your vehicle inspected by an authorized MITSUBISHI FUSO distributor or dealer.



2.7 Automatic transmission control warning <Automatic transmission vehicles>

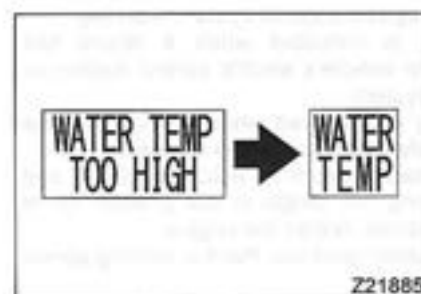
This warning is displayed when a failure has occurred in the electric control system of the automatic transmission.

If the warning is displayed, the available gears are limited. If the vehicle can be driven, move it to a safe place, stop the vehicle, then do the following.

1. Turn the starter switch to the "ACC" or "LOCK" position to stop the engine.
2. Restart the engine after waiting about 10 seconds.
3. Restarting the engine may reset the computer program and the system may start working normally in some cases, but this may not take place in other cases. If the warning remains displayed or if it appears repeatedly, have the vehicle inspected by an authorized MITSUBISHI FUSO distributor or dealer as soon as possible.

NOTE:

Do not stop the engine until you have stopped the vehicle in a safe place. If you stop the engine too early, the "N" range will automatically be selected, preventing the vehicle from restarting.

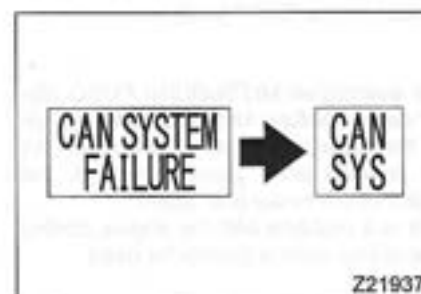


2.5 Coolant temperature warning

This warning is displayed when the engine coolant temperature is abnormal.

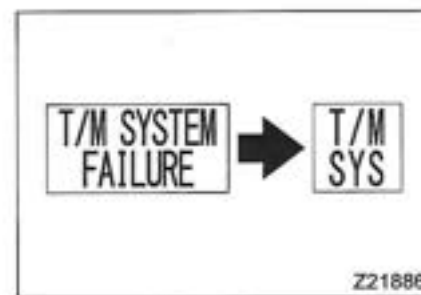
If the warning is displayed while driving, stop the vehicle in a safe place and follow the steps below. The buzzer will stop sounding when the parking brake is engaged.

1. If the needle of the water temperature gauge is in the red zone, take actions against overheating. ⇨ □ P. 13-8
2. If the needle of the water temperature gauge indicates a normal temperature, check the coolant level. Replenish the coolant if the level is too low. ⇨ □ P. 12-62



2.6 CAN communication system warning

This warning is displayed when a failure has occurred in the cab electric system. Have your vehicle inspected by an authorized MITSUBISHI FUSO distributor or dealer.



2.7 Automatic transmission control warning <Automatic transmission vehicles>

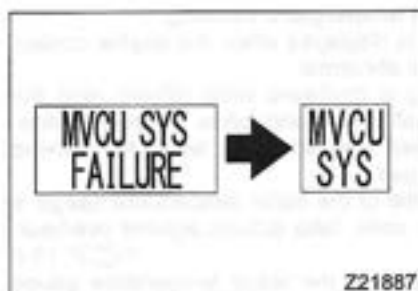
This warning is displayed when a failure has occurred in the electric control system of the automatic transmission.

If the warning is displayed, the available gears are limited. If the vehicle can be driven, move it to a safe place, stop the vehicle, then do the following.

1. Turn the starter switch to the "ACC" or "LOCK" position to stop the engine.
2. Restart the engine after waiting about 10 seconds.
3. Restarting the engine may reset the computer program and the system may start working normally in some cases, but this may not take place in other cases. If the warning remains displayed or if it appears repeatedly, have the vehicle inspected by an authorized MITSUBISHI FUSO distributor or dealer as soon as possible.

NOTE:

Do not stop the engine until you have stopped the vehicle in a safe place. If you stop the engine too early, the "N" range will automatically be selected, preventing the vehicle from restarting.

**2.8 Vehicle speed control system warning**

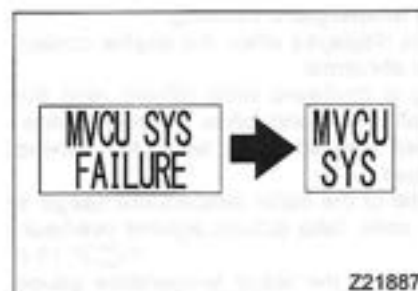
This warning is indicated when a failure has occurred in the vehicle's electric control system or fuel injection system.

If the warning is displayed while driving, stop the vehicle in a safe place and do the following.

1. Turn the starter switch to "ACC" or "LOCK" and after keeping the switch in this position for at least 5 seconds, restart the engine.
 2. If the indication goes out, there is nothing abnormal.
 3. If the indication remains displayed, have the vehicle inspected by an authorized MITSUBISHI FUSO distributor or dealer as soon as possible.
- On a vehicle with auto-cruise control, set the auto-cruise main switch to the "OFF" position.

NOTE:

- Consult an authorized MITSUBISHI FUSO distributor or dealer before installing radio equipment. If the equipment is installed in an unsuitable position or is poorly adjusted, the cruise control system may malfunction.
- When there is a problem with the engine control system, the cruise control cannot be used.

**2.8 Vehicle speed control system warning**

This warning is indicated when a failure has occurred in the vehicle's electric control system or fuel injection system.

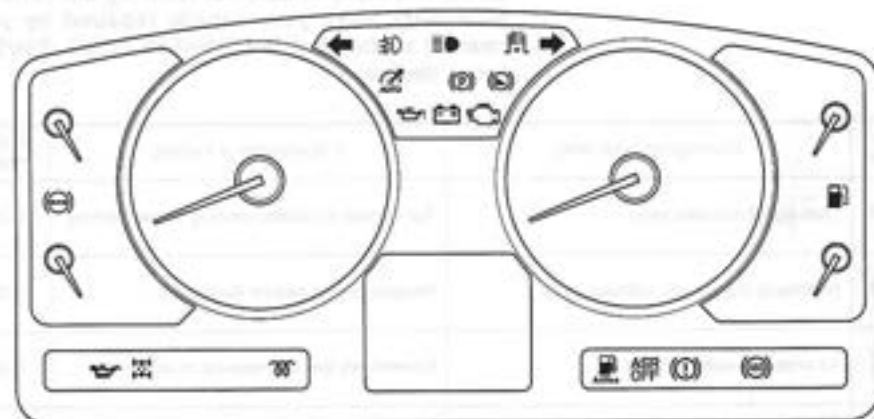
If the warning is displayed while driving, stop the vehicle in a safe place and do the following.

1. Turn the starter switch to "ACC" or "LOCK" and after keeping the switch in this position for at least 5 seconds, restart the engine.
 2. If the indication goes out, there is nothing abnormal.
 3. If the indication remains displayed, have the vehicle inspected by an authorized MITSUBISHI FUSO distributor or dealer as soon as possible.
- On a vehicle with auto-cruise control, set the auto-cruise main switch to the "OFF" position.

NOTE:

- Consult an authorized MITSUBISHI FUSO distributor or dealer before installing radio equipment. If the equipment is installed in an unsuitable position or is poorly adjusted, the cruise control system may malfunction.
- When there is a problem with the engine control system, the cruise control cannot be used.

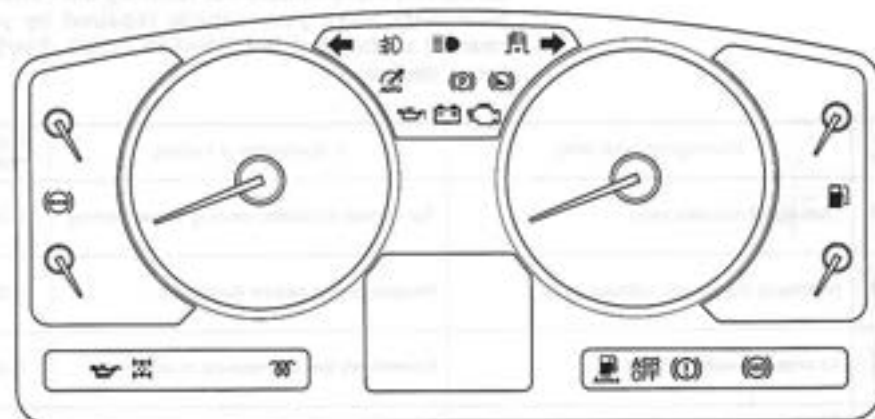
Warning/indicator lamps



Z21790

The illustration shows the standard arrangement of the warning and indicator lamps. Some lamps shown here, however, may not be installed on your vehicle.

Warning/indicator lamps



Z21790

The illustration shows the standard arrangement of the warning and indicator lamps. Some lamps shown here, however, may not be installed on your vehicle.

CAUTION

The red warning lamps, if illuminated, warn you of vehicle component failures and possible danger of accident. Never drive the vehicle while a red warning lamp is illuminated. If any of them light up, stop the vehicle as soon as it is safe to do so and make checks for locating the cause. If necessary, have your vehicle repaired by your nearest authorized MITSUBISHI FUSO distributor or dealer.

Lamp symbol	Warning/indicator lamp	If illuminates or flashes	Ref. page
	Turn signal indicator lamp	Turn signal or hazard warning lamps flashing	5-29
	Headlamp high beam indicator lamp	Headlamp high beams illuminated	5-29
	Air pressure warning lamp	Excessively low air pressure in air tank (*)	6-39
	Brake warning lamp <Vehicles with air-over hydraulic brakes>	Brake fluid at an excessively low level (*)	6-39
	Parking brake indicator lamp	Parking brake activated	5-25
	Exhaust brake indicator lamp	- Exhaust brake activated - Cold start switch ON	5-30 5-5
	Charge warning lamp	Problem in battery charging system	12-66 13-9
	Engine oil level indicator lamp	Green Engine oil level is adequate. Amber Engine oil level is too low.	12-32
	Engine oil pressure warning lamp	Excessively low engine oil pressure (*)	12-30
	Engine control warning lamp	- Fault in engine control system - Fault in BlueTec® exhaust gas after-treatment If the lamp is flashing, the emission limit may have been exceeded. Engine control may have entered the emergency mode with limited engine output.	6-40
	Cruise control indicator lamp <Vehicles with cruise control>	Cruise control activated	5-35
	ABS warning lamp	Fault in ABS	6-41

CAUTION

The red warning lamps, if illuminated, warn you of vehicle component failures and possible danger of accident. Never drive the vehicle while a red warning lamp is illuminated. If any of them light up, stop the vehicle as soon as it is safe to do so and make checks for locating the cause. If necessary, have your vehicle repaired by your nearest authorized MITSUBISHI FUSO distributor or dealer.

Lamp symbol	Warning/indicator lamp	If illuminates or flashes	Ref. page
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	Charge warning lamp	Problem in battery charging system	12-66 13-9
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	Cruise control indicator lamp <Vehicles with cruise control>	Cruise control activated	5-35
	ABS warning lamp	Fault in ABS	6-41

Lamp symbol	Warning/indicator lamp		If illuminates or flashes	Ref. page
	Differential lock indicator lamp <FN52, FN54>		Differential lock activated	5-34
	Front fog lamp indicator lamp <Vehicles with front fog lamps>		Front fog lamps are on.	5-32
	Preheating indicator lamp <Vehicles with engine preheating system>		Preheating of engine is in progress.	5-7
	AdBlue® level warning lamp		Quantity of AdBlue® in urea tank has fallen too low. If the  warning lamp flashes at the same time, the urea tank is empty.	1-10
	ASR indicator lamp <Vehicles with ASR>		- ASR control is cut off (temporary deactivation of ASR by ASR cutoff switch). - Fault in ASR	8-7
	Green	Hill start assist system indicator lamp <Vehicles with a hill start assist system>	Hill start assist system is in operation.	8-11
	Amber	Hill start assist system warning lamp <Vehicles with a hill start assist system>	Hill start assist system is faulty.	8-11
	Fuel level warning lamp		Quantity of fuel has fallen too low.	1-5 6-4

NOTE:

(*): Warning lamps illumination of which is accompanied by a buzzer sounding.

The warning/indicator lamps shown below come on when the starter switch is turned from the "ACC" position to the "ON" position but almost immediately go off.

Lamp symbol	Warning/indicator lamp		If illuminates or flashes	Ref. page
	Differential lock indicator lamp <FN52, FN54>		Differential lock activated	5-34
	Front fog lamp indicator lamp <Vehicles with front fog lamps>		Front fog lamps are on.	5-32
	Preheating indicator lamp <Vehicles with engine preheating system>		Preheating of engine is in progress.	5-7
	AdBlue® level warning lamp		Quantity of AdBlue® in urea tank has fallen too low. If the  warning lamp flashes at the same time, the urea tank is empty.	1-10
	ASR indicator lamp <Vehicles with ASR>		- ASR control is cut off (temporary deactivation of ASR by ASR cutoff switch). - Fault in ASR	8-7
	Green	Hill start assist system indicator lamp <Vehicles with a hill start assist system>	Hill start assist system is in operation.	8-11
	Amber	Hill start assist system warning lamp <Vehicles with a hill start assist system>	Hill start assist system is faulty.	8-11
	Fuel level warning lamp		Quantity of fuel has fallen too low.	1-5 6-4

NOTE:

(*): Warning lamps illumination of which is accompanied by a buzzer sounding.

The warning/indicator lamps shown below come on when the starter switch is turned from the "ACC" position to the "ON" position but almost immediately go off.

Lamp symbol	Warning/indicator lamp	Operation
	Charge warning lamp	Goes off when engine is started.
	Engine oil pressure warning lamp	Goes off when engine is started.
	Engine control warning lamp	Goes off when engine is started.
	Cruise control indicator lamp <Vehicles with cruise control>	Goes off a few seconds after starter switch is turned to "ON" position.
	Engine oil level indicator lamp	Goes off when engine is started.
	ABS warning lamp	Goes off 2 seconds after starter switch is turned to "ON" position or when vehicle speed exceeds 10 km/h.
	ASR indicator lamp <Vehicles with ASR>	Goes off 3 seconds after starter switch is turned to "ON" position.
 Amber	Hill start assist system warning lamp <Vehicles with a hill start assist system>	Goes off a few seconds after starter switch is turned to "ON" position.
	Air pressure warning lamp	Goes off when engine is started.
	Brake warning lamp <Vehicles with air-over hydraulic brakes>	Goes off when engine is started.

Lamp symbol	Warning/indicator lamp	Operation
	Charge warning lamp	Goes off when engine is started.
	Engine oil pressure warning lamp	Goes off when engine is started.
	Engine control warning lamp	Goes off when engine is started.
	Cruise control indicator lamp <Vehicles with cruise control>	Goes off a few seconds after starter switch is turned to "ON" position.
	Engine oil level indicator lamp	Goes off when engine is started.
	ABS warning lamp	Goes off 2 seconds after starter switch is turned to "ON" position or when vehicle speed exceeds 10 km/h.
	ASR indicator lamp <Vehicles with ASR>	Goes off 3 seconds after starter switch is turned to "ON" position.
 Amber	Hill start assist system warning lamp <Vehicles with a hill start assist system>	Goes off a few seconds after starter switch is turned to "ON" position.
	Air pressure warning lamp	Goes off when engine is started.
	Brake warning lamp <Vehicles with air-over hydraulic brakes>	Goes off when engine is started.



Z21639

1 Air pressure warning lamp

⚠ WARNING

Braking is dangerously sluggish when the air pressure warning lamp is illuminated. For safety, never drive with the vehicle in this condition.

This warning lamp lights up when the air pressure in the air tank has dropped to an abnormally low level. A buzzer also sounds.

The brakes' effectiveness will have deteriorated. Stop the vehicle in a safe place by applying strong pressure to the brake pedal.

The buzzer will stop sounding when the starter switch is put in the "ACC" or "LOCK" position. Perform the following check.

1. With the engine stationary, run the engine at an intermediate speed and wait for the lamp to go off.
2. If the lamp does not go off or goes off and soon comes back on, do not drive the vehicle. Contact an authorized MITSUBISHI FUSO distributor or dealer.



Z10836

2 Brake warning lamp

<Vehicles with air-over hydraulic brakes>

⚠ WARNING

Braking is dangerously sluggish when the brake warning lamp is illuminated. For safety, never drive with the vehicle in this condition.

The brake warning lamp lights up when the brake fluid level is too low. A buzzer also sounds.

Park the vehicle in a safe place.

The buzzer will stop sounding when the starter switch is put in the "ACC" or "LOCK" position.

Check the brake fluid level in the reservoir tank, and replenish the fluid if necessary.



Z21639

1 Air pressure warning lamp

⚠ WARNING

Braking is dangerously sluggish when the air pressure warning lamp is illuminated. For safety, never drive with the vehicle in this condition.

This warning lamp lights up when the air pressure in the air tank has dropped to an abnormally low level. A buzzer also sounds.

The brakes' effectiveness will have deteriorated. Stop the vehicle in a safe place by applying strong pressure to the brake pedal.

The buzzer will stop sounding when the starter switch is put in the "ACC" or "LOCK" position. Perform the following check.

1. With the engine stationary, run the engine at an intermediate speed and wait for the lamp to go off.
2. If the lamp does not go off or goes off and soon comes back on, do not drive the vehicle. Contact an authorized MITSUBISHI FUSO distributor or dealer.



Z10836

2 Brake warning lamp

<Vehicles with air-over hydraulic brakes>

⚠ WARNING

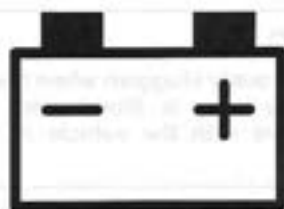
Braking is dangerously sluggish when the brake warning lamp is illuminated. For safety, never drive with the vehicle in this condition.

The brake warning lamp lights up when the brake fluid level is too low. A buzzer also sounds.

Park the vehicle in a safe place.

The buzzer will stop sounding when the starter switch is put in the "ACC" or "LOCK" position.

Check the brake fluid level in the reservoir tank, and replenish the fluid if necessary.



Z10484

3 Charge warning lamp

The lamp also lights up if a problem occurs in the battery charging system while the engine is running. If this occurs, pull off the road as soon as it is safe to do so, and perform the following checks.

1. Check whether the fan belt has broken and whether its tension is normal.
2. Check whether the high-current fuse has blown.
3. If the above-mentioned inspections reveal no abnormality, do not drive the vehicle. Contact an authorized MITSUBISHI FUSO distributor or dealer.



Z10476

4 Engine oil pressure warning lamp

While the engine is running, this warning lamp lights up if the engine oil pressure has dropped abnormally. A buzzer also sounds. Immediately stop the vehicle in a safe place.

The buzzer will stop sounding when you apply the parking brake. Perform the following check.

1. Check the engine oil level, and replenish the oil if necessary.
2. If the engine oil level is normal, the lubrication system is faulty. Do not drive the vehicle. Contact an authorized MITSUBISHI FUSO distributor or dealer.



Z11009

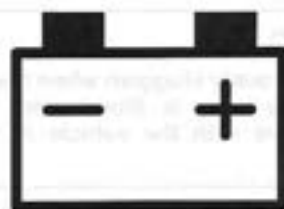
5 Engine control warning lamp

The warning lamp comes on or flashes in any of the following cases:

- The engine control system becomes faulty.
- The BlueTec® exhaust gas aftertreatment becomes faulty.
- If the lamp is flashing, the emission limit may have been exceeded. Engine control may have entered the emergency mode with limited engine output.

Immediately stop the vehicle in a safe place and do the following.

1. Place the starter switch in the "ACC" or "LOCK" position for at least approx. 5 seconds before restarting the engine.
2. When the engine is restarted as described above, the lamp will not go out but the vehicle can be driven.



Z10484

3 Charge warning lamp

The lamp also lights up if a problem occurs in the battery charging system while the engine is running. If this occurs, pull off the road as soon as it is safe to do so, and perform the following checks.

1. Check whether the fan belt has broken and whether its tension is normal.
2. Check whether the high-current fuse has blown.
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Z10476

4 Engine oil pressure warning lamp

While the engine is running, this warning lamp lights up if the engine oil pressure has dropped abnormally. A buzzer also sounds. Immediately stop the vehicle in a safe place.

The buzzer will stop sounding when you apply the parking brake. Perform the following check.

1. Check the engine oil level, and replenish the oil if necessary.
2. If the engine oil level is normal, the lubrication system is faulty. Do not drive the vehicle. Contact an authorized MITSUBISHI FUSO distributor or dealer.



Z11009

5 Engine control warning lamp

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- The engine control system becomes faulty.
- The BlueTec® exhaust gas aftertreatment becomes faulty.
- If the lamp is flashing, the emission limit may have been exceeded. Engine control may have entered the emergency mode with limited engine output.

Immediately stop the vehicle in a safe place and do the following.

1. Place the starter switch in the "ACC" or "LOCK" position for at least approx. 5 seconds before restarting the engine.
2. When the engine is restarted as described above, the lamp will not go out but the vehicle can be driven.

3. If the lamp remains on, have the vehicle inspected by an authorized MITSUBISHI FUSO distributor or dealer as soon as possible.

⚠ CAUTION

If the vehicle is driven while the warning lamps are lit, the amount of NOx in the exhaust gas will increase. This will not only adversely affect the environment but also may damage the BlueTec® exhaust gas aftertreatment.

6 ABS warning lamp

If illuminated, this lamp indicates that there is a malfunction in the anti-lock brake system (ABS). Should this lamp illuminate during driving, stop the vehicle in a safe place and perform the following inspection.

NOTE:

<Air-over hydraulic brake vehicles>

The ABS is normal if the  warning lamp lights up when the starter switch is turned on and goes out when the vehicle speed exceeds approx. 10 km/h.

<Full air brake vehicles>

The ABS is normal if the  warning lamp lights up when the starter switch is turned on and goes out in some seconds.

1. Turn off the engine, then set the ignition switch to the "ON" position again.
2. Determine the system condition as follows:
 - The system is faulty if the warning lamp does not illuminate.
 - The system is normal if the warning lamp illuminates and then it goes out when the vehicle speed exceeds approx. 10 km/h.
3. If the system is found to be faulty, have the system repaired by an authorized MITSUBISHI FUSO distributor or dealer as soon as possible.

NOTE:

Even with the ABS faulty and the warning lamp remaining lit, the normal brake system is still functioning satisfactorily. Only the ABS function is lost.



3. If the lamp remains on, have the vehicle inspected by an authorized MITSUBISHI FUSO distributor or dealer as soon as possible.

⚠ CAUTION

If the vehicle is driven while the warning lamps are lit, the amount of NOx in the exhaust gas will increase. This will not only adversely affect the environment but also may damage the BlueTec® exhaust gas aftertreatment.

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7. Starting and driving

Precautions when setting the vehicle in motion	7-2
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7. Starting and driving

Precautions when setting the vehicle in motion	7-2
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Loading cargo	7-15

Precautions when setting the vehicle in motion

- Check the immediate area around the vehicle, using mirrors as necessary: there should be no persons or obstacles under, in front of, on either side, or behind the vehicle.
If you wish to reverse but cannot confirm safety behind the vehicle using the mirrors, get out of the vehicle and perform the check.
- Check that none of the red warning lamps are illuminated.
- Fully release the parking brake.
- In a manual transmission vehicle, always set the vehicle in motion slowly. When pulling away, avoid racing the engine and suddenly engaging the clutch. Sudden starts place undue strain on the vehicle and should be avoided. Also, avoid slipping the clutch for extended periods since this can damage it.
- In an automatic transmission vehicle, depress the brake pedal and move the range selector lever out of the "N" position. If the engine's idling speed is too high, selecting the "D" or "R" ranges may make the vehicle lurch. Normalize the engine's idling speed before pulling away. Operation of the air conditioner (vehicle with an air conditioner) or the urea piping heater raises the engine idling speed and makes the vehicle pull away faster than expected.

NOTE:

If the engine speed is too high for the gear range you are trying to shift into, the range selector lever is prevented from being shifted to that range. If this happens, a buzzer sounds and the multi-information display shows "A/T BUZZER".

Precautions for driving

Observe the following precautions while driving. Should you notice anything unusual about the vehicle, immediately stop the vehicle and inspect the relevant sections to find the cause of the trouble. If you are unable to identify the cause of the trouble or unable to do the repairs yourself, call your nearest authorized MITSUBISHI FUSO distributor or dealer.

Precautions when setting the vehicle in motion

- Check the immediate area around the vehicle, using mirrors as necessary: there should be no persons or obstacles under, in front of, on either side, or behind the vehicle.
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Observe the following precautions while driving. Should you notice anything unusual about the vehicle, immediately stop the vehicle and inspect the relevant sections to find the cause of the trouble. If you are unable to identify the cause of the trouble or unable to do the repairs yourself, call your nearest authorized MITSUBISHI FUSO distributor or dealer.

- Do not stop the engine while the vehicle is moving.

WARNING

Never place the starter switch in any position other than the "ON" position while operating the vehicle.

If you turn the starter switch to the "ACC" position, the engine will stop. This is dangerous.

If the engine stops during driving:

- The compressed air used to enhance braking ceases to be generated. This could significantly reduce the effectiveness of the brakes.
- The power steering system becomes inoperative, rendering steering dangerously sluggish.
- The fuel injection system can malfunction.
- The electrical circuits of the warning lamps, meters, etc. become inoperative, causing electric components to malfunction.

Removing the starter key causes the steering wheel to lock, making it impossible to steer the vehicle.

- Should the engine stall while the vehicle is in motion, do not panic. Simply depress the brake pedal to slow the vehicle, and pull off the road as soon as it is safe to do so.
- If a red warning lamp comes on, the multi-information display shows a red warning, the buzzer sounds, or the vehicle behaves abnormally, stop the vehicle in the nearest safe place and investigate the cause. ⇨ P. 6-26, 6-35
If you cannot identify the cause or cannot rectify the problem, contact an authorized MITSUBISHI FUSO distributor or dealer.
- Avoid making sharp turns and braking hard except in emergencies. Doing so during high-speed driving could cause the vehicle to tip over.
- If you notice a strange noise, vibration, or smell, or if steering or braking feels unusual, pull the vehicle off the road as soon as it is safe to do so and check for the source of the trouble. If you cannot determine the cause of the problem and/or cannot rectify it, contact the nearest authorized MITSUBISHI FUSO distributor or dealer.
- Do not operate the vehicle with the clutch disengaged or the gearshift lever in neutral.

- Do not stop the engine while the vehicle is moving.

WARNING

Never place the starter switch in any position other than the "ON" position while operating the vehicle.

If you turn the starter switch to the "ACC" position, the engine will stop. This is dangerous.

If the engine stops during driving:

- The compressed air used to enhance braking ceases to be generated. This could significantly reduce the effectiveness of the brakes.
- The power steering system becomes inoperative, rendering steering dangerously sluggish.
- The fuel injection system can malfunction.
- The electrical circuits of the warning lamps, meters, etc. become inoperative, causing electric components to malfunction.

Removing the starter key causes the steering wheel to lock, making it impossible to steer the vehicle.

- Should the engine stall while the vehicle is in motion, do not panic. Simply depress the brake pedal to slow the vehicle, and pull off the road as soon as it is safe to do so.
- If a red warning lamp comes on, the multi-information display shows a red warning, the buzzer sounds, or the vehicle behaves abnormally, stop the vehicle in the nearest safe place and investigate the cause. ⇨ P. 6-26, 6-35
If you cannot identify the cause or cannot rectify the problem, contact an authorized MITSUBISHI FUSO distributor or dealer.
- Avoid making sharp turns and braking hard except in emergencies. Doing so during high-speed driving could cause the vehicle to tip over.
- If you notice a strange noise, vibration, or smell, or if steering or braking feels unusual, pull the vehicle off the road as soon as it is safe to do so and check for the source of the trouble. If you cannot determine the cause of the problem and/or cannot rectify it, contact the nearest authorized MITSUBISHI FUSO distributor or dealer.
- Do not operate the vehicle with the clutch disengaged or the gearshift lever in neutral.

Doing so will render the engine braking and exhaust brake features ineffective, forcing you to rely only on the service brakes and overusing them in the process.

- Do not slip the clutch. Clutch-slipping occurs when you partially depress the clutch pedal while the vehicle is in motion.

This will shorten the service life of the clutch.

- When driving on narrow streets or when making a turn, keep in mind that the tracking of the front and rear inner wheels is different, and also make sure of rearward safety using the rearview mirrors.

- Remember that the mirrors protrude from the vehicle body. Be careful not to hit pedestrians and obstructions with the mirrors when driving on narrow roads.

Looking at the mirrors while driving causes your line of vision to move significantly. Be sure to keep paying attention to safety ahead of the vehicle.

- Do not keep the steering wheel turned fully to either side for more than 10 seconds. Doing so could cause the power steering system to malfunction.
- Do not try to forcefully turn the steering wheel when the front wheels are stuck against a curbstone or other object. Doing so could cause the steering gearbox to fail.
- Continuous high-speed driving burdens the engine and other vehicle parts. Allow yourself enough time that you do not need to push the vehicle too hard.
- Perform your pre-operation checks with particular care when you expect to drive at high speeds.

When continuously driving at high speeds, your sense of speed may become dull. Pay constant attention to your speed, and maintain an adequate distance from the preceding vehicle.

- If the vehicle has a speed limitation device, the maximum speed will be limited to 100 km/h or 60 km/h, so be very careful when overtaking.
- If a tire bursts or gets punctured while you are driving at high speed, do not panic. Keep a firm grip on the steering wheel and gradually reduce your speed. Stop the vehicle in the nearest safe place. Do not brake sharply. Braking sharply would be dangerous because the steering wheel would be pulled to one side with great force.

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- Do not drive your vehicle if a tire has been punctured. Failure to observe this precaution will expose the wheel bolts to excessive force, and this in turn could lead to bolt or wheel damage.
- When driving at high speeds in the rain, it sometimes happens that the tires ride on a film of water and lose contact with the road surface. This is known as "hydroplaning". If this should happen, you will lose control of both steering and braking. Therefore, be sure to maintain moderate speeds on rainy days. Hydroplaning can easily occur if tire tread is worn to the point where the tread pattern is very shallow.
- Do not use the exhaust brake on a wet, frozen, snow-covered, or otherwise slippery road surface when the vehicle is lightly loaded or not loaded. Using the exhaust brake under such conditions could cause the tires to slip on the road surface, resulting in a skid.
- Do not use a mobile telephone while driving. If you wish to use a mobile telephone, first stop the vehicle in a safe place. Using a mobile telephone while driving could distract your attention from the vehicle and from the road ahead, resulting in an accident.
- Operate the radio and other items of equipment in the cab when the vehicle is stationary. It is dangerous to operate such items of equipment or use a carphone (other than a hands-free type) while driving.
- Never pull up the lock release knob in the cab while driving. An unlocked front panel could open and obstruct your vision, which is very dangerous.
- Do not allow a child to touch the driver's controls and other equipment. A child's interference could cause a fault or accident.

Tips for improving fuel economy

Observe the following precautions to achieve maximum fuel economy and to extend tire life.

- Continue warming up the engine only to the point at which the water temperature gauge needle begins to move.
- Avoid racing the engine as doing so not only wastes fuel but also harms the engine.
- Avoid sudden starts, sudden acceleration, and sudden braking.

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- When accelerating, do not wind the engine out before changing gears; instead, change gears before engine speed reaches a high RPM.
- Try to drive at moderate and constant speeds. Unnecessary acceleration and deceleration causes fuel waste.
- The maximum speed of a vehicle fitted with a speed limitation device is 100 km/h or 60 km/h. After reaching the maximum speed, run the vehicle in high gear in order to improve the fuel economy.
- Do not keep the exhaust brake switch in the activation position at all times. Keeping the switch in the activation position worsens fuel consumption, as doing so causes the exhaust brake to work frequently and thus the vehicle to decelerate and accelerate frequently. Save fuel by using the exhaust brake switch appropriately according to road and traffic conditions.
- Always keep the air pressure in tires correctly adjusted.
- Try to load cargo in a way that minimizes wind resistance. ⇨ P. 7-15
- Be sure to perform the pre-operational checks and periodic inspections.

Braking

Applying even a light pressure to the brake pedal provides powerful braking. Therefore, do not step hard on the brake pedal except in emergencies. When driving downhill, use engine braking as well as exhaust braking in combination with the service brake. ⇨ P. 7-8

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! WARNING

- If the  or  warning lamp illuminates while the vehicle is in motion, stop at the nearest safe place and identify the problem.  P. 6-39
- Do not pump the brake pedal as doing so reduces the air pressure, which in turn could reduce braking power.
- Using the exhaust brake on a wet, frozen, snow-covered, or otherwise slippery road surface when the vehicle is lightly loaded or not loaded can cause the tires to slip on the road surface, resulting in a skid. Do not use the exhaust brake on slippery road surfaces.
- Sudden braking will wear down tires and could cause malfunctions in other sections of the vehicle. Sudden braking could also result in an injury due to shocks.



1. The distance needed for braking varies with speed, load weight, and road conditions. Make effective use of engine braking and exhaust braking to decelerate sufficiently before applying the brakes.

NOTE:

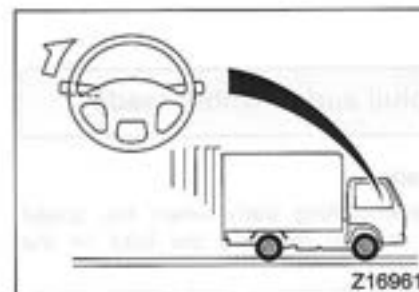
Engine braking is a braking effect realized when the accelerator pedal is released during vehicle operation. The lower the transmission gear, the more powerful the engine braking.



2. Depress the brake pedal when you are nearby the place at which you wish to stop.

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2. Depress the brake pedal when you are nearby the place at which you wish to stop.



3. Slowly release the pedal.

⚠ WARNING

If you release the brake pedal completely, the vehicle will coast past the point at which you wish to come to a halt.



4. Just before reaching the point at which you wish to come to halt, depress the pedal again very slightly to stop the vehicle.

⚠ WARNING

Except in an emergency, never apply the parking brake while the vehicle is moving since the vehicle could spin and/or overturn.

On uphill and downhill roads

1 Uphill roads

- Perform downshifting early when the speed begins to drop to minimize the load on the engine.
- With an automatic transmission vehicle, downshifting can be performed either with the range selector lever or by depressing the accelerator pedal hard. If you depress the accelerator pedal to maintain a constant speed when driving uphill, the transmission may shift down and the engine speed increase.

⚠ CAUTION

- With the FM and FN models, it is essential to decelerate before an uphill road or slope. Otherwise, the FUP may strike the road surface depending on the gradient, causing an accident.



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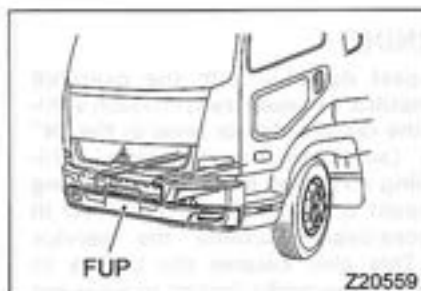
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**NOTE:**

The FUP (front under-run protector) is safety equipment designed to prevent a passenger car or similar vehicle from running under the front of your vehicle in the event of a head-on collision, thus reducing damage to the other vehicle.

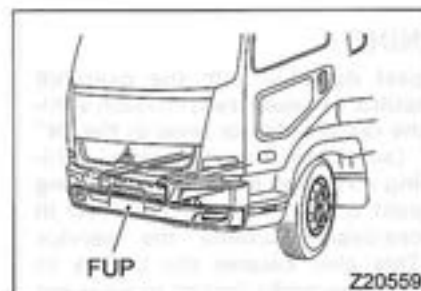
2 Downhill roads

- If you are going to drive down a steep road or a road with a long downhill grade, test the service brakes and exhaust brake in advance to make sure that they are functioning well.

 CAUTION

With the FM and FN models, it is essential to decelerate before the end of a downhill road. Otherwise, the FUP may strike the road surface depending on the gradient, causing an accident.

- Place the vehicle in the gear used when driving uphill and use engine braking and exhaust brake to help slow the vehicle. Never drive downhill at high speeds.
If your vehicle is equipped with an automatic transmission, leaving the range selector lever in the "D" position will result in insufficient engine braking, causing the vehicle to speed up too much.
Shift down to "5", "4", "3", "2" or "1" position. Use the service brakes to prevent engine overrev when shifting to "2" or "1" position.

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 WARNING

- Never coast downhill with the gearshift lever in neutral (manual transmission vehicles) or the range selector lever in the "N" position (automatic transmission vehicles). Doing so makes both engine braking and exhaust brake inoperative, which in turn excessively burdens the service brakes. This also causes the brakes to overheat and the brake linings to wear out prematurely.
In an automatic transmission vehicle, this can also cause damage to the transmission.
- Avoid overusing the service brakes as the resultant overheating could cause undesirable vapor lock and fading, both of which contribute to poor braking.

NOTE:

- "Vapor lock" refers to the condition in which the brake system overheats, causing the brake fluid to boil and form bubbles that weaken hydraulic pressure, resulting in poor braking.
- "Fading" refers to the condition in which the brake linings overheat to the point where friction with the brake drum is significantly reduced. This also results in poor braking.
- First decelerate the engine sufficiently before downshifting. As a general rule, decelerate until the engine speed reaches approximately 1,600 rpm (2,100 rpm on 9-speed transmission vehicles) before shifting down. Downshifting more than two gears at a time or downshifting at a high engine speed could cause the engine to overrev. Do not allow the tachometer needle to enter the red zone.
For safety in an automatic transmission vehicle, the transmission will automatically refuse to shift down if the vehicle is moving too fast. Depress the brake pedal to decelerate.

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On rough roads and in bad weather

- Use a low gear and try to drive at a constant speed when driving on gravel roads or muddy roads.
On FN62 and FN64, use the differential lock switch when driving on muddy, snowy, frozen, and other slippery surfaces where the driving wheels could lose traction. ⇨ P. 5-34
- Do not race the engine when attempting to move out of mud. Racing the engine is useless and will make the situation worse as the spinning wheels will make the ruts deeper. Instead, place thick waste cloth, gravel or the like under the tires, and engage the 1st and reverse gears alternately to rock the vehicle back and forth until you can drive out.

On an automatic transmission vehicle, do the following:

1. Select the "D" position with the range selector lever, then depress the accelerator pedal halfway and keep the pedal in that position. (Do not fully depress the pedal.)
2. Move the vehicle forward until it stops, then depress the brake pedal.
3. Wait for the engine speed to lower to idle, then select the "R" position.
4. Release the brake pedal, depress the accelerator pedal halfway and keep the pedal in that position to move the vehicle backward until it stops.
5. Depress the brake pedal again and wait for the engine speed to lower to idle.
6. If the vehicle gradually advances by performing the above operation, repeat the above steps, shifting repeatedly between the "D" and "R" positions.

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⚠ WARNING

- When switching between forward and backward movements of the vehicle by operating the range selector lever, be sure to release the accelerator pedal to lower the engine speed to idle. Shifting the range selector lever with the accelerator pedal depressed may make the vehicle pull away abruptly, resulting in a serious accident.
- Confirm the safety of the area around the vehicle before rocking the vehicle back and forth.

⚠ CAUTION

- When shifting from "D" to "R" or vice versa, depress the brake pedal and release the accelerator pedal. Otherwise, the transmission could be damaged. Depressing the accelerator pedal may also prevent the selected gear from being engaged.
- If a wheel will not rotate such as when it is stuck, do not fully depress the accelerator pedal for more than 10 seconds with the selector lever in the "D" or "R" position, as this could cause the transmission to overheat. If the transmission has overheated, shift to the "N" position and run the engine at 1,200 to 1,600 rpm for 2 to 3 minutes to cool down the transmission.
- Drive very slowly on bumpy roads and try to avoid bumps to prevent bottoming out of the undercarriage.
If the muffler strikes a rock or other obstacle, its catalyst or other internal elements may be damaged. Have it checked by an authorized MITSUBISHI FUSO distributor or dealer.
- Avoid sudden steering and sudden braking on roads which are slippery from rain. Conditions are especially dangerous just after it begins to rain. Use engine braking and the exhaust brake together with the wheel brakes to decelerate. Note, however, that sudden engine braking can cause a skid. Drive at a speed at which you can stay comfortably in control of the vehicle.

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- Reduce speed sufficiently before negotiating a curve. When negotiating a curve with the exhaust brake applied, if the tires slip due to the slippery road surface or a step in the road, the ABS may function, causing the exhaust brake to be temporarily released, which may result in a serious accident.
- The braking force will be reduced if water has entered the brake drums after driving through puddles or after washing the vehicle. In this event, drive slowly with light pressure on the brake pedal to dry out the brakes. Pay attention to nearby vehicles while doing so.
- Avoid driving when the road is covered with much water because of torrential rain or other causes. Should your vehicle be soaked by water, have it inspected by an authorized MITSUBISHI FUSO distributor or dealer as soon as possible.
 - If water gets into the engine, it can cause engine damage.
 - If water gets into the high-current fuse box, it can cause a short circuit that may result in a fire.
 - If water gets into wheel hub bearings, king pins, tie rod ends, and the components around them, it can cause the bearings and other parts used in them to be rusted and ultimately to seize up.
 - If water gets into the muffler or sensors, the catalyst could be damaged.

If you have driven the vehicle into water deeper than the following, have the corresponding part inspected by an authorized MITSUBISHI FUSO distributor or dealer as soon as possible.

Brake chamber: 50 cm
Differential: 30 cm
Muffler: 20 cm

- In fog, drive carefully at low speeds, paying attention to the center line and the vehicle ahead of you.
- When driving in snow or on frozen roads, use tire chains and drive at a moderate speed. Avoid sudden braking and sharp turns.

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Parking

 WARNING

- Park the vehicle on the flattest available surface.
Avoid parking on slopes.
When you cannot avoid parking on a slope, apply chocks to the wheels. You can further improve safety by leaving the steering wheel turned so the vehicle will roll toward an obstacle (for example, a curbstone) in the unlikely event of movement.
- Hill start assist system is not a substitute for the parking. Be sure to apply the parking brake when parking.
- The engine and exhaust pipe are extremely hot immediately after the vehicle has been driven. Do not park the vehicle in any place where there is dry grass, waste paper, or other flammable material.
- Always stop the engine before sleeping in the cabin. You could otherwise cause an accident by unintentionally moving the accelerator pedal or shift lever while sleeping. Also, you could suffer carbon-monoxide poisoning from exhaust gases if the vehicle is parked in a closed space.
- Never leave lighters, cans of carbonated drink, and spectacles in the cabin when parking the vehicle in hot sunshine. The cabin will become extremely hot, so lighters and other flammable items may catch fire and unopened drink cans (including beer cans) may rupture. The heat may also affect plastic spectacle lenses and other spectacle parts that are made of plastic. For example, the coating on the lenses may crack and the lenses themselves may become deformed.
- The body as well as inside equipment and controls of a vehicle parked in sunshine for a long time could become hot enough to burn you. Do not touch hot parts directly with bare hands; use a cloth or appropriate material in between.

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⚠ WARNING

- Always use the mirrors to confirm safety before opening a door. Suddenly opening a door is dangerous because the door may obstruct cars, motorcycles, bicycles, and pedestrians coming from behind.

⚠ CAUTION

- Illumination of the (P) indicator lamp does not necessarily mean that the parking brake is sufficiently activated. Always pull the parking brake lever up all the way.
- Before stopping the engine, allow it to idle so the coolant temperature comes down. Engine parts are particularly hot immediately after the vehicle has been driven uphill or on an expressway. Let the engine idle for at least three minutes. ⇨ P. 5-15
- Leaving the vehicle to stand a long time with the starter switch in the "ON" or "ACC" position could result in a dead battery.
- Stop the engine and securely apply the parking brake.
- To prevent theft and unnecessary battery drainage, be sure to remove the starter key and securely lock the doors.

Loading cargo**1 Avoid overloading the vehicle.**

Overloading the vehicle causes braking performance to deteriorate and can thus cause an accident. Also, overloading the vehicle places excessive stress on vehicle parts, shortening their service lives.

2 How to load cargo

Improperly loaded cargo not only is unstable but also may result in uneven weight distribution which could damage the cargo deck and frame.

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2 How to load cargo

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⚠ WARNING

- When roping up cargo or covering it with a tarpaulin, make sure that neither the rope nor the end of the tarpaulin hang down between the cab and the cargo deck as a loosely hanging rope or tarpaulin could catch fire from the engine heat.
- When spreading the tarpaulin, take care not to let it cover or be drawn into the engine air intake duct.
- When loading heavy cargo, take adequate measures to stop it from slipping. Also use wire to secure it.
- Do not place wooden boards or other items between the cargo bed and frame. The heat from the exhaust pipe could set fire to them.

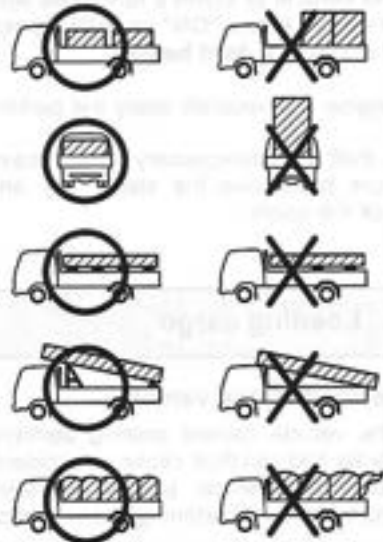
- Place the cargo evenly on deck.

- If cargo is piled high, the vehicle is at risk of rolling over upon being hit with a side wind or making a turn.

- If you place supports under the cargo, position them at equal intervals.

- Use suitable supports when loading long objects. Avoid supporting long objects only with the gate and the rear edge of the cargo deck.

- To prevent cargo from falling, strap it down securely and cover it with a tarpaulin. Secure the tarpaulin ends neatly so they do not flap.



Z11326

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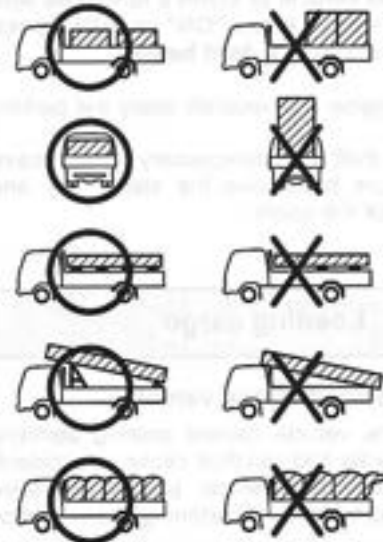
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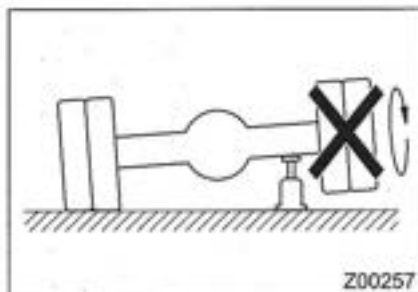
Z11326

Limited slip differential

<Vehicles with a limited slip differential>

The limited slip differential performs a special function in addition to the ordinary differential function which is needed when the vehicle is in a turn. When one wheel begins to spin on a slippery surface, the limited slip differential provides most of driving force to the wheel which is not spinning, thus automatically stopping the spinning and providing traction to the vehicle.

This function is effective when driving on bumpy or snow laden roads, and useful when moving the vehicle out of mud.



Z00257

⚠ WARNING

When you raise the vehicle on one side for replacing a tire or any other purpose, never rotate the raised wheel. Doing so is dangerous as power is transmitted to the wheel which is on the ground and the vehicle could move.

The limited slip differential actions take place automatically, but you are recommended to pay attention to the following points:

- On slippery road surfaces, excessively depressing the accelerator pedal during a turn may cause the vehicle to skid and lose balance. Keep this in mind for your safety.
- Using tires different in pressure or outside diameter between the right and left wheels may result in pulling the vehicle to one side during acceleration or uneven wear of tires. Check the tires regularly to make sure the right and left ones are inflated to the same pressure and not different in outside diameter.
- Distribute the load weight evenly. If the load is heavier at the rear, the vehicle's tendency to move in a straight line will slightly increase.

⚠ CAUTION

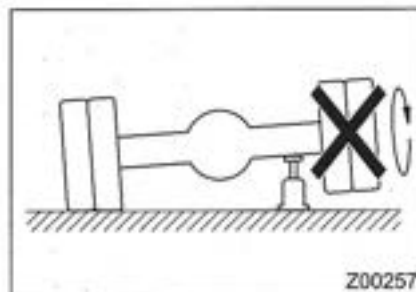
Use only the special oil destined for limited slip differentials.

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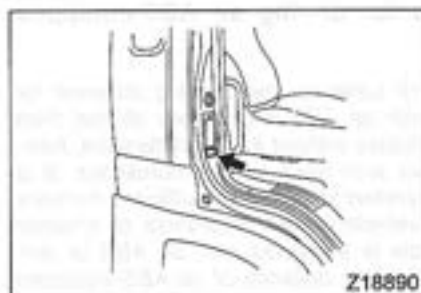
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Z18890

NOTE:

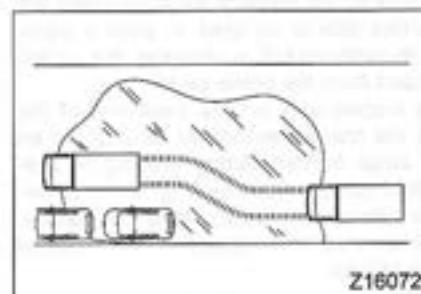
A vehicle with limited slip differential can be identified by a precautionary sticker on the driver side door pillar.

Anti-lock brake system (ABS)

The ABS operates automatically without need for any manual control. However, you are requested to read the following instructions and precautions to ensure safe driving with your ABS-equipped vehicle.

WARNING

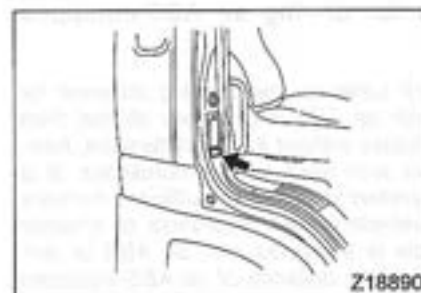
- Even the ABS cannot remove limitations on the vehicle's running and braking performance. It is your responsibility to judge road and other conditions properly and drive safely on slippery surfaces.
- As a result of ABS specifications, driving on icy roads or quickly braking from a high speed causes the ABS to work hard and in turn consume much air. If the  warning lamp illuminates and a buzzer sounds in such a situation, stop the vehicle in a safe place and wait until normal air pressure is recovered before continuing driving.



Z16072

NOTE:

When driving on slippery surfaces, activating the brakes could lock the wheels and the vehicle is very likely to lose directional control due to resulting skids. The ABS minimizes such wheel locking by electronically controlling the braking force of each wheel.



Z18890

NOTE:

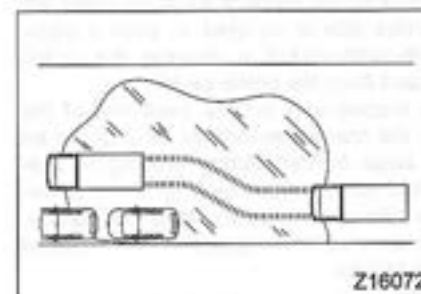
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1 Cautions for driving an ABS-equipped vehicle

- On slippery surfaces, the braking distance for vehicles with an ABS is generally shorter than that for vehicles without it. This difference, however, varies with road surface conditions. It is always important to maintain sufficient distance from the vehicle ahead regardless of whether your vehicle is equipped with an ABS or not. Also, the braking distance of an ABS-equipped vehicle on gravel or heavily snow-covered roads may be longer than that for a vehicle without an ABS. On these roads, therefore, be sure to drive at reduced speeds. Also, avoid sudden maneuvering or braking on such roads to prevent collision with the vehicle behind you.
- Slight vibration will be felt on the vehicle body and brake pedal when the ABS is in operation. As a result of ABS specifications, also, the sound of air discharging will be heard intermittently. These indicate the ABS is operating normally and do not indicate any abnormal condition. Keep fully depressing the brake pedal.
- When the ABS starts functioning after sudden braking, the steering wheel may be pulled slightly to one side because of braking power distribution control made by the system. Especially in a condition where the traction is different between the right and left wheels (on a road covered by ice on one side and not on the other side, for example), you may need to correct direction with the steering wheel.
- The ABS cannot prevent the vehicle from over-turning on a slippery surface that could result from excessive speed being used in sharp turns. Avoid driving at too high a speed or in a way which requires quick operation of the steering wheel.
- There is likelihood of skidding due to the effect of engine braking on slippery surfaces when the vehicle carries little or no load. In such a situation, it is recommended to depress the clutch pedal first and then the brake pedal.
- If cargo is loaded only on the back half of the cargo bed, the rear wheel brakes must share an extremely large burden during braking to prevent the front wheels from locking. On a snow-covered or otherwise slippery, long downslope, use engine/exhaust braking and minimize use of the service brakes.

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- The exhaust brake, if activated, is released temporarily when the ABS comes into function.

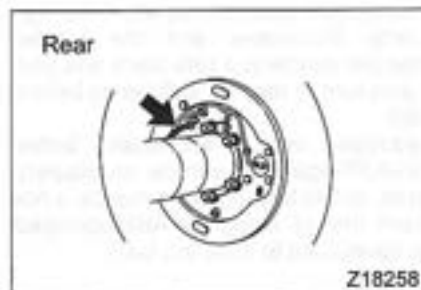
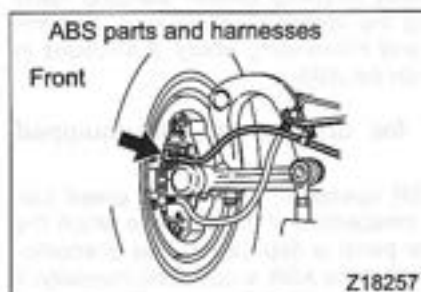
⚠ WARNING

Reduce speed sufficiently before negotiating a curve. When negotiating a curve with the exhaust brake applied, if the tires slip due to the slippery road surface or a step in the road, the ABS may function, causing the exhaust brake to be temporarily released, which may result in a serious accident.

- Before you install a radio transmitter/receiver equipment or tires of a size different from the original ones, be sure to consult an authorized MITSUBISHI FUSO distributor or dealer.
- Even if the ABS system fails and the (Ⓢ) warning lamp illuminates, the normal brakes still work properly. You must, however, drive very carefully on slippery roads.

⚠ CAUTION

There are ABS components and electric wiring located behind the wheels and around the air tank. When removing snow or ice having adhered to the wheel areas after driving on snow-covered roads, be careful not to damage the ABS components and wiring. Also, avoid exposing the ABS components and wiring to high-pressure water or cleaner steam as the system could be damaged and not operate properly.



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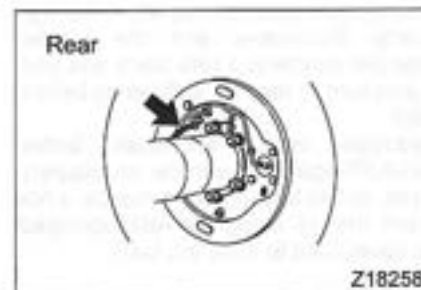
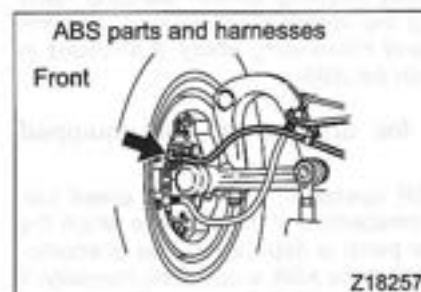
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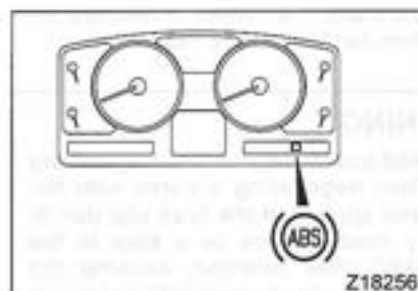
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2 ABS warning lamp

This lamp, when illuminated, indicates an ABS system fault. Park the vehicle in a safe place and take appropriate actions. ⇨ P. 6-41



Antispin regulator (ASR)

<Vehicles with an antispin regulator>

NOTE:

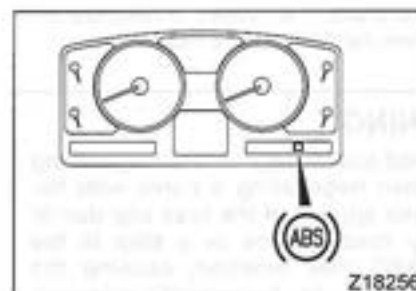
The ASR prevents the driving wheels from spinning on snow-covered, frozen, or otherwise slippery road surfaces, thereby enabling smooth standing starts and optimizing the vehicle's acceleration, straight-line stability, and hill-climbing ability. It functions in conjunction with the ABS.

1 Caution for driving an ASR-equipped vehicle

- During ASR operation, the engine speed can decrease irrespective of the extent to which the accelerator pedal is depressed. This phenomenon shows that the ASR is operating normally; it does not indicate a fault.
- On slippery road surfaces, corrective steering may be necessary even during ASR operation.
- The ASR consumes compressed air. If the warning lamp illuminates and the buzzer sounds, stop the vehicle in a safe place and wait for the air pressure to recover sufficiently before driving again.
- An ASR-equipped vehicle accelerates better than a non-ASR-equipped vehicle on slippery road surfaces, but its braking performance is not different from that of a regular ABS-equipped vehicle. Be careful not to drive too fast.

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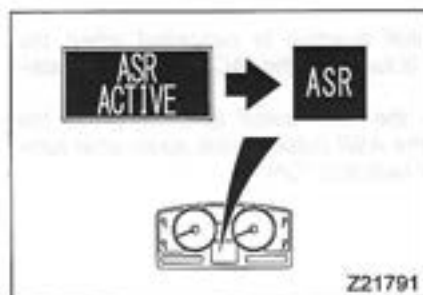
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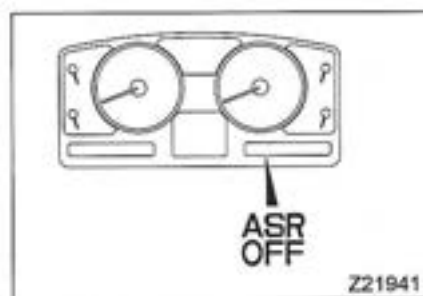
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2 Indication on multi-information display

When the ASR is activated, the multi-information display first shows "ASR ACTIVE" in the enlarged display mode. The display then shows  in the small display mode.



3 ASR indicator lamp

This lamp lights up when the starter switch is turned to "ON" to start the engine or when ASR operation is suspended with the ASR cutoff switch.

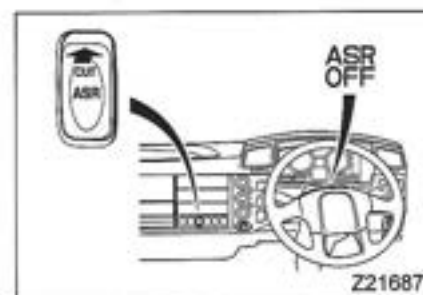
The ASR is faulty if the lamp does not go out when the ASR cutoff function is cancelled, if it does not come on when the starter switch is turned to "ON", or if it remains on for longer than 3 seconds after starting the engine. Have the system inspected by an authorized MITSUBISHI FUSO distributor or dealer as soon as possible.

4 ASR cutoff switch

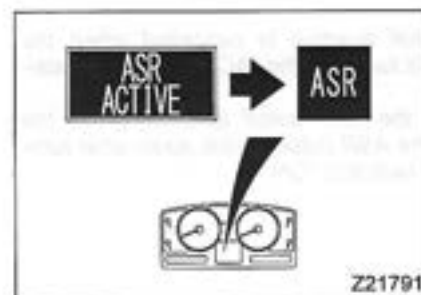
Use the ASR cutoff switch when driving on gravel, when driving up a slope covered with deep, soft snow, when extricating the vehicle from mud, and at other times when you wish to temporarily stop the ASR's engine control.

WARNING

Do not use the ASR cutoff switch when driving at high speed or when negotiating a curve. Using the ASR cutoff switch in such circumstances could result in skidding and wheelspin.

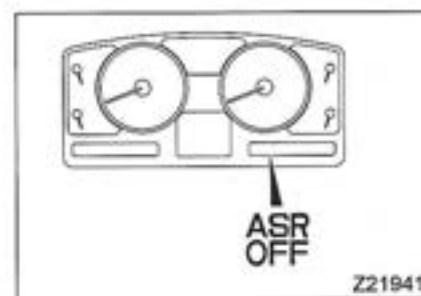


Press the CUT side of the ASR cutoff switch to stop ASR operation. The  indicator lamp will light while that side of the switch is pressed. Press the CUT side of the ASR cutoff switch again to cancel the ASR cutoff function. The  indicator lamp goes out.



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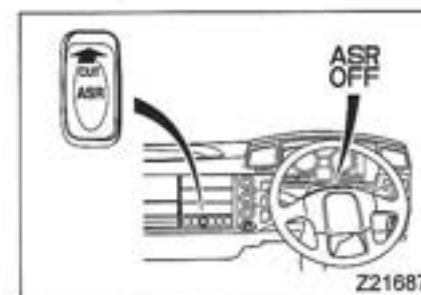
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NOTE:

The ASR cutoff function is cancelled when the starter switch is turned to the "ACC" or "LOCK" position.

To reactivate the ASR cutoff function, press the CUT side of the ASR cutoff switch again after turning the starter switch to "ON".

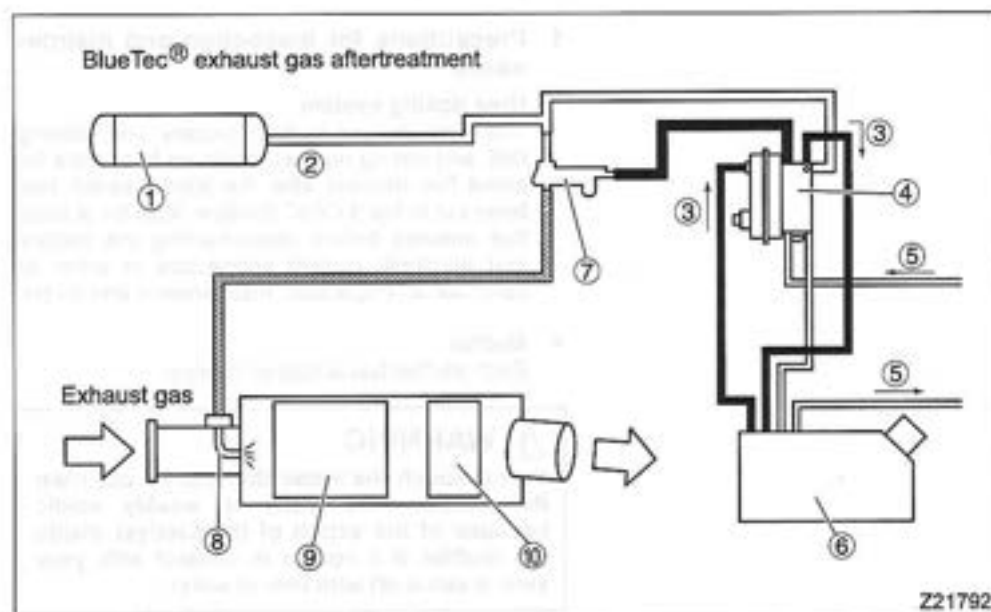
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BlueTec® exhaust gas aftertreatment



Z21792

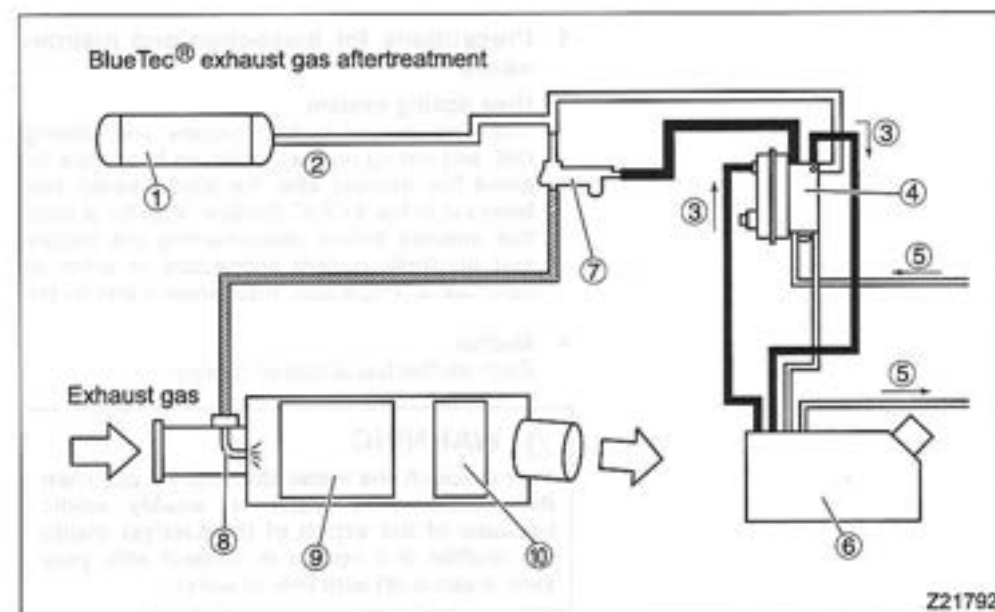
- ① Air tank
- ② Air piping
- ③ Urea piping
- ④ Urea supply unit
- ⑤ Engine coolant piping
- ⑥ Urea tank
- ⑦ Dosing unit
- ⑧ Dosing nozzle
- ⑨ SCR catalyst
- ⑩ Oxidation catalyst

The BlueTec® exhaust gas aftertreatment reduces nitrogen oxides (NOx) by adding (spraying) AdBlue® upstream of the selective catalytic reduction (SCR) catalyst ⑨ to decompose NOx into water and nitrogen.

NOTE:

- SCR is an abbreviation of Selective Catalytic Reduction.
- In order to thaw the AdBlue® and keep it warm in cold regions, the engine coolant circulates inside the urea tank. Also, the urea piping has a heating function.

BlueTec® exhaust gas aftertreatment



Z21792

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- The engine idling speed may be slightly higher than normal when the AdBlue® is cold. Normal idling speed will resume as the AdBlue® temperature rises.

1 Precautions for inspection and maintenance

• Urea dosing system

The urea dosing system (supply unit, dosing unit, and dosing nozzle) continues to operate for about five minutes after the starter switch has been put in the "LOCK" position. Wait for at least five minutes before disconnecting the battery and electrical system connectors in order to carry out an inspection, maintenance and so on.

• Muffler

Each muffler has a built-in catalyst.

! WARNING

Do not touch the water that comes out from the muffler. The water is weakly acidic because of the action of the catalyst inside the muffler. If it comes in contact with your skin, wash it off with lots of water.

! CAUTION

- Each muffler contains a catalyst, so do not kick or strike the muffler because you may damage the catalyst.
- Depending upon the way in which the vehicle is used, a large amount of rust may be generated from the exhaust pipe and the suspension bracket, even at an early stage. Visually inspect the muffler, and if there is any abnormality, contact an authorized MITSUBISHI FUSO distributor or dealer and have the vehicle inspected.
- Do not change the length or the direction of the exhaust pipe or muffler because this may adversely affect the exhaust gas cleaning function. If modification is necessary, consult with an authorized MITSUBISHI FUSO distributor or dealer.

NOTE:

- Because the exhaust gas is cleaned before it is emitted, the odor of the exhaust gas will be different from that of a conventional diesel vehicle.

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- Depending upon the way in which the vehicle is used, a large amount of rust may be generated from the exhaust pipe and the suspension bracket, even at an early stage. Visually inspect the muffler, and if there is any abnormality, contact an authorized MITSUBISHI FUSO distributor or dealer and have the vehicle inspected.
- Do not change the length or the direction of the exhaust pipe or muffler because this may adversely affect the exhaust gas cleaning function. If modification is necessary, consult with an authorized MITSUBISHI FUSO distributor or dealer.

NOTE:

- Because the exhaust gas is cleaned before it is emitted, the odor of the exhaust gas will be different from that of a conventional diesel vehicle.

- When starting the engine, or moving off immediately after starting it in cold weather, white smoke (water vapor) may be emitted from the muffler, however this does not indicate an abnormality.

2 Illumination of warning lamp

The  warning lamp, when illuminated, indicates failure in the BlueTec[®] exhaust gas aftertreatment system. Park the vehicle in a safe place and take appropriate actions. → P. 6-40



Z21826

Hill start assist system

<Vehicles with hill start assist system>

When you depress the brake pedal for a short stop on a slope, the hill start assist system automatically maintains the brake fluid pressure thus generated even after you release the brake pedal, holding the vehicle stopped. You can easily restart the vehicle because the brake pressure is automatically released as soon as you start the vehicle again.

WARNING

Be sure to apply the parking brake for a long stop or when you must leave the vehicle. If the hill start assist system is used for too long a time, the brake pressure will drop, possibly resulting in an accident. Remember that the hill start assist system is intended to help the driver to restart the vehicle easily on a slope; it is not a substitute for the parking brake.

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Z21826

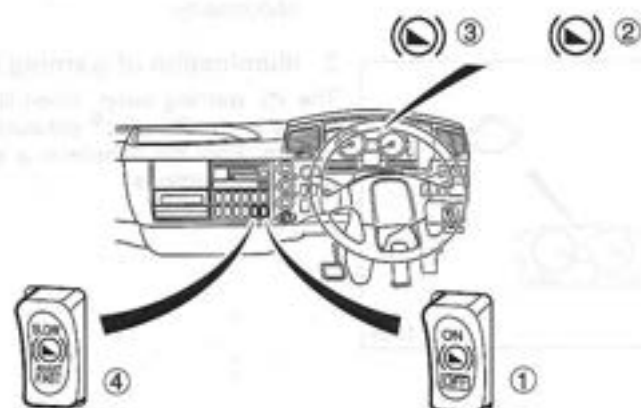
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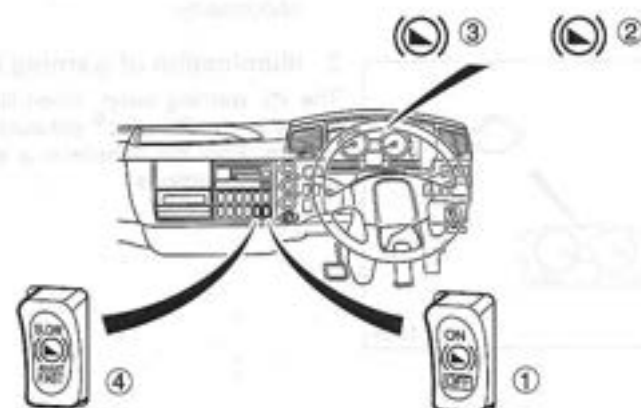
WARNING

Be sure to apply the parking brake for a long stop or when you must leave the vehicle. If the hill start assist system is used for too long a time, the brake pressure will drop, possibly resulting in an accident. Remember that the hill start assist system is intended to help the driver to restart the vehicle easily on a slope; it is not a substitute for the parking brake.



Z21794

- ① Hill start assist system main switch
Press the "ON" side of this switch to activate the system. Press the "OFF" side to deactivate the system.
- ②  indicator lamp (green)
This lamp stays on while the hill start assist system is in operation.
- ③  warning lamp (amber)
 - This lamp should normally come on when the starter switch is turned to the "ON" position and go out in a few seconds. If the lamp fails to come on when the starter switch is turned to "ON" or if it remains on for longer than a few seconds, have the vehicle inspected by an authorized MITSUBISHI FUSO distributor or dealer.
 - If this warning lamp lights while driving, the hill start assist system is probably malfunctioning. Press the "OFF" side of the hill start assist system main switch and have your vehicle inspected by an authorized MITSUBISHI FUSO distributor or dealer.
- ④ Hill start assist system adjusting switch
Use this switch to adjust the timing at which the hill start assist system releases the brakes as necessary.

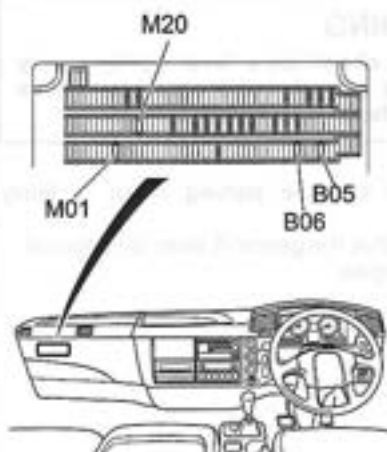


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Use this switch to adjust the timing at which the hill start assist system releases the brakes as necessary.

1 Replacing the fuses related with hill start assist system

<Fuse box>



ZZ1688

⚠ WARNING

Never remove any of the fuses and high-current fuse protecting the hill start assist system related circuits while the system is in operation. If the vehicle is on a slope, removing any of them releases the pressure holding the brakes applied and the vehicle will start moving down, possibly causing an accident.

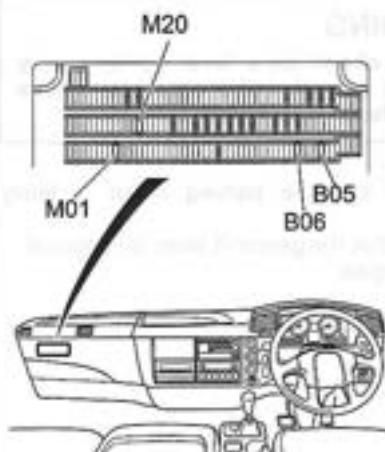
Before replacing a fuse or high-current fuse in the hill start assist system circuit, be sure to do the following actions. If you replace a fuse or high-current fuse when the circuit is energized, the hill start assist system will not work properly.

- Turn the starter switch to the "LOCK" position and turn all the electrical switches to "OFF" before replacing any of the following fuses in the fuse box.
Vehicles with air-over hydraulic brakes: M20, B05, or B06
Vehicles with full air brakes: M01 or B06
- Disconnect the battery before replacing the fuse in the high-current fuse box.
- Refer to the section "When a fuse has blown" for the correct method of replacing the fuses.

⇨ P. 13-9

1 Replacing the fuses related with hill start assist system

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ZZ1688

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⇨ P. 13-9

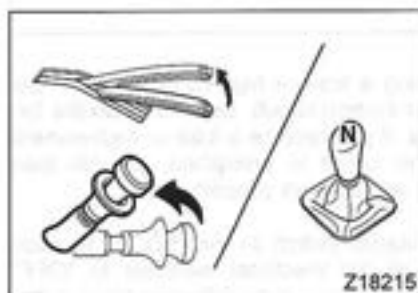
2 Checking operation of hill start assist system

Before using the hill start assist system, check it is working properly as follows.

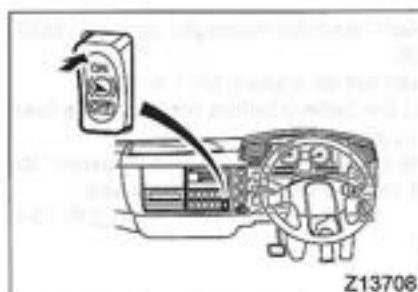
⚠ WARNING

Perform the check on a level surface, only after making sure that the area around the vehicle is safe.

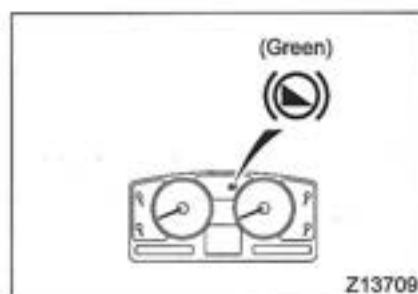
1. Make sure that the parking brake is firmly applied.
2. Make sure that the gearshift lever is in neutral.
3. Start the engine.



4. Press the "ON" side of the hill start assist system main switch.



5. With the brake pedal fully depressed, release the parking brake. See whether the (S) indicator lamp (green) comes on. The system is working normally if the lamp comes on.
6. Apply the parking brake and see whether the (S) indicator lamp (green) goes out. The system is in normal condition if the lamp goes out.



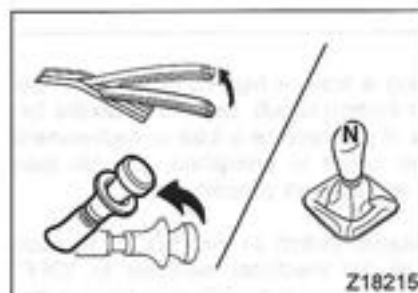
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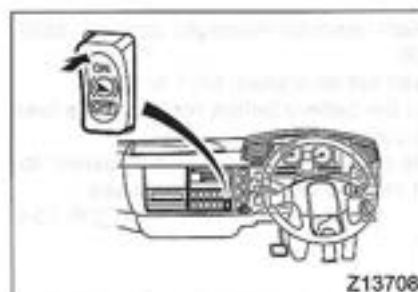
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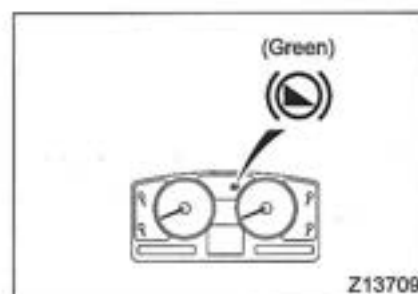
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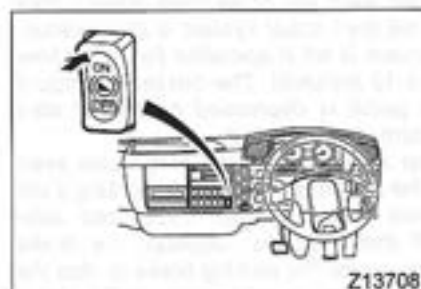
There is a problem with the hill start assist system if the  indicator lamp (green) does not come on when the "ON" side of the hill start assist system main switch is pressed and the brake pedal is depressed or if the  warning lamp (amber) lights. If an abnormal condition is indicated either by operation or loss of operation of these lamps, press the "OFF" side of the hill start assist system main switch and have your vehicle inspected by an authorized MITSUBISHI FUSO distributor or dealer.

3 How to use hill start assist system

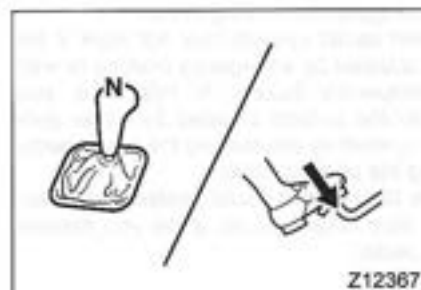
WARNING

Be sure to take the following precautions when the hill start assist system is activated in case of accidental deactivation of the system, which would cause the vehicle to start moving and may cause an accident.

- Do not press the "OFF" side of the hill start assist system main switch.
- Do not apply the parking brake.
- Do not turn the starter switch to the "ACC" or "LOCK" position.
- Do not remove any of the related fuses (including high-current fuse) and do not disconnect the battery.



1. Press the "ON" side of the hill start assist system main switch.



2. Stop the vehicle by depressing the brake pedal.
3. Place the gearshift lever in neutral or keep the clutch pedal fully depressed.

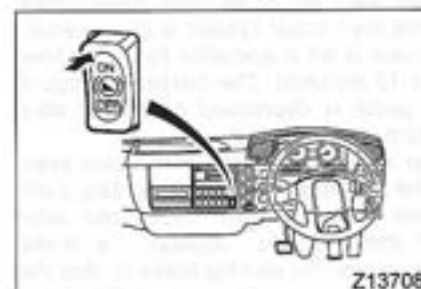
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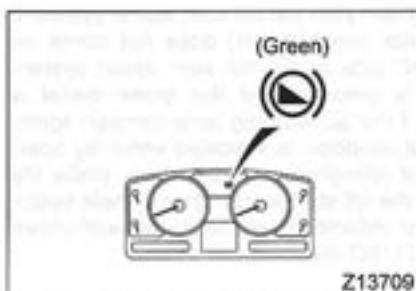
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1. Press the "ON" side of the hill start assist system main switch.



2. Stop the vehicle by depressing the brake pedal.
3. Place the gearshift lever in neutral or keep the clutch pedal fully depressed.



- Depress the brake pedal and wait until the (G) indicator lamp (green) comes on without releasing the pedal.

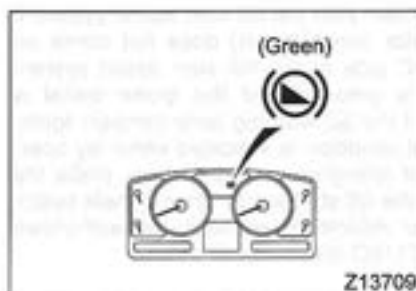
NOTE:

The hill start assist system does not become active unless the brake pedal is kept depressed for longer than one second. It is essential to continue to depress the brake pedal until the (G) indicator lamp comes on.

- Release the brake pedal after confirming that the (G) indicator lamp has come on. The vehicle is now held stopped by the system even after you release the brake pedal.
- To restart the vehicle, first select an appropriate gear while fully depressing the clutch pedal. Then release the clutch pedal and start the vehicle. The brakes are automatically released and the (G) indicator lamp goes out at the same time.

NOTE:

- The brakes may not be released if you attempt to restart the vehicle without fully depressing the clutch pedal.
- You can select the timing at which the system releases the brakes following engagement of the clutch. Adjust it if necessary. ⇨ P. 8-19
- A buzzer will warn you of an open driver's door when the hill start assist system is in operation, or if the system is left in operation for a long time (more than 10 minutes). The buzzer will stop if the brake pedal is depressed or the hill start assist system is deactivated.
- On a steep slope, the vehicle may move even when the hill start assist system is working if the brake pedal has not been depressed adequately. If this happens, depress the brake pedal again or use the parking brake to stop the vehicle. The hill start assist system will be cancelled if you apply the parking brake.
- The hill start assist system may not work if the vehicle is stopped by emergency braking or with wheels completely locked. In this case, you should hold the vehicle stopped by either activating the system by depressing the brake pedal or applying the parking brake.
- Even while the hill start assist system is in operation, the stop lamps go out when you release the brake pedal.



- Depress the brake pedal and wait until the (G) indicator lamp (green) comes on without releasing the pedal.

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- The hill start assist system cannot be used when the engine is not running.

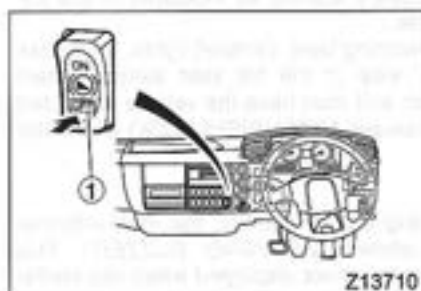
4 How to deactivate hill start assist system

Press the "OFF" side of the hill start assist system main switch. The lamp ① inside the switch will come on at the same time.

⚠ CAUTION

Avoid using the hill start assist system in the situations listed below because it may make it difficult to control the vehicle.

- When you must move the vehicle back and forth to stop it in a precise position.
(If the hill start assist system is used when moving the vehicle to a loading deck at a distribution center for example, the vehicle may move suddenly if you quickly release the clutch pedal or slam on the accelerator pedal.)
- When driving on a long, congested downhill road, where repeated clutch pedal operation is tiresome.
- When driving on an icy or snow-covered road, where the hill start assist system is prone to operate unintentionally.
(On icy or snow-covered roads, the hill start assist system may operate immediately before the vehicle stops.)



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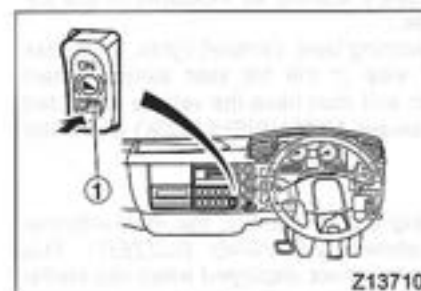
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5 If the warning lamp (amber) lights and/or warning buzzer sounds

- Take necessary actions as indicated in the following table.
- If the  warning lamp (amber) lights, first press the "OFF" side of the hill start assist system main switch and then have the vehicle inspected by an authorized MITSUBISHI FUSO distributor or dealer.

NOTE:

When a warning buzzer sounds, the multi-information display shows "WARNING BUZZER". This warning, however, is not displayed when the starter switch is in a position other than "ON".

Condition	Warning		Action to take
	 warning lamp (amber)	Buzzer	
A door is opened without applying the parking brake while the hill start assist system is in operation.	—	Repeated beeps	Fully apply the parking brake or depress the brake pedal.
The vehicle has moved spontaneously while the hill start assist system is in operation.	—	Repeated beeps	Deactivate the hill start assist system by applying the parking brake or additionally depress the brake pedal.
The hill start assist system has been left in operation for a long time (more than 10 minutes).	—	Repeated beeps	Apply the parking brake.
The starter switch is turned to the "ACC" or "LOCK" position, or the "OFF" side of the main switch is pressed while the hill start assist system is in operation.	—	Repeated short beeps	Apply the parking brake or depress the brake pedal, since the hill start assist system has been deactivated.
The hill start assist system is faulty.	Illuminated	Repeated short beeps for certain faults	Stop the vehicle in a safe place. Press the "OFF" side of the hill start assist system main switch to prevent the system from operating.

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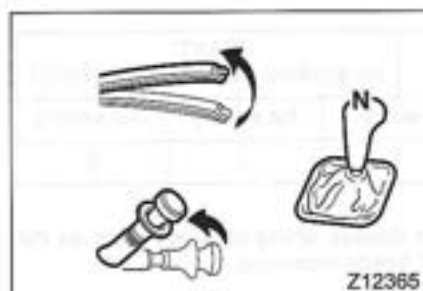
6 Adjusting the brake release timing of hill start assist system

The timing at which the hill start assist system releases the brakes should be adjusted if you experience any of the following conditions when the system is in operation:

- Brakes drag when the vehicle is restarted (too late release of the brakes).
- The vehicle moves downhill when restarting the vehicle on a slope (too early release of the brakes).
- The brake release timing does not agree with your way of controlling the vehicle.

WARNING

- Adjust the brake release timing only on a level surface after making sure the area around the vehicle is safe. Performing the adjustment on a slope could result in an accident since the vehicle may move downward.
- Always check safety in the area around the vehicle when testing the system operation on a slope after adjusting the brake release timing. Should the vehicle go downhill during the test, stop the vehicle by applying the parking brake or depressing the brake pedal.
- Improper adjustment of the brake release timing will lead to premature wear of or damage to the brakes and clutch. Improper adjustment may also lead to an accident since the vehicle can move even when the hill start assist system is normally operating.



1. Check that the parking brake is fully applied.
2. Check that the gearshift lever is in the neutral position.
3. Start the engine.

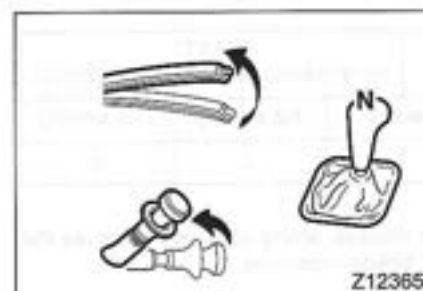
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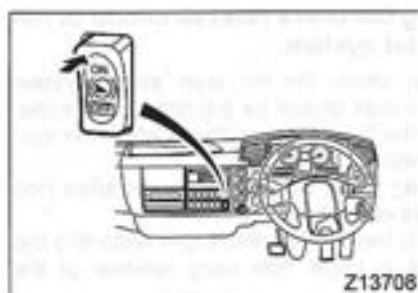
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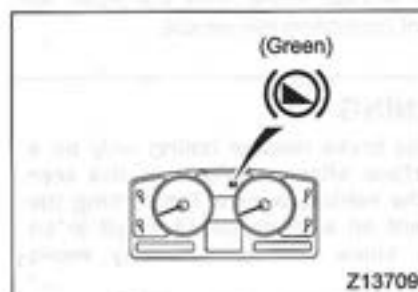
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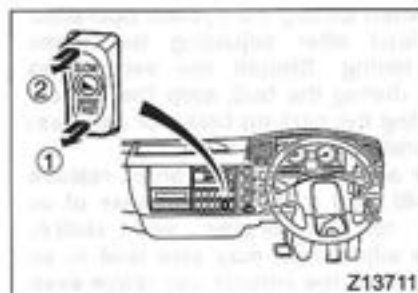
1. Check that the parking brake is fully applied.
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3. Start the engine.



4. Press the "ON" side of the hill start assist system main switch.



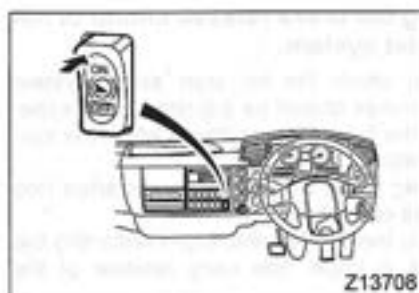
5. Fully depress the brake pedal and then release the parking brake. Check that the (P) indicator lamp (green) comes on.



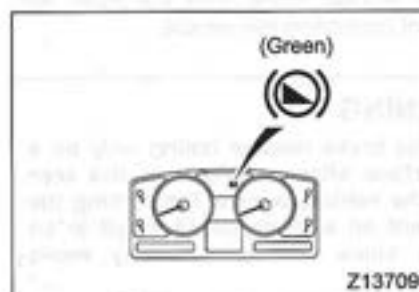
6. Use the hill start assist system adjusting switch to change the brake release timing as follows.
- If the brakes drag when the vehicle is restarted (because of too late release of the brakes), press the "FAST" side of the adjusting switch.
 - If the vehicle moves downhill when restarting it on a slope (because of too early release of the brakes), press the "SLOW" side of the adjusting switch.
 - The hill start assist system adjusting switch provides two settings each on both the "FAST" and "SLOW" sides in addition to the neutral setting at the center. You can identify the selected setting by the number of beeps you hear when the switch is pressed as indicated below.

Switch	"SLOW" (to retard brake release timing)			"FAST" (to advance brake release timing)		
	2nd setting	1st setting	Neutral	1st setting	2nd setting	
Number of beeps	3	2	1	2	3	

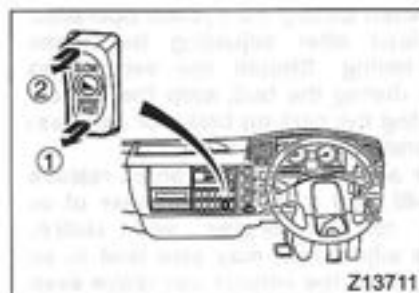
- The brake release timing changes more as the number of beeps increases.



4. Press the "ON" side of the hill start assist system main switch.



5. Fully depress the brake pedal and then release the parking brake. Check that the (P) indicator lamp (green) comes on.



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Number of beeps	3	2	1	2	3	

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7. After the adjustment, perform a test by restarting the vehicle on a slope. If the brake release timing is not adjusted as desired, readjust it on a level surface.

NOTE:

- If you cannot adjust the brake release timing as desired using the hill start assist system adjusting switch, have the vehicle inspected by an authorized MITSUBISHI FUSO distributor or dealer.
- If you use the hill start assist system about 100 times after setting the brake release timing using the hill start assist system adjusting switch, the system updates its neutral brake release timing to this setting.
- After adjusting the brake release timing to the "FAST" side, the brakes may fail to be released if you restart the vehicle without fully depressing the clutch pedal. If this condition happens, depress the clutch pedal as far as it goes. If the brakes are still not released, have the vehicle inspected by an authorized MITSUBISHI FUSO distributor or dealer.
- The multi-information display shows "WARNING BUZZER" in accordance with the buzzer sound issued by pressing the hill start assist system adjustment switch. However, this does not indicate any abnormality.

7. After the adjustment, perform a test by restarting the vehicle on a slope. If the brake release timing is not adjusted as desired, readjust it on a level surface.

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9. Air conditioning

Air outlets	9-2
Air conditioner	9-2



Air conditioner

WARNING

Before power is applied, make sure that the power switch is in the "OFF" position. If the power switch is in the "ON" position, the power will be applied to the unit. This may cause damage to the unit or the equipment connected to it. Always make sure that the power switch is in the "OFF" position before applying power to the unit.



Fig. 9-1

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9. Air conditioning

Air outlets	9-2
Air conditioner	9-2



Air conditioner

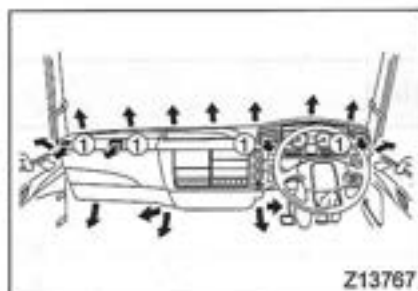
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Fig. 9-1

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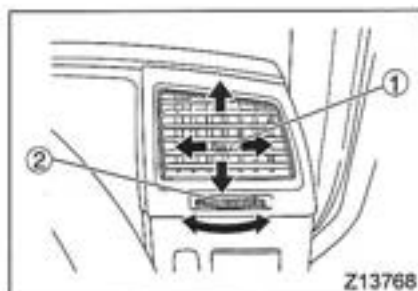
Z13767

Air outlets

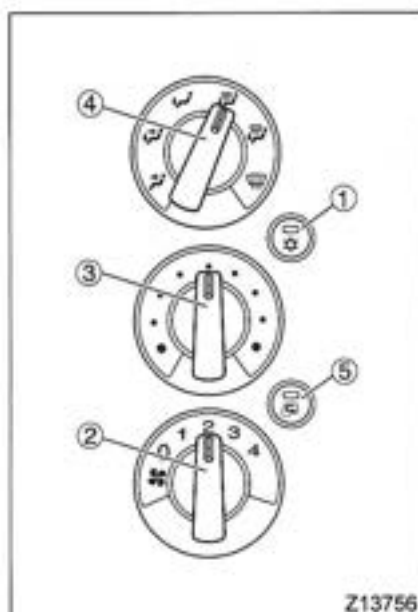
Each air inlet ① have a louver. You can change the direction of air by moving the louver as desired. The air volume from the outlet on the driver's side can be adjusted with the air volume adjusting knob ②. Air will come out with maximum volume if you turn the knob fully to the side. It will stop if you turn the knob fully to the side.

Outlets can be switched with the mode selector dial.

⇒ P. 9-4



Z13768



Z13756

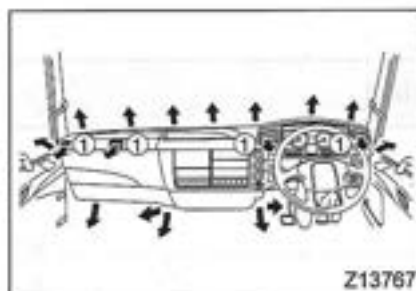
Air conditioner

⚠ WARNING

Never leave children alone in the vehicle. In hot weather or when the vehicle is parked under the sun, the temperature inside the vehicle may become extremely high and can cause heat stroke. Even if the air conditioning is left on, the temperature inside the vehicle will rise rapidly if the system stops functioning. This is very dangerous to children.

NOTE:

The heater uses heat produced by the engine coolant. Warm air is, therefore, not available until the coolant temperature becomes sufficiently high.



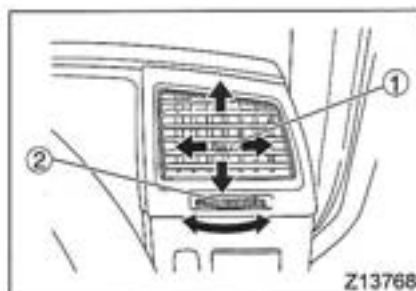
Z13767

Air outlets

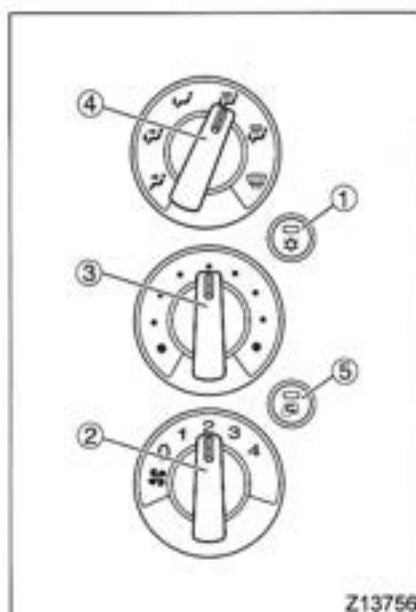
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Z13768



Z13756

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1 Control panel

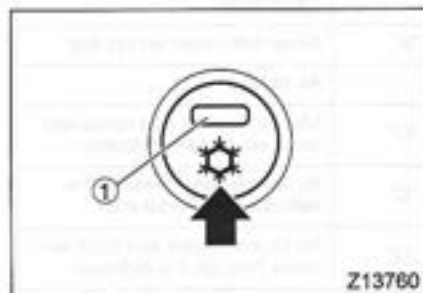
- ① Air conditioner switch
- ② Fan speed dial
- ③ Temperature control dial
- ④ Mode selector dial
- ⑤ Air selector switch

• Air conditioner switch

Pressing air conditioner switch turns on the air conditioner for cooling and dehumidifying.

When the air conditioner is on, the indicator lamp ① inside the switch stays illuminated.

To turn off the air conditioner, press switch a second time.



Z13760

• Fan speed dial

Fan speed dial allows you to select 4 fan speeds. Select the desired speed.

- 0: Turned off
- 1: Breeze
- 2: Weak
- 3: Medium
- 4: Strong



Z13757

• Temperature control dial

Turn the dial clockwise for warmer air.



Z13758

1 Control panel

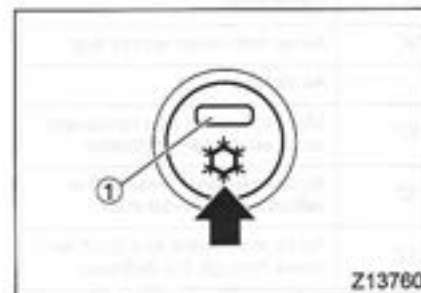
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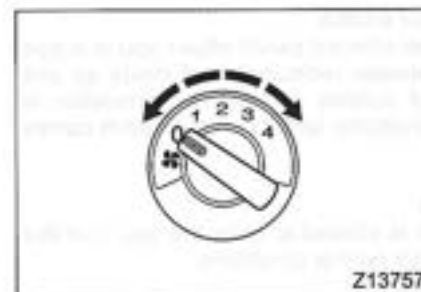


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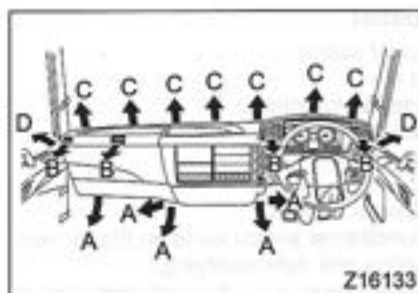
Z13757

• Temperature control dial

Turn the dial clockwise for warmer air.



Z13758



• Mode selector dial

Use mode selector dial to select the appropriate air outlet combination.

Dial position	Air outlets	Purpose
	"B"	Air to head.
	"B" + "A"	Air to both head and to feet.
	"A"	Air to feet.
	"A" + "C"	Most air to feet and remaining air to windshield defroster.
	"A" + "C"	Air to feet, and, through the defroster, to windshield.
	"C" + "D"	Air to windshield and door windows through the defroster.

• Air selector switch

Pressing the air selector switch allows you to toggle the setting between recirculation of inside air and introduction of outside air. When recirculation is selected, the indicator lamp ① in the switch comes on.

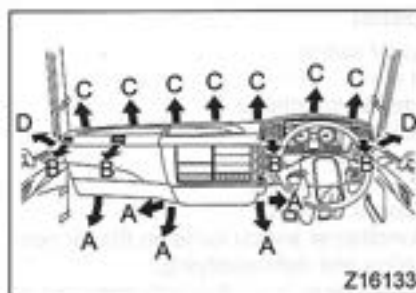
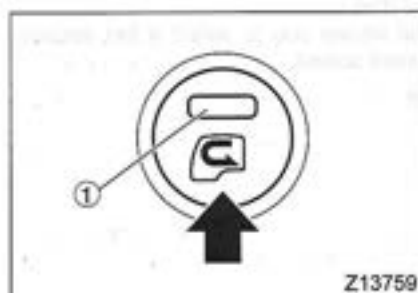
• Outside air

Outside air is allowed to enter the cab. Use this setting under normal conditions.

• Recirculation

Air recirculation in the cab. Use this setting when the outside air is dusty or polluted.

If the air selector switch is left too long in the recirculation position, the windshield and windows will fog up, so set the switch to the outside air position during normal driving. You can also select the recirculation position when parking to stop dust from getting inside the cab.



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Use mode selector dial to select the appropriate air outlet combination.

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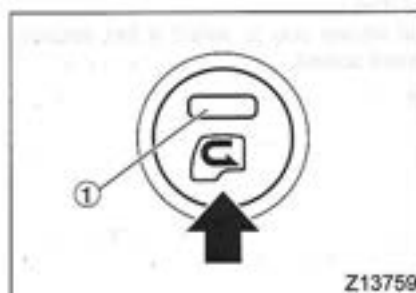
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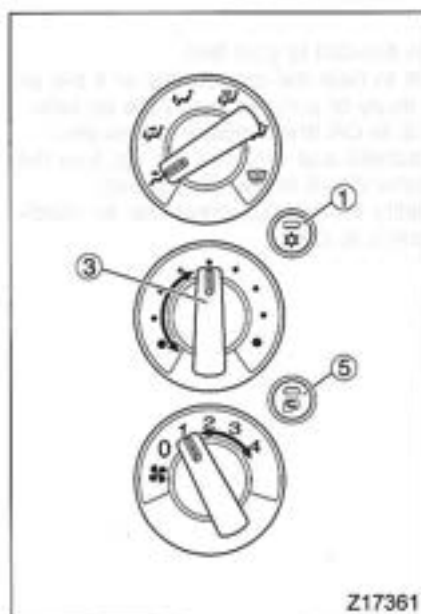
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Z17361

2 Cooling

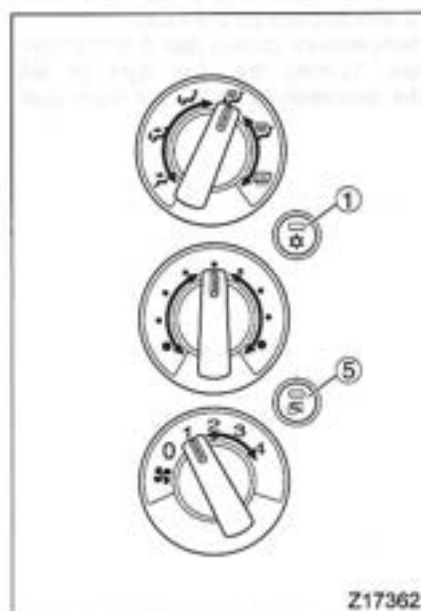
- Press the air conditioner switch ①, then turn the temperature control dial ③ as desired for a comfortable temperature.
- Unless necessary for ventilation, the air selector switch ⑤ should be in the "ON" position (the indicator is illuminated) when the air conditioner is used.

⚠ CAUTION

If the air selector switch is kept in the ON (air recirculation) position too long, the interior air will become stale. Press the switch to the OFF (outside air) position from time to time to ventilate the cab.

⚠ WARNING

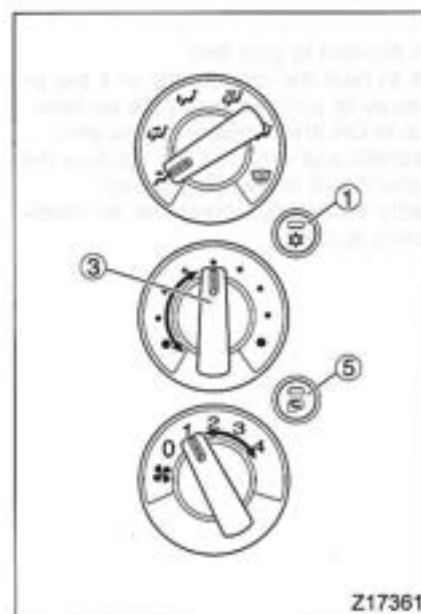
Never leave children alone in the cab especially when the air-conditioning is on. They will suffer from dangerously high interior temperatures should the air conditioning accidentally stop.



Z17362

3 Dehumidifying

- If the air feels too humid due to rain etc., press the air conditioner switch ①. The interior air will be dehumidified.
- To dehumidify the interior quickly, press the air selector switch ⑤ to ON (the indicator comes on).



Z17361

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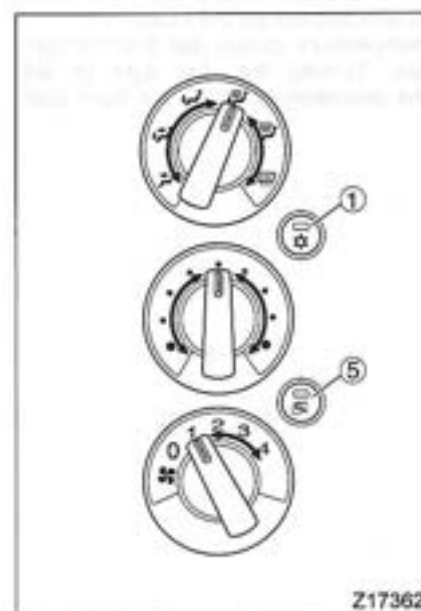
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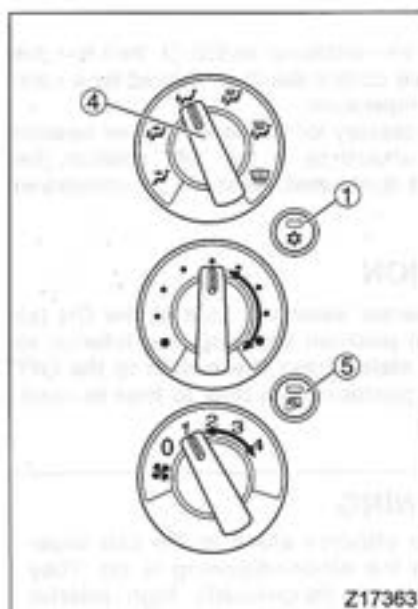
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Z17362

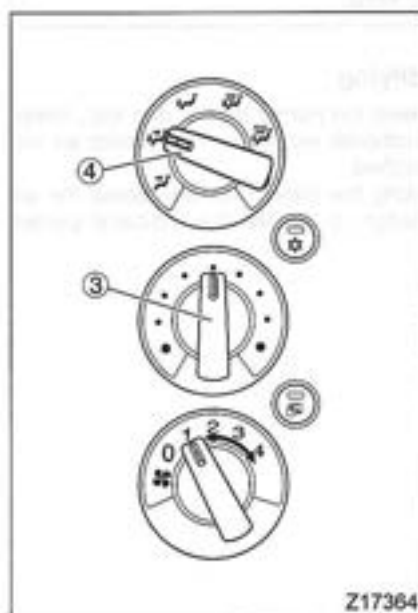
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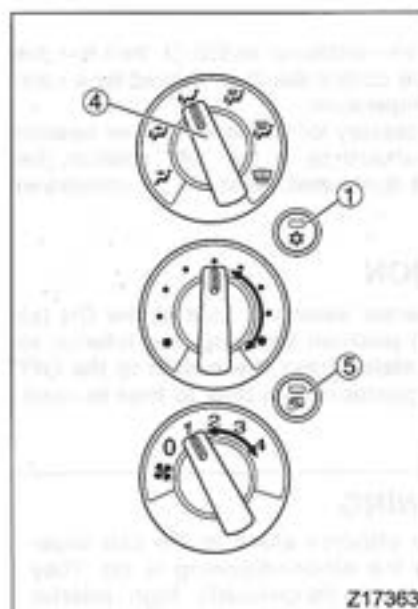
4 Heating

- Warm air is directed to your feet.
- If you want to heat the cab quickly or if the air outside is dusty or polluted, press the air selector switch ⑤ to ON (the indicator comes on).
- If the windshield and windows fog up, turn the mode selector dial ④ to the position.
- To dehumidify the interior, press the air conditioner switch ① to ON.



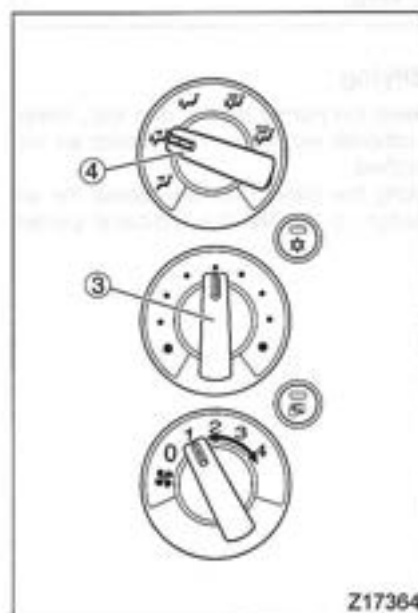
5 Bi-level heating

- Warmer air is directed toward the feet, while cooler air is directed toward the head.
- Place the temperature control dial ③ in the central position. Turning the dial right or left changes the temperature of the air from both outlets.



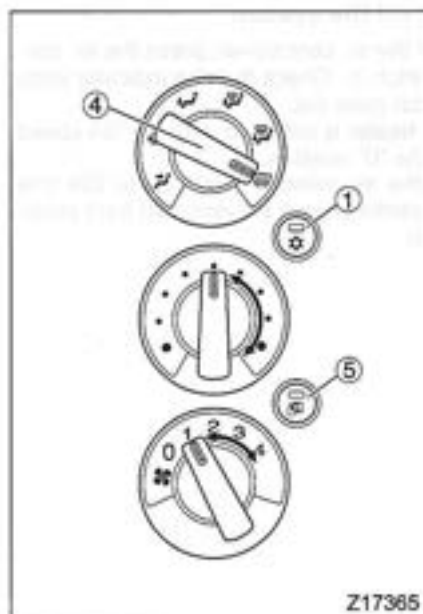
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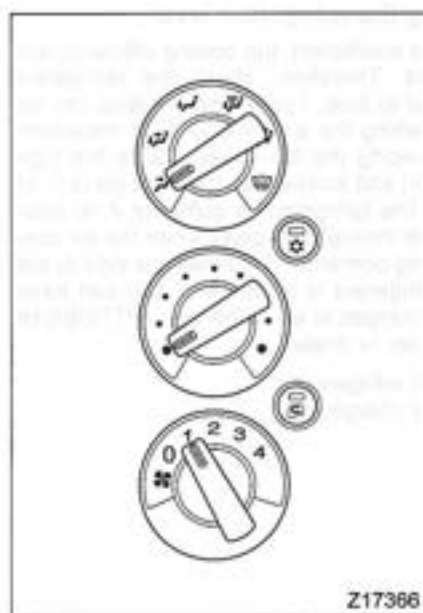
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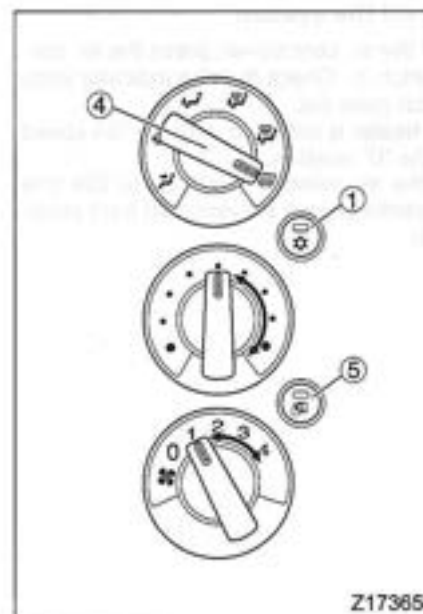
6 Defrosting

- Warm air is directed toward the windshield and door windows. For quicker defrosting, press the air conditioner switch ① and select the highest fan speed.
- To remove frost or ice on the outside surface of the windshield glass, press the air selector switch ⑤ to ON (the indicator comes on).
- When the mode selector dial ④ is placed in the position, warm air is directed toward your feet as well as toward the windshield and door windows.



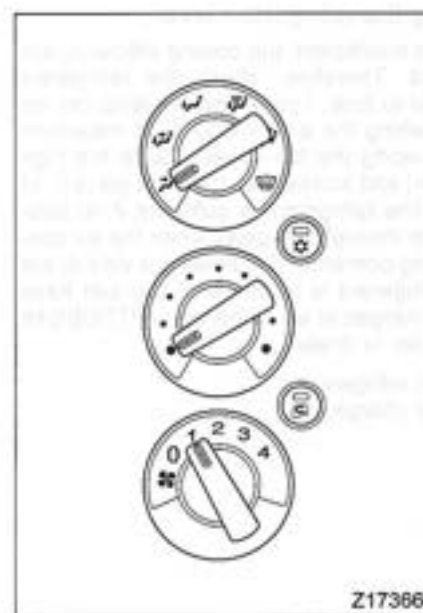
7 Ventilation

Outside air is directed to head.



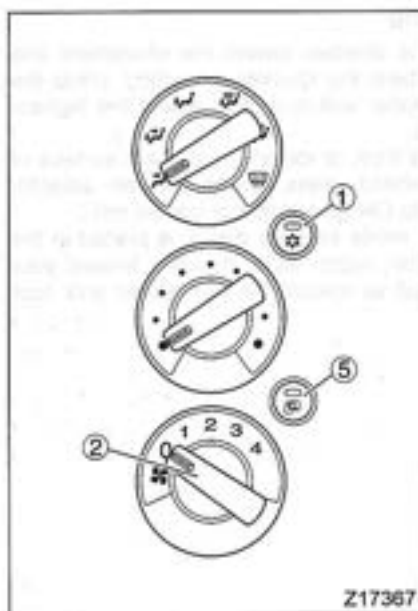
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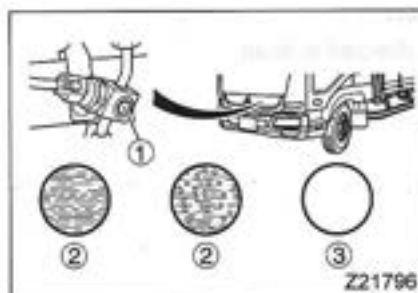
7 Ventilation

Outside air is directed to head.



8 Shutting off the system

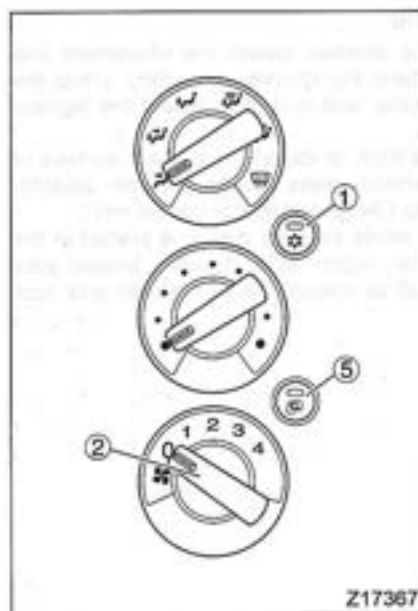
- To turn off the air conditioner, press the air conditioner switch ①. Check that the indicator lamp in the switch goes out.
- When the heater is not used, turn the fan speed dial ② to the "0" position.
- Pressing the air selector switch ⑤ to ON (the indicator comes on) will prevent dust from entering the cab.



9 Checking the refrigerant level

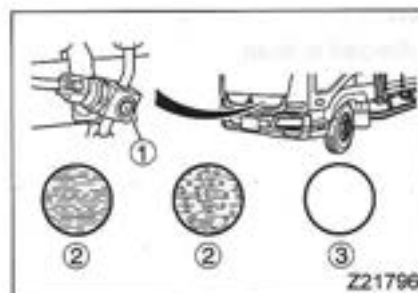
If refrigerant is insufficient, the cooling efficiency will be diminished. Therefore, check the refrigerant level from time to time. The refrigerant level can be checked by setting the air conditioner to maximum cooling (by placing the fan speed dial to the high speed position) and looking into the sight glass ① of the receiver. The refrigerant is sufficient if no bubbles are visible through the glass when the air conditioner is being operated. If bubbles are visible, the amount of refrigerant is insufficient. You can have your system charged at an authorized MITSUBISHI FUSO distributor or dealer.

- ②: Insufficient refrigerant
- ③: Sufficiently charged



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- ②: Insufficient refrigerant
- ③: Sufficiently charged

CAUTION

- Running the air conditioner without refrigerant will damage the air conditioner compressor. Check the refrigerant level if the air conditioner stops working efficiently.
- To protect the environment, your vehicle's air conditioning system uses refrigerant HFC-134a which does not harm the ozone layer.
Since charging the system with this refrigerant requires a method different from the conventional method, be sure to contact an authorized MITSUBISHI FUSO distributor or dealer if your system needs to be serviced.
- Using any refrigerant other than the HFC-134a will cause a malfunction of the air conditioning system. Be sure to use only the HFC-134a.

NOTE:

Do not release refrigerant gas into the atmosphere. When the air conditioning system requires servicing or when you discard the vehicle, ask your nearest authorized MITSUBISHI FUSO distributor or dealer to do this so that they can collect the refrigerant gas.

10 Cleaning the air filter

Clean the air filter every 6 months.
A dust clogged air filter may cause a poor air conditioning performance and blower motor malfunction.

⇒ □ P. 12-112

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10. Interior equipment and accessories

AM/FM radio and CD player	10-2
Cigarette lighter	10-17
Ashtrays	10-18
Sun visors	10-19
Interior/personal lamp	10-19
Fluorescent lamp	10-20
Inside rearview mirror	10-20
Small article compartments	10-21
Using the radio	10-24

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Using the radio	10-24

AM/FM radio and CD player

You can enjoy listening to the radio and CD programs when the starter switch is in the "ON" or "ACC" position.

⚠ WARNING

Adjust the speaker volume to a level at which you can still hear sounds outside the vehicle. If the speaker volume is too high, you will be unable to hear sounds that may indicate danger.

⚠ CAUTION

- To avoid draining the battery, do not use the radio and other electrical accessories for extended periods when the engine is not running.
- The audio system may emit noise when radio communication equipment or a mobile telephone is used in the cab. This noise does not indicate a fault. Use mobile telephones as far away from the audio system as possible.
- If a foreign object gets inside the audio system, water splashes on the audio system, or smoke or an abnormal smell is emitted by the audio system, immediately stop using the audio system and have it inspected by an authorized MITSUBISHI FUSO distributor or dealer.

1 Some advice on use of CDs

- CDs that do not carry the  mark cannot be used. CD-R/RW cannot be played in some types.
- Special CDs such as a square-shaped disc and an octagon-shaped disc cannot be used. Always use a round-shaped one.
- Store CDs in their cases. Do not place them in direct sunlight or in any place that has a high temperature and/or high humidity.
- Touching the shiny side of a CD (the side opposite the label side) with your fingers can cause the sound to deteriorate. Always hold a CD using the center hole and outer edge.

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- To remove dirt from a CD, use a soft cloth to wipe in a straight line from the center toward the outer edge. Never apply thinner or antistatic fluid.
- Do not use any CD that is cracked or significantly warped. Doing so could cause the player to malfunction.
- Do not write on CDs with a ballpoint pen. Do not stick paper or stickers on CDs.

2 Handling of the antenna

To listen to the radio, first extend the antenna.

⚠ CAUTION

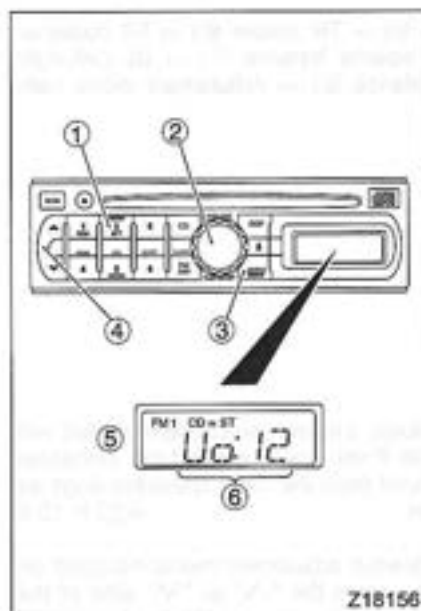
When you go into the low ceilinged-place, shorten the antenna. The antenna may be broken.



3 Radio operations

3.1 Volume and tone adjustment

- ① Repeat button
- ② Power/volume knob
- ③ Audio adjustment mode selection button ("AUDIO" button)
- ④ Tuning button
- ⑤ Display
- ⑥ Volume and adjustment mode indication



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2 Handling of the antenna

To listen to the radio, first extend the antenna.

⚠ CAUTION

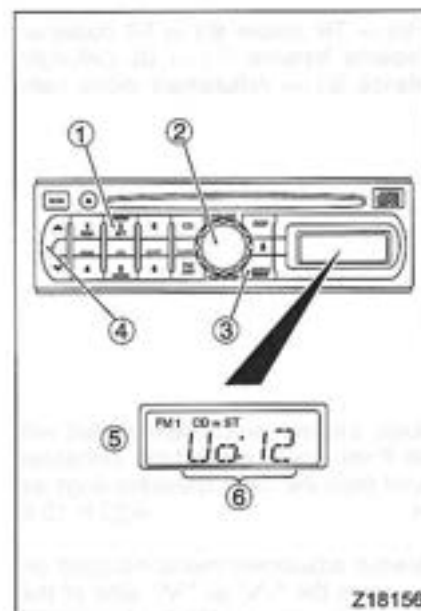
When you go into the low ceilinged-place, shorten the antenna. The antenna may be broken.



3 Radio operations

3.1 Volume and tone adjustment

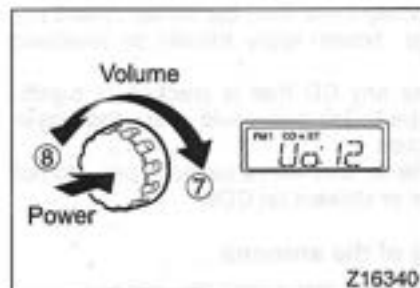
- ① Repeat button
- ② Power/volume knob
- ③ Audio adjustment mode selection button ("AUDIO" button)
- ④ Tuning button
- ⑤ Display
- ⑥ Volume and adjustment mode indication



3.2 Adjusting the volume

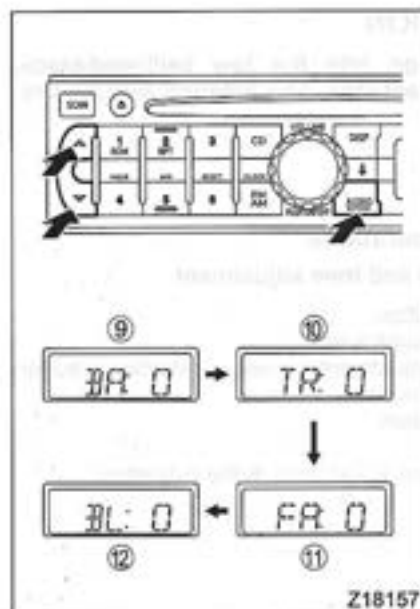
Use the power/volume knob to adjust the volume.

1. Press the knob to turn on the audio system. Press the knob again to turn off the system.
2. Turn the knob to the right ⑦ to increase the volume, or to the left ⑧ to decrease the volume. You can select any volume level between 0 and 20.
3. The selected volume level is indicated on the display. The example in the figure shows the indication for volume level 12.

**3.3 Adjusting the tone and the volume balance**

Use the audio adjustment mode selection button ("AUDIO" button) and the tuning button (the "▲" or "▼" side) to adjust the tone and the front-rear or left-right volume balance.

1. Press the "AUDIO" button to display the desired adjustment mode.
 - Each time you press this button, the adjustment mode indication on the display changes as follows:
BA (bass ⑨) → TR (treble ⑩) → FA (fader or front-rear volume balance ⑪) → BL (left-right volume balance ⑫) → Adjustment mode cancelled

**NOTE:**

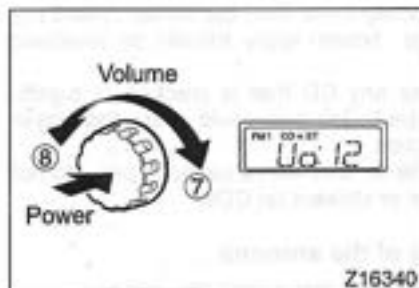
Front-rear volume balance adjustment (fader) will not be possible if you have selected the 2-channel operation (sound from the front speakers only) as explained later. ⇨ P. 10-6

2. With the desired adjustment mode indicated on the display, press the "▲" or "▼" side of the tuning button for the necessary adjustments.

3.2 Adjusting the volume

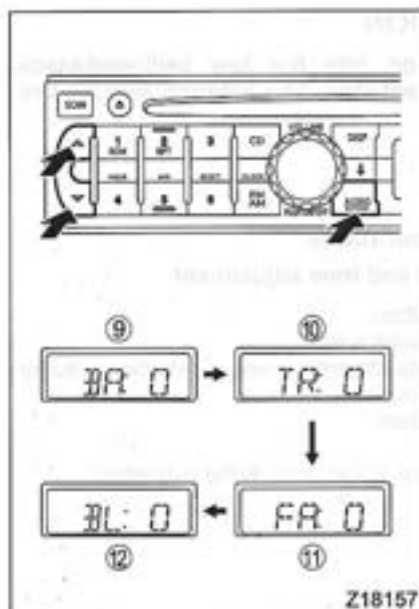
Use the power/volume knob to adjust the volume.

1. Press the knob to turn on the audio system. Press the knob again to turn off the system.
2. Turn the knob to the right ⑦ to increase the volume, or to the left ⑧ to decrease the volume. You can select any volume level between 0 and 20.
3. The selected volume level is indicated on the display. The example in the figure shows the indication for volume level 12.

**3.3 Adjusting the tone and the volume balance**

Use the audio adjustment mode selection button ("AUDIO" button) and the tuning button (the "▲" or "▼" side) to adjust the tone and the front-rear or left-right volume balance.

1. Press the "AUDIO" button to display the desired adjustment mode.
 - Each time you press this button, the adjustment mode indication on the display changes as follows:
BA (bass ⑨) → TR (treble ⑩) → FA (fader or front-rear volume balance ⑪) → BL (left-right volume balance ⑫) → Adjustment mode cancelled

**NOTE:**

Front-rear volume balance adjustment (fader) will not be possible if you have selected the 2-channel operation (sound from the front speakers only) as explained later. ⇨ P. 10-6

2. With the desired adjustment mode indicated on the display, press the "▲" or "▼" side of the tuning button for the necessary adjustments.

• Adjustment modes

Mode	Display indication	Adjustable range	Description
Bass tone adjustment (bass)	BA:	-5 to +5	Bass tone is less emphasized as the number on the display changes upward if it has a minus sign, or more emphasized if the number has a plus sign. The number 0 represents the neutral adjustment.
Treble tone adjustment (treble)	TR:	-5 to +5	Treble tone is less emphasized as the number on the display changes upward if it has a minus sign or more emphasized if the number has a plus sign. The number 0 represents the neutral adjustment.
Front-rear volume balance adjustment (fader)	FA:	R5 to F5	The volume from the front speakers becomes higher than the volume from the rear speakers as the number on display changes upward if the number has the letter "F", and vice versa if the number has the letter "R".
Left-right volume balance adjustment (balance)	BL:	R5 to L5	The volume from the left speakers becomes higher than the volume from the right speakers as the number on the display changes upward if the number has the letter "L", and vice versa if the number has the letter "R".

NOTE:

If your audio system has no rear speakers connected, the overall speaker volume becomes too low as you increase the rear speaker volume with the front-rear volume balance adjustment (fader) mode selected. To obtain a sufficient volume level for listening, select the neutral or any "F" number level while in the front-rear balance adjustment mode, or select the 2-channel audio as explained later.

⇨ □ P. 10-6

• Adjustment modes

Mode	Display indication	Adjustable range	Description
Bass tone adjustment (bass)	BA:	-5 to +5	Bass tone is less emphasized as the number on the display changes upward if it has a minus sign, or more emphasized if the number has a plus sign. The number 0 represents the neutral adjustment.
Treble tone adjustment (treble)	TR:	-5 to +5	Treble tone is less emphasized as the number on the display changes upward if it has a minus sign or more emphasized if the number has a plus sign. The number 0 represents the neutral adjustment.
Front-rear volume balance adjustment (fader)	FA:	R5 to F5	The volume from the front speakers becomes higher than the volume from the rear speakers as the number on display changes upward if the number has the letter "F", and vice versa if the number has the letter "R".
Left-right volume balance adjustment (balance)	BL:	R5 to L5	The volume from the left speakers becomes higher than the volume from the right speakers as the number on the display changes upward if the number has the letter "L", and vice versa if the number has the letter "R".

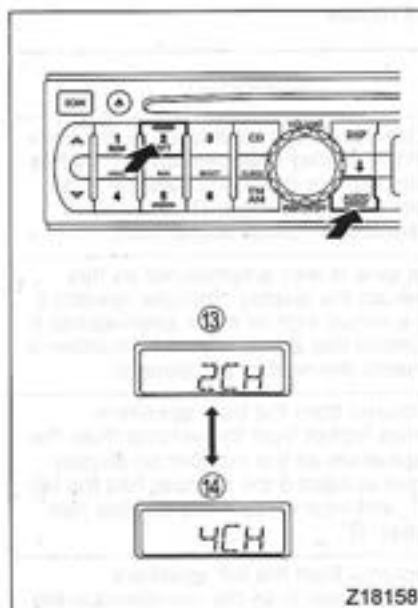
NOTE:

If your audio system has no rear speakers connected, the overall speaker volume becomes too low as you increase the rear speaker volume with the front-rear volume balance adjustment (fader) mode selected. To obtain a sufficient volume level for listening, select the neutral or any "F" number level while in the front-rear balance adjustment mode, or select the 2-channel audio as explained later.

⇨ □ P. 10-6

3.4 Selecting 2- or 4-channel audio

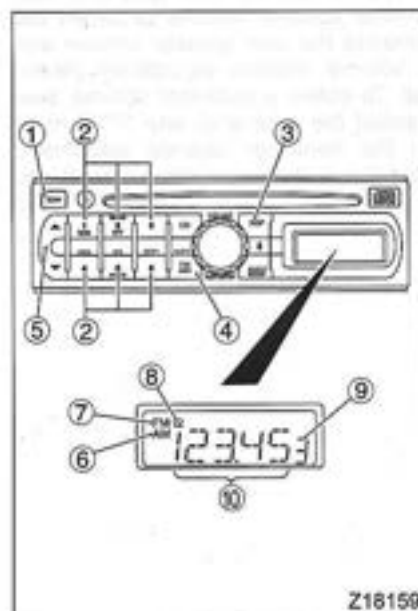
You can switch the speaker channel configuration between 2-channel (sound from the front speakers) ⑬ and 4-channel (sound from both the front and rear speakers) ⑭ each time you press the "2" button while pressing the "AUDIO" button.

**NOTE:**

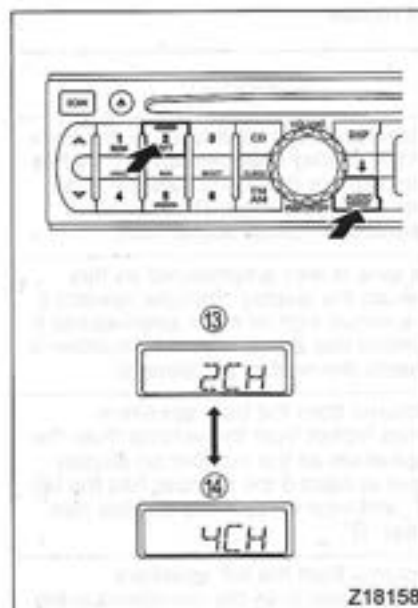
Front-rear volume balance adjustment (fader) will not be possible if you have selected the 2-channel audio.

4 Radio

- ① Scan search button ("SCAN" button)
- ② Preset buttons
- ③ Display selection button
- ④ AM/FM1/FM2 button ("FM/AM" button)
- ⑤ Tuning button
- ⑥ AM indication
- ⑦ FM indication
- ⑧ FM band indication
- ⑨ Preset button number (channel) indication
- ⑩ Frequency/time-of-day indication

**3.4 Selecting 2- or 4-channel audio**

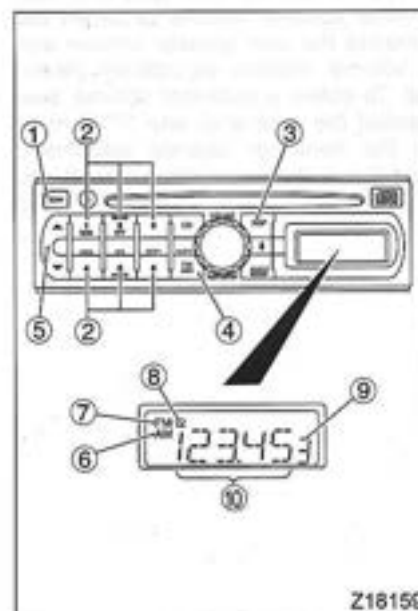
You can switch the speaker channel configuration between 2-channel (sound from the front speakers) ⑬ and 4-channel (sound from both the front and rear speakers) ⑭ each time you press the "2" button while pressing the "AUDIO" button.

**NOTE:**

Front-rear volume balance adjustment (fader) will not be possible if you have selected the 2-channel audio.

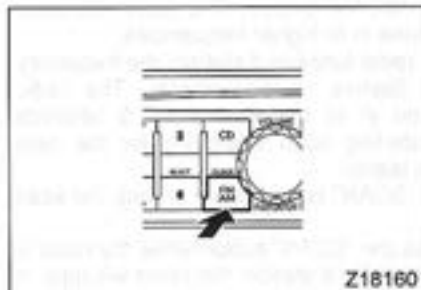
4 Radio

- ① Scan search button ("SCAN" button)
- ② Preset buttons
- ③ Display selection button
- ④ AM/FM1/FM2 button ("FM/AM" button)
- ⑤ Tuning button
- ⑥ AM indication
- ⑦ FM indication
- ⑧ FM band indication
- ⑨ Preset button number (channel) indication
- ⑩ Frequency/time-of-day indication

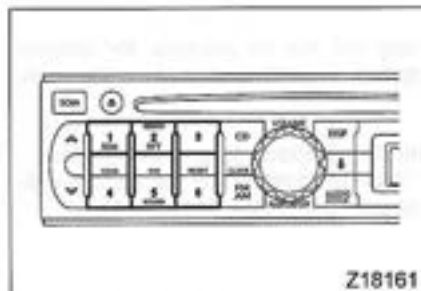


4.1 Listening to the radio

1. With the starter switch in the "ACC" or "ON" position, press the power/volume knob or "FM/AM" button to turn on the radio. To turn off the radio, press the power/volume knob again.
2. Tune the radio to the desired station.
 - Press the "FM/AM" button. If the system was operating as a CD player, it now operates as a radio. If the system is already operating as a radio, the band changes in the sequence of AM to FM1 to FM2 each time the button is pressed.



Z18160



Z18161

- To tune in a preset station, simply press the desired preset button ("1" to "6").
- To tune in a non-preset station, press either side ("^" or "v") of the tuning button.
- The display will indicate "ST" when a stereo station is received.

3. Adjust the volume by turning the power/volume knob.
4. Use the "AUDIO" button and the tuning button ("^" or "v" side) if you wish to adjust the tone or the front-rear and/or left-right volume balance.

4.2 Manual tuning

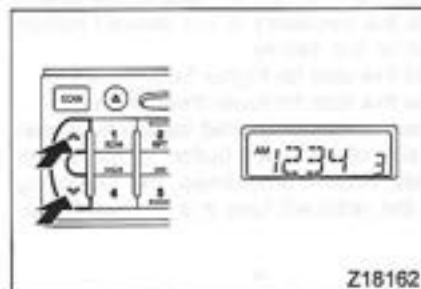
Press either the "^" or "v" side of the tuning button.

- "^": Press this side for higher frequencies.
- "v": Press this side for lower frequencies.

4.3 Automatic tuning using the tuning button

Press either the "^" or "v" side of the tuning button for 0.5 seconds or longer. After a short beep, the radio will start searching. The searching stops at the first receivable station.

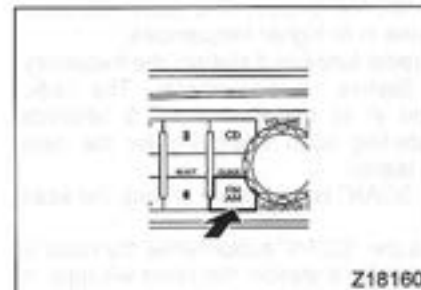
- "^": Press this side for higher frequencies.
- "v": Press this side for lower frequencies.



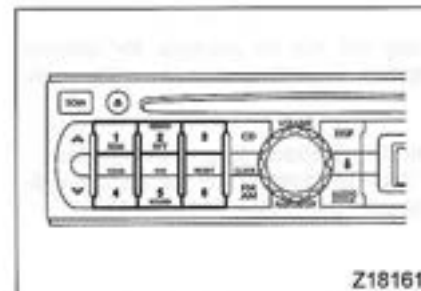
Z18162

4.1 Listening to the radio

1. With the starter switch in the "ACC" or "ON" position, press the power/volume knob or "FM/AM" button to turn on the radio. To turn off the radio, press the power/volume knob again.
2. Tune the radio to the desired station.
 - Press the "FM/AM" button. If the system was operating as a CD player, it now operates as a radio. If the system is already operating as a radio, the band changes in the sequence of AM to FM1 to FM2 each time the button is pressed.



Z18160



Z18161

- To tune in a preset station, simply press the desired preset button ("1" to "6").
- To tune in a non-preset station, press either side ("^" or "v") of the tuning button.
- The display will indicate "ST" when a stereo station is received.

3. Adjust the volume by turning the power/volume knob.
4. Use the "AUDIO" button and the tuning button ("^" or "v" side) if you wish to adjust the tone or the front-rear and/or left-right volume balance.

4.2 Manual tuning

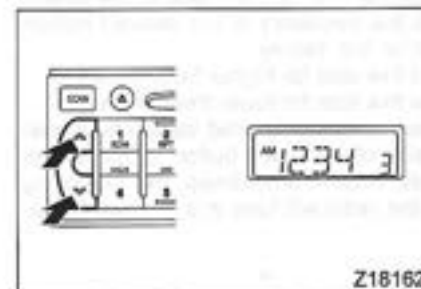
Press either the "^" or "v" side of the tuning button.

- "^": Press this side for higher frequencies.
- "v": Press this side for lower frequencies.

4.3 Automatic tuning using the tuning button

Press either the "^" or "v" side of the tuning button for 0.5 seconds or longer. After a short beep, the radio will start searching. The searching stops at the first receivable station.

- "^": Press this side for higher frequencies.
- "v": Press this side for lower frequencies.



Z18162

NOTE:

Automatic tuning will not be possible for stations with poor reception. In such a case, tune the radio manually.

4.4 Automatic tuning using the "SCAN" button

- Press the "SCAN" button. The radio will automatically tune in to higher frequencies.
 - When the radio tunes in a station, the frequency indication flashes on the display. The radio stays tuned in to the station for 5 seconds before restarting scan searching for the next receivable station.
 - Press the "SCAN" button again to stop the scan searching.
- If you press the "SCAN" button while the radio is still searching for a station, the radio will tune in the previous received station.

NOTE:

Automatic tuning will not be possible for stations with poor reception. In such a case, tune the radio manually.

4.5 Programming stations to preset buttons

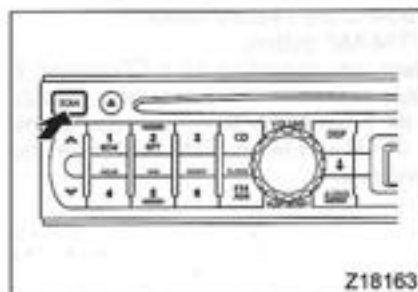
1. Press the "AM/FM" button until the display indicates the desired band (AM, FM1 or FM2).

2. Press either the "▲" or "▼" side of the tuning button until the frequency of the desired station is indicated on the display.
 - "▲": Press this side for higher frequencies.
 - "▼": Press this side for lower frequencies.

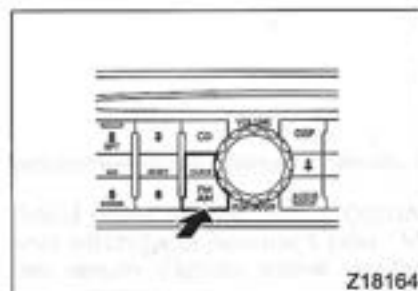
You can also search a desired station by pressing either side of the tuning button for more than 0.5 seconds. After a short beep, the searching stops and the radio will tune in a receivable station.

NOTE:

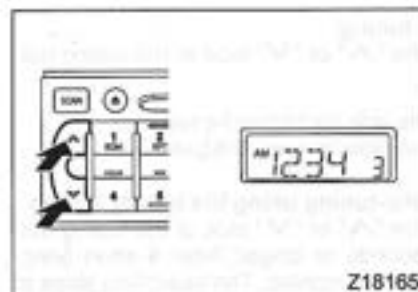
Automatic tuning will not be possible for stations with poor reception. In such a case, tune the radio manually.



Z18163



Z18164



Z18165

NOTE:

Automatic tuning will not be possible for stations with poor reception. In such a case, tune the radio manually.

4.4 Automatic tuning using the "SCAN" button

- Press the "SCAN" button. The radio will automatically tune in to higher frequencies.
 - When the radio tunes in a station, the frequency indication flashes on the display. The radio stays tuned in to the station for 5 seconds before restarting scan searching for the next receivable station.
 - Press the "SCAN" button again to stop the scan searching.
- If you press the "SCAN" button while the radio is still searching for a station, the radio will tune in the previous received station.

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Automatic tuning will not be possible for stations with poor reception. In such a case, tune the radio manually.

4.5 Programming stations to preset buttons

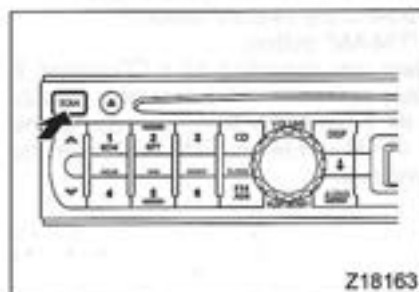
1. Press the "AM/FM" button until the display indicates the desired band (AM, FM1 or FM2).

2. Press either the "▲" or "▼" side of the tuning button until the frequency of the desired station is indicated on the display.
 - "▲": Press this side for higher frequencies.
 - "▼": Press this side for lower frequencies.

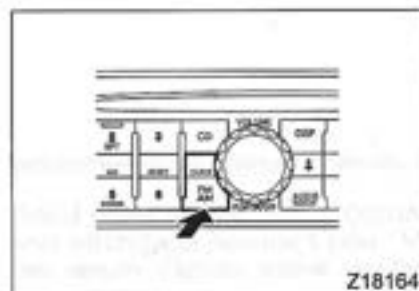
You can also search a desired station by pressing either side of the tuning button for more than 0.5 seconds. After a short beep, the searching stops and the radio will tune in a receivable station.

NOTE:

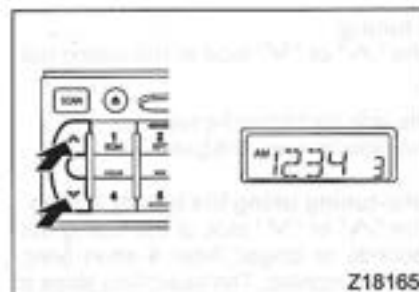
Automatic tuning will not be possible for stations with poor reception. In such a case, tune the radio manually.



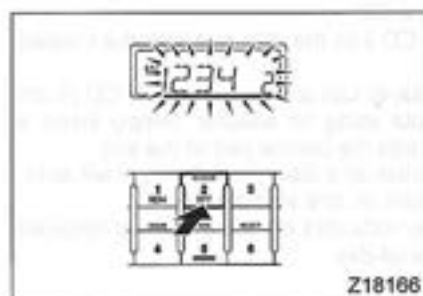
Z18163



Z18164



Z18165



- Press the desired preset button for 2 seconds or longer. A short beep will sound and the frequency of the selected station and the number (channel number) of the preset button you pressed will flash on the display. Now the station is programmed to the preset button.

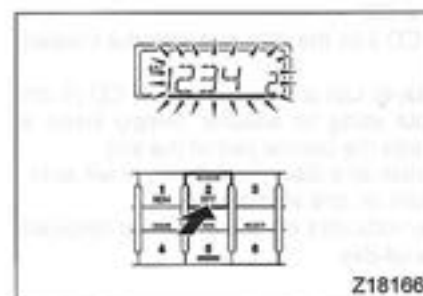
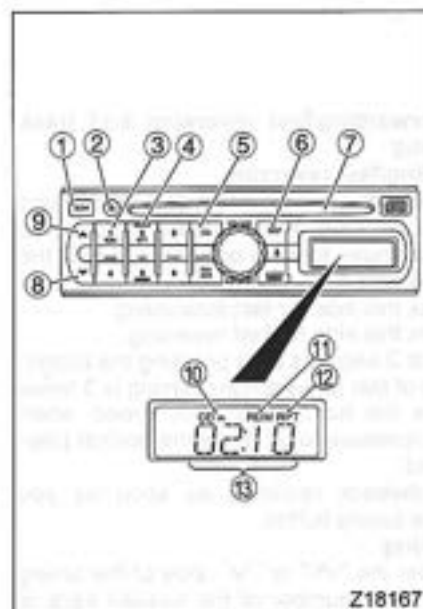
NOTE:

- If you program a new station to a preset button to which another station was programmed, the original station will automatically be cancelled.
- If the vehicle battery is disconnected or the fuse protecting the audio system is removed for an extended time, all stations programmed to preset buttons will be erased from the memory. Should this occur, reprogramming will be necessary.

5 CD player

- Scan searching button ("SCAN" button)
- Disc eject button
- Random button
- Repeat button
- CD button
- Display selection button
- Disc slot
- Downward track search button/fast reverse button
- Upward track search button/fast forward button
- Disc-in indicator
- Random indicator
- Repeat indicator
- Play time/time-of-day/track number indication

- The CD player turns on when you press the power/volume knob or insert a disc into the disc slot with the starter switch in the "ACC" or "ON" position.
- If you insert a CD into the disc slot while listening to the radio, the audio system then stops radio reception and operates as a CD player.



- Press the desired preset button for 2 seconds or longer. A short beep will sound and the frequency of the selected station and the number (channel number) of the preset button you pressed will flash on the display. Now the station is programmed to the preset button.

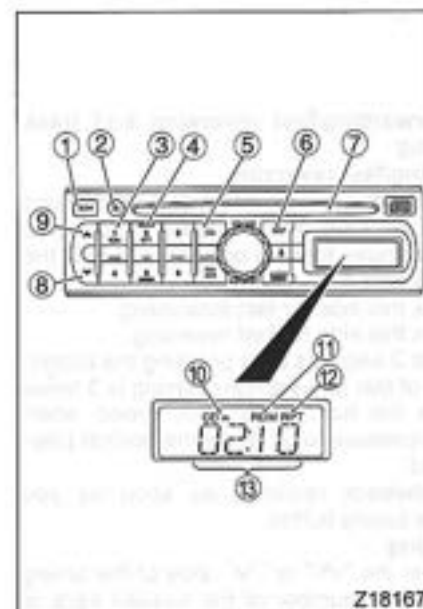
NOTE:

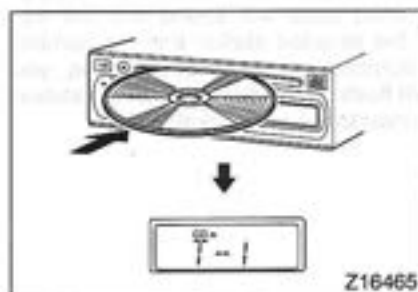
- If you program a new station to a preset button to which another station was programmed, the original station will automatically be cancelled.
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- The CD player turns on when you press the power/volume knob or insert a disc into the disc slot with the starter switch in the "ACC" or "ON" position.
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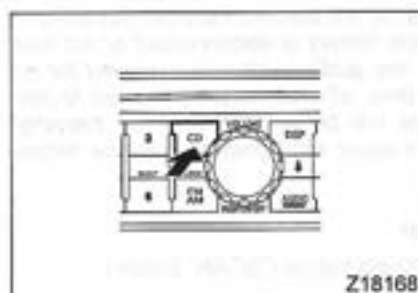


5.1 Playing a CD

1. Insert the CD into the disc slot with the labeled side up.
This CD player can also play a single CD (8-cm disc) without using an adapter. Simply insert a single CD into the central part of the slot.
2. Upon insertion of a disc, the CD player will automatically turn on and start playback.
The display indicates the track number followed by the time-of-day.

5.2 Switching to CD playing when listening to the radio

If the CD player is already loaded with a disc, simply press the CD button. Playback will start, beginning with the track that was last played.



5.3 Fast forwarding/fast reversing and track searching

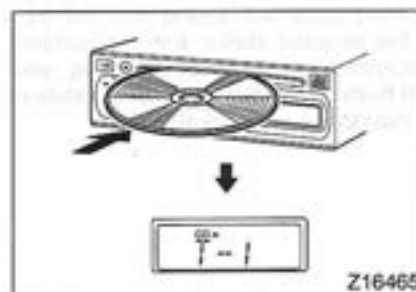
Fast forwarding/fast reversing

- Press either the " $\wedge$ " or " $\vee$ " side of the tuning button for as long as necessary. Rapid disc reading continues forward or backward until the button is released.
" $\wedge$ ": Press this side for fast forwarding.
" $\vee$ ": Press this side for fast reversing.
- For the first 3 seconds after pressing the button, the speed of fast forwarding/reversing is 3 times as fast as the normal playback speed; afterwards, it increases to 30 times the normal playback speed.
- Normal playback resumes as soon as you release the tuning button.

Track searching

Press either the " $\wedge$ " or " $\vee$ " side of the tuning button until the number of the desired track is indicated on the display.

- " $\wedge$ ": Press this side for higher track numbers.
- " $\vee$ ": Press this side for lower track numbers.

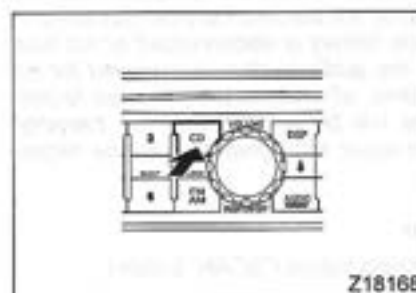


5.1 Playing a CD

1. Insert the CD into the disc slot with the labeled side up.
This CD player can also play a single CD (8-cm disc) without using an adapter. Simply insert a single CD into the central part of the slot.
2. Upon insertion of a disc, the CD player will automatically turn on and start playback.
The display indicates the track number followed by the time-of-day.

5.2 Switching to CD playing when listening to the radio

If the CD player is already loaded with a disc, simply press the CD button. Playback will start, beginning with the track that was last played.



5.3 Fast forwarding/fast reversing and track searching

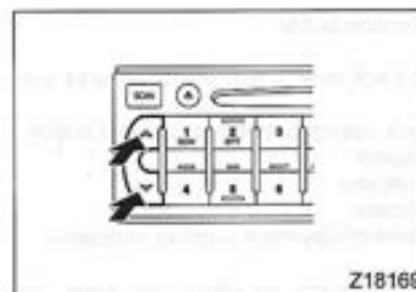
Fast forwarding/fast reversing

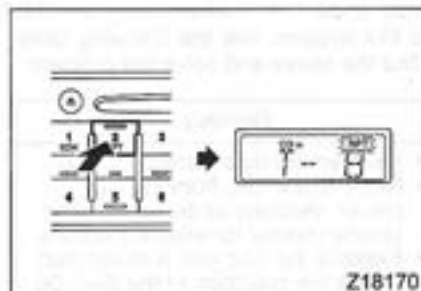
- Press either the " $\wedge$ " or " $\vee$ " side of the tuning button for as long as necessary. Rapid disc reading continues forward or backward until the button is released.
" $\wedge$ ": Press this side for fast forwarding.
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- For the first 3 seconds after pressing the button, the speed of fast forwarding/reversing is 3 times as fast as the normal playback speed; afterwards, it increases to 30 times the normal playback speed.
- Normal playback resumes as soon as you release the tuning button.

Track searching

Press either the " $\wedge$ " or " $\vee$ " side of the tuning button until the number of the desired track is indicated on the display.

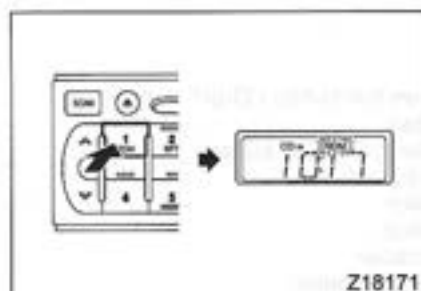
- " $\wedge$ ": Press this side for higher track numbers.
- " $\vee$ ": Press this side for lower track numbers.





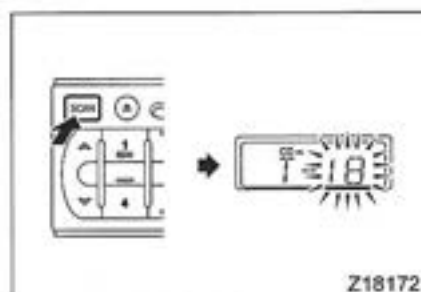
5.4 Repeating the same track

1. Press the repeat button ("2" button).
2. The display will indicate "RPT". (If you press the button during the pause between the current and the next track, the player will play the next track repeatedly.)
3. Press the same button again to cancel repeated playback.



5.5 Playing tracks in random order

1. Press the random button ("1" button). The player will play back the tracks on the disc in an order other than the original order.
2. The display will indicate "RDM" during random playback.
3. Press the button again to cancel random playback.



5.6 Scan search playback

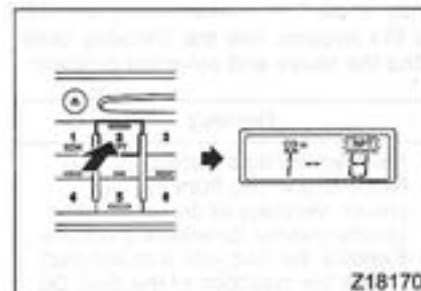
The player reproduces the first 10-second part of each track.

This function is useful for finding your favorite tracks.

1. Press the "SCAN" button.
2. The track number flashes on the display. The player will reproduce the first part of the next tracks one after another for 10 seconds each.
3. Press the button again to cancel the scan search playback.

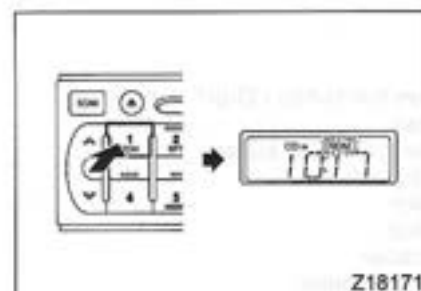
5.7 Ejecting a disc

1. Press the  button. If you press the button while the disc is still being played back, the player stops playback and ejects the disc.
2. Remove the disc from the slot. The radio will automatically start receiving the station you last listened to.



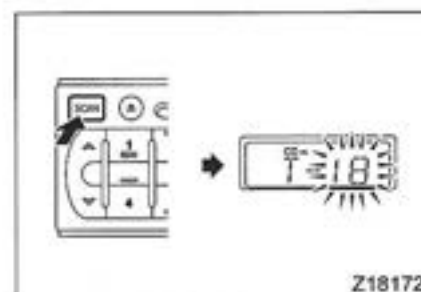
5.4 Repeating the same track

1. Press the repeat button ("2" button).
2. The display will indicate "RPT". (If you press the button during the pause between the current and the next track, the player will play the next track repeatedly.)
3. Press the same button again to cancel repeated playback.



5.5 Playing tracks in random order

1. Press the random button ("1" button). The player will play back the tracks on the disc in an order other than the original order.
2. The display will indicate "RDM" during random playback.
3. Press the button again to cancel random playback.



5.6 Scan search playback

The player reproduces the first 10-second part of each track.

This function is useful for finding your favorite tracks.

1. Press the "SCAN" button.
2. The track number flashes on the display. The player will reproduce the first part of the next tracks one after another for 10 seconds each.
3. Press the button again to cancel the scan search playback.

5.7 Ejecting a disc

1. Press the  button. If you press the button while the disc is still being played back, the player stops playback and ejects the disc.
2. Remove the disc from the slot. The radio will automatically start receiving the station you last listened to.

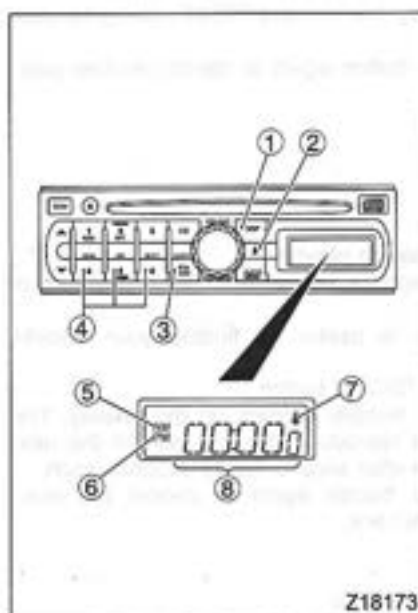
5.8 Error indication

The display may show "Err" when using the CD player. Should this happen, use the following table as a guide to find the cause and solve the problem.

Indication	Probable cause	Remedy
Err	- Disc is inserted with wrong side up. - Disc cannot be read due to condensation on it or on the internal mechanism of the player. - Inserted disc is not a music disc. - Disc cannot be read due to scratches, contamination, deformation or other defects.	- Reinsert the disc correctly. - Remove the disc from the CD player. Ventilate or dehumidify the vehicle interior to remove moisture. - Replace the disc with a music disc. - Check the condition of the disc. Do not use it if it is contaminated or otherwise defective.

6 Clock

- ① Display selection button ("DISP" button)
- ② Alarm button
- ③ Clock button ("CLOCK" button)
- ④ Clock setting buttons
- ⑤ AM indication
- ⑥ PM indication
- ⑦ Alarm indication
- ⑧ Time-of-day indication

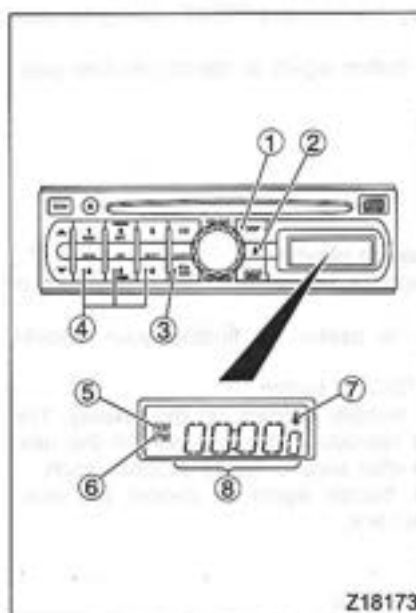
**5.8 Error indication**

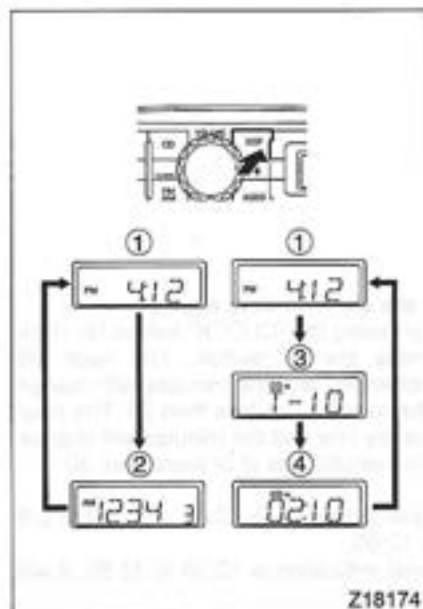
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Indication	Probable cause	Remedy
Err	- Disc is inserted with wrong side up. - Disc cannot be read due to condensation on it or on the internal mechanism of the player. - Inserted disc is not a music disc. - Disc cannot be read due to scratches, contamination, deformation or other defects.	- Reinsert the disc correctly. - Remove the disc from the CD player. Ventilate or dehumidify the vehicle interior to remove moisture. - Replace the disc with a music disc. - Check the condition of the disc. Do not use it if it is contaminated or otherwise defective.

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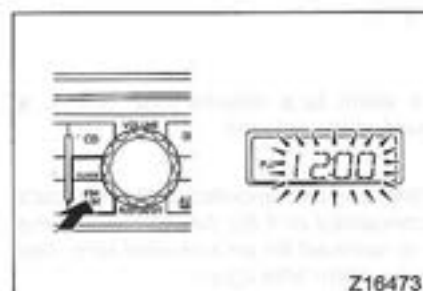




Z18174

6.1 Viewing the time

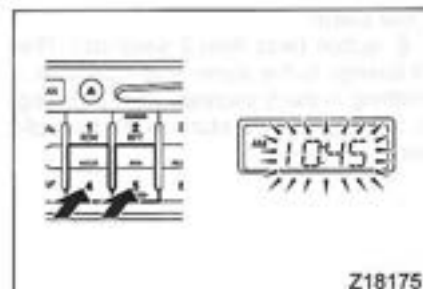
- When listening to the radio:
Press the "DISP" button. Each time the button is pressed, the indication will alternate between the time-of-day indication ① and frequency indication ②.
- When playing a CD:
Press the "DISP" button. Each time the button is pressed, the indication will change in this sequence: time-of-day indication ① → track number indication ③ → playback time indication ④.
- Any indication other than that for time-of-day will automatically change to the time-of-day indication after a lapse of 5 seconds.



Z16473

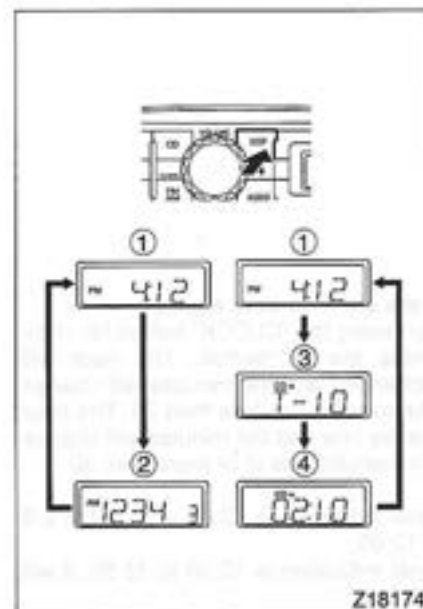
6.2 Setting the clock

- Press the "CLOCK" button for about 2 seconds. A short beep will sound and the time-of-day indication will start flashing.



Z18175

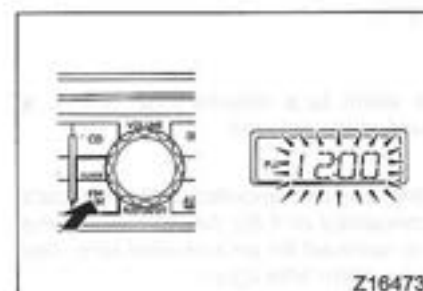
- Press the clock setting buttons to set the hour and minutes.
"4" button: Use this to set the hour.
"5" button: Use this to set the minutes.
To advance the hour or minutes rapidly, press the relevant button for more than 2 seconds.



Z18174

6.1 Viewing the time

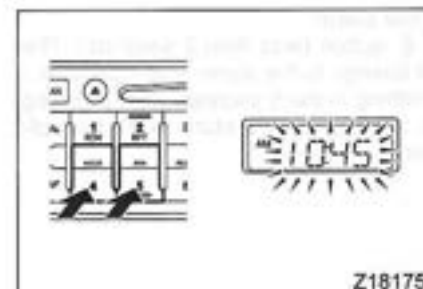
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Z16473

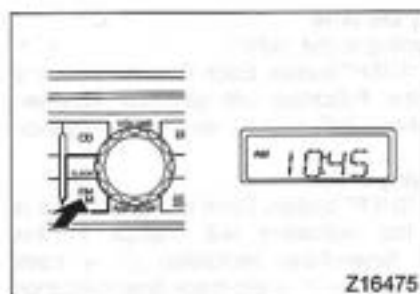
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Z18175

- Press the clock setting buttons to set the hour and minutes.
"4" button: Use this to set the hour.
"5" button: Use this to set the minutes.
To advance the hour or minutes rapidly, press the relevant button for more than 2 seconds.



- Press the "CLOCK" button again to complete the setting.

6.3 Setting the clock to time signal

- After first pressing the "CLOCK" button for clock setting, press the "6" button. The hour will remain unchanged and the minutes will change to "00" if the minutes are less than 30. The hour will advance by one and the minutes will change to "00" if the minutes are at or more than 30.
Example:
If the original indication is 12:00 to 12:29, it will change to 12:00.
If the original indication is 12:30 to 12:59, it will change to 1:00.

- Push the "CLOCK" button simultaneously with the time signal.

7 Alarm

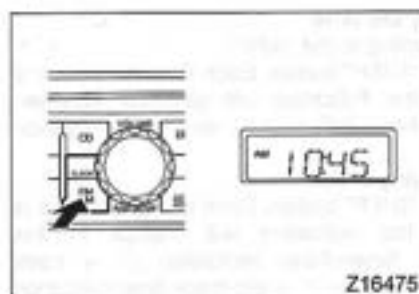
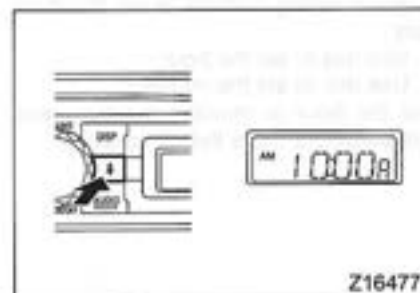
If you set the alarm to a desired time of day, a buzzer will sound at the set time.

NOTE:

The time setting will be cancelled if the vehicle's battery is disconnected or if the fuse protecting the audio system is removed for an extended time. You must then set the alarm time again.

7.1 Setting the alarm

- Press the  button (less than 2 seconds). The display will change to the alarm time indication. If you do nothing in the 5 seconds after pressing the button, the display will return to the time-of-day indication.



- Press the "CLOCK" button again to complete the setting.

6.3 Setting the clock to time signal

- After first pressing the "CLOCK" button for clock setting, press the "6" button. The hour will remain unchanged and the minutes will change to "00" if the minutes are less than 30. The hour will advance by one and the minutes will change to "00" if the minutes are at or more than 30.
Example:
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- Push the "CLOCK" button simultaneously with the time signal.

7 Alarm

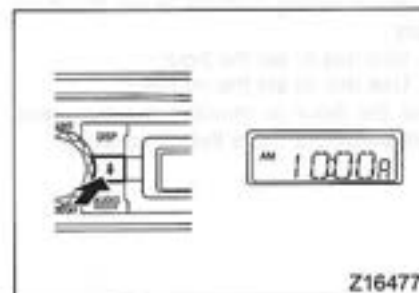
If you set the alarm to a desired time of day, a buzzer will sound at the set time.

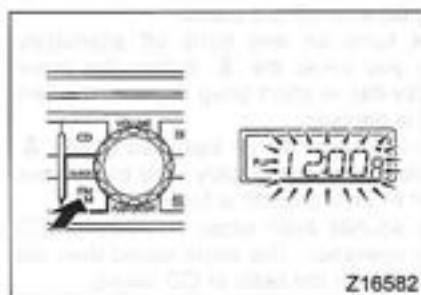
NOTE:

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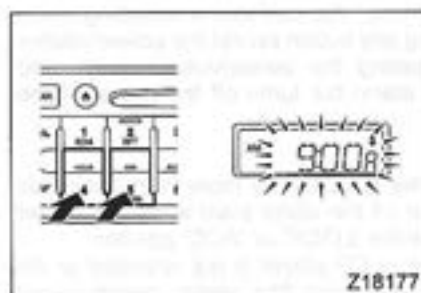
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- Press the  button (less than 2 seconds). The display will change to the alarm time indication. If you do nothing in the 5 seconds after pressing the button, the display will return to the time-of-day indication.

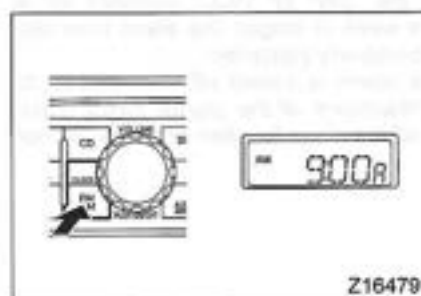




2. While the alarm time indication is still displayed, press the "CLOCK" button for more than 2 seconds. A short beep will sound and the alarm time indication will start flashing.



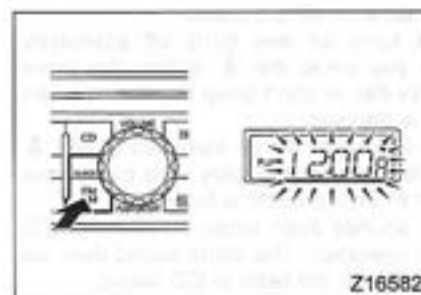
3. Press the clock setting buttons to set the hour and minutes.
 "4" button: Use this to set the hour.
 "5" button: Use this to set the minutes.
 Press each button for more than 2 seconds if you wish to advance the hour or minutes rapidly.



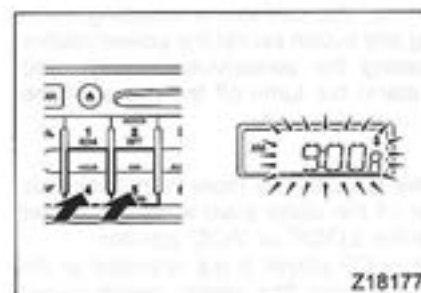
4. Press the "CLOCK" button to complete the alarm time setting.

NOTE:

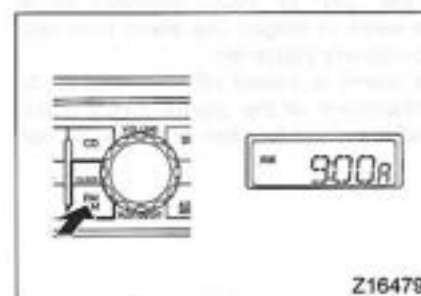
You can check the alarm time setting on the display by pressing the  button even when the starter switch is in the "LOCK" or "ACC" position.



2. While the alarm time indication is still displayed, press the "CLOCK" button for more than 2 seconds. A short beep will sound and the alarm time indication will start flashing.



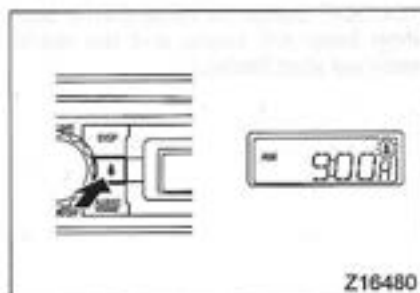
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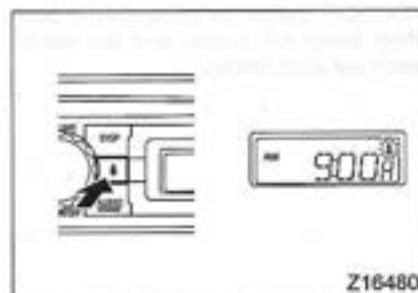


7.2 Turning on and off the alarm

- The alarm turns on and turns off alternately each time you press the  button (for more than 2 seconds). A short beep will sound when the button is pressed.
- The alarm ON state can be identified by the  mark appearing on the display. The mark does not appear when the alarm is turned off.
- The alarm sounds even when the radio or CD player is in operation. The alarm sound then will be superposed on the radio or CD sound.
- The alarm continues to sound for 3 minutes from the preset time. You can stop a sounding alarm by pressing any button except the power/volume knob. Pressing the power/volume knob also stops the alarm but turns off the power of the radio.

NOTE:

- Pressing the  button for more than 2 seconds turns on or off the alarm even when the starter switch is in the "LOCK" or "ACC" position.
- If the radio or CD player is not operated or the vehicle is not used (the starter switch is not placed in the "ON" or "ACC" position) for a period of a week or longer, the alarm time setting is automatically cancelled.
- Unless the alarm is turned off, it continues to operate irrespective of the starter switch position. Turn off the alarm function when you do not need it.



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- Unless the alarm is turned off, it continues to operate irrespective of the starter switch position. Turn off the alarm function when you do not need it.



Z13750

Cigarette lighter

The cigarette lighter can be used when the starter switch is in the "ON" or "ACC" position. Push the cigarette lighter all the way in. It will soon pop back to the original position with its core red hot. Pull out and use.

! WARNING

- Do not hold the cigarette lighter in the pushed-in position since the wiring could burn out and start a fire.
- Something is wrong with the lighter if it does not pop out within approx. 30 seconds. If this should happen, pull it out manually and have the lighter inspected by an authorized MITSUBISHI FUSO distributor or dealer. Leaving the lighter unrecovered in the socket could cause a fire.
- Do not leave your vehicle with the cigarette lighter pushed in. Doing so could result in a fire.
- Do not allow a child to touch the cigarette lighter. The child could get burned.
- Do not touch the metallic parts of the cigarette lighter. You could get burned.
- The cigarette lighter is designed to operate on 24 V. Never use a lighter with a 12 V rating.
- If the cigarette lighter is dented or broken, it will not pop out properly. Replace the dented or broken lighter with a new one available at an authorized MITSUBISHI FUSO distributor or dealer. Do not use lighters other than MITSUBISHI genuine lighters.
- Do not use electrical devices designed to be plugged into the cigarette lighter socket, as this could overload the circuitry and overheat the wiring. This could also damage the inside of the cigarette lighter socket.
- If water gets into the cigarette lighter socket, it could cause a short circuit, resulting in a fire. Have the cigarette lighter socket cleaned by an authorized MITSUBISHI FUSO distributor or dealer.



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Ashtrays

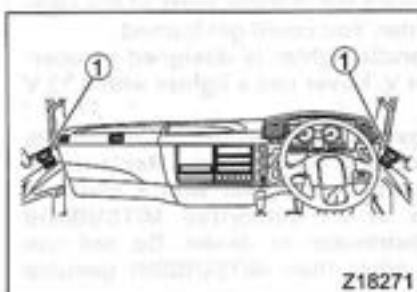
Remove and empty the ashtrays when they become full.

⚠ WARNING

- Be sure to put out cigarettes and matchsticks before putting them in the ashtrays. Close ashtrays completely.
- Put only cigarette stubs and matchsticks in the ashtray. Empty the ashtray before it becomes full completely as too many stubs crammed into the ashtray could catch fire.
- Do not throw cigarette ends out of the windows since this is environmentally irresponsible and could start a fire.
- When cleaning the ashtray, do not strike it with a hard object since it could break. If the ashtray breaks, stop using it and replace it with a new one. Using a broken ashtray could cause a fire.

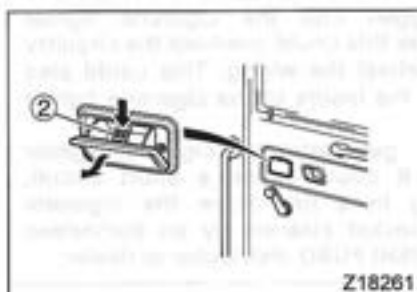
1 Driver's door ashtray and assistant driver's door ashtray

- Raise the lid ① to use the ashtray.
- When you wish to empty the ashtray, hold the lid and pull the entire ashtray upward to remove it.



2 Rear ashtray(s) in Crew-cab model

- Pull the lid of the ashtray toward you for use.
- When you wish to empty the ashtray, hold down the spring ② and pull the ashtray out toward you.
- To refit the ashtray, insert its bottom into the groove then hold down the spring and push the ashtray into place.



Ashtrays

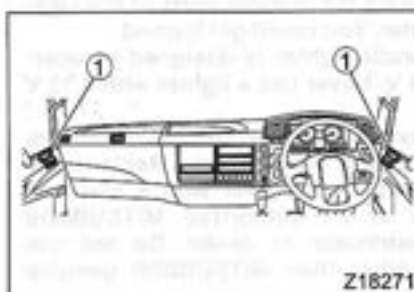
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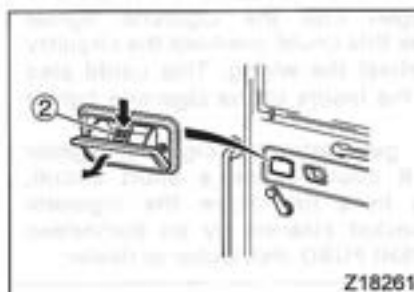
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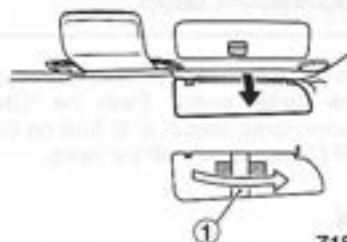


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Sun visors

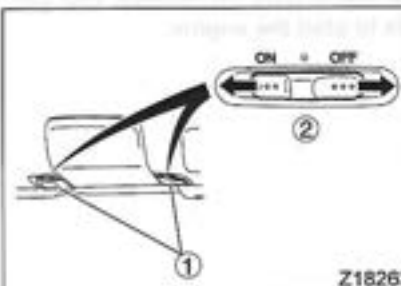


Z18262

The sun visor screens your eyes from sunlight. Change its angle as needed. Unhook the inside edge of the sun visor and swing it sideways to reduce glare from the side.

On the reverse side of the sun visor, there is a paper holder ① that can be used to hold a paper or card.

Interior/personal lamp



Z18263

The interior/personal lamp ① operates independently of the position of the starter switch. The lamp stays on while the lamp switch ② is in the "ON" position.

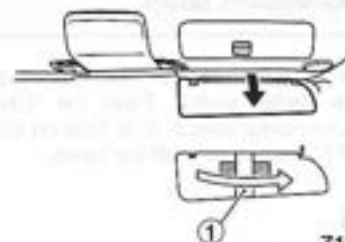
When the lamp switch ② is placed in the "•" position, the lamp comes on when a door is opened and goes out when all the doors are closed.

The lamp always stays off when the lamp switch ② is in the "OFF" position.

⚠ CAUTION

Do not leave the interior/personal lamp on for a long time with the engine stopped. Otherwise, the battery will be completely discharged and you will not be able to start the engine.

Sun visors

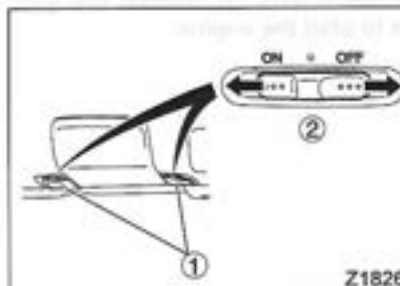


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Interior/personal lamp



Z18263

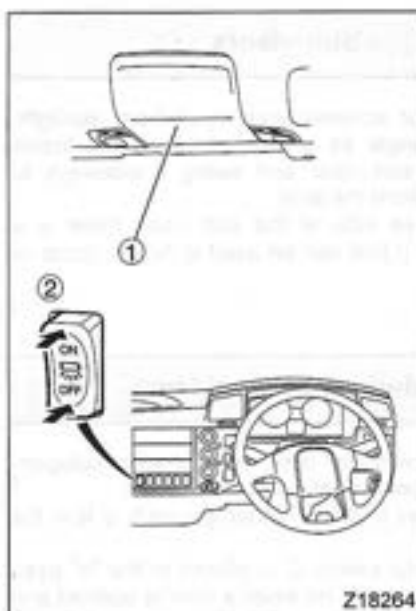
The interior/personal lamp ① operates independently of the position of the starter switch. The lamp stays on while the lamp switch ② is in the "ON" position.

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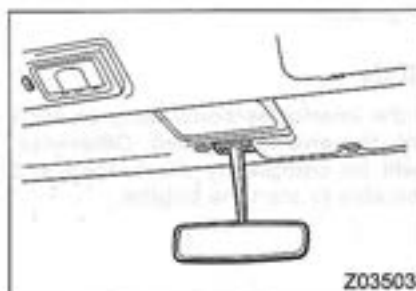


Fluorescent lamp

The fluorescent lamp ① operates independently of the position of the starter switch. Push the "ON" side of the fluorescent lamp switch ② to turn on the lamp; push the "OFF" side to turn off the lamp.

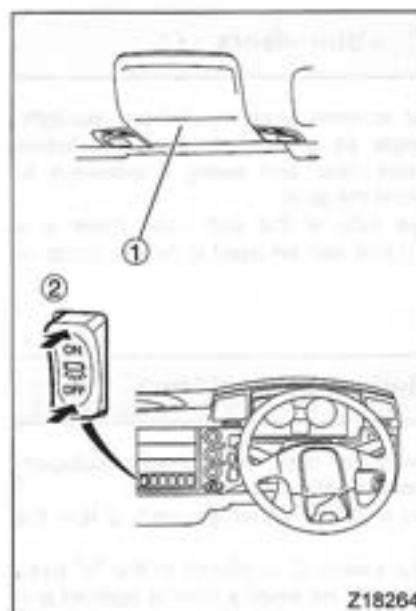
⚠ CAUTION

Do not leave the fluorescent lamp on for a long time with the engine stopped. Otherwise, the battery will be completely discharged and you will not be able to start the engine.



Inside rearview mirror

<Vehicles with an inside rearview mirror>
Adjust the mirror to the position where the best rear view can be obtained.

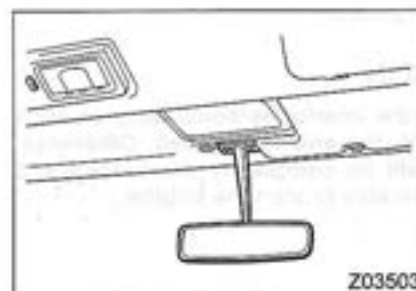


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⚠ CAUTION

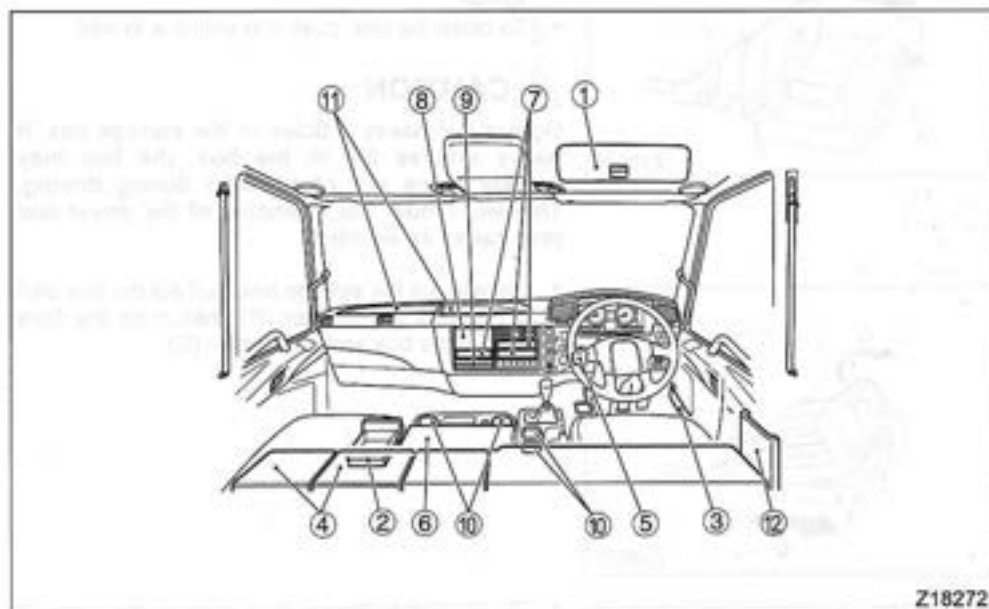
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Inside rearview mirror

<Vehicles with an inside rearview mirror>
Adjust the mirror to the position where the best rear view can be obtained.

Small article compartments

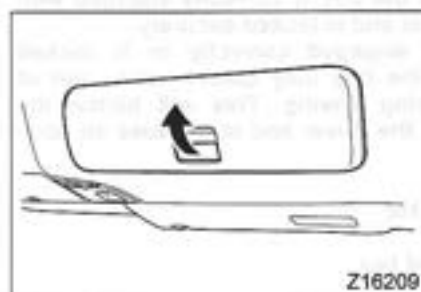


Z18272

CAUTION

Do not keep any object that can roll easily in the pockets and on the trays. Otherwise, the object may fall down during acceleration and braking.

① Overhead console



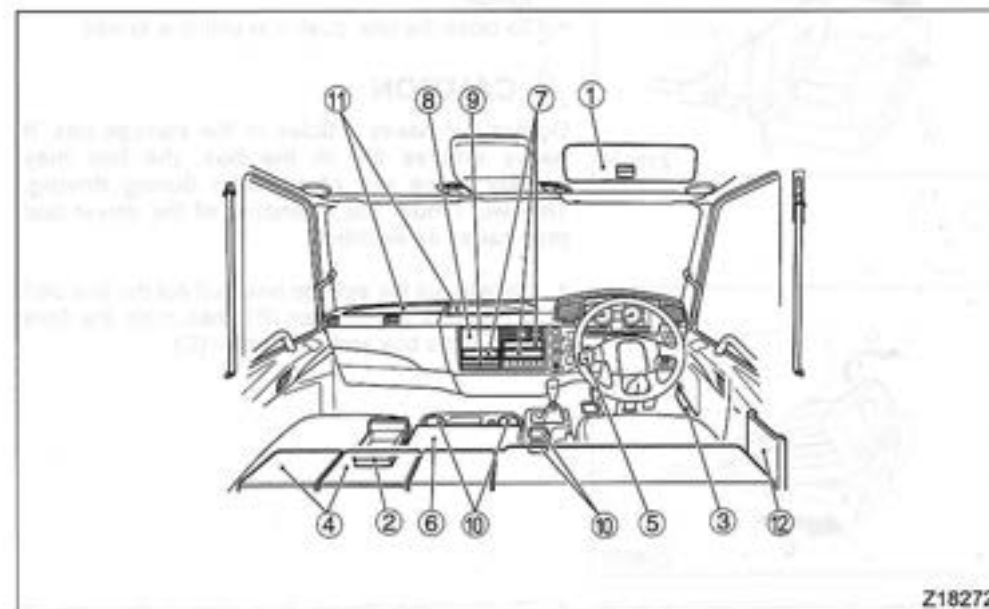
Z16209

WARNING

- Keep the lid closed and the knob locked while driving.
- Do not store things that are heavy or that tend to roll. The lid may open during driving and they may fall down, causing injury.

Pull knob toward you to open the lid.

Small article compartments

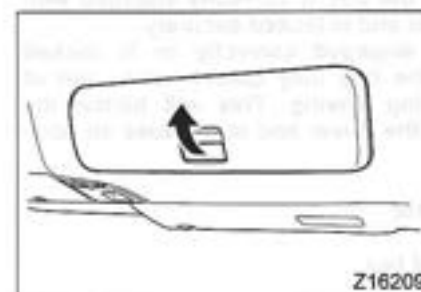


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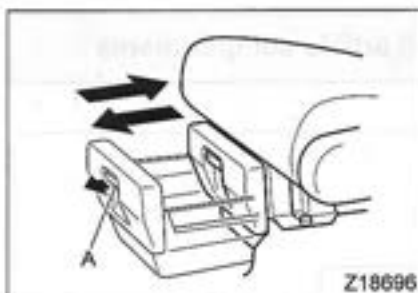


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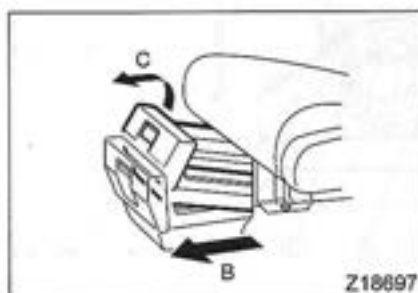


② Storage box under seat

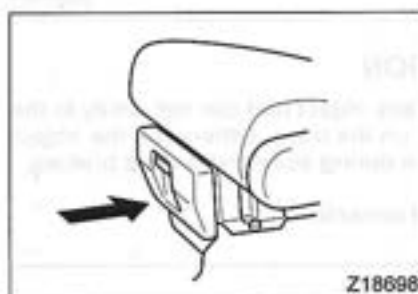
- Pull the knob A forward to release the lock and draw out the storage box. When the box contacts the stopper, do not force the box out any further.
- To close the box, push it in until it is locked.

⚠ CAUTION

Do not put heavy articles in the storage box. If heavy articles are in the box, the box may quickly come out of position during driving. This will hinder the operation of the driver and may cause an accident.



- To take out the storage box, pull out the box until it contacts the stopper (B), then raise the front end of the box and pull further (C).



- To install the storage box, reverse the removal procedure. Engage the box with the guide rails while raising the front end of the box. Then push in the box until it is locked.

⚠ CAUTION

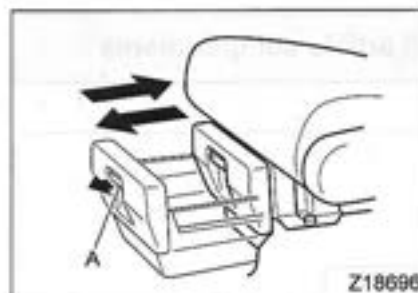
Confirm that the box is correctly engaged with the guide rails and is locked securely. If it is not engaged correctly or is locked improperly, the box may quickly come out of position during driving. This will hinder the operation of the driver and may cause an accident.

③ Door pocket

④ Under-bed box

⑤ Card pocket

Use this for holding highway toll cards, etc.

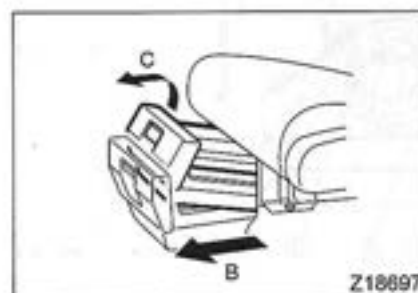


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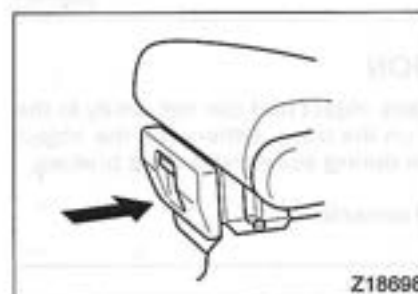
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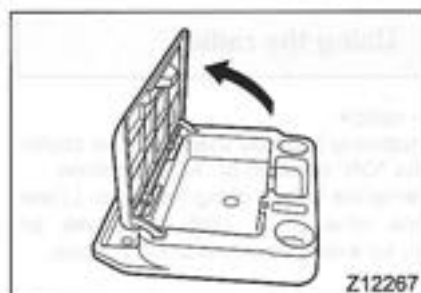
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Z12267

⑥ Seatback pocket <Other than Crew-cab model>

This is located on the back of the center seat. When using the pocket, secure the folded seatback to the seat cushion by hooking the cushion's strap onto the seatback. ⇨ P. 4-7
Pull knob up to open the lid.

⑦ Pocket

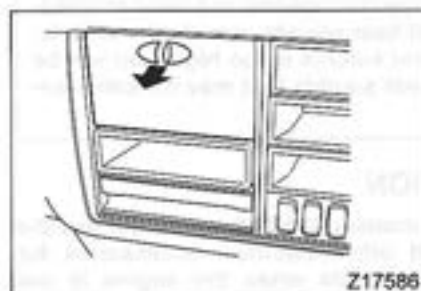
Use this pocket to store small things.

⑧ Glove compartment

Pull the knob to open.

⚠ WARNING

- Keep the lid closed while driving.
- Do not keep anything heavy or that can roll easily in the glove compartment. Otherwise, the object may open the lid and fall out while driving, possibly injuring you.



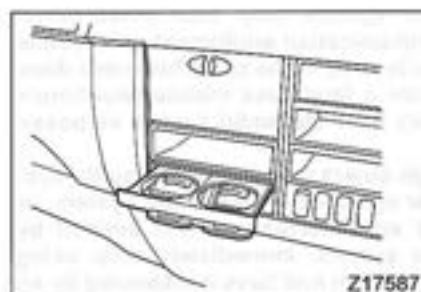
Z17586

⑨ Cup holder

Pull out the cup holders to use them. Keep them pushed in when they are not being used.

⚠ WARNING

The contents in a cup or can held in the cup holder may spill during movement of the vehicle. Be careful of scalding if they contain hot beverages.



Z17587

⚠ CAUTION

Be careful not to spill any drinks or other liquids on switches or other electrical equipment as wet electrical devices could malfunction and even cause a fire. If you accidentally spill a drink or other liquid on electrical equipment, have the vehicle inspected by an authorized MITSUBISHI FUSO distributor or dealer.

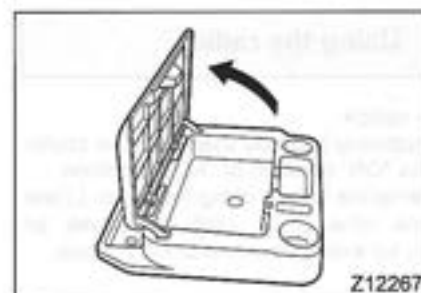
⑩ Pocket

Use this pocket to store small things.

⑪ Tray

⑫ Pocket

Use this pocket to store small things.



Z12267

⑥ Seatback pocket <Other than Crew-cab model>

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Pull knob up to open the lid.

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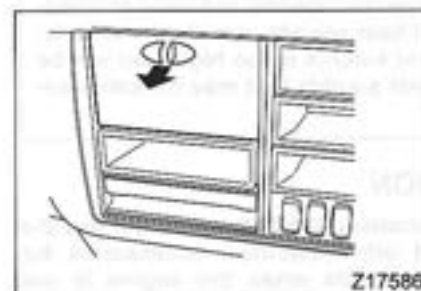
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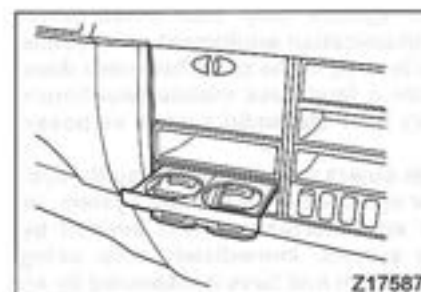
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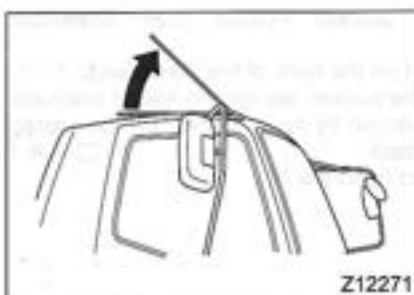
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Using the radio

<Vehicles with radio>

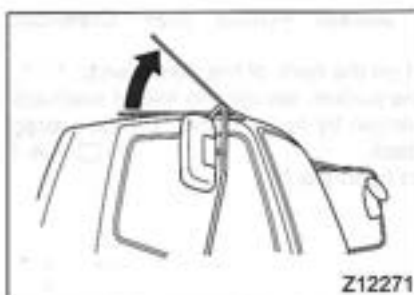
- The radio (optional) can be used with the starter switch in the "ON" position or "ACC" position.
- Raise the antenna before using the radio. Lower the antenna when it is likely to cause an obstruction, for example, when tilting the cab.

⚠ WARNING

Adjust the speaker volume to a level at which you can still hear sounds outside the vehicle. If the speaker volume is too high, you will be unable to hear sounds that may indicate danger.

⚠ CAUTION

- To avoid draining the battery, do not use the radio and other electrical accessories for extended periods when the engine is not running.
- The audio system may emit noise when radio communication equipment or a mobile telephone is used in the cab. This noise does not indicate a fault. Use mobile telephones as far away from the audio system as possible.
- If a foreign object gets inside the audio system, water splashes on the audio system, or smoke or an abnormal smell is emitted by the audio system, immediately stop using the audio system and have it inspected by an authorized MITSUBISHI FUSO distributor or dealer.



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11. In cold weather

Coolant	11-2
Engine oil	11-2
Fuels	11-2
Other recommendations for cold weather operation	11-3
Installing tire chains	11-4

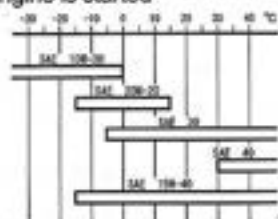
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Coolant

- When vehicles are shipped from the factory, FUSO DIESEL LONGLIFE COOLANT is added to the coolant in their cooling systems. This additive combines both antifreeze and anti-rust capabilities to sufficiently protect the cooling system from freezing up. However, for added safety, it is recommended that you have your nearest authorized MITSUBISHI FUSO distributor or dealer check that the coolant has a proper concentration of the additive before winter begins.
- Be sure to use coolant added with the FUSO DIESEL LONGLIFE COOLANT to the recommended concentration. ⇨ P. 12-58

Atmospheric temperatures when engine is started



Z18711

Engine oil

The viscosity of the engine oil increases in cold temperatures, sometimes making it hard to start the engine, especially early in the morning. Therefore, use an engine oil of a viscosity which suits the weather conditions. ⇨ P. 12-30

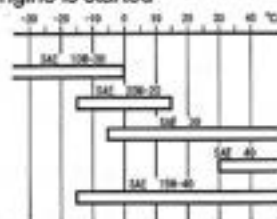
Fuels

Ordinary diesel fuel gels in freezing temperatures, making it impossible to start the engine. If you are bound for a cold area, it is recommended that you fuel your vehicle so that it burns more than half the fuel by the time you reach your destination. This allows you to refuel with a grade of diesel fuel appropriate to the colder weather conditions.

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Other recommendations for cold weather operation

- If the engine fails to start after 10 seconds of continuous starter operation, turn the starter switch back to the "ACC" position or "LOCK" position and wait at least 30 seconds for the battery to recover before trying to start the engine again.
- As the temperature falls, battery performance decreases. Check the battery electrolyte level and its specific gravity. ⇨ □ P. 12-110
- Special oils must be used in areas where the lowest temperature is below -25°C . For details, consult the nearest authorized MITSUBISHI FUSO distributor or dealer.
- Use the windshield washer fluid containing additive at a concentration suitable for the cold weather. ⇨ □ P. 12-108
- Occasionally check the undercarriage and fender wells, and if necessary remove snow and ice taking care not to damage vehicle parts as you do so.
- The brakes may be frozen up when the vehicle is driven on snow-laden roads or during parking in cold weather. Since frozen brakes are sluggish to function, drive your vehicle carefully while paying attention to vehicles behind as well as in front and checking normal function of the brakes from time to time by slightly depressing the brake pedal. If the brakes are sluggish, depress the brake pedal repeatedly while driving at a low speed until normal braking returns.
- When parking your vehicle, select a site not directly exposed to wind or snow and face it leeward.
- Do not apply the parking brake in extremely cold conditions that could cause it to freeze up and become impossible to release. In such conditions, take the following steps:
 1. Stop the vehicle and set the parking brake. Never park on a slope.
 2. Block the wheels securely with chocks.
 3. Put the gearshift lever in the 1st or reverse position.
 4. Release the parking brake.
- On an air conditioner equipped vehicle, operate the air conditioner at least once a month to maintain its functions even during the cold season when it is not being used.

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NOTE:

- If the doors freeze up, melt the ice using hot water, then wipe off the water to prevent further freezing. Do not force the doors open since their rubber seals may be ripped or otherwise damaged.
- In cold weather, the key holes and door opening rubber parts can freeze so that the key cannot be inserted and the doors cannot be opened. Carefully wipe off all water after the vehicle is washed, and spray the key holes and door opening rubber parts with silicone or some other substance that effectively prevents freezing.

Installing tire chains

- The tire chains should be installed on the rear wheels. On FN models, install the tire chains on the rear-front wheels.
- Make sure that tire chains are installed properly so that they do not become loose and interfere with other vehicle parts while the vehicle is in motion.
- Use tire chains corresponding to the tire size. The example below is the procedure to be followed when installing triple chains.

! CAUTION

- Do not use chains on the front wheels. We recommend snow tires or studless snow tires.
- If you use tire chains, be sure to install them without any slack.
- When fitting tire chains, refer to the instructions supplied with them.
- Drive at low speeds, desirably at speeds lower than 30 km/h, when chains are installed on wheels.
- Driving on a dry road with chains installed may damage the chains as well as the road surface. Avoid doing so as far as possible.
- Make sure that the chains and their spring bands are not excessively worn or otherwise damaged.
- If you hear an abnormal noise while driving, stop the vehicle in the nearest safe place and check the tire chains.

NOTE:

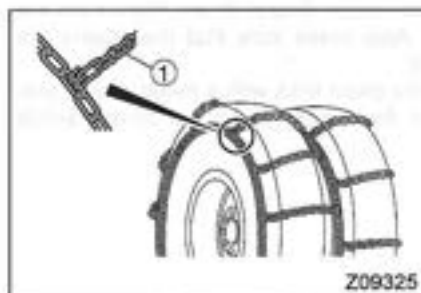
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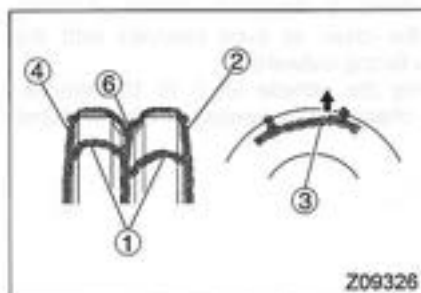
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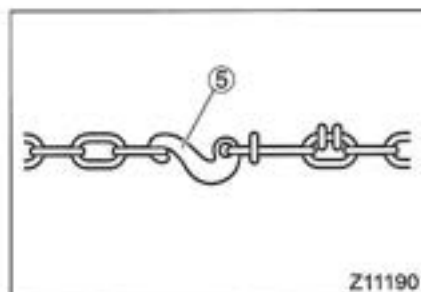
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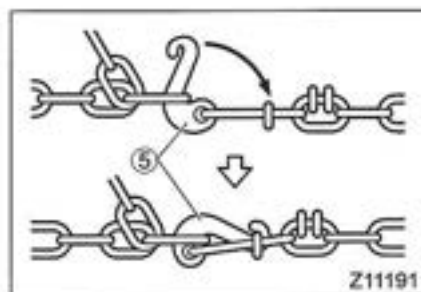
1. Place the chains over the tires with the hook ends of cross chains ① facing outward.



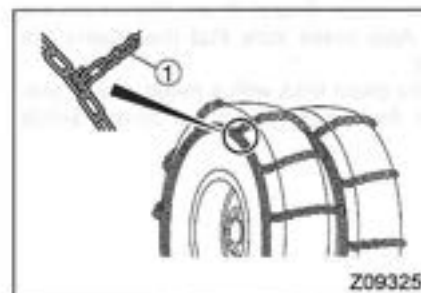
2. Connect the hook ③ of inside chain ②, leaving no excess links. Then, take up the slack in the inside chain by pulling cross chains ① for the inside tire outward.



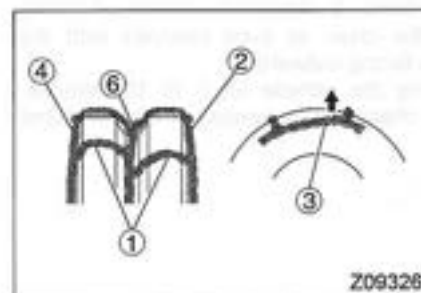
3. Temporarily connect hook ⑤ of outside chain ④ as shown.



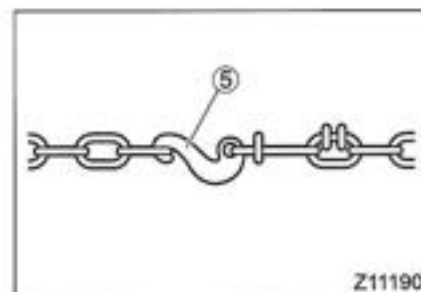
4. Pull the middle chain ⑥ as far as possible and connect its hook.
5. Pull both ends of outside chain ④ as far as possible and connect hook ⑤.



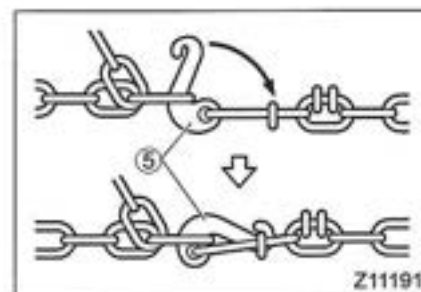
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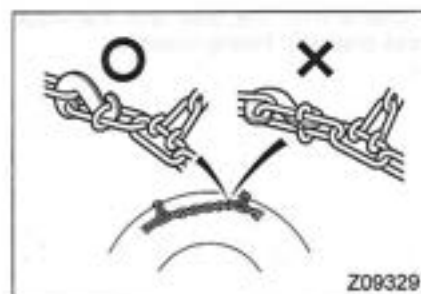
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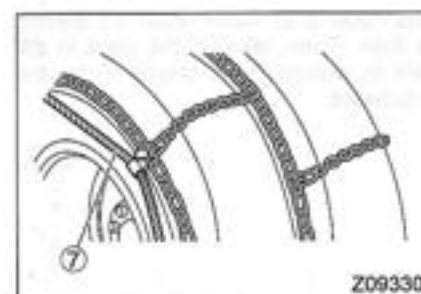
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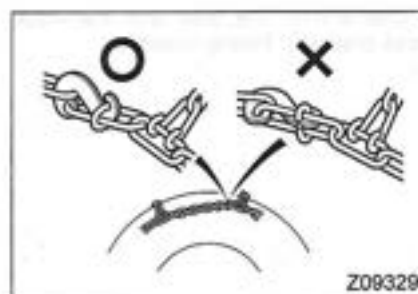
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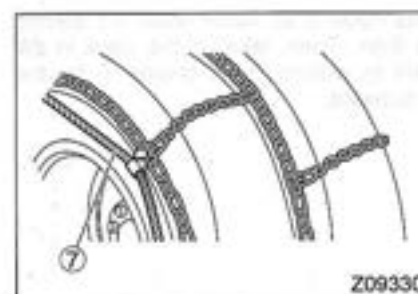
6. Ensure that hooks ③ and ⑤ are flat on the tire sidewalls. Also make sure that the chains are not twisted.
7. Fasten extra chain links with a metal wire to prevent them from hitting against other vehicle parts.



8. Fit spring band ⑦. Attach the hooks of spring band on the chain at even intervals with the hook ends facing outward.
9. After driving the vehicle for 5 to 10 minutes, check the chains for looseness or disconnected hooks.



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12. Simple inspection and service

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General precautions for servicing the vehicle

- Be sure to stop the engine and remove the starter key.
- Set the parking brake firmly and place the gear-shift/range selector lever in the following position:
Manual transmission vehicle: Neutral
Automatic transmission vehicle: N
- Work with the vehicle parked on level ground.
- Block the wheels with chocks.
- Engine parts are extremely hot immediately after you have driven the vehicle. Take care not to burn yourself. If possible, service the vehicle only when the engine is cool.
- Be careful not to drop things in the air intake duct.
- Do not climb onto the engine. Stepping on engine pipes or accessories could cause damage and malfunctions.
- After you have completed the service job, check that you have left no rags, paper, or tools in the engine compartment. Flammable things in particular should not be left inside the engine compartment as they could cause a fire.
- After carrying out inspections and maintenances, check that there are no oil, fluid or water leaks.
- Be careful not to hurt yourself on the corners of the body when performing inspections.
- When inspecting the oil or coolant, be sure to make ready a container suitable for catching drained fluid.
- Dispose of drained oil and coolant in the specified manner. Disposing of them irresponsibly could cause environmental harm.

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⚠ WARNING

- Do not run the engine for a long period in any poorly ventilated place. Particularly in an enclosed area such as the inside of a garage or other building, a buildup of exhaust gases can cause carbon-monoxide poisoning.
- Be sure to stop the engine before performing inspections with the cab tilted. If the engine was running and your hands, clothes, or other items touched or came into close proximity to the engine's rotating parts, they could be dragged into the mechanism, resulting in injuries. If you must unavoidably perform inspections with the engine running, do not on any account touch the fan or any other rotating part.
- Parts of the engine's fuel injection system are supplied with electricity at a high voltage. Performing inspections and maintenance on the fuel injection system with the starter switch in the "ON" position carries the risk of an electric shock. If you must unavoidably perform inspections and maintenance on the fuel injection system with the starter switch in the "ON" position, do not touch electric wires and connectors.

⚠ CAUTION

- Do not remove the covers around the engine as they help to reduce noise.
- Always use MITSUBISHI genuine parts for replacements such as filters or filter elements. Also, oil and grease should be those recommended by MITSUBISHI FUSO TRUCK & BUS CORPORATION. ⇨ P. 14-5
- The muffler contains a catalytic converter. Do not kick or knock the muffler since the catalytic converter could be damaged. Water emitted by the exhaust pipe is slightly acidic and should not be touched. If you touch this water, rinse it off under a faucet.

NOTE:

Special oils must be used in areas where the lowest temperature is below -25°C . For details, consult the nearest authorized MITSUBISHI FUSO distributor or dealer.

⚠ WARNING

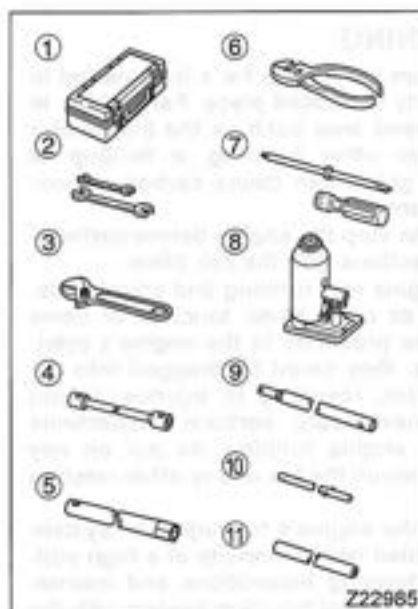
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Z22985

Onboard tools

Your vehicle is equipped with the following tools for use in daily inspections and servicing.

- ① Tool box
- ② Spanners (set of 2) <option>
- ③ Adjustable angle wrench <option>
- ④ Socket wrench (for wheel nuts) <option>
- ⑤ Socket wrench (for wheel nuts) <option>
- ⑥ Pliers
- ⑦ Screwdriver
- ⑧ Hydraulic jack
- ⑨ Wrench handle (for socket wrench, hydraulic jack, and spare tire carrier)
- ⑩ Lever (for spare tire carrier)
- ⑪ Extension bar (for socket wrench) <option>

CAUTION

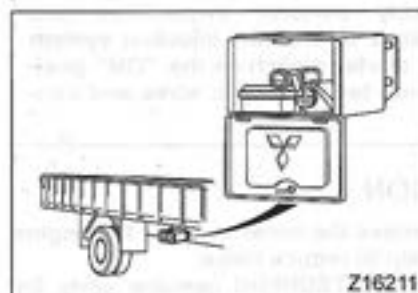
Each of the onboard tools is designed for a specific task. Be sure to use the right tool for every job.

1 Tool storage location

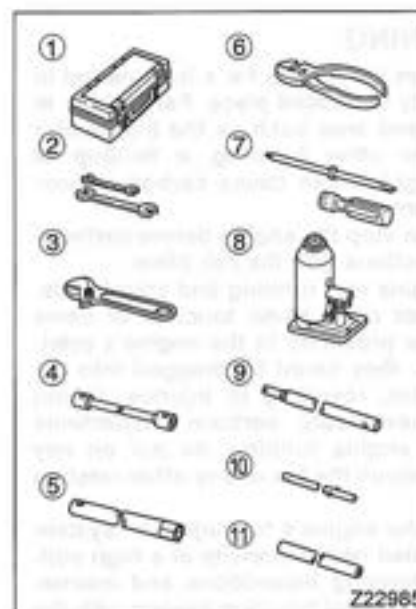
- Tools are stored in the tool box located in front of the right-rear wheel or in the cab.
- The wrench handle and extension bar are stored behind the assistant driver's seat or, in Crew-cab models, under the rear seat.

NOTE:

- The location of the tool box may differ with vehicle models.
- Certain models are not provided with a tool box as standard.



Z16211



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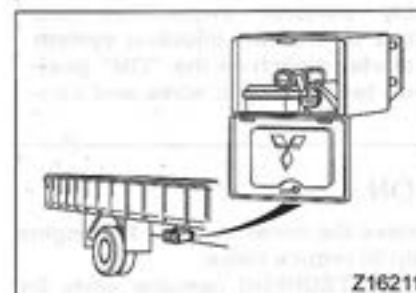
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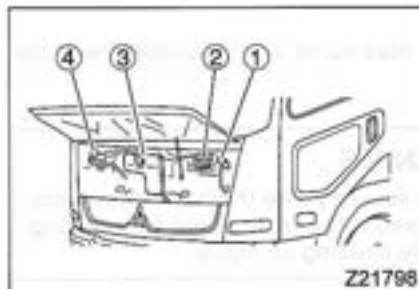
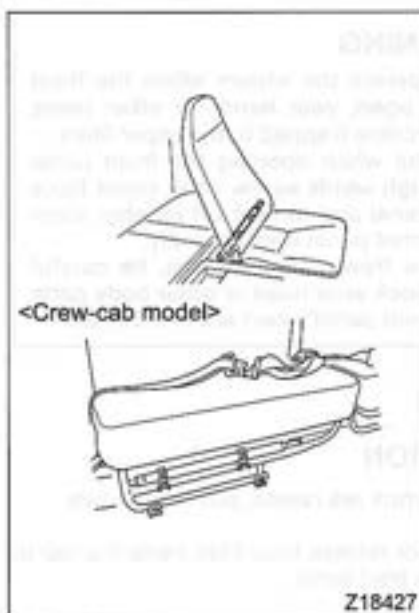
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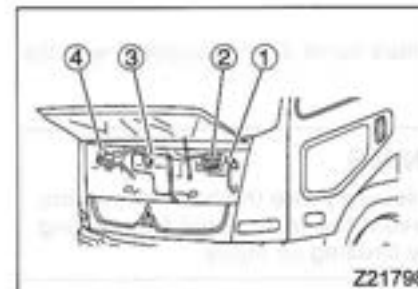
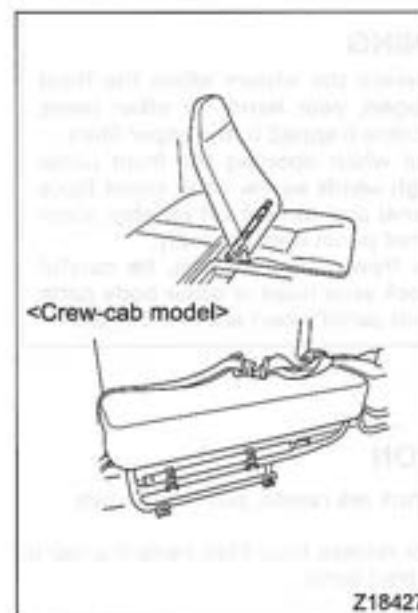


Opening and closing the front panel

Open the front panel to gain access to the parts or equipment located at the vehicle's front on those occasions when you need them for performing inspections or for servicing the vehicle or again for the pre-operational checks.

- ① Windshield washer tank
- ② Air filter for ventilation and air conditioner
- ③ Coolant reservoir tank
- ④ Clutch fluid reservoir tank <Manual transmission vehicle>

After you have completed the inspections or checks and closed the front panel, make sure that the panel is securely locked.



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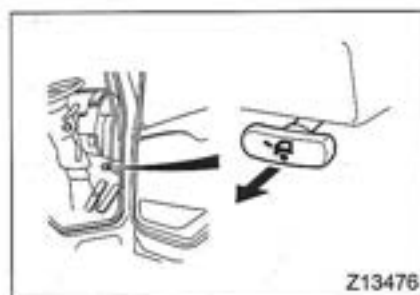
⚠ WARNING

- Never operate the wipers when the front panel is open; your hands or other items could become trapped in the wiper links.
- Be careful when opening the front panel during high winds as the wind could force up the panel and blow it off its stay, closing the front panel unexpectedly.
- When the front panel is open, be careful not to knock your head or other body parts on the front panel's corners and edges.

1 Opening**⚠ CAUTION**

If the wiper arms are raised, put them down.

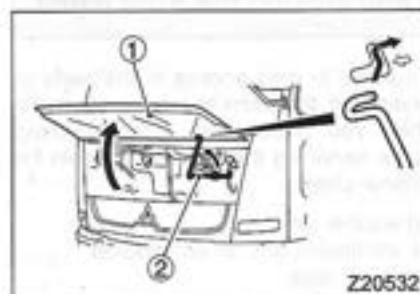
1. Pull the lock release knob from inside the cab to unlock the front panel.



2. Raise the front panel ① and support it with the stay ②.

⚠ WARNING

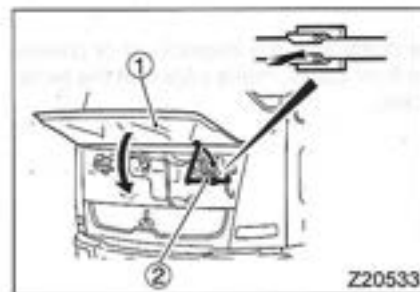
Fit the stay securely into the hole in the front panel to prevent the front panel from falling and possibly causing an injury.

**2 Closing**

1. Support the front panel ① with your hand. Unhook the stay ② and bring it back to its original position.
2. Gently lower the front panel, and push it so it locks in place.

⚠ WARNING

Make sure your hands are not behind the front panel when closing it. If they are behind the front panel at this time, they may be crushed and injured.

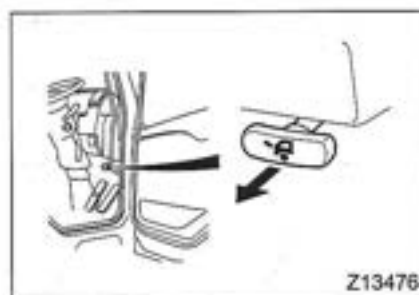
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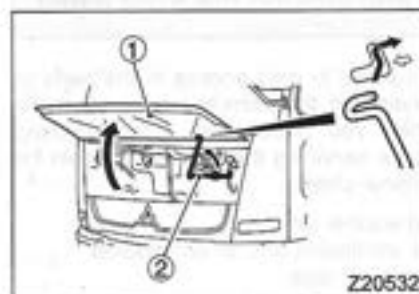
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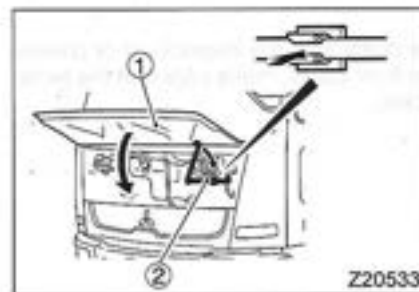
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3. Check that the front panel is securely locked.

WARNING

Make sure that front panel is locked completely after closing it. If locked incompletely, the front panel could open while driving.

CAUTION

Closing the front panel by letting it drop or forcing it down could damage the panel.

Tilting the cab

1 Preparation

WARNING

- Before tilting the cab, stop the vehicle on level ground and stop the engine.
- Before tilting or lowering the cab, make sure that the area around the cab is clear of people and obstructions.
- Never tilt the cab when the vehicle is on any kind of slope. The cab will move too quickly under the effect of inertia if it is tilted on a slope, possibly causing damage to various vehicle components. Doing so is dangerous as the hook may not engage completely when the cab is lowered.
- Never tilt the cab with persons inside.
- The cab can drop suddenly if it has heavy objects inside or is fitted with a roof deck. Any objects in the cab or on the roof must be removed. You should be sufficiently aware of this for your safety.
- Do not touch the steering wheel, gearshift lever, parking brake lever, hand control valve (parking brake) while the cab is tilted.

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! CAUTION

Remove all luggage, materials, tools, and other items from the cab before tilting the cab. If loose items are left in the cab when the cab is tilted, they may fall down and damage the windscreen and other parts of the cab.

- Park the vehicle on a flat and level surface and stop the engine.
- Prevent the vehicle from moving by pulling the parking brake lever and blocking the wheels with chocks.
- Place the gearshift/range selector lever in the following position:
Manual transmission vehicle: Neutral
Automatic transmission vehicle: N
- Remove water or other liquids from inside the cab before tilting.
- Remove all luggage, materials, tools, and other items placed in the cab. Any objects on the roof must also be removed.
- Close both doors completely.
- At least 1 m is needed both in front of and above the cab when the cab is tilted. If there are obstacles within these spaces, remove them.
- Lower the radio antenna <vehicle with a radio>.

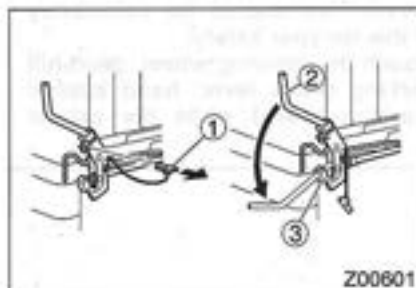
2 Manual tilting <Other than Crew-cab model>

2.1 Tilting the cab

! CAUTION

Raise the cab gently. Raising it quickly with great force could damage the cab tilt mechanism.

1. Remove lever key ①.
2. Pull lever ② down until it is fitted in stopper ③.

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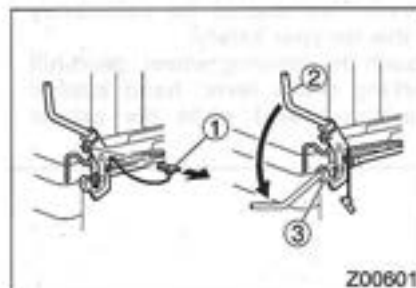
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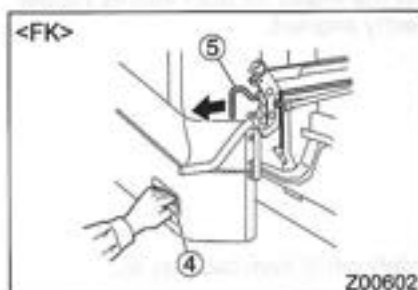
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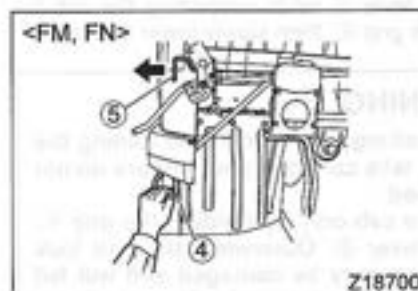
Be sure to push the lever ② fully into the stopper ③ and confirm that the stopper retains it properly. If the lever is improperly retained, the cab lock mechanism may be damaged when the cab is lowered and will fail to lock the cab in position. This condition is very dangerous as the cab could accidentally tilt up when the vehicle vibrates or receives shocks while driving, possibly leading to an accident.



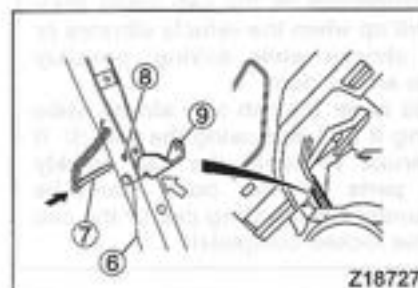
3. Holding onto grip ④ on the cab, pull lever ⑤. This causes the cab to start rising.
4. Hold the grip and push the cab up until it is stopped by cab stay ⑥.

! WARNING

Raise the cab only by holding the grip ④, not the lever ②. Otherwise, the cab lock mechanism may be damaged when the cab is lowered and will fail to lock the cab in position. This condition is very dangerous as the cab could accidentally tilt up when the vehicle vibrates or receives shocks while driving, possibly leading to an accident.



5. Check that the end of the cab stay ⑧ is properly held in the cut (indicated by ⇨ in the illustration) in the lock lever ⑨ to confirm that the cab stay is locked in position, then insert the safety pin ⑦ into the hole ⑥ in the cab stay.

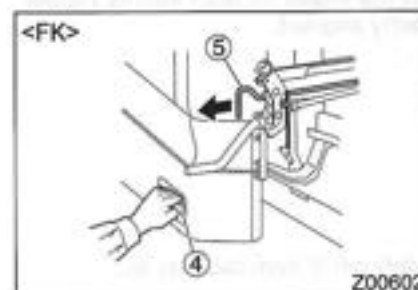


! WARNING

Always insert the safety pin into the cab stay. Without the safety pin inserted, the cab is in danger of lowering, possibly resulting in an accident.

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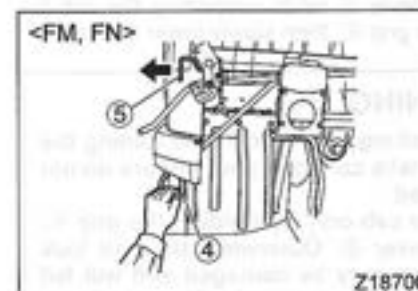
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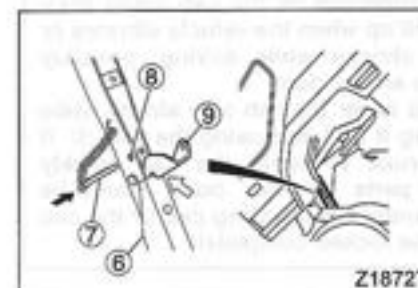
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Always insert the safety pin into the cab stay. Without the safety pin inserted, the cab is in danger of lowering, possibly resulting in an accident.

2.2 Lowering the cab

! WARNING

Before lowering the cab, make sure that you have not left rags, tools, etc. in the engine compartment. Flammable objects left inside the engine compartment can cause fires.

! CAUTION

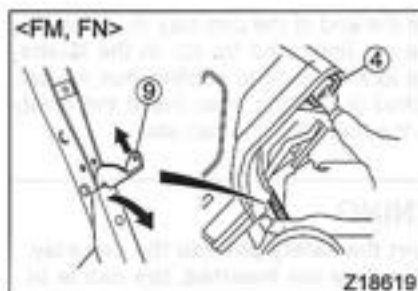
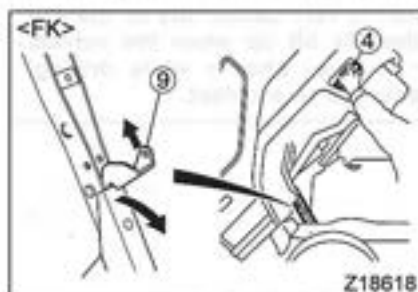
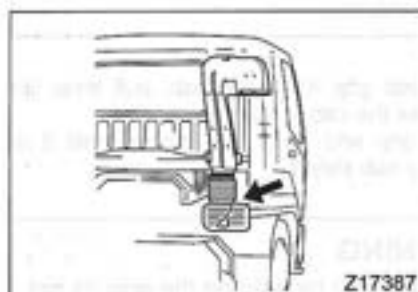
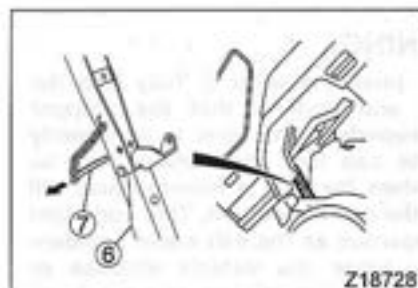
Make sure that the intake air duct and its rubber boot are perfectly aligned.

1. Remove safety pin ⑦ from cab stay ⑥.
2. Raise the lever ③ while supporting the cab by holding the grip ④, then slowly lower the cab.

! WARNING

- When pushing the lever ③ and folding the cab stay, take care that your fingers do not get trapped.
- Lower the cab only by holding the grip ④, not the lever ②. Otherwise, the cab lock mechanism may be damaged and will fail to lock the cab in position. This condition is very dangerous as the cab could accidentally tilt up when the vehicle vibrates or receives shocks while driving, possibly leading to an accident.
- Be sure to lower the cab only slowly while supporting it by hand using the grip ④. It is dangerous to lower the cab quickly because parts of your body could be trapped under the lowering cab or the cab may not be locked completely.

3. Lower the cab until lever ⑤ is engaged.



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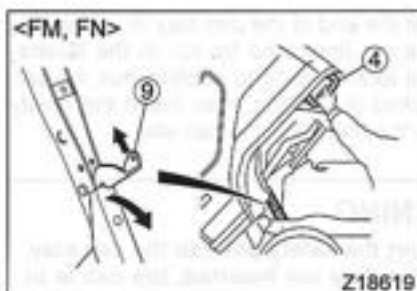
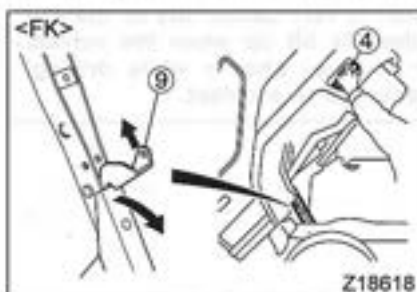
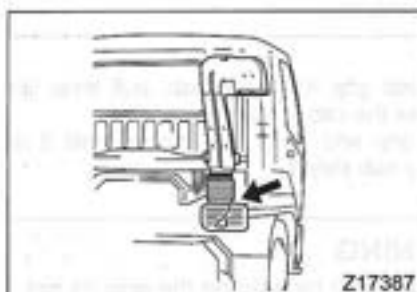
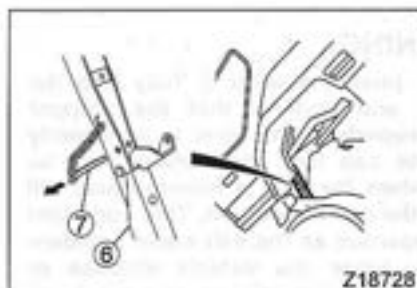
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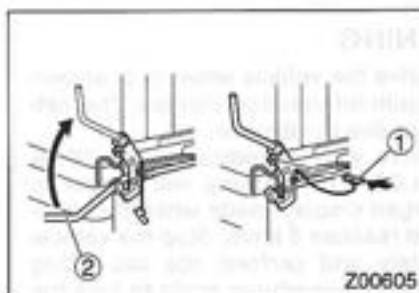
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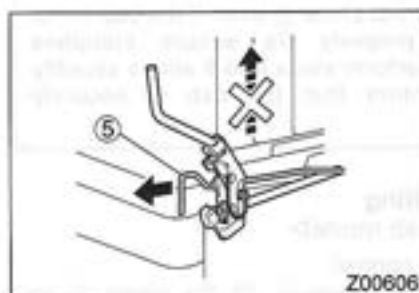




4. Push lever ② all the way up. If you cannot push the lever ② up completely, raise the cab back, then perform the above steps again.
5. Install lever key ①.

! WARNING

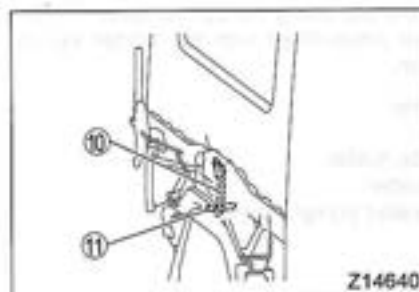
Ensure that the lever key ① is correctly installed. If the lever key is not in position, the cab may be unlocked and tilt up accidentally while driving, possibly leading to an accident.



6. Make sure that the cab does not rise even when lever ⑤ is pulled.

! WARNING

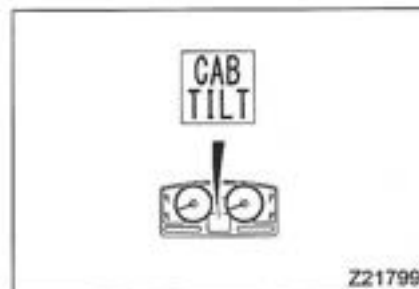
Always check that the cab does not rise. If the cab is not completely locked, it may tilt up while driving, possibly leading to an accident.



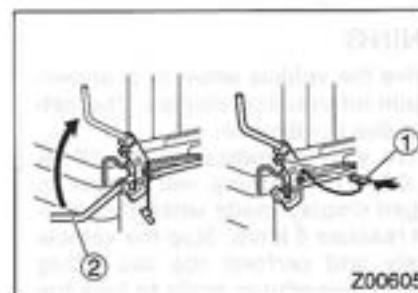
7. Visually check that the main hook ⑩ is engaged with the pin ⑪.

! WARNING

Always check the main hook's engagement with the pin. If the cab is not completely locked, it may tilt up while driving, possibly leading to an accident.



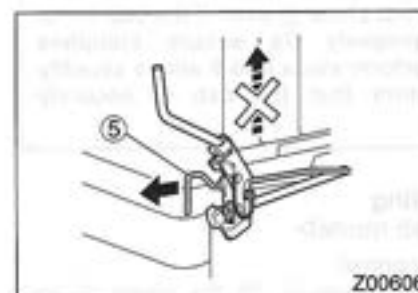
8. After turning the starter switch to "ON", check that ⑫ is not shown on the multi-information display.



4. Push lever ② all the way up. If you cannot push the lever ② up completely, raise the cab back, then perform the above steps again.
5. Install lever key ①.

! WARNING

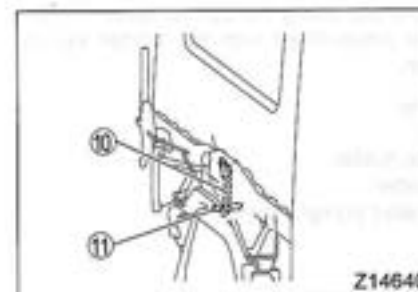
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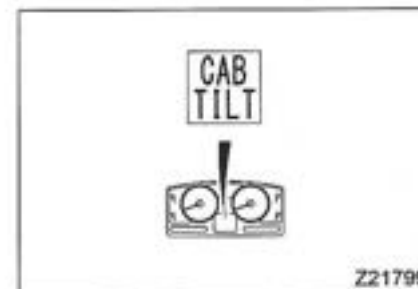
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7. Visually check that the main hook ⑩ is engaged with the pin ⑪.

! WARNING

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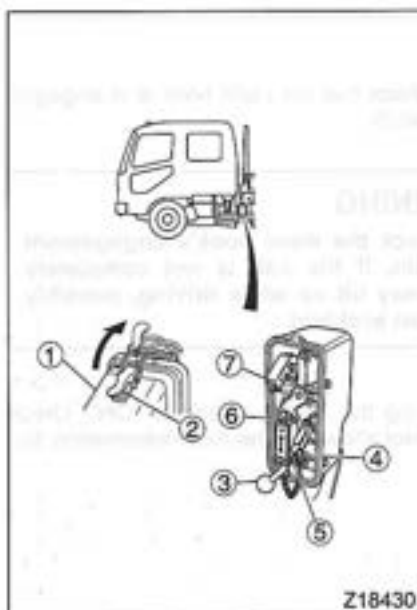
⚠ WARNING

- Do not drive the vehicle when  is shown on the multi-information display. The cab may tilt up due to vibration. If you drive with  indicated, the "CAB TILT UNLOCKED" warning will appear in the enlarged display mode when the vehicle speed reaches 5 km/h. Stop the vehicle immediately and perform the cab tilting and lowering procedures again to lock the cab securely.
- If you carry a heavy load in the cab or on the roof deck, the multi-information display may not show  even if the cab is not locked properly. To ensure complete safety, perform steps 6 to 8 above steadily and confirm that the cab is securely locked.

**3 Power tilting
<Crew-cab model>****3.1 Cab tilt control**

- To open the cover ①, lift the clamp ② and release the lock.
- Power-tilt the cab using the control lever ③. The cab can be power-tilted with the starter key in any position.

- ③ Control lever
- ④ Safety pin
- ⑤ DOWN side holder
- ⑥ UP side holder
- ⑦ Hand-operated pump's socket

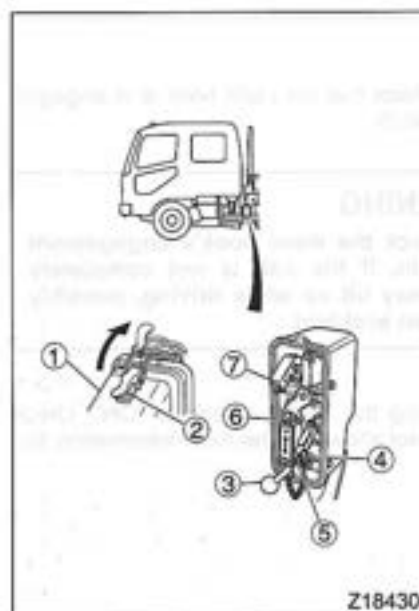
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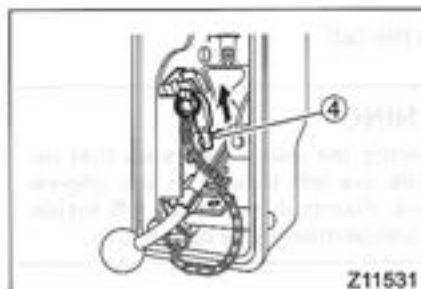
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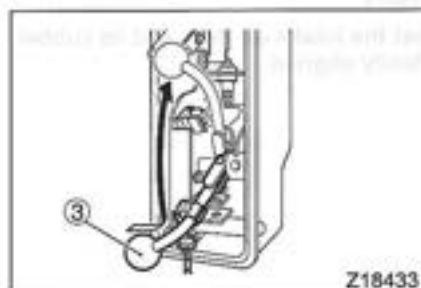


⚠ WARNING

- Do not stop the cab while it is being tilted except in an emergency. Doing so could cause a malfunction of the cab tilt system.
- Never get under the cab if it has been stopped while being tilted. The cab could suddenly come down.
- Never put any part of your body under a tilting cab. You could get trapped by the cab.
- Never pull the control lever toward the rear of the vehicle unless the lever is in the fully UP or DOWN position. Otherwise, the power tilt system may move in an unexpected manner.
- While the cab is being tilted (i.e. the cab tilt pump is in operation), never put your face or hands in or close to the oil leaking from the cab tilt oil piping if any. The pressure of the oil is high enough to injure you.



- 3.2 Tilting the cab**
1. Pull out the safety pin ④.



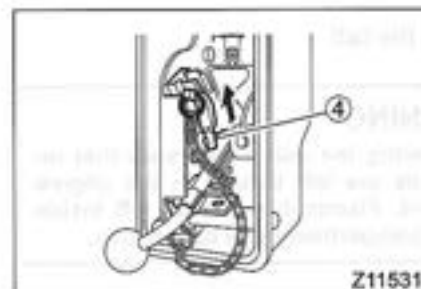
2. Pull control lever ③ towards the rear of vehicle, and then move it towards the "UP" side. Buzzer sounds and the cab starts tilting. Keep the lever pulled towards the rear of vehicle.

⚠ CAUTION

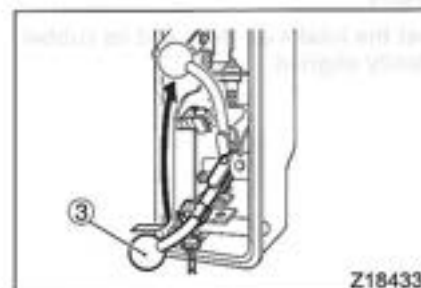
Do not pull the control lever in the direction toward the rear of the vehicle unless it is in the position where it is touching the "UP" side. Failure to follow this precaution will cause the pressure of the cab tilt oil to rise, which may cause the cab tilt mechanism to break down.

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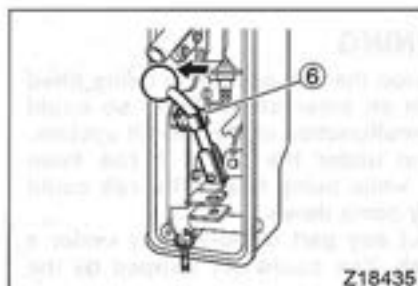
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Do not pull the control lever in the direction toward the rear of the vehicle unless it is in the position where it is touching the "UP" side. Failure to follow this precaution will cause the pressure of the cab tilt oil to rise, which may cause the cab tilt mechanism to break down.



3. When the cab tilts fully, it stops moving automatically, and the buzzer also stops sounding. Push the control lever into "UP" side holder ⑥ to keep it in the raised position.

NOTE:

The cab tilting time is about 40 seconds.

⚠ WARNING

- Always tilt the cab until the buzzer stops sounding. Never stop the cab mid-way since it will not be completely locked.
- Before working with the cab tilted, be sure to double-check that the control lever is in the "UP" side holder. This is prerequisite for your safety.
- If oil leaks from the cab tilt oil pipes while the cab is being tilted (while the cab tilt pump is running), you must keep your face and hands away from it. The oil is highly pressurized, so it could injure you.

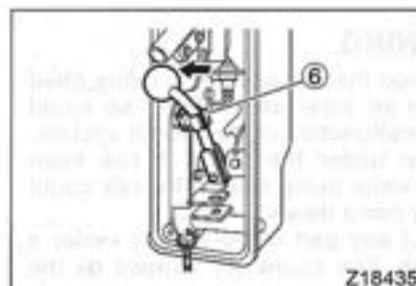
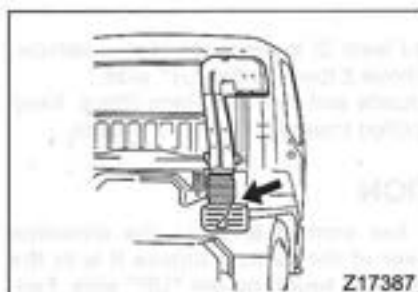
- Lowering the cab

⚠ WARNING

Before lowering the cab, make sure that no rags or tools are left behind in the engine compartment. Flammable objects left inside the engine compartment can cause fires.

⚠ CAUTION

Make sure that the intake air duct and its rubber boot are perfectly aligned.



3. When the cab tilts fully, it stops moving automatically, and the buzzer also stops sounding. Push the control lever into "UP" side holder ⑥ to keep it in the raised position.

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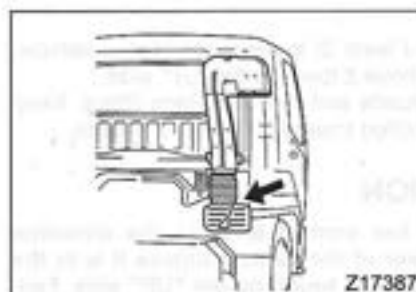
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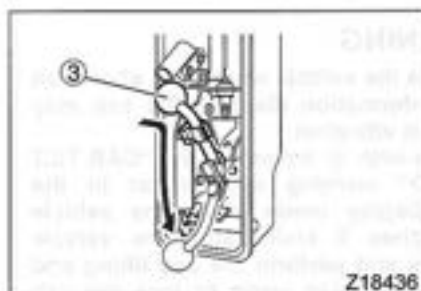
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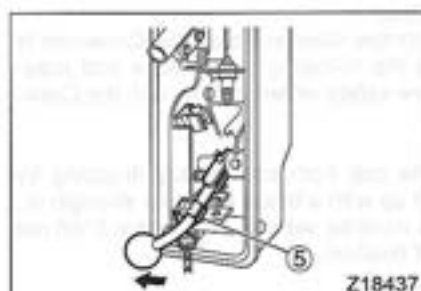




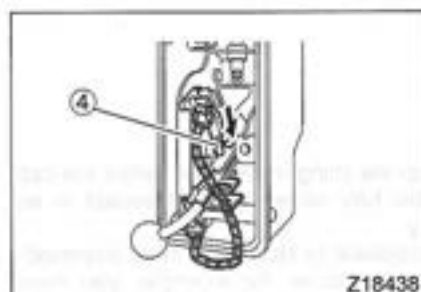
1. Pull control lever ③ towards the rear of vehicle and then move it towards the "DOWN" side. The cab starts lowering and a buzzer starts sounding. Keep the lever pulled towards the rear of vehicle.

⚠ CAUTION

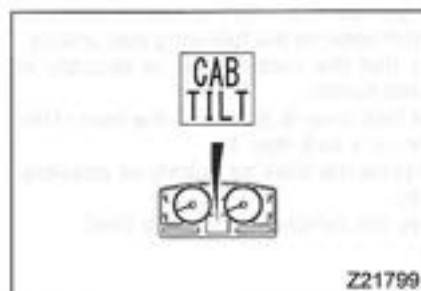
Do not pull the control lever in the direction toward the rear of the vehicle unless it is in the position where it is touching the "DOWN" side. Failure to follow this precaution will cause the pressure of the cab tilt oil to rise, which may cause the cab tilt mechanism to break down.



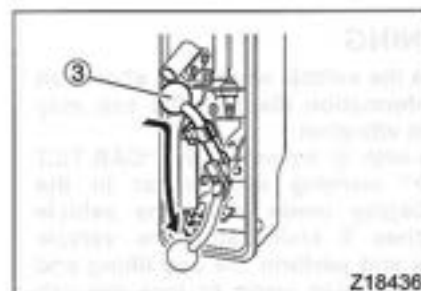
2. When the cab reaches the fully lowered position, it stops moving automatically and the buzzer also stops sounding. Push the lever into "DOWN" side holder ⑤.



3. Fit safety pin ④ into position securely. Close the cover and lock it with the clamp.



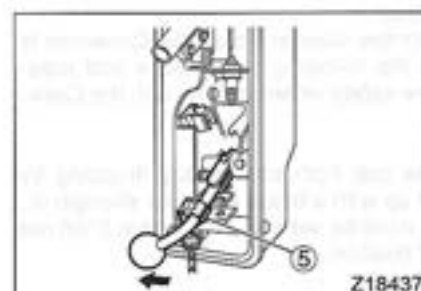
4. Turn the starter switch to "ON" and check that ❸ does not appear on the multi-information display.



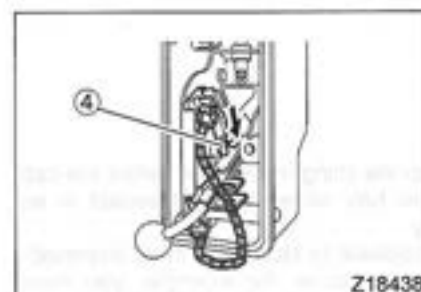
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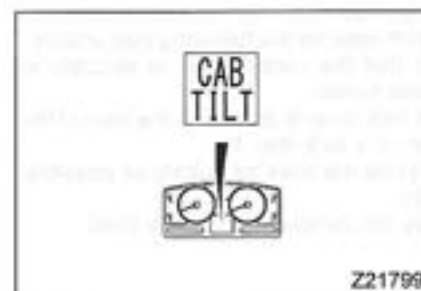
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Do not drive the vehicle when  is shown on the multi-information display. The cab may tilt up due to vibration.

If you drive with  indicated, the "CAB TILT UNLOCKED" warning will appear in the enlarged display mode when the vehicle speed reaches 5 km/h. Stop the vehicle immediately and perform the cab tilting and lowering procedures again to lock the cab securely.

- **Precautions to be taken when working with the cab tilted**

Compared with the standard cab, the Crew-cab is heavier. Take the following precautions and measures to ensure safety when working with the Crew-cab tilted.

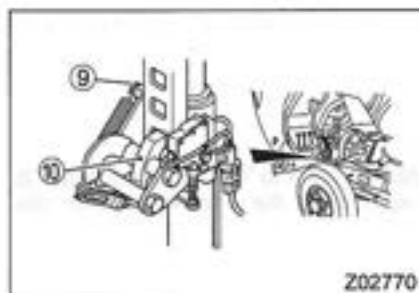
- Prevent the cab from accidentally dropping by propping it up with a beam of ample strength . The beam must be set securely so that it will not shift out of position.



- Do not stop the tilting movement before the cab reaches the fully raised position except in an emergency.

If it is unavoidable to stop tilting in an intermediate position because, for example, you must work in a place with an insufficient overhead clearance, perform this with the utmost care and attention and observe the following instructions.

1. Make sure that the control lever is securely in the "UP" side holder.
2. Check that lock lever  is fitted in the hole of the cab tilt cylinder's lock stay .
3. Try to complete the work as quickly as possible, yet carefully.
4. Never leave the vehicle with the cab tilted.

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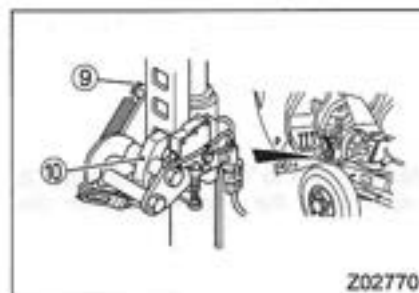
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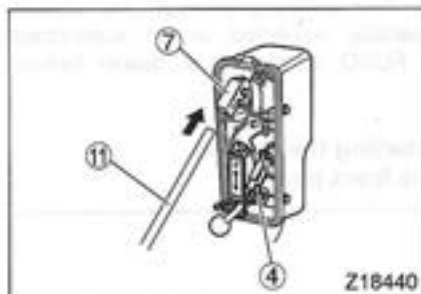
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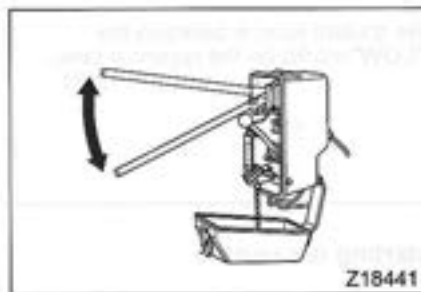


- **Tilting the cab when the electrical system is faulty**

If the power tilting mechanism does not operate due to electrical system failure or a discharged battery, you can tilt the cab by using a hand-operated pump as follows:



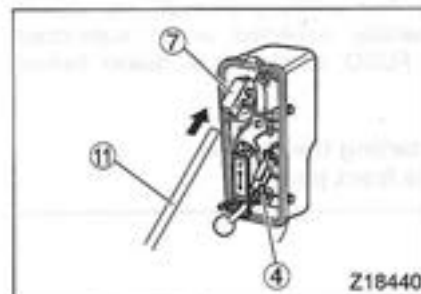
1. Pull out the safety pin.
2. Insert lever 11 (included in the onboard tool set) in the hand-operated pump's socket 7.



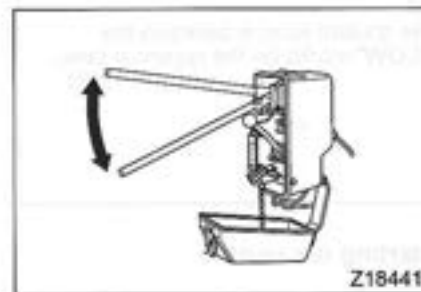
3. With the cab tilting control lever pushed into the "UP" side holder, operate the pump's lever up and down repeatedly as you would do with a hydraulic jack.
4. Initial strokes of the lever have no direct effect in raising the cab but the cab soon starts tilting.
5. The movement of the cab stops automatically when the cab tilts fully. From this point, pump the lever several times additionally.
6. To lower the cab, first push the cab tilting control lever into the "DOWN" side holder, and then operate the pump's lever in the same way as you did when raising the cab. Even when the cab lowers completely, keep operating the pump's lever until you cannot move it any more.

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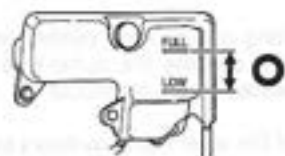


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Pre-operational checks

Be sure to perform the pre-operational checks for the items listed below at the start of each day's operation in order to ensure safe and comfortable driving. If you find anything unusual, you should have your vehicle inspected at an authorized MITSUBISHI FUSO distributor or dealer before operating it.

1 Before starting the engine (Open the front panel.)



Z16217

Coolant level

Check that the coolant level is between the "FULL" and "LOW" marks on the reservoir tank.
⇒ P. 12-61

2 Before starting the engine (Tilt the cab.)



Z21888

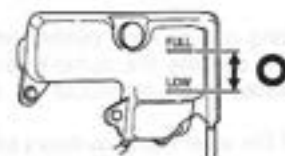
Engine oil level

Check that there is sufficient engine oil using the oil level gauge or checking the indicator lamp on the meter cluster.
⇒ P. 12-32

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 Z10749	V-belt tension and damage Check that the belt deflects by 10 to 15 mm when a force of 98 N (10 kgf) is applied to the point midway between the pulleys. Check also that the belt is not nicked or otherwise damaged. ⇒ P. 12-67
 Z12015	Leaks of diesel fuel, oil, coolant and air Check the underneath of the vehicle for any sign of leakage.

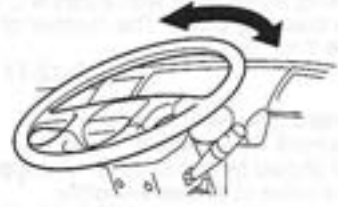
3 After starting the engine, while warming it up

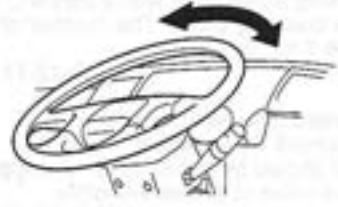
<Center brake type parking brake> 	Parking brake operation <Center brake type parking brake> Pull up the parking brake lever with a 295 N (30 kgf) force while counting clicks. The number of clicks should be 7 to 10. ⇒ P. 12-74
<Wheel park brake type parking brake>  Z17796	<Wheel park brake type parking brake> Pull the hand control valve handle. An air discharging sound should be heard. Also, check that the hand control valve operates smoothly. ⇒ P. 12-75

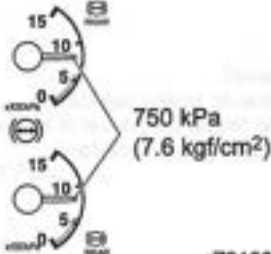
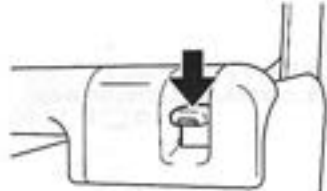
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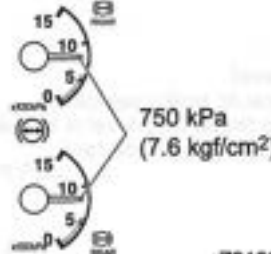
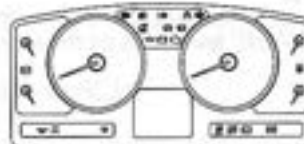
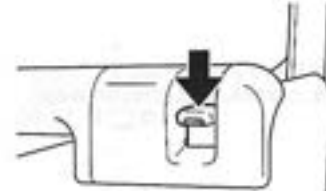
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<Center brake type parking brake> 	Parking brake operation <Center brake type parking brake> Pull up the parking brake lever with a 295 N (30 kgf) force while counting clicks. The number of clicks should be 7 to 10. ⇒ P. 12-74
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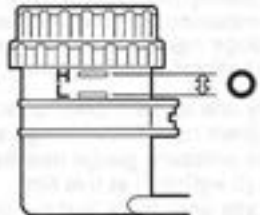
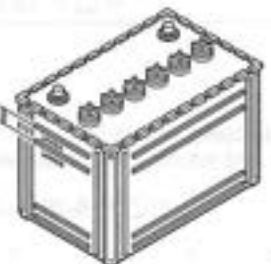
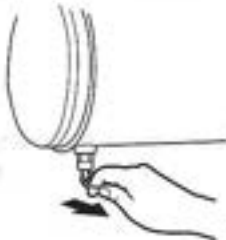
 Z16240	Service brake operation Check that when the brake pedal is depressed and then released, sound of air being released is heard and the pedal returns normally. Also, check that the pedal returns completely without catching. ⇨ □ P. 12-71
 Z16220	Lighting system operation Make sure that each lamp lights up or flashes normally. Check lamp lenses for dirt and damage. ⇨ □ P. 5-28
 Z16221	Windshield wiper and washer operation Check the washer for proper fluid spray direction and the wipers for normal action. ⇨ □ P. 5-31
 Z16222	Steering wheel play and looseness • Gently turning the steering wheel, check that its play is from 10 to 40 mm. • Move steering wheel up and down and also right and left to check for excessive looseness. ⇨ □ P. 12-70

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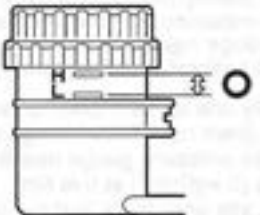
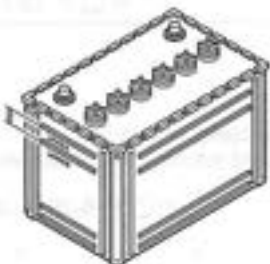
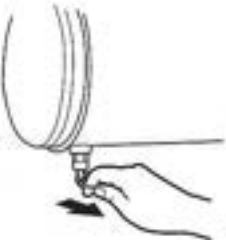
 Z21800	Air pressure build up rate <Vehicles with multiple air tank drain cocks> Open all air tank drain cocks and wait until compressed air is completely discharged. Run the engine at idle and measure the time necessary for the air pressure gauge needle to move from 0 kPa to 750 kPa (0 kgf/cm² to 7.6 kgf/cm²). <Vehicles with only one air tank drain cock> Open the air tank drain cock to discharge all compressed air. The air pressure gauge needles will not indicate 0 kPa (0 kgf/cm²) at this time. Run the engine at idle and check that the time the air pressure gauge needles take to indicate 750 kPa (7.6 kgf/cm²) is not abnormally long. ⇨ □ P. 12-73
 Z21801	Gauge and warning lamp operation Check that gauges and warning lamps are working properly. ⇨ □ P. 6-26, 6-35
 Z16225	Horn operation Press the horn button to check that the horn is working properly.
 Z16226	Door lock operation Push down the lock knob and make sure that the door is securely locked. ⇨ □ P. 3-2

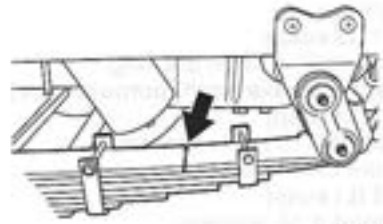
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4 While walking around the vehicle

 Z12024	Brake fluid level <Air-over hydraulic brake vehicles> Check that the brake fluid level is between the H and L marks on the reservoir tank. ⇨ P. 12-42
 Z15361	Battery fluid level Check that the battery fluid level is between the "UPPER" and "LOWER" level lines on the sides of the battery case. ⇨ P. 12-108
 Z22046	Draining condensate from air tank Drain condensate from the air tank by pulling the ring of the drain cock (there is only one drain cock). ⇨ P. 12-78
 Z10805	Damage to tires Check the tires for tread groove depth, foreign objects in grooves, cracks, and uneven wear. ⇨ P. 12-80

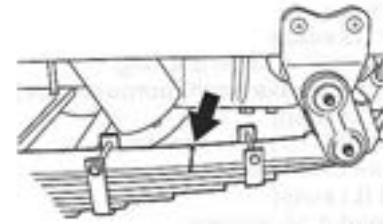
4 While walking around the vehicle

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 Z22048	Disc wheel installation condition Check the wheel nuts, bolts and disc wheels by visual inspection as well as by using an inspection hammer. ⇒ □ P. 12-99
 Z12026	Broken suspension springs Check for broken springs and tilt of vehicle body toward either side.

5 While driving at slow speeds

 Z17799	Brake performance Depress the brake pedal and check that the brakes work effectively and evenly on all wheels. ⇒ □ P. 12-75
 Z16251	Steering wheel operation Check that the steering wheel does not vibrate or pull to one side and that it is not unduly heavy. Also, make sure that the steering returns to its neutral position smoothly.

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Greasing

1 Grease fittings

Remove all dust and dirt from the grease fittings before using them. Always use the recommended grease.

Greasing intervals	Every 5,000 km
--------------------	----------------

Recommended lubricant:

- Chassis grease
NLGI No. 1 (Li soap)
Apply to points ① to ⑤ in drawing.
- Wheel bearing grease (multi-purpose type)
NLGI No. 2 (Li soap)
Apply to points ⑦ to ⑨ in drawing.
- Molybdenum disulfide base grease
NLGI No. 2 (Li soap)
Apply to point ⑥ in drawing.

⚠ CAUTION

Use the recommended wheel bearing grease to lubricate the clutch fork shaft and the clutch shifter. Do not use grease containing molybdenum disulfide or chassis grease. If you use any grease other than the recommended wheel bearing grease, the performance of the clutch may be impaired or the clutch parts may become damaged.



Greasing

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Remove all dust and dirt from the grease fittings before using them. Always use the recommended grease.

Greasing intervals	Every 5,000 km
--------------------	----------------

Recommended lubricant:

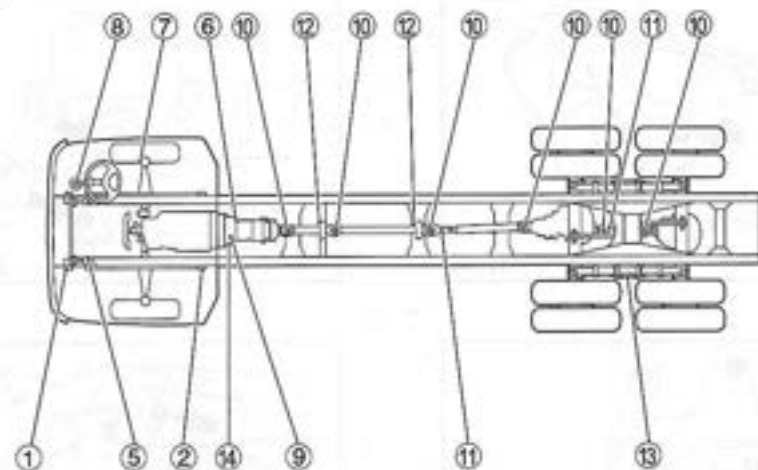
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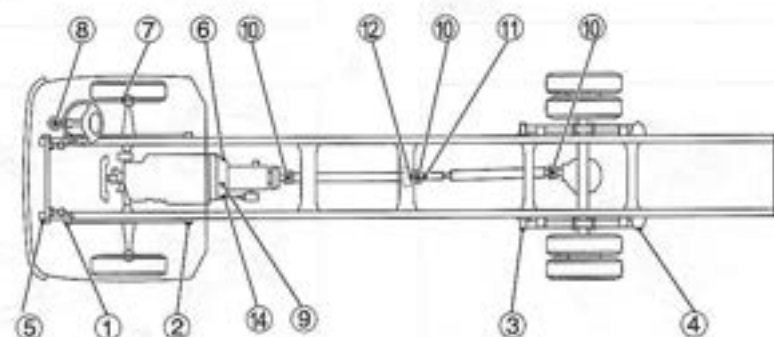


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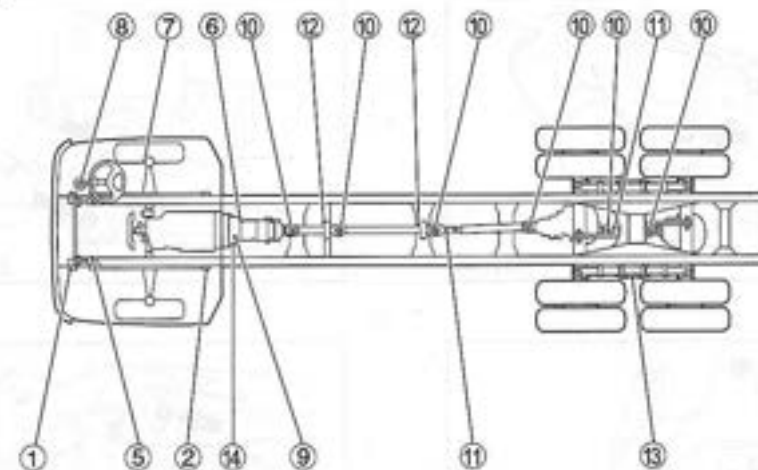
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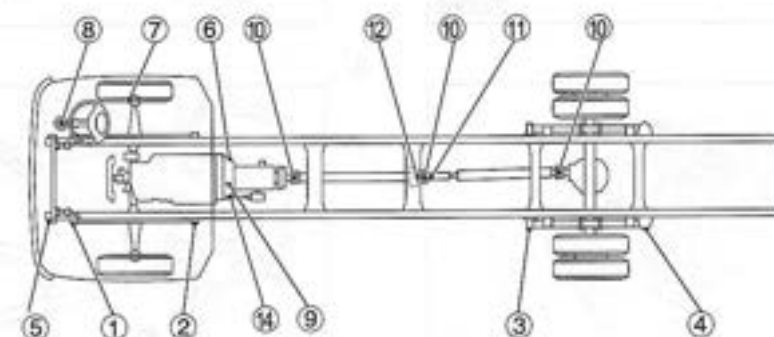
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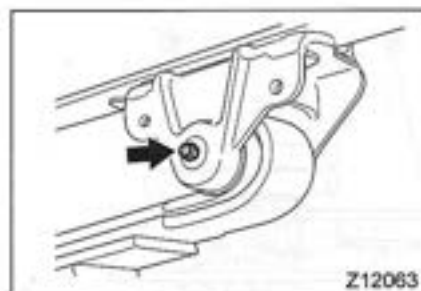
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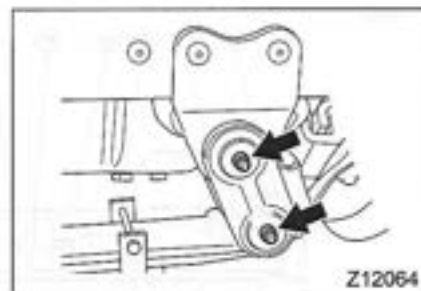


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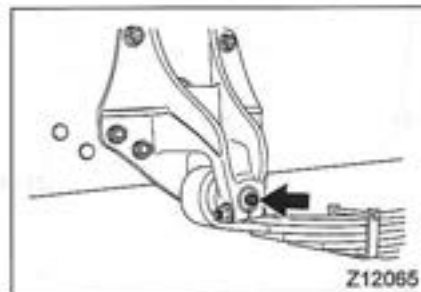
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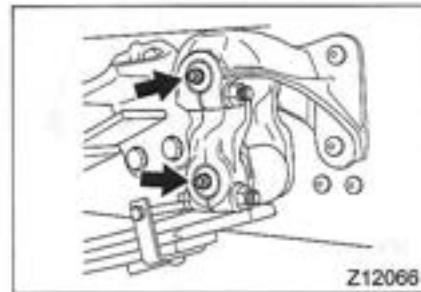
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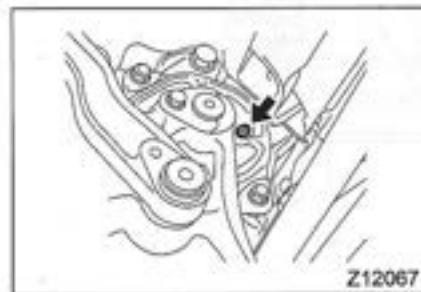
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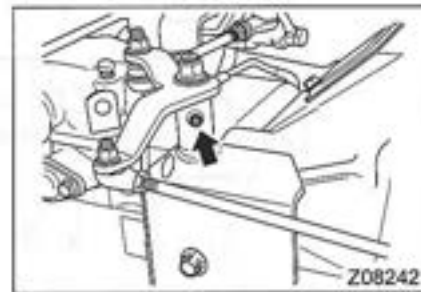
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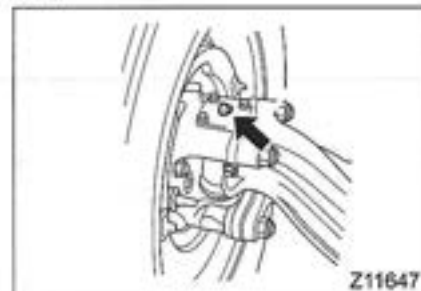
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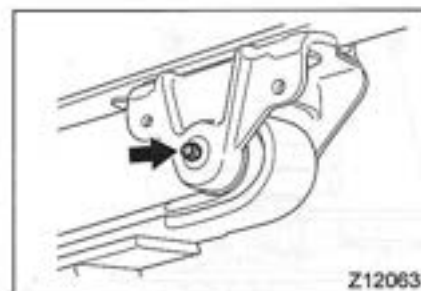
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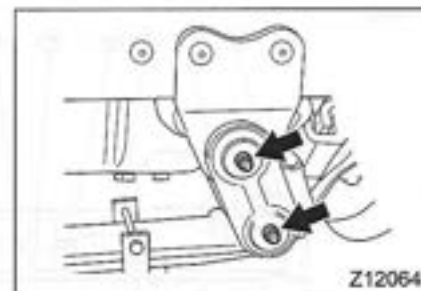
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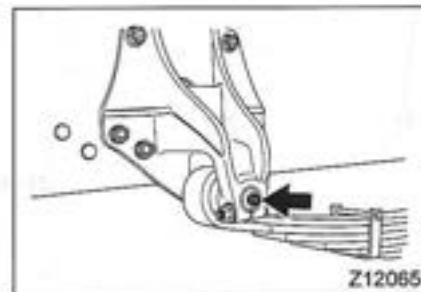
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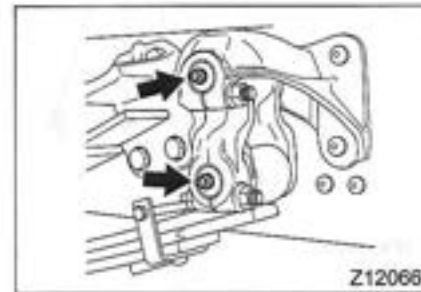
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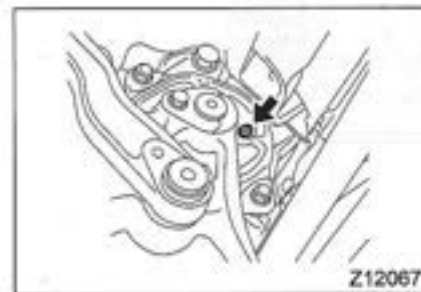
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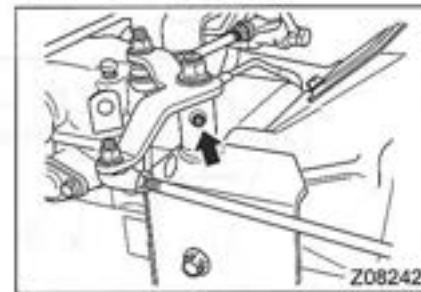
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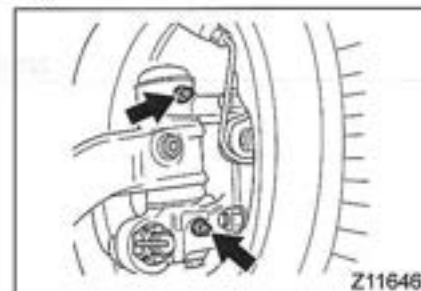
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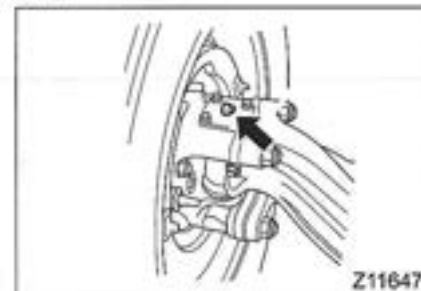
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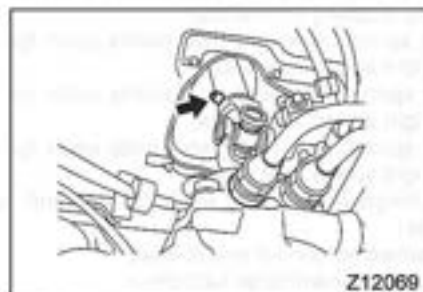
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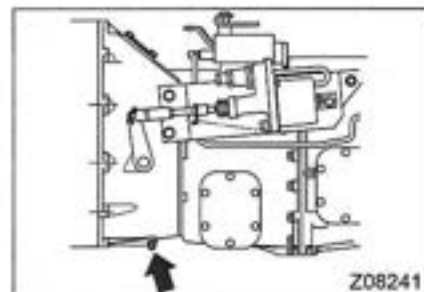
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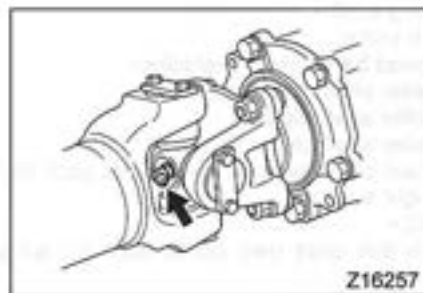
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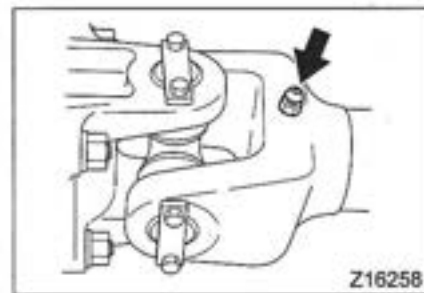
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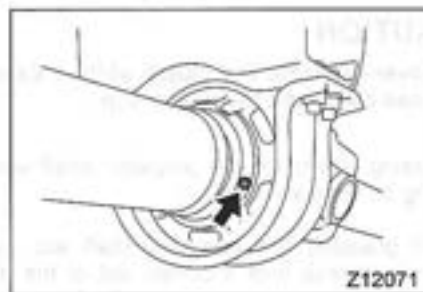
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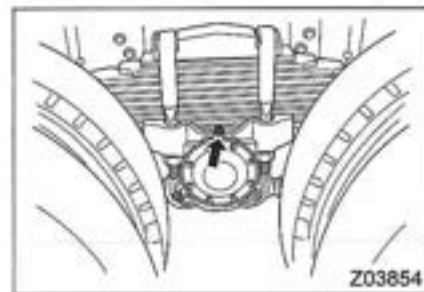
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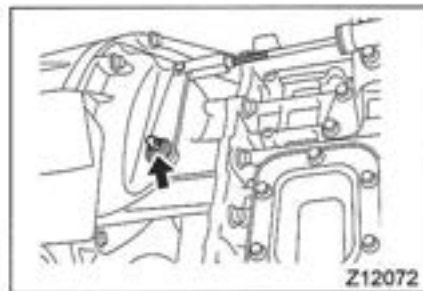
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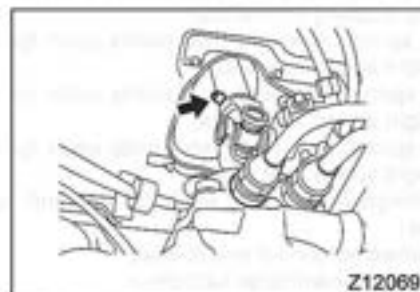
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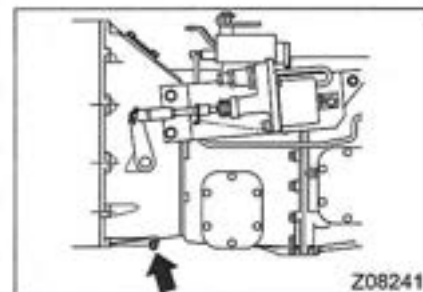
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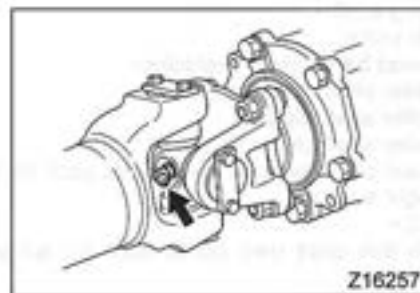
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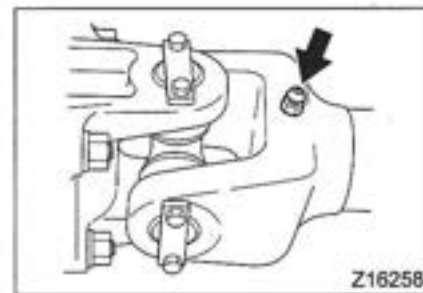
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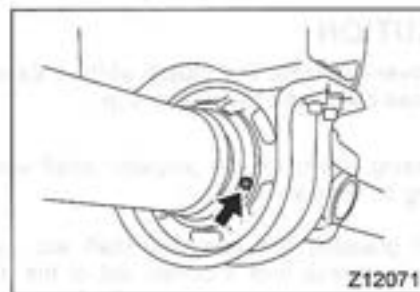
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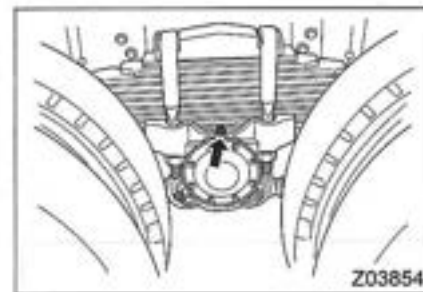
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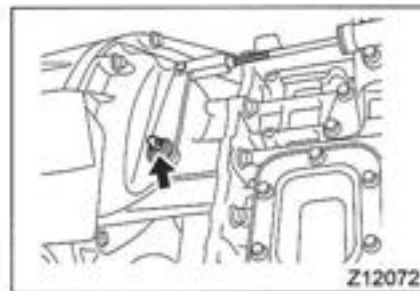
⑫



⑬



⑭



- ① Front spring, front end (two points each for left and right spring front ends)
- ② Front spring, rear end (two points each for left and right spring rear ends)
- ③ Rear spring, front end (two points each for left and right spring front ends)
- ④ Rear spring, rear end (two points each for left and right spring rear ends)
- ⑤ Cab hinge (two points each for left and right hinges)
- ⑥ Transmission control select shaft
<9-speed transmission vehicles>
- ⑦ Kingpin top and bottom sections (two points each for left and right kingpins)
- ⑧ Steering shaft
- ⑨ Clutch shifter
<9-speed transmission vehicles>
- ⑩ Propeller shaft universal joint
- ⑪ Propeller shaft slip joint
- ⑫ Propeller shaft center bearing
- ⑬ Trunnion plane bearing (two points each for left and right sides)
<FN62>
- ⑭ Clutch fork shaft (two points each for left and right shafts)
<6-speed transmission vehicles>

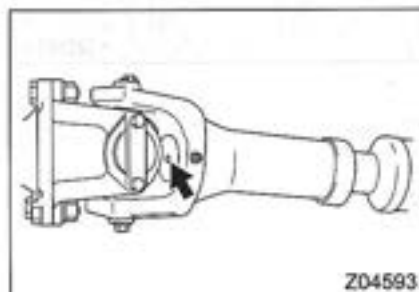
⚠ CAUTION

Do not over-lubricate the clutch shifter. Excessive grease can make the clutch slip.

NOTE:

The greasing points for the propeller shaft varies depending on vehicle model.

- When greasing the propeller shaft slip joint, pump in grease until it comes out of the dust plug hole.



Z04593

- ① Front spring, front end (two points each for left and right spring front ends)
- ② Front spring, rear end (two points each for left and right spring rear ends)
- ③ Rear spring, front end (two points each for left and right spring front ends)
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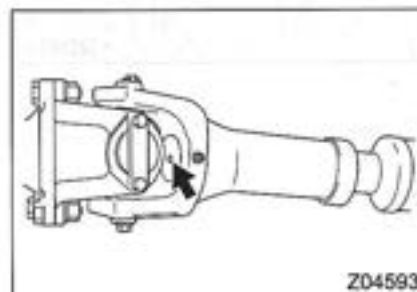
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Do not over-lubricate the clutch shifter. Excessive grease can make the clutch slip.

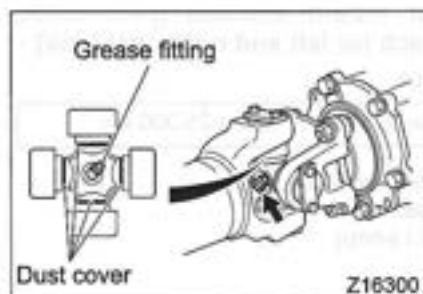
NOTE:

The greasing points for the propeller shaft varies depending on vehicle model.

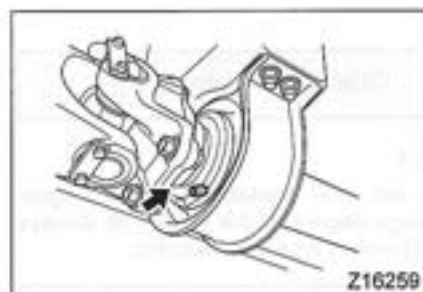
- When greasing the propeller shaft slip joint, pump in grease until it comes out of the dust plug hole.



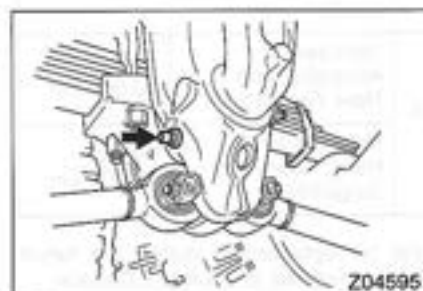
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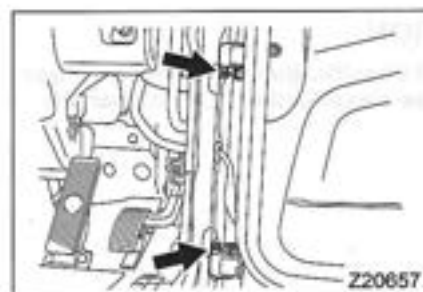
- When greasing the propeller shaft universal joint, pump in grease until it comes out of the dust covers (at 4 places).



- Pump grease into the propeller shaft center bearing until grease comes out of the escape valve that is located behind the grease nipple.



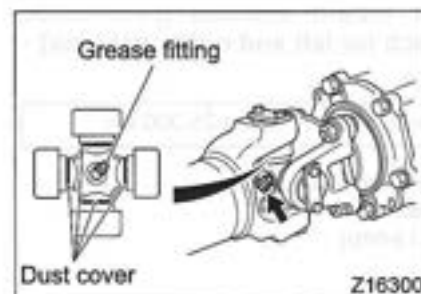
- When greasing the trunnion plain bearing <FN62>, pump in grease until it comes out of the escape valve.



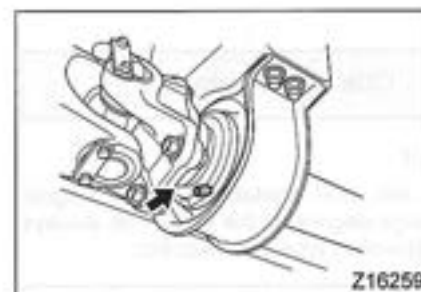
- 2 Door hinge (4 points in total on both sides; 8 points in Crew-cab models)

Greasing intervals	Every 5,000 km
--------------------	----------------

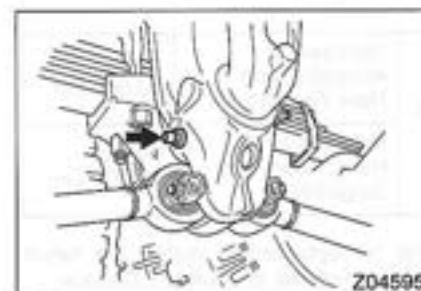
Recommended lubricant:
Chassis grease
NLGI No. 1 (Li soap)



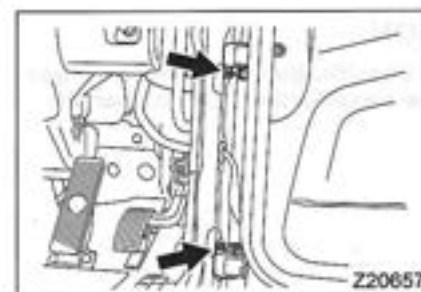
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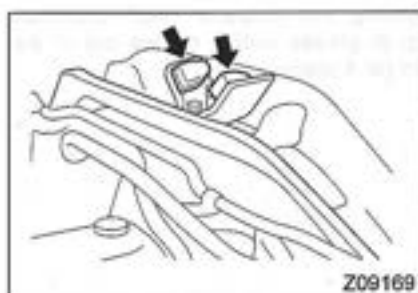
- When greasing the trunnion plain bearing <FN62>, pump in grease until it comes out of the escape valve.



- 2 Door hinge (4 points in total on both sides; 8 points in Crew-cab models)

Greasing intervals	Every 5,000 km
--------------------	----------------

Recommended lubricant:
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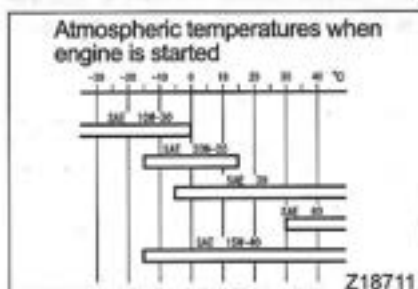


3 Cab rear mount cushion (two inside points each for left and right cushions)

<Manual tilting>

Greasing intervals	Every 25,000 km
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Recommended lubricant:
Chassis grease
NLGI No. 1 (Li soap)



Oils and fluids

1 Engine oil

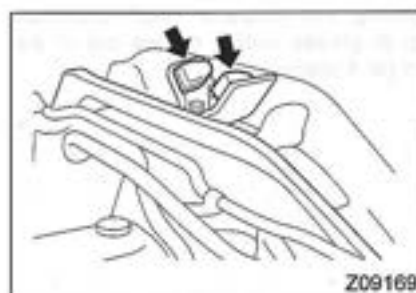
Performance, life, and startability of the engine depend to a large degree on the engine oil. Always use oil of the specified type and viscosity.

Inspection intervals	At the time of preoperational check	
Replacement intervals	Vehicles for Australia, and New Zealand	Every 30,000 km
	Vehicles for Hong Kong, and Singapore	Every 10,000 km

The first engine oil replacement during the run-in period should be performed at the first 2,000 km.

⚠ CAUTION

An oil of API classification CC is inappropriate. Be sure to use classification CD or higher oils.

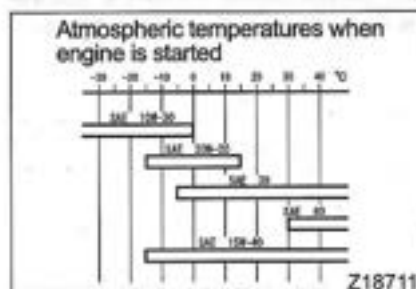


3 Cab rear mount cushion (two inside points each for left and right cushions)

<Manual tilting>

Greasing intervals	Every 25,000 km
--------------------	-----------------

Recommended lubricant:
Chassis grease
NLGI No. 1 (Li soap)



Oils and fluids

1 Engine oil

Performance, life, and startability of the engine depend to a large degree on the engine oil. Always use oil of the specified type and viscosity.

Inspection intervals	At the time of preoperational check	
Replacement intervals	Vehicles for Australia, and New Zealand	Every 30,000 km
	Vehicles for Hong Kong, and Singapore	Every 10,000 km

The first engine oil replacement during the run-in period should be performed at the first 2,000 km.

⚠ CAUTION

An oil of API classification CC is inappropriate. Be sure to use classification CD or higher oils.

**Recommended oil:
Engine oil**

<Vehicles for Australia, and New Zealand>
Engine oil should have a 1.5% or higher ash level (in weight percentage).

Classification	Viscosity	
	Atmospheric temperature	SAE viscosity number
API CD, CD/SF, CE, CE/SF, CF-4 or JASO classification DH-1	Below 0°C	10W-30
	Above -15°C	15W-40
	-15 - 15°C	20W-20
	-5 - 40°C	30
	Above 30°C	40

<Vehicles for Hong Kong, and Singapore>

Classification	Viscosity	
	Atmospheric temperature	SAE viscosity number
API CD, CD/SF, CE, CE/SF, CF-4, CJ-4 or JASO classification DH-1, DH-2 ACEA E6	Below 0°C	10W-30
	Above -15°C	15W-40
	-15 - 15°C	20W-20
	-5 - 40°C	30
	Above 30°C	40

Quantity required:

Section	Quantity
Oil pan	Approx. 11 liters
Oil filter	Approx. 2.3 liters

The engine oil level can be checked either by the  indicator lamp on the meter cluster or by the oil level gauge. The  indicator lamp shows the engine oil level at a glance. For more accurate measurement, use the oil level gauge.

**Recommended oil:
Engine oil**

<Vehicles for Australia, and New Zealand>
Engine oil should have a 1.5% or higher ash level (in weight percentage).

Classification	Viscosity	
	Atmospheric temperature	SAE viscosity number
API CD, CD/SF, CE, CE/SF, CF-4 or JASO classification DH-1	Below 0°C	10W-30
	Above -15°C	15W-40
	-15 - 15°C	20W-20
	-5 - 40°C	30
	Above 30°C	40

<Vehicles for Hong Kong, and Singapore>

Classification	Viscosity	
	Atmospheric temperature	SAE viscosity number
API CD, CD/SF, CE, CE/SF, CF-4, CJ-4 or JASO classification DH-1, DH-2 ACEA E6	Below 0°C	10W-30
	Above -15°C	15W-40
	-15 - 15°C	20W-20
	-5 - 40°C	30
	Above 30°C	40

Quantity required:

Section	Quantity
Oil pan	Approx. 11 liters
Oil filter	Approx. 2.3 liters

The engine oil level can be checked either by the  indicator lamp on the meter cluster or by the oil level gauge. The  indicator lamp shows the engine oil level at a glance. For more accurate measurement, use the oil level gauge.

NOTE:

Check the engine oil level with the vehicle parked on a level place and the engine stopped. A correct engine oil level cannot be determined when the vehicle is tilted, or if the engine is running or the time after stopping the engine is too short. Let the engine stand at least 30 minutes after stopping it before checking the oil level.

1.1 Engine oil level check using indicator lamp (simple method)

1. Turn the starter switch to "ON".

Illumination color of  indicator lamp	Engine oil level
Green	Proper
Amber	Too low

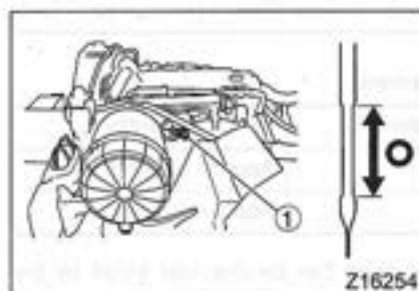
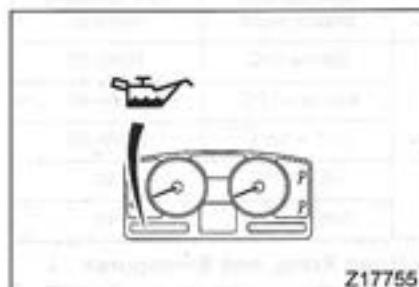
2. If the  indicator lamp lights in amber, add engine oil. ⇨ P. 12-33

NOTE:

With the vehicle tilted such as when parked on a slope, the  indicator lamp may light in amber when the starter switch is turned to the "ON" position. This is not a problem unless the lamp also lights when the vehicle is parked on a level surface.

1.2 Engine oil level check using oil level gauge

1. Tilt the cab. ⇨ P. 12-7
2. Remove oil level gauge ① and wipe off oil with a cloth.
3. Fully insert the oil level gauge in the crankcase, and gently draw it out.
4. The oil level marked on the oil level gauge should be within the indicated area.
If necessary, replenish with the recommended engine oil.
5. After the check, insert the oil level gauge into position and secure it properly.

**NOTE:**

Check the engine oil level with the vehicle parked on a level place and the engine stopped. A correct engine oil level cannot be determined when the vehicle is tilted, or if the engine is running or the time after stopping the engine is too short. Let the engine stand at least 30 minutes after stopping it before checking the oil level.

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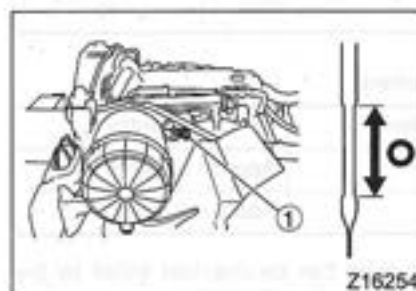
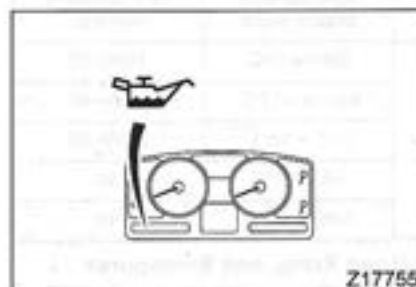
2. If the  indicator lamp lights in amber, add engine oil. ⇨ P. 12-33

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4. The oil level marked on the oil level gauge should be within the indicated area.
If necessary, replenish with the recommended engine oil.
5. After the check, insert the oil level gauge into position and secure it properly.





1.3 Adding oil

⚠ WARNING

Take care to avoid spillage when pouring oil into the engine. Any oil spilled on the exhaust manifold or other hot parts could catch fire. Completely wipe up any oil that is spilled.

1. Tilt the cab. ⇨ P. 12-7
2. Clean the area around oil filler cap ① to prevent dust and dirt from entering the engine.
3. Remove the oil filler cap from the engine and add oil as necessary.
4. Make sure that the oil level is correct. If the oil level is checked immediately after adding, the reading may be lower than the actual level because all added oil may have not yet reached the oil pan. Wait for at least 10 minutes after adding oil.
5. Install the oil filler cap.

⚠ CAUTION

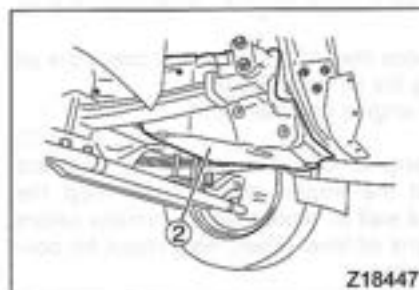
- The added oil should be of the same grade and viscosity as the oil originally placed in the engine.
- Do not add too much oil (so much that it exceeds the standard range shown on the oil level gauge). Doing so would result in wasteful oil consumption and in engine damage.

1.4 Replacement

1. Clean the surfaces around the oil filler cap ① and remove the oil filler cap.
2. Remove the engine inspection cover ② if the vehicle is so equipped.

⚠ WARNING

The space between the engine inspection cover and the surrounding components is small. Be careful not to get hurt by edges or other parts of these components when removing or installing the cover.



Z18447



1.3 Adding oil

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Take care to avoid spillage when pouring oil into the engine. Any oil spilled on the exhaust manifold or other hot parts could catch fire. Completely wipe up any oil that is spilled.

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⚠ CAUTION

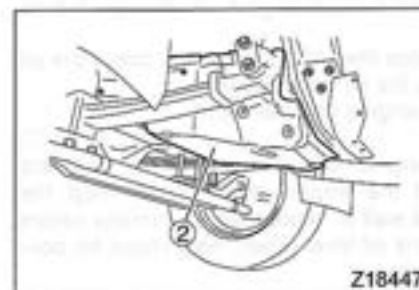
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1.4 Replacement

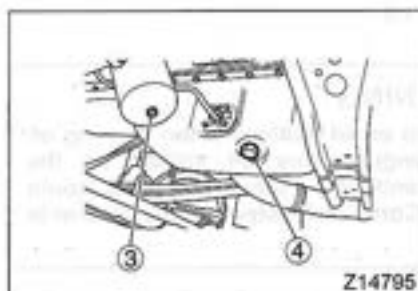
1. Clean the surfaces around the oil filler cap ① and remove the oil filler cap.
2. Remove the engine inspection cover ② if the vehicle is so equipped.

⚠ WARNING

The space between the engine inspection cover and the surrounding components is small. Be careful not to get hurt by edges or other parts of these components when removing or installing the cover.



Z18447



3. Place a receiver under the oil filter. Loosen oil filter drain plug (3) to let the oil flow out of the filter.
⇒ P. 12-46

! WARNING

- The engine oil is extremely hot immediately after the vehicle has been operated. Take care to avoid being scalded when draining hot oil.
- Take care to avoid spillage when pouring oil into the engine. Any oil spilled on the exhaust manifold or other hot parts could catch fire. Completely wipe up any oil that is spilled.

4. Remove drain plug (4) from the oil pan to remove the oil.

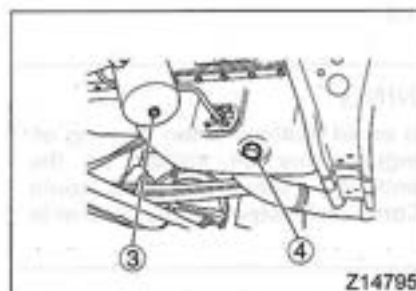
NOTE:

Engine oil removal is quicker if performed soon after the engine has been stopped while the oil is still hot.

5. After draining, tighten the drain plug.
Replace the oil filter element as necessary.
⇒ P. 12-46

Tightening torque	
Oil pan drain plug	69 Nm (7 kgfm)
Oil filter drain plug	7.8 ± 2 Nm (0.8 ± 0.2 kgfm)

6. Carefully pour fresh engine oil through the oil filler.
7. Wait for more than 10 minutes and check the oil level using the oil level gauge.
8. Crank the engine and then start it.
⇒ P. 5-10
9. Let the engine idle allowing oil to circulate throughout the engine parts. Then, stop the engine and wait for more than 30 minutes before checking the oil level again. Also check for possible oil leaks.
10. After adding oil to the correct level, ensure that the drain plug, oil filler cap and oil level gauge are securely installed.
11. Install the engine inspection cover if the vehicle is so equipped.



3. Place a receiver under the oil filter. Loosen oil filter drain plug (3) to let the oil flow out of the filter.
⇒ P. 12-46

! WARNING

- The engine oil is extremely hot immediately after the vehicle has been operated. Take care to avoid being scalded when draining hot oil.
- Take care to avoid spillage when pouring oil into the engine. Any oil spilled on the exhaust manifold or other hot parts could catch fire. Completely wipe up any oil that is spilled.

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NOTE:

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10. After adding oil to the correct level, ensure that the drain plug, oil filler cap and oil level gauge are securely installed.
11. Install the engine inspection cover if the vehicle is so equipped.

CAUTION

Do not add too much oil (so much that it exceeds the standard range shown on the oil level gauge). Doing so would result in wasteful oil consumption and in engine damage.

2 Manual transmission gear oil

Inspection intervals	Every 5,000 km
Replacement intervals	Every 50,000 km

The first transmission gear oil replacement during the run-in period should be performed at the first 2,000 km.

Recommended oil:
<6-speed transmission>
Gear oil

Classification	Viscosity	
	Condition	SAE viscosity number
API GL-3	General	80
	Warm region	90
API GL-4	Tropical region	90

Engine oil

Classification	Viscosity	
	Condition	SAE viscosity number
API CC	Long period of high-speed driving	30 or 40

<9-speed transmission>
Gear oil

Classification	SAE viscosity number
API GL-4	90

Engine oil

Classification	SAE viscosity number
API CD	30, 40 or 50

CAUTION

Do not add too much oil (so much that it exceeds the standard range shown on the oil level gauge). Doing so would result in wasteful oil consumption and in engine damage.

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	Condition	SAE viscosity number
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	Warm region	90
API GL-4	Tropical region	90

Engine oil

Classification	Viscosity	
	Condition	SAE viscosity number
API CC	Long period of high-speed driving	30 or 40

<9-speed transmission>
Gear oil

Classification	SAE viscosity number
API GL-4	90

Engine oil

Classification	SAE viscosity number
API CD	30, 40 or 50

Quantity required:

Transmission type		Quantity
6-speed	M060S6	Approx. 6.7 liters
	M070S6 (Overdrive)	Approx. 8.5 liters
	M070S6 (Direct drive)	Approx. 8.1 liters
9-speed	EATON FS8209	Approx. 8.5 liters

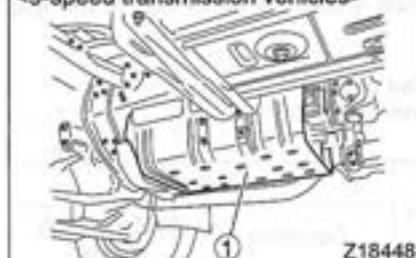
2.1 Check

On vehicles with 9-speed transmission, remove the transmission inspection cover ① under the transmission.

⚠ WARNING

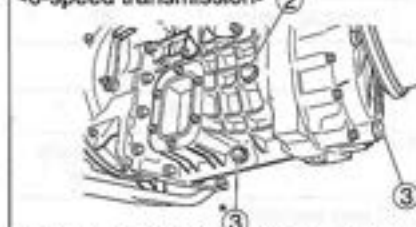
The space between the transmission inspection cover and the surrounding components is small. Be careful not to get hurt by edges or other parts of these components when removing or installing the cover.

<9-speed transmission vehicles>



Z18448

<6-speed transmission>



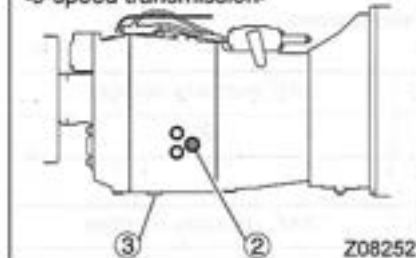
*: drain plugs with a magnet Z12097

1. Clean the area around the inspection plug ②.
2. Remove inspection plug and make sure that oil is topped off.
3. If insufficient, add oil through the inspection plug hole until it is full to the brim.

⚠ CAUTION

The added oil should be of the same grade and viscosity as the oil originally placed in the transmission.

<9-speed transmission>



Z08252

Quantity required:

Transmission type		Quantity
6-speed	M060S6	Approx. 6.7 liters
	M070S6 (Overdrive)	Approx. 8.5 liters
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9-speed	EATON FS8209	Approx. 8.5 liters

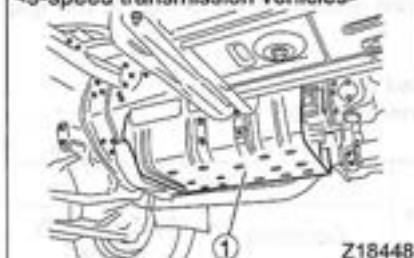
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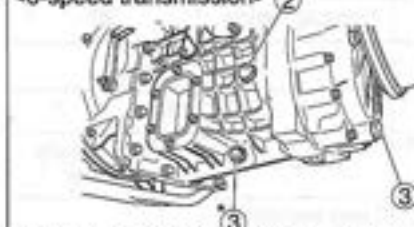
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<9-speed transmission vehicles>



Z18448

<6-speed transmission>



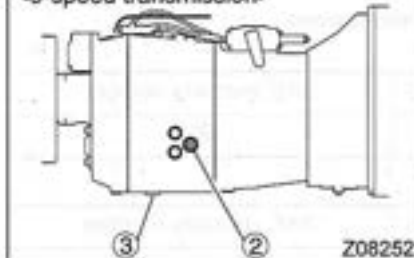
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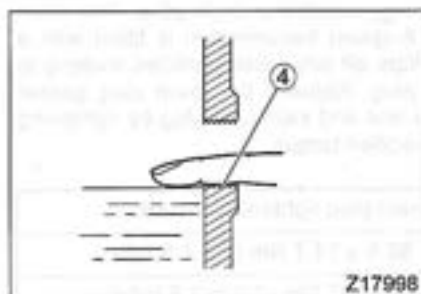
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<9-speed transmission>



Z08252

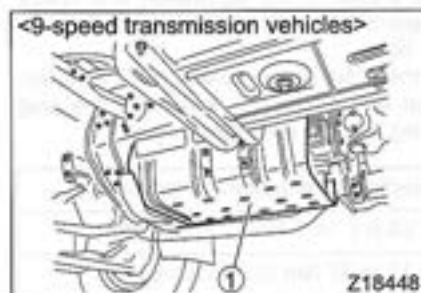


- After adding transmission oil, wait at least one minute then put a finger in the inspection plug hole ④ as shown in the illustration and check that the transmission oil has come up to the bottom of the hole.
- Replace the inspection plug gasket with a new one and install the plug by tightening it to the specified torque.

Inspection plug tightening torque

6-speed	68.6 ± 14.7 Nm (7 ± 1.5 kgfm)
9-speed	32 to 37 Nm (3.3 to 3.8 kgfm)

- On vehicles with 9-speed transmission, install the transmission inspection cover.



2.2 Replacement

On vehicles with 9-speed transmission, remove the transmission inspection cover ① under the transmission.

! WARNING

The space between the transmission inspection cover and the surrounding components is small. Be careful not to get hurt by edges or other parts of these components when removing or installing the cover.

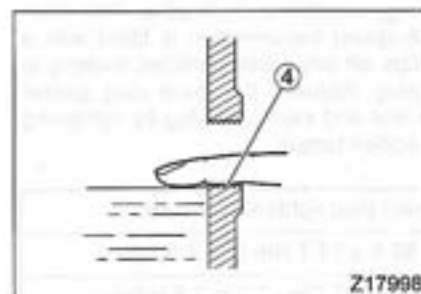
- Place a container under the drain plug ③, to catch the oil when it drains out.
- Clean the area around the inspection plug ②.
- Remove the inspection plug and drain plug to let the oil flow out.

! WARNING

The oil is extremely hot immediately after the vehicle has been operated. Take care to avoid being scalded when draining hot oil.

NOTE:

Oil removal is quicker if performed soon after the vehicle has been stopped and while the oil is still hot.

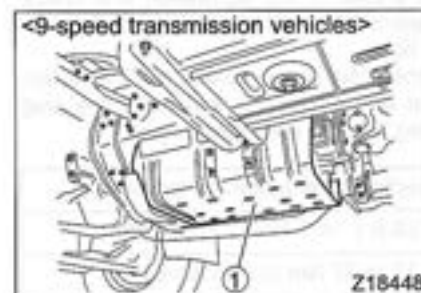


- After adding transmission oil, wait at least one minute then put a finger in the inspection plug hole ④ as shown in the illustration and check that the transmission oil has come up to the bottom of the hole.
- Replace the inspection plug gasket with a new one and install the plug by tightening it to the specified torque.

Inspection plug tightening torque

6-speed	68.6 ± 14.7 Nm (7 ± 1.5 kgfm)
9-speed	32 to 37 Nm (3.3 to 3.8 kgfm)

- On vehicles with 9-speed transmission, install the transmission inspection cover.



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- Remove the inspection plug and drain plug to let the oil flow out.

! WARNING

The oil is extremely hot immediately after the vehicle has been operated. Take care to avoid being scalded when draining hot oil.

NOTE:

Oil removal is quicker if performed soon after the vehicle has been stopped and while the oil is still hot.

- After draining, install the drain plug. The drain plug of a 6-speed transmission is fitted with a magnet. Wipe off any metal particles sticking to the drain plug. Replace the drain plug gasket with a new one and install the plug by tightening it to the specified torque.

Drain plug tightening torque	
6-speed	68.6 ± 14.7 Nm (7 ± 1.5 kgfm)
9-speed	32 to 37 Nm (3.3 to 3.8 kgfm)

- Add oil through the inspection plug hole until it reaches the bottom of the hole.
- After adding transmission oil, wait at least one minute then put a finger in the inspection plug hole ④ as shown in the illustration and check that the transmission oil has come up to the bottom of the hole.
- Like with the drain plug, replace the inspection plug gasket with a new one and install the plug by tightening it to the specified torque.

Inspection plug tightening torque	
6-speed	68.6 ± 14.7 Nm (7 ± 1.5 kgfm)
9-speed	32 to 37 Nm (3.3 to 3.8 kgfm)

- On vehicles with 9-speed transmission, install the transmission inspection cover.

3 Automatic transmission fluid

Inspection intervals	Every 10,000 km
Replacement intervals	Every 5 years (or when the service indicator lights, regardless of the replacement interval)

Whenever replacing automatic transmission fluid, also replace the filters at the same time. Have the fluid replaced by an authorized MITSUBISHI FUSO distributor or dealer.

Recommended fluid:
TranSynd®

- After draining, install the drain plug. The drain plug of a 6-speed transmission is fitted with a magnet. Wipe off any metal particles sticking to the drain plug. Replace the drain plug gasket with a new one and install the plug by tightening it to the specified torque.

Drain plug tightening torque	
6-speed	68.6 ± 14.7 Nm (7 ± 1.5 kgfm)
9-speed	32 to 37 Nm (3.3 to 3.8 kgfm)

- Add oil through the inspection plug hole until it reaches the bottom of the hole.
- After adding transmission oil, wait at least one minute then put a finger in the inspection plug hole ④ as shown in the illustration and check that the transmission oil has come up to the bottom of the hole.
- Like with the drain plug, replace the inspection plug gasket with a new one and install the plug by tightening it to the specified torque.

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Recommended fluid:
TranSynd®

Quantity required for replacement:

Liters

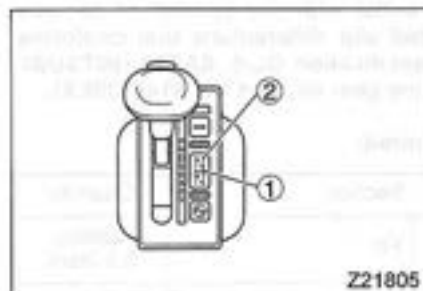
Quantity
Total fluid quantity (for the entire transmission system): 27
Fluid quantity to be replaced: 18
• When replacing the oil filter alone: 9.5

3.1 Check and replacement

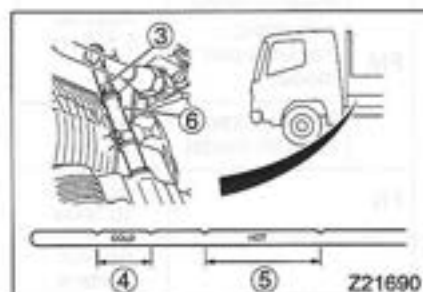
Your vehicle's automatic transmission system will remind you when to replace the automatic transmission fluid based on operating conditions and information from the oil pressure switch. The service indicator ① and the digital display ② on the range selector lever assembly show the remaining life of the automatic transmission fluid and the conditions of the oil filter and transmission. For further details, please refer to the separate Allison Automatic Operator's Manual. The automatic transmission fluid level can be checked using the oil level gauge ③.

- ④ COLD RUN band
⑤ HOT RUN band

Check the automatic transmission fluid level. Add fluid, as required, through the dipstick tube ⑥.



Z21805



Z21690

4 Differential gear oil

Inspection intervals	Every 5,000 km
Replacement intervals	Every 50,000 km

The first differential gear oil replacement during the run-in period should be performed at the first 2,000 km.

Recommended oil:
Gear oil

Classification	Viscosity	
	Atmospheric temperature	SAE viscosity number
API GL-5	Below 40°C	90
	Above 40°C	140

Quantity required for replacement:

Liters

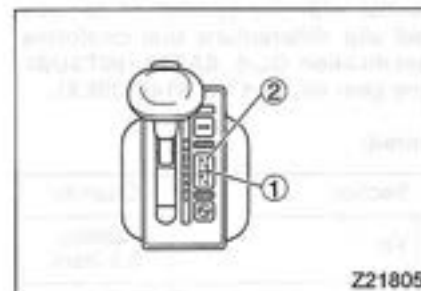
Quantity
Total fluid quantity (for the entire transmission system): 27
Fluid quantity to be replaced: 18
• When replacing the oil filter alone: 9.5

3.1 Check and replacement

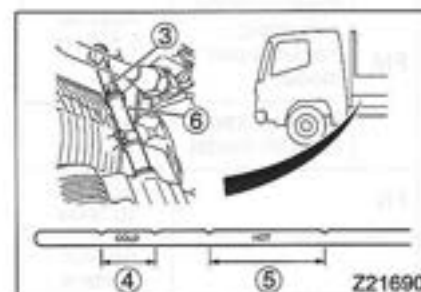
Your vehicle's automatic transmission system will remind you when to replace the automatic transmission fluid based on operating conditions and information from the oil pressure switch. The service indicator ① and the digital display ② on the range selector lever assembly show the remaining life of the automatic transmission fluid and the conditions of the oil filter and transmission. For further details, please refer to the separate Allison Automatic Operator's Manual. The automatic transmission fluid level can be checked using the oil level gauge ③.

- ④ COLD RUN band
⑤ HOT RUN band

Check the automatic transmission fluid level. Add fluid, as required, through the dipstick tube ⑥.



Z21805



Z21690

4 Differential gear oil

Inspection intervals	Every 5,000 km
Replacement intervals	Every 50,000 km

The first differential gear oil replacement during the run-in period should be performed at the first 2,000 km.

Recommended oil:
Gear oil

Classification	Viscosity	
	Atmospheric temperature	SAE viscosity number
API GL-5	Below 40°C	90
	Above 40°C	140

CAUTION

- Use oil conforming to GL-5, SAE140 if the vehicle is to be driven strenuously as for example driving up long uphill grades. Remember, however, that this oil is to be used only when the temperature is higher than 10°C.
- On vehicles with a limited slip differential, fill the differential with the special oil for use with limited slip differentials that conforms to API classification GL-5, SAE90 (MITSUBISHI genuine gear oil, part No. 8149630EX).

Quantity required:

Section			Quantity
Differential housing	FK		Approx. 6.5 liters
	FM	6-speed transmission model, automatic transmission model	Approx. 6.5 liters
		9-speed transmission model	Approx. 10 liters
	FN		Approx. 10 liters
Differential carrier	FN62, FN64		Approx. 1 liters
Interaxle differential			Approx. 0.5 liters

4.1 Check

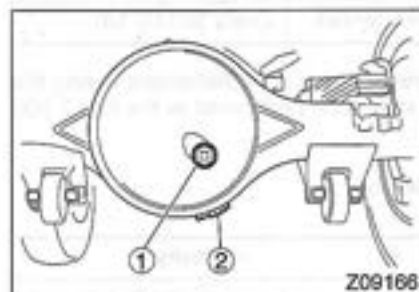
1. Remove inspection plug ① and make sure that the oil is topped off.
2. If insufficient, add oil through the inspection plug hole until it is full to the brim.

CAUTION

The added oil should be of the same grade and viscosity as the oil originally placed in the differential gears.

3. Install the inspection plug.

Inspection plug tightening torque	98 to 115 Nm (10 to 12 kgfm)
-----------------------------------	---------------------------------



Z09166

CAUTION

- Use oil conforming to GL-5, SAE140 if the vehicle is to be driven strenuously as for example driving up long uphill grades. Remember, however, that this oil is to be used only when the temperature is higher than 10°C.
- On vehicles with a limited slip differential, fill the differential with the special oil for use with limited slip differentials that conforms to API classification GL-5, SAE90 (MITSUBISHI genuine gear oil, part No. 8149630EX).

Quantity required:

Section			Quantity
Differential housing	FK		Approx. 6.5 liters
	FM	6-speed transmission model, automatic transmission model	Approx. 6.5 liters
		9-speed transmission model	Approx. 10 liters
	FN		Approx. 10 liters
Differential carrier	FN62, FN64		Approx. 1 liters
Interaxle differential			Approx. 0.5 liters

4.1 Check

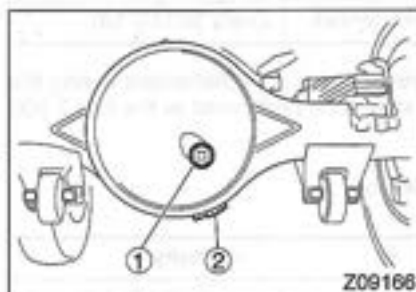
1. Remove inspection plug ① and make sure that the oil is topped off.
2. If insufficient, add oil through the inspection plug hole until it is full to the brim.

CAUTION

The added oil should be of the same grade and viscosity as the oil originally placed in the differential gears.

3. Install the inspection plug.

Inspection plug tightening torque	98 to 115 Nm (10 to 12 kgfm)
-----------------------------------	---------------------------------



Z09166

4.2 Replacement

⚠ WARNING

The oil is extremely hot immediately after the vehicle has been operated. Take care to avoid being scalded when draining hot oil.

1. Place a container under the drain plug ② to catch the oil when it drains out.
2. Remove the inspection plug ① and drain plug ② to let the oil flow out.

NOTE:

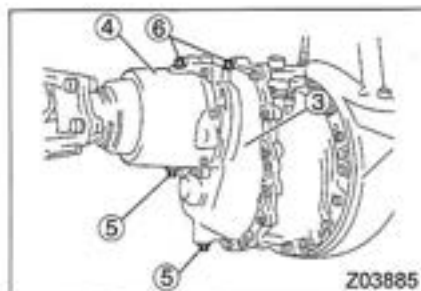
Oil removal is quicker if performed soon after the vehicle has been stopped and while the oil is still hot.

3. Replace the drain plug after draining out the oil.

Drain plug tightening torque	98 to 115 Nm (10 to 12 kgfm)
------------------------------	---------------------------------

4. Add oil through the inspection plug hole until it reaches the bottom of the hole.
5. Install the inspection plug.

Inspection plug tightening torque	98 to 115 Nm (10 to 12 kgfm)
-----------------------------------	---------------------------------



6. With FN62 and FN64 models, remove the drain plugs ⑤ and filter plugs ⑥ from the forward-rear axle differential carrier ③ and intermediate differential ④. After the oil has drained out, refit the drain plugs. Next, pour one liter of oil into the differential carrier and approx. 0.5 liter of oil into the intermediate differential through their respective filter plug holes. Then, refit the filler plugs.

4.2 Replacement

⚠ WARNING

The oil is extremely hot immediately after the vehicle has been operated. Take care to avoid being scalded when draining hot oil.

1. Place a container under the drain plug ② to catch the oil when it drains out.
2. Remove the inspection plug ① and drain plug ② to let the oil flow out.

NOTE:

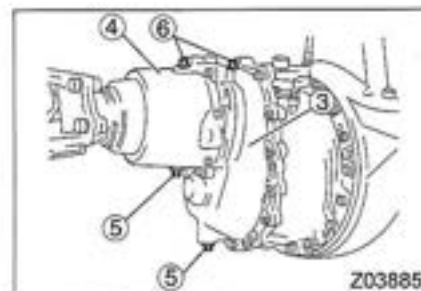
Oil removal is quicker if performed soon after the vehicle has been stopped and while the oil is still hot.

3. Replace the drain plug after draining out the oil.

Drain plug tightening torque	98 to 115 Nm (10 to 12 kgfm)
------------------------------	---------------------------------

4. Add oil through the inspection plug hole until it reaches the bottom of the hole.
5. Install the inspection plug.

Inspection plug tightening torque	98 to 115 Nm (10 to 12 kgfm)
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5 Brake fluid and clutch fluid

Fluid	Inspection intervals	Replacement intervals
Brake fluid <Air-over hydraulic brake vehicles>	At the time of pre-operational check and every 5,000 km or 1 month	Every 12 months
Clutch fluid <Manual transmission vehicles>	Every 5,000 km	Every 12 months

- The brake fluid inspection during the run-in period should be performed at the first 2,000 km. The clutch fluid inspection during the same period should be performed at the first 2,000 km.
- Have the brake and clutch fluid replacement performed by an authorized MITSUBISHI FUSO distributor or dealer.

5 Brake fluid and clutch fluid

Fluid	Inspection intervals	Replacement intervals
Brake fluid <Air-over hydraulic brake vehicles>	At the time of pre-operational check and every 5,000 km or 1 month	Every 12 months
Clutch fluid <Manual transmission vehicles>	Every 5,000 km	Every 12 months

- The brake fluid inspection during the run-in period should be performed at the first 2,000 km. The clutch fluid inspection during the same period should be performed at the first 2,000 km.
- Have the brake and clutch fluid replacement performed by an authorized MITSUBISHI FUSO distributor or dealer.

Recommended fluid:
Brake fluid SAE J1703
FMVSS No.116, DOT3

WARNING

- Be sure to use the recommended brake fluid.
- Use only one brand of recommended brake fluid. Mixing of different brands or types of fluid will change the properties of the fluid possibly resulting in a lower fluid boiling point and damaged brake components.
If you wish to change the brand of brake fluid, replace all the existing fluid in the brake system with the new brand fluid.
- Never allow engine oil, diesel fuel, gear oil, automatic transmission fluid, or any other mineral oil to mix with the brake fluid. When mixed with the brake fluid even very small in amounts, such oils will cause the rubber parts of the brake system to swell, and could cause brakes to become sluggish or to drag. Also, do not use containers which have been used for mineral oil for brake fluid.
- Because brake fluid is highly hygroscopic, it should be kept in a dry place both during refilling and storage. If brake fluid absorbs moisture, the boiling point is lowered, a condition which could result in vapor lock. This is very dangerous.
- If the brake fluid is used over long periods, its boiling point drops significantly due to the moisture it has absorbed, thereby increasing the likelihood of dangerous vapor lock. Therefore, be sure to change brake fluid at least once every 12 months.

CAUTION

Brake fluid dissolves paint. If you spill the fluid, wipe it clean or flush it off with water.

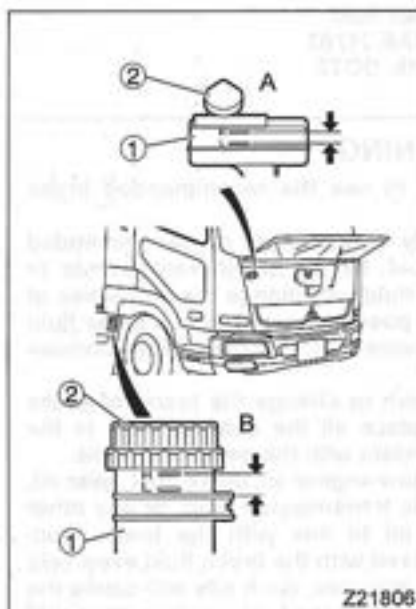
Recommended fluid:
Brake fluid SAE J1703
FMVSS No.116, DOT3

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CAUTION

Brake fluid dissolves paint. If you spill the fluid, wipe it clean or flush it off with water.



Z21806

A: Clutch fluid tank
B: Brake fluid tank

5.1 Check

The fluid level should be between the "H" and "L" lines on the reservoir tank ①.

Also check the inside of the reservoir tank for foreign matter. If there is sediment in the reservoir tank, have an authorized MITSUBISHI FUSO distributor or dealer check and clean it.

CAUTION

Do not open cap ② of reservoir tank for inspection purposes.

5.2 Adding fluid

1. If the fluid level is lower than the "L" line, clean the surfaces around the cap of reservoir tank, open the cap, and add the recommended brake fluid up to the "H" line.
2. Close the cap firmly.

WARNING

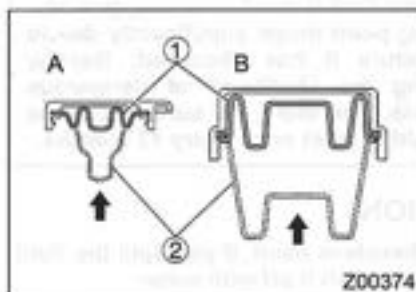
- The container used for adding brake fluid should be a clean one free of moisture, mineral oil, and dust.
- If the fluid level is unusually low, there is a fluid leak from the brake piping or other locations. In this case, have your vehicle inspected at an authorized MITSUBISHI FUSO distributor or dealer.

CAUTION

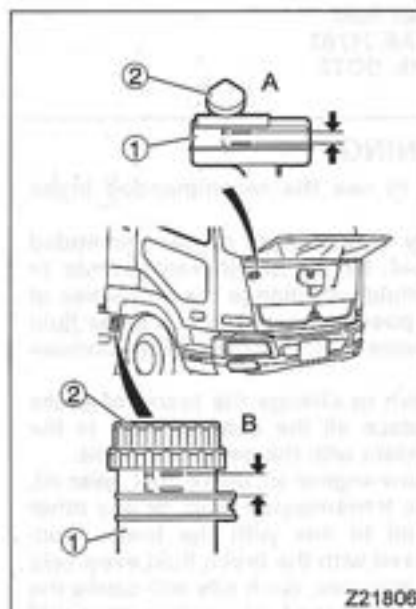
- After the brake fluid has been added, push the inside rubber of the cap back as illustrated before refitting the cap.

①: After adding
②: Before adding

- Be extremely careful not to let dust and other foreign matter enter the reservoir tank, as foreign matter in the tank could cause a failure of the clutch and brake system.
- Be careful not to exceed the "H" line when adding brake fluid.



Z00374



Z21806

A: Clutch fluid tank
B: Brake fluid tank

5.1 Check

The fluid level should be between the "H" and "L" lines on the reservoir tank ①.

Also check the inside of the reservoir tank for foreign matter. If there is sediment in the reservoir tank, have an authorized MITSUBISHI FUSO distributor or dealer check and clean it.

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Do not open cap ② of reservoir tank for inspection purposes.

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2. Close the cap firmly.

WARNING

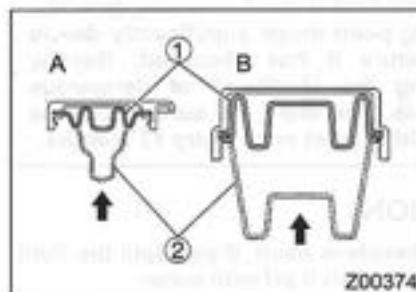
- The container used for adding brake fluid should be a clean one free of moisture, mineral oil, and dust.
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CAUTION

- After the brake fluid has been added, push the inside rubber of the cap back as illustrated before refitting the cap.

①: After adding
②: Before adding

- Be extremely careful not to let dust and other foreign matter enter the reservoir tank, as foreign matter in the tank could cause a failure of the clutch and brake system.
- Be careful not to exceed the "H" line when adding brake fluid.



Z00374

6 Power steering fluid

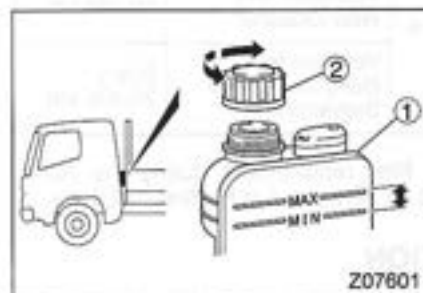
Inspection intervals	Every 5,000 km
Replacement intervals	Every 50,000 km

- The first power steering fluid replacement during the run-in period should be performed at the first 2,000 km.
Have an authorized MITSUBISHI FUSO distributor or dealer replace the fluid.
- When replacing the power steering fluid, the built-in filter element should also be replaced.

Recommended fluid:
Automatic transmission fluid
DEXRON II, DEXRON III type

⚠ CAUTION

When adding power steering fluid, be sure to use fluid of the same brand as the existing fluid. Mixing two or more different fluids will change their properties and could cause a failure.



6.1 Check and refilling

- Park the vehicle on a flat plane and stop the engine with the front wheels in the straight-ahead position.
- Observe the level of the power steering fluid in the reservoir tank ①. If the fluid level is between the "MAX" and "MIN" lines, it is acceptable. Also, check whether the power steering fluid is dirty. If it is dirty, have it replaced by an authorized MITSUBISHI FUSO distributor or dealer.
- If the fluid level is lower than the recommended range, clean the surfaces around fluid tank cap ②. Open the tank cap and add fluid as necessary.
- Install the cap on the fluid tank.

6 Power steering fluid

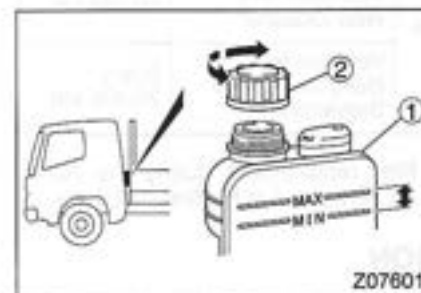
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- If the fluid level is lower than the recommended range, clean the surfaces around fluid tank cap ②. Open the tank cap and add fluid as necessary.
- Install the cap on the fluid tank.

⚠ CAUTION

- Use a clean container when adding the power steering fluid. Never use a container that has held gear oil. Foreign matter in the fluid could result in a failure.
- Avoid adding fluid to a level above the "MAX" line on the level gauge.
- Close the tank cap firmly; otherwise power steering fluid will leak and could catch fire. Also wipe clean spilled fluid.
- If the fluid level is far below the recommended range, fluid may be leaking. Have your vehicle inspected at an authorized MITSUBISHI FUSO distributor or dealer.

Filter elements**1 Oil filter**

Replacement intervals	Vehicles for Australia, and New Zealand	Every 60,000 km
	Vehicles for Hong Kong, and Singapore	Every 20,000 km

The first oil filter replacement during the run-in period should be performed at the first 2,000 km.

⚠ CAUTION

- Oil filter element must not be cleaned and reused.
- Replace the oil filter element once every two engine oil changes.
- If the multi-information display shows  after showing "OIL FILTER CLOGGED" in the enlarged display mode, immediately replace the oil filter element with a new one regardless of the replacement interval. If the red  warning lamp lights up, engine oil pressure is excessively low.
- Spilled engine oil should be wiped off clean. Oil remaining on the engine surface could catch fire.

⚠ CAUTION

- Use a clean container when adding the power steering fluid. Never use a container that has held gear oil. Foreign matter in the fluid could result in a failure.
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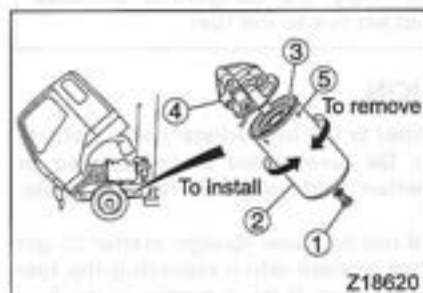
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Z18620

- Do not add too much oil (so much that it exceeds the standard range shown on the oil level gauge). Doing so would result in wasteful oil consumption and in engine damage.
- The oil filter is hot immediately after vehicle operation. Be careful not to get burned or scalded when replacing the oil filter element.

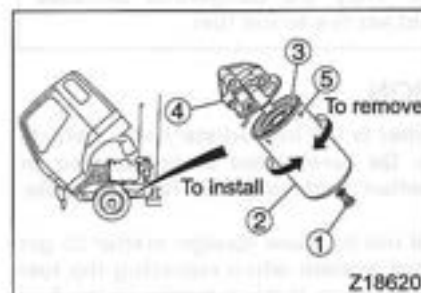
1. Place a suitably sized pan under the oil filter and loosen drain plug ① to drain out the oil from inside the filter.
2. Turn filter element assembly ② to remove it. If the assembly is hard to turn, use a filter wrench (available from an authorized MITSUBISHI FUSO distributor or dealer).
3. Replace the filter element assembly with a new one. The replacement part should be a MITSUBISHI genuine part.
4. Install the filter element assembly using this procedure:
Apply a thin coat of engine oil to the gasket ③ surface of the filter element assembly. Turn the assembly by hand until the gasket contacts the sealing surface of the filter head ④.
From this point, give the filter element assembly additional 1-1/8 to 1-3/8 turns.
There are eight equally spaced marks ⑤ around the filter element assembly. Use them as a guide when tightening the filter element.
5. Tighten the drain plug.

Drain plug tightening torque	7.8 ± 2.0 Nm (0.8 ± 0.2 kgfm)
------------------------------	----------------------------------

6. Add approx. 2.3 liters of engine oil through the oil filler.
7. Crank the engine and then start it. ⇨ P. 5-10
8. Start the engine and check for oil leaks.
9. Stop the engine and, after letting it cool down for 30 minutes or more, check the oil level.

2 Fuel filter

Replacement intervals	Vehicles for Australia, and New Zealand	Every 50,000 km
	Vehicles for Hong Kong, and Singapore	Every 30,000 km



Z18620

- Do not add too much oil (so much that it exceeds the standard range shown on the oil level gauge). Doing so would result in wasteful oil consumption and in engine damage.
- The oil filter is hot immediately after vehicle operation. Be careful not to get burned or scalded when replacing the oil filter element.

1. Place a suitably sized pan under the oil filter and loosen drain plug ① to drain out the oil from inside the filter.
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	Vehicles for Hong Kong, and Singapore	Every 30,000 km

⚠ WARNING

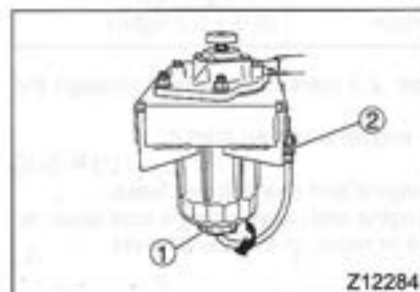
- Wipe off any spilled fuel. Also be sure to check for fuel leaks which could cause a fire.
- Keep cigarettes and other sources of heat away from the vehicle while replacing the fuel filter. They are dangerous because they could set fire to the fuel.

⚠ CAUTION

- The fuel filter is hot immediately after vehicle operation. Be careful not to get burned or scalded when replacing the fuel filter element.
- Be careful not to allow foreign matter to get into the fuel system when replacing the fuel filter element. Any foreign matter in the fuel system could make the fuel injection system malfunction.
- Use a new MITSUBISHI genuine fuel filter element. Also, do not use any fuel filter element beyond its specified replacement interval. Failure to observe these cautions could make the fuel injection system malfunction.
- Fuel filter element must not be cleaned and reused.

The fuel filter is located in the area behind the front left wheel mudguard.

1. Clean the fuel filter and the surrounding area to prevent dirt from entering the fuel system.
2. Place a can under the fuel filter to catch fuel.
3. Disconnect the connector ② of the sensor ①.
4. Loosen the sensor in the arrow direction shown in the drawing and drain the fuel from the case. After draining, retighten the sensor.

**⚠ WARNING**

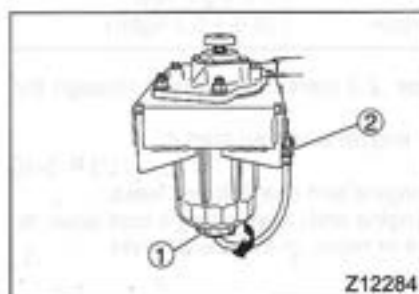
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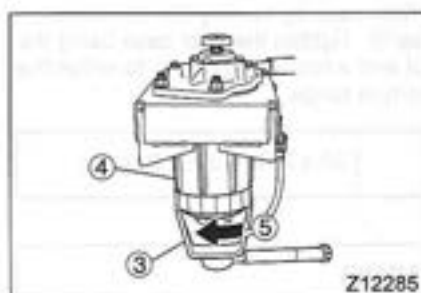
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5. Put the connector and its harness in the special tool ③ (separately sold).

CAUTION

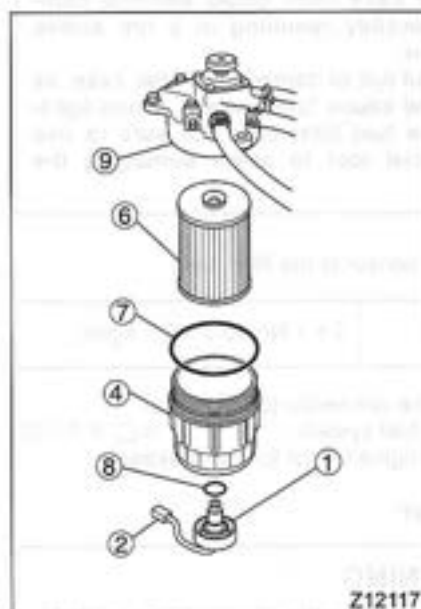
When replacing the fuel filter, be sure to use the special tool to avoid damaging the filter. If you do not have the special tool, please contact an authorized MITSUBISHI FUSO distributor or dealer.

6. Remove the filter case ④ using the special tool, by turning it in the direction of the arrow ⑤.

7. Remove the element ⑥ and the sensor from the filter case.
8. Replace the O-ring ⑦ and O-ring ⑧ with new ones. Apply a thin coat of engine oil to each of the new O-rings and install the O-ring ⑦ on the filter case and the O-ring ⑧ on the sensor.

CAUTION

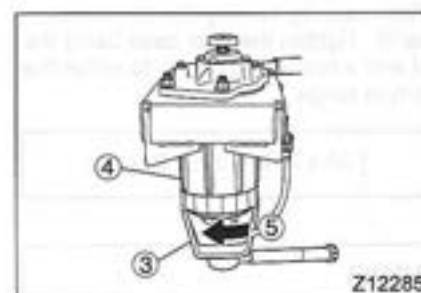
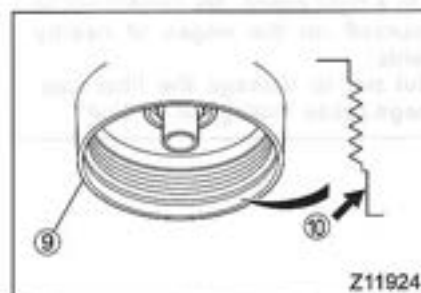
Use the O-rings that are supplied with the new replacement element.



9. Clean the surfaces ⑩ of the filter head ⑨ and filter case ④ that will come in contact with the O-ring ⑦.
10. Install the element with the hole of its end facing upward. Be sure to use a genuine replacement element.

CAUTION

- When installing the filter case, be careful not to let the O-ring twist and be damaged.
- Do not reuse the element.



5. Put the connector and its harness in the special tool ③ (separately sold).

CAUTION

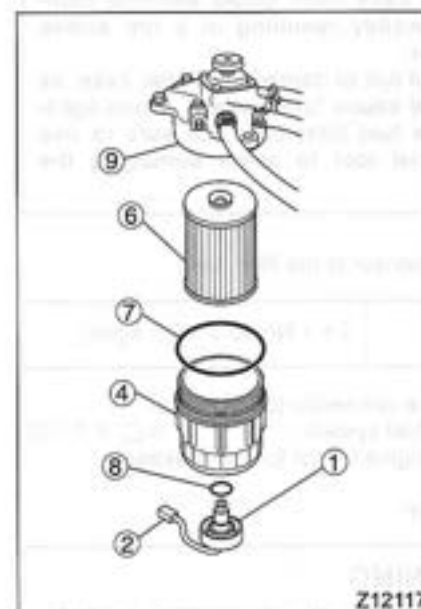
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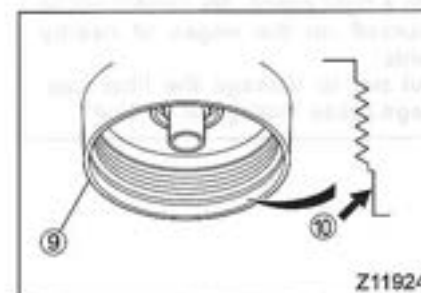
Use the O-rings that are supplied with the new replacement element.

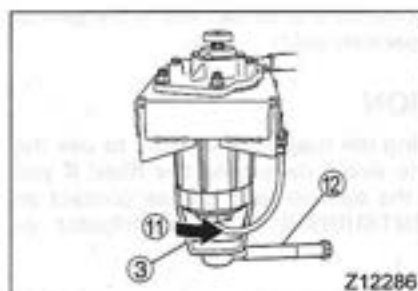


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10. Install the element with the hole of its end facing upward. Be sure to use a genuine replacement element.

CAUTION

- When installing the filter case, be careful not to let the O-ring twist and be damaged.
- Do not reuse the element.





11. Install the filter case by turning it in the direction of the arrow ⑪. Tighten the filter case using the special tool and a torque wrench ⑫ to within the following torque range.

Tightening torque	$30 \pm 2 \text{ Nm}$ ($3 \pm 0.2 \text{ kgfm}$)
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⚠ WARNING

- If the fuel filter case is tightened to an inappropriate torque, fuel could leak and the filter case itself could become damaged, possibly resulting in a fire and/or explosion.
- Be careful not to damage the filter case, as this could cause fuel leakage. When tightening the fuel filter case, be sure to use the special tool to avoid damaging the case.

12. Install the sensor to the filter case.

Tightening torque	$5 \pm 1 \text{ Nm}$ ($0.5 \pm 0.1 \text{ kgfm}$)
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13. Connect the connector to the sensor.

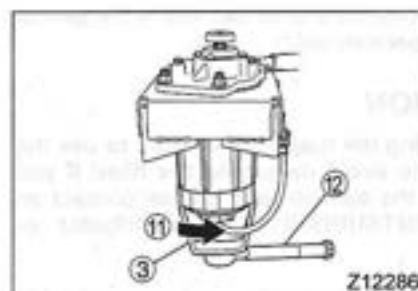
14. Bleed the fuel system. ⇨ P. 13-27

15. Start the engine to test for fuel leakage.

3 Urea filter

⚠ WARNING

- When replacing the element, you will be working in a tight space. Be careful not to injure yourself on the edges of nearby components.
- Be careful not to damage the filter cap. Any damage cause leakage of AdBlue®.



11. Install the filter case by turning it in the direction of the arrow ⑪. Tighten the filter case using the special tool and a torque wrench ⑫ to within the following torque range.

Tightening torque	$30 \pm 2 \text{ Nm}$ ($3 \pm 0.2 \text{ kgfm}$)
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⚠ WARNING

- If the fuel filter case is tightened to an inappropriate torque, fuel could leak and the filter case itself could become damaged, possibly resulting in a fire and/or explosion.
- Be careful not to damage the filter case, as this could cause fuel leakage. When tightening the fuel filter case, be sure to use the special tool to avoid damaging the case.

12. Install the sensor to the filter case.

Tightening torque	$5 \pm 1 \text{ Nm}$ ($0.5 \pm 0.1 \text{ kgfm}$)
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13. Connect the connector to the sensor.

14. Bleed the fuel system. ⇨ P. 13-27

15. Start the engine to test for fuel leakage.

3 Urea filter

⚠ WARNING

- When replacing the element, you will be working in a tight space. Be careful not to injure yourself on the edges of nearby components.
- Be careful not to damage the filter cap. Any damage cause leakage of AdBlue®.

⚠ CAUTION

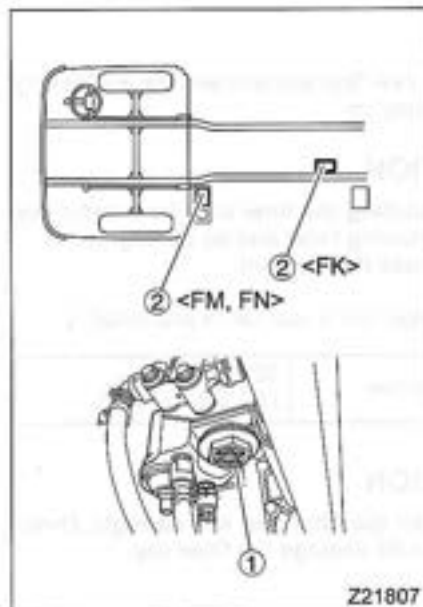
- Replace the element with a new one. Also, do not continue to use an element beyond the specified replacement interval. Failure to observe these precautions may cause the urea dosing system to break down.
- Be careful not allow foreign matter to get into the urea dosing system when replacing the element. Any foreign matter in the urea dosing system could make the system malfunction.

3.1 Replacement intervals

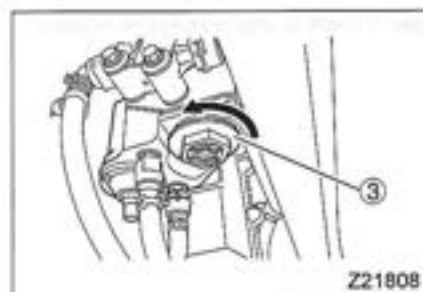
Replacement intervals	Every 200,000 km or every 2 years
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3.2 Replacement

The urea filter ① is at the bottom of the urea supply unit ②.



Z21807



Z21808

• Replacement preparations

1. Make sure the parking brake is securely applied.
2. Apply chocks to the wheels.
3. Tilt the cab. ⇨ P. 12-7

• Replacing the filter

1. Lay a rag beneath the urea filter ① to catch the urea.
2. Turn the filter cap ③ counterclockwise and remove it.

⚠ CAUTION

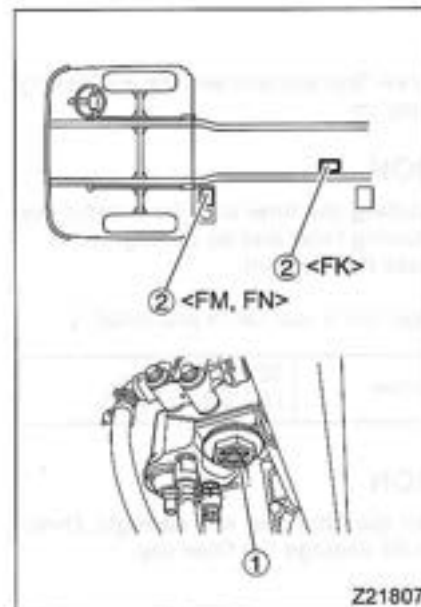
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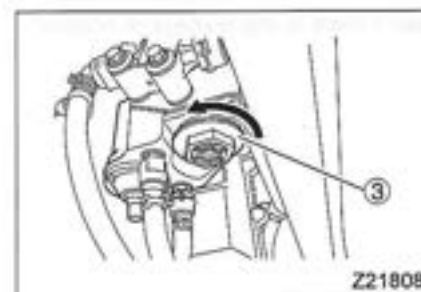
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Z21807



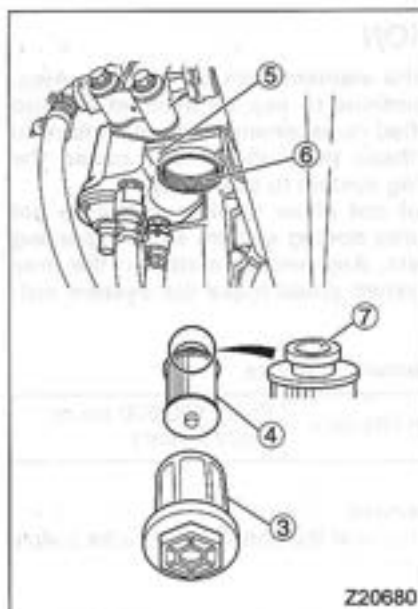
Z21808

• Replacement preparations

1. Make sure the parking brake is securely applied.
2. Apply chocks to the wheels.
3. Tilt the cab. ⇨ P. 12-7

• Replacing the filter

1. Lay a rag beneath the urea filter ① to catch the urea.
2. Turn the filter cap ③ counterclockwise and remove it.



3. Remove the filter element (4).
4. Remove any dirt from the housing (6) on the urea supply unit (5) by cleaning with clean water such as tap water.
5. Replace the filter element (4) and filter cap (3) with new ones.

⚠ CAUTION

- Use the O-ring supplied with the new element.
- Do not coat the O-ring with engine oil or grease.

6. Install the new filter element with the end having hole (7) facing up.

⚠ CAUTION

- When installing the filter cap, be careful not to let the O-ring twist and be damaged.
- Do not reuse the element.

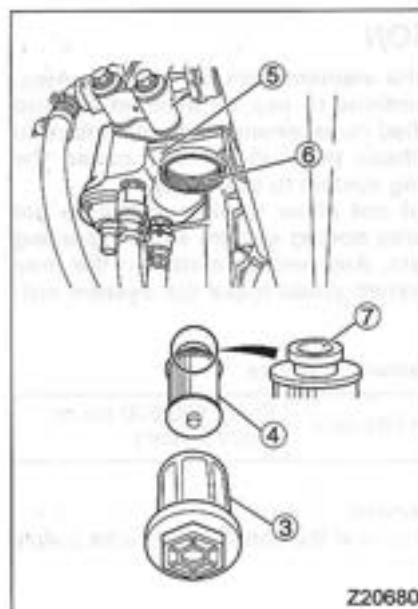
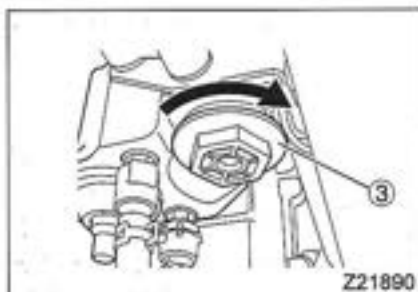
7. Turn the filter cap (4) clockwise and install it.

Tightening torque	$32 \pm 2.5 \text{ Nm}$ ($3.3 \pm 0.25 \text{ kgfm}$)
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⚠ CAUTION

Do not tighten the filter cap too strongly. Over-tightening could damage the filter cap.

8. Check to see if there is any leakage of AdBlue®.



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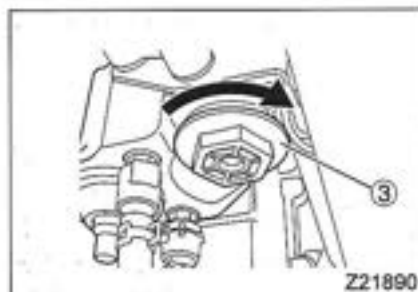
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4 Air cleaner

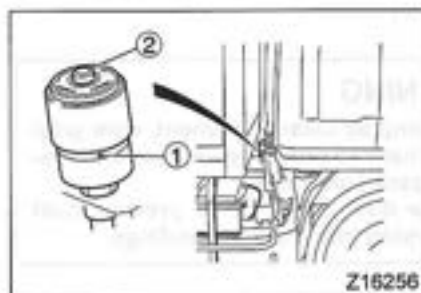
Inspection intervals	Every 10,000 km or, on some models, when the multi-information display shows  after showing "AIR FILTER CLOGGED" in the enlarged display mode
Replacement intervals	Every 80,000 km or 12 months

CAUTION

Follow the specified periods for both air cleaner inspection and element replacement.

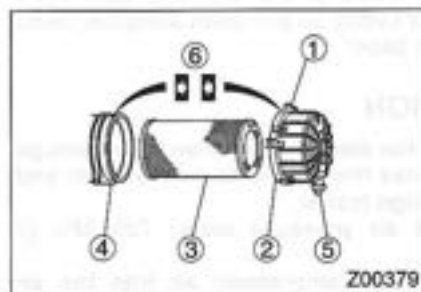
NOTE:

Even before the end of the specified interval, clean or replace the element if clogging of the element causes a decrease in engine output.



Z16256

The air cleaner element does not need to be cleaned before the end of each replacement interval. However, clean it whenever the following regular check shows that cleaning is necessary. Vehicles with dust indicator check the dust indicator once a week. If a red signal appears in the indicator's window ①, the air cleaner element must be cleaned immediately regardless of the scheduled cleaning interval. After cleaning, press the reset button ② to clear the red signal.



Z00379

4.1 Element removal and installation

1. Tilt the cab. ⇨ P. 12-7
2. Undo the clamps ① and take off the cover ②.
3. Remove the element ③ by pulling it out straight.
4. Reinstall the element by reversing the order of removal. Then, fit the cover, taking care to align the mating marks ⑤ on the cover and case ④. Finally, lock the cover in position with the clamps.

CAUTION

Install the element correctly. If the packing is broken or the clamps are loose, the engine will suck in dust or other foreign matter and premature piston and cylinder liner wear could result.

4 Air cleaner

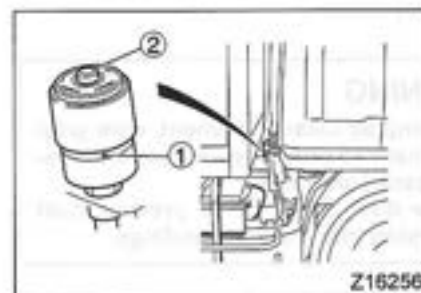
Inspection intervals	Every 10,000 km or, on some models, when the multi-information display shows  after showing "AIR FILTER CLOGGED" in the enlarged display mode
Replacement intervals	Every 80,000 km or 12 months

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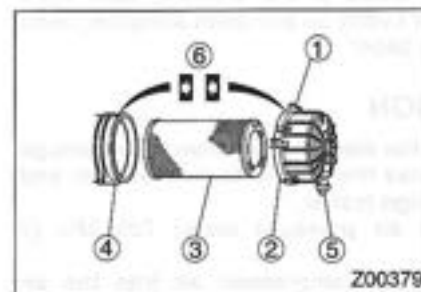
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CAUTION

Install the element correctly. If the packing is broken or the clamps are loose, the engine will suck in dust or other foreign matter and premature piston and cylinder liner wear could result.

4.2 Check

1. Remove the cover ② and check the case ④ for dust accumulated inside.
2. If much dust has accumulated inside the case, remove the element ③ and wipe clean the inside of the case with a cloth.
3. If there is very little dust, reinstall the cover without doing anything.

NOTE:

When dust has accumulated inside the case, simply remove the dust with a cloth; you do not need to clean the element.

4.3 Cleaning element

If an air cleaner element has become clogged before the end of its replacement interval, you will be informed as follows and you must clean the element immediately.

Vehicles with a dust indicator: A red signal appears in the dust indicator's window.

On some vehicles: Multi-information display shows ④ after showing "AIR FILTER CLOGGED" in the enlarged display mode.

⚠ WARNING

When cleaning air cleaner element, wear goggles and a mask to protect your eyes and respiratory organs from dust. And, use a dust collector to prevent dust from dispersing into the surroundings.

1. From the inside of the element, blow compressed air evenly up and down along the pleats of the filter paper.

⚠ CAUTION

- Cleaning the element too often may damage it and cause the engine to take in dust and other foreign matter.
- Keep the air pressure under 700 kPa (7 kgf/cm²).
- Do not blow compressed air into the air cleaner case. This may cause premature wear of pistons and cylinder liners due to dust and other foreign matter carried inside the engine by compressed air.
- Do not strike the element or hit it against another object.

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- Do not strike the element or hit it against another object.



- Do not blow compressed air through the element from the outside.
- If the element is contaminated with oily soot or dust, replace it regardless of the scheduled replacement time.



Z02615

2. Place a light in the element and check the filter paper for damage or places where it has worn thin. Also check the packing for damage.



Z17561

3. Clean the inside of cover ② and case ④ with a rag.
4. Check that vacuator valve ③ is not plugged with dust. Clean it if necessary.

4.4 Replacement

Replace the element every 80,000 km or 12 months, whichever comes first. Use only the genuine Mitsubishi element as a replacement air cleaner element.

⚠ CAUTION

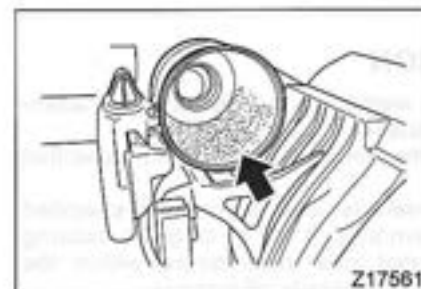
Do not use a wet type cleaner element or a safety element because this will adversely affect the performance of the exhaust gas cleaning system.

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Z02615

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Z17561

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Do not use a wet type cleaner element or a safety element because this will adversely affect the performance of the exhaust gas cleaning system.

5 Replacement of PCV (Positive Crank-case Ventilation) valve element

Replacement intervals	Every 30,000 km or 12 months
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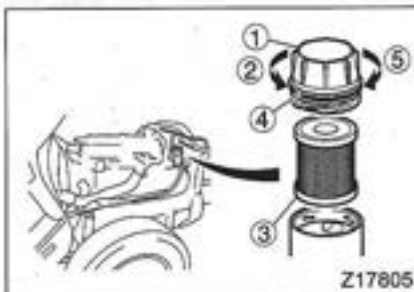
⚠ WARNING

- Do not try to replace the PCV valve element immediately after the engine has stopped as it is extremely hot and can cause burns. Allow the engine to cool down sufficiently before beginning replacement.
- When replacing the element, you will be working in a tight space. Be careful not to injure yourself on the edges of nearby components.

⚠ CAUTION

- The valve element is not designed for washing and reuse.
- Replace the valve element at the specified interval.
If the element is used beyond the specified replacement time, it will be clogged, causing an abnormal rise in pressure within the engine and eventually oil leakage.
- Remove the PCV valve cap by hand. The cap may be easily damaged if removed with a tool.

- Tilt the cab. ⇒ P. 12-7
- Wipe sand, dust and other impurities from the cap ① to prevent them from entering the system when the cap is removed.
- Turn the cap in the direction of the arrow ② as illustrated and remove it.
- Pull the valve element ③ straight up and remove it.
- Replace the O-ring ④ on the cap with a new one. Lightly coat the new O-ring with engine oil before installing it onto the cap.



Z17805

5 Replacement of PCV (Positive Crank-case Ventilation) valve element

Replacement intervals	Every 30,000 km or 12 months
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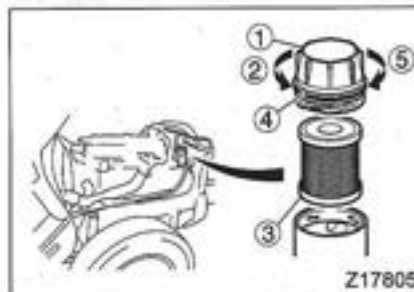
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- Tilt the cab. ⇒ P. 12-7
- Wipe sand, dust and other impurities from the cap ① to prevent them from entering the system when the cap is removed.
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- Pull the valve element ③ straight up and remove it.
- Replace the O-ring ④ on the cap with a new one. Lightly coat the new O-ring with engine oil before installing it onto the cap.



Z17805

⚠ CAUTION

Be sure to use the O-ring supplied with the new valve element.

6. Install the new valve element. Always use a genuine part.
7. Install the cap, turning it by hand in the direction of the arrow ⑤. Continue to turn the cap until it slightly lifts up and comes to a stop.

⚠ CAUTION

Install the cap carefully so that the O-ring will not be twisted and damaged.

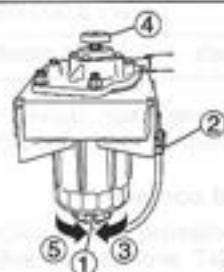
WATER IN
FUEL FILTER



Z21809

Draining water from fuel filter

If the multi-information display shows ⑥ after showing "WATER IN FUEL FILTER" in the enlarged display mode, there is water in the fuel filter in an amount exceeding the limit. Drain the water as follows:



Z12287

⚠ WARNING

- Fuel is highly flammable and should be kept away from hot objects and open flames owing to the risk of fire or explosion. Wipe up any spilt fuel.
- Keep cigarettes and other sources of heat away from the vehicle while draining water from the fuel filter. They are dangerous because they could set fire to the fuel.
- Be careful not to injure yourself on the edges of nearby components while draining water from the fuel filter.

The fuel filter is located in the area behind the front left wheel mudguard.

1. Prepare a receiver for water.
2. Disconnect the connector ② from the sensor ①, and turn the sensor in the direction of the arrow ③ to loosen it; the water will flow from the pipe at the end of the sensor. Operating priming pump ④ helps quicken the draining.

⚠ CAUTION

Be sure to use the O-ring supplied with the new valve element.

6. Install the new valve element. Always use a genuine part.
7. Install the cap, turning it by hand in the direction of the arrow ⑤. Continue to turn the cap until it slightly lifts up and comes to a stop.

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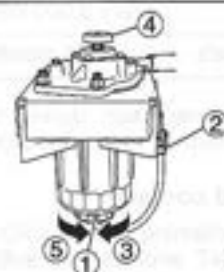
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- When fuel begins to flow out, tighten the sensor in the direction of the arrow ⑤.
After tightening the sensor, connect the connector.

Tightening torque	5 ± 1 Nm (0.5 ± 0.1 kgfm)
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- Bleed the fuel system. ⇨ P. 13-27
- Start the engine and check that fuel does not leak.

WARNING

- The drain contains not only water but also fuel.
Be sure to wipe clean the surfaces around the fuel filter to remove all splashed fuel. Fuel remaining on the surfaces could cause a fire.
- Make sure fuel does not leak from the filter or from related parts. Any fuel leakage could cause a fire.

Engine coolant – check and replacement

Inspection intervals	At the time of pre-operational check and every 5,000 km
Replacement intervals	Every 24 months

The engine coolant inspection during the run-in period should be performed at the first 2,000 km.

1 Recommended coolant

Use a coolant containing the FUSO DIESEL LONGLIFE COOLANT additive and soft water or demineralized water in the specified proportions. Having both corrosion preventive and anti-freezing properties, the additive protects the cooling system all year around.

Replace and top off the coolant only with water containing FUSO DIESEL LONGLIFE COOLANT or an equivalent.

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Replace and top off the coolant only with water containing FUSO DIESEL LONGLIFE COOLANT or an equivalent.

2 Water used with coolant

Use soft water with the properties shown in the following table or demineralized water. In Australia and New Zealand, demineralized water must be used. Do not use hard water from wells and rivers as it is liable to form scales and cause corrosion.

Total hardness	300 ppm or less
Sulfate SO_4^{2-}	100 ppm or less
Chloride Cl^-	100 ppm or less
Total dissolved solids	500 ppm or less
pH	6 to 8

Coolant quantity	Approx. 23 liters
------------------	-------------------

3 Using FUSO DIESEL LONGLIFE COOLANT

The FUSO DIESEL LONGLIFE COOLANT is an ethylene glycol base antifreeze (SAE J814-C) with both antifreeze and anticorrosive properties.

The FUSO DIESEL LONGLIFE COOLANT or equivalent is used as a coolant additive by mixing it with soft water or demineralized water at the specified concentration.

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⚠ DANGER

- FUSO DIESEL LONGLIFE COOLANT IS TOXIC. IF A PERSON HAS ACCIDENTALLY SWALLOWED IT, FORCE HIM/HER TO VOMIT AND CONSULT A DOCTOR IMMEDIATELY. IF IT SPLASHES IN THE EYES, IMMEDIATELY FLUSH THE EYES WITH WATER FOR MORE THAN 15 MINUTES, AND SEEK MEDICAL ATTENTION.
- SHOULD FUSO DIESEL LONGLIFE COOLANT COME IN CONTACT WITH YOUR SKIN, IMMEDIATELY WIPE IT OFF, AND THEN THOROUGHLY WASH YOUR SKIN WITH LOTS OF CLEAN WATER AND SOAP. IF YOU FEEL UNWELL OR PAIN ON YOUR SKIN, IMMEDIATELY SEEK MEDICAL ATTENTION.
IN THE EVENT OF CONTACT WITH YOUR CLOTHES, IMMEDIATELY FLUSH FUSO DIESEL LONGLIFE COOLANT WITH WATER AND SOAP.
- DO NOT USE FUSO DIESEL LONGLIFE COOLANT IN A CLOSED OR POORLY VENTILATED SPACE. SHOULD YOU INHALE A LARGE AMOUNT OF GAS OF FUSO DIESEL LONGLIFE COOLANT, MOVE TO A PLACE WITH FRESH AIR AND KEEP YOURSELF WARM AND AT REST. IF YOU FEEL NAUSEOUS OR OTHERWISE ABNORMAL, IMMEDIATELY SEEK MEDICAL ATTENTION.
- CLOSE THE CAP OF THE FUSO DIESEL LONGLIFE COOLANT CONTAINER IMMEDIATELY AFTER USING THE PRODUCT.
- DO NOT STORE FUSO DIESEL LONGLIFE COOLANT WHERE CHILDREN COULD REACH AND ACCIDENTALLY DRINK IT.
- FUSO DIESEL LONGLIFE COOLANT IS FLAMMABLE; AVOID EXPOSING IT TO OPEN FLAME.
- WHEN HANDLING FUSO DIESEL LONGLIFE COOLANT, WEAR AN ORGANIC GAS MASK, PROTECTION GOGGLES, OIL-RESISTANT GLOVES, AND/OR PROTECTIVE APRON AS NECESSARY.

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- FUSO DIESEL LONGLIFE COOLANT IS TOXIC. IF A PERSON HAS ACCIDENTALLY SWALLOWED IT, FORCE HIM/HER TO VOMIT AND CONSULT A DOCTOR IMMEDIATELY. IF IT SPLASHES IN THE EYES, IMMEDIATELY FLUSH THE EYES WITH WATER FOR MORE THAN 15 MINUTES, AND SEEK MEDICAL ATTENTION.
- SHOULD FUSO DIESEL LONGLIFE COOLANT COME IN CONTACT WITH YOUR SKIN, IMMEDIATELY WIPE IT OFF, AND THEN THOROUGHLY WASH YOUR SKIN WITH LOTS OF CLEAN WATER AND SOAP. IF YOU FEEL UNWELL OR PAIN ON YOUR SKIN, IMMEDIATELY SEEK MEDICAL ATTENTION.
IN THE EVENT OF CONTACT WITH YOUR CLOTHES, IMMEDIATELY FLUSH FUSO DIESEL LONGLIFE COOLANT WITH WATER AND SOAP.
- DO NOT USE FUSO DIESEL LONGLIFE COOLANT IN A CLOSED OR POORLY VENTILATED SPACE. SHOULD YOU INHALE A LARGE AMOUNT OF GAS OF FUSO DIESEL LONGLIFE COOLANT, MOVE TO A PLACE WITH FRESH AIR AND KEEP YOURSELF WARM AND AT REST. IF YOU FEEL NAUSEOUS OR OTHERWISE ABNORMAL, IMMEDIATELY SEEK MEDICAL ATTENTION.
- CLOSE THE CAP OF THE FUSO DIESEL LONGLIFE COOLANT CONTAINER IMMEDIATELY AFTER USING THE PRODUCT.
- DO NOT STORE FUSO DIESEL LONGLIFE COOLANT WHERE CHILDREN COULD REACH AND ACCIDENTALLY DRINK IT.
- FUSO DIESEL LONGLIFE COOLANT IS FLAMMABLE; AVOID EXPOSING IT TO OPEN FLAME.
- WHEN HANDLING FUSO DIESEL LONGLIFE COOLANT, WEAR AN ORGANIC GAS MASK, PROTECTION GOGGLES, OIL-RESISTANT GLOVES, AND/OR PROTECTIVE APRON AS NECESSARY.

⚠ CAUTION

Do not use methanol-based or methoxypropanol-based antifreeze products. They can severely damage the engine. Also, do not mix FUSO DIESEL LONGLIFE COOLANT with antifreeze agent, antirust agent, and/or a different brand of Long life coolant. Doing so would reduce the coolant's performance. If a different long-life coolant has been used and the FUSO DIESEL LONGLIFE COOLANT is to be used, be sure to thoroughly flush the cooling system.

Use the following table to determine the correct concentration of FUSO DIESEL LONGLIFE COOLANT according to the lowest temperature at which your vehicle is to be operated.

FUSO DIESEL LONGLIFE COOLANT concentration (in volume percentage)

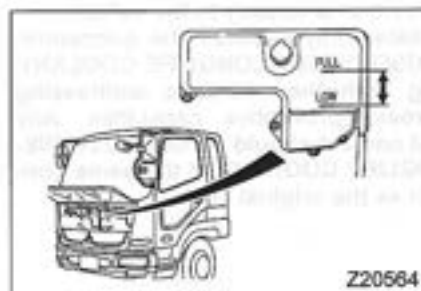
Lowest temperature	-10 °C or higher	-15 °C	-20 °C	-25 °C	-30 °C	-35 °C	-40 °C
Concentration	30%	35 %	40 %	45 %	50 %	55 %	60 %

⚠ CAUTION

Use FUSO DIESEL LONGLIFE COOLANT at a concentration of between 30% and 60%. The proper concentration under normal temperatures is 30%. At a concentration below 30%, this additive performs poorly as an anticorrosive, while at a concentration exceeding 60%, it performs poorly as an antifreeze.

4 Check

1. Open the front panel.
2. The coolant level in the reservoir tank should be between the "FULL" and "LOW" lines.
3. Check for coolant leaks from the radiator and radiator hoses.
If you find water on the ground from which your vehicle has been moved after parking, coolant is probably leaking.
4. Close the front panel. Make sure that the panel is completely locked.



⚠ CAUTION

Do not use methanol-based or methoxypropanol-based antifreeze products. They can severely damage the engine. Also, do not mix FUSO DIESEL LONGLIFE COOLANT with antifreeze agent, antirust agent, and/or a different brand of Long life coolant. Doing so would reduce the coolant's performance. If a different long-life coolant has been used and the FUSO DIESEL LONGLIFE COOLANT is to be used, be sure to thoroughly flush the cooling system.

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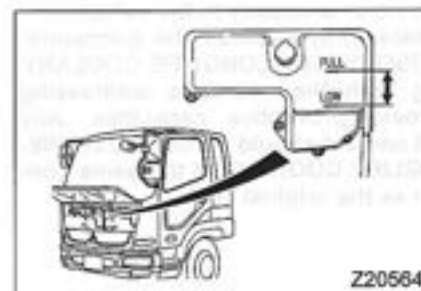
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Concentration	30%	35 %	40 %	45 %	50 %	55 %	60 %

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1. Open the front panel.
2. The coolant level in the reservoir tank should be between the "FULL" and "LOW" lines.
3. Check for coolant leaks from the radiator and radiator hoses.
If you find water on the ground from which your vehicle has been moved after parking, coolant is probably leaking.
4. Close the front panel. Make sure that the panel is completely locked.



⚠ CAUTION

- An abnormally low level or too early reduction of coolant may indicate a cooling system leakage. If you notice such a condition, have the vehicle inspected by an authorized MITSUBISHI FUSO distributor or dealer.
- Always check the coolant level before starting the engine when the coolant temperature is low. If the coolant temperature is high, the coolant level will be higher than the actual coolant level because of the coolant expanded by the high temperature.

NOTE:

Coolant containing FUSO DIESEL LONGLIFE COOLANT may produce some deposits in the reservoir tank, but this does not cause any functional problems.

5 Adding coolant

Coolant should normally be added into the reservoir tank. If the multi-information display shows  after showing "WATER LEVEL TOO LOW" in the enlarged display mode, the engine is short of coolant or overheated. If the warning lamp indicates insufficient coolant, you must add coolant into the radiator as well.

NOTE:

A buzzer sounds when the multi-information display shows the above warning. The buzzer stops sounding when you stop the vehicle and apply the parking brake.

⚠ CAUTION

- When adding coolant, use new coolant additive of the same brand and concentration as the additive that is already in the vehicle.
- Adding water only reduces the concentration of FUSO DIESEL LONGLIFE COOLANT, degrading both the additive's antifreezing and corrosion-preventive capacities. Any additional coolant should contain FUSO DIESEL LONGLIFE COOLANT at the same concentration as the original coolant.

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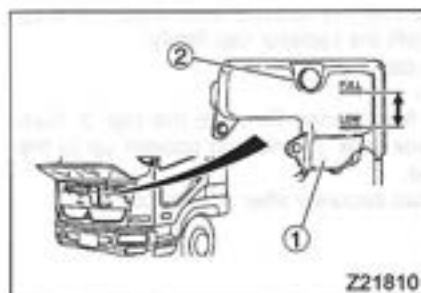
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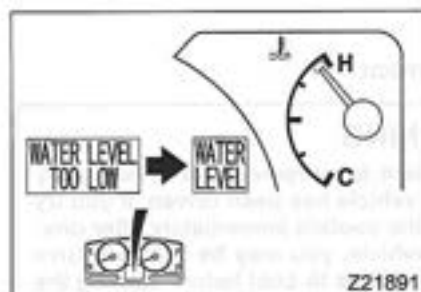
Z21810

5.1 Ordinary refilling (to reservoir tank)

CAUTION

Add coolant only through the reservoir tank. Do not open the radiator cap at the top of the radiator to add coolant.

1. If the coolant level in the reservoir tank ① is lower than the "LOW" line as a result of the above check, remove cap ② from reservoir tank and add coolant up to the "FULL" line.
2. Refit cap securely after adding coolant.



Z21891

5.2 Refilling when the multi-information display shows after showing "WATER LEVEL TOO LOW" in the enlarged display mode (Adding coolant into radiator)

1. Check the water temperature gauge. If the needle points in the red zone, the engine has overheated. Let the engine run slightly faster than the normal idling speed to cool down the engine. ⇨ P. 13-8

NOTE:

A buzzer sounds when the multi-information display shows the above warning. The buzzer stops sounding when you stop the vehicle and apply the parking brake.

Stop the engine when the needle moves to near the center of the scale.

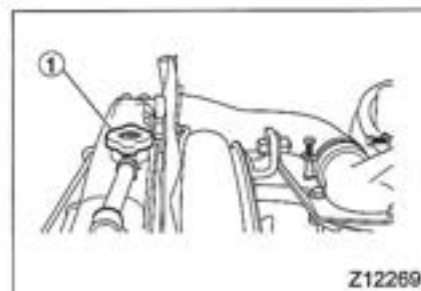
If the needle is elsewhere other than in the red zone, it indicates insufficient coolant.

Stop the engine and proceed to the next step.

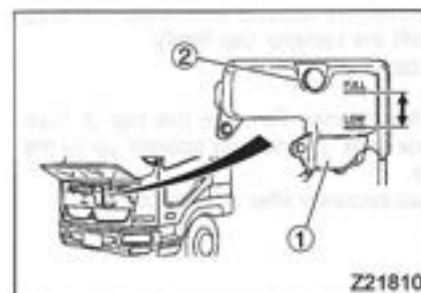
2. Tilt up the cab. ⇨ P. 12-7
3. Check whether coolant is leaking from the radiator, radiator hose, and any other parts. Also check the fan belt for breakage and slackness. ⇨ P. 12-66
4. Open the radiator cap ① and add coolant into the radiator until coolant reaches the base of the filler port.

WARNING

Never remove the radiator cap while the coolant is still hot. If you remove the cap carelessly, boiling coolant and hot steam will gush out and could scald you. Only after the coolant has cooled down sufficiently, remove the radiator cap by gripping it in a folded piece of thick cloth and opening it slowly.



Z12269



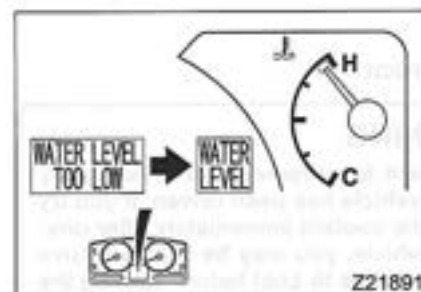
Z21810

5.1 Ordinary refilling (to reservoir tank)

CAUTION

Add coolant only through the reservoir tank. Do not open the radiator cap at the top of the radiator to add coolant.

1. If the coolant level in the reservoir tank ① is lower than the "LOW" line as a result of the above check, remove cap ② from reservoir tank and add coolant up to the "FULL" line.
2. Refit cap securely after adding coolant.



Z21891

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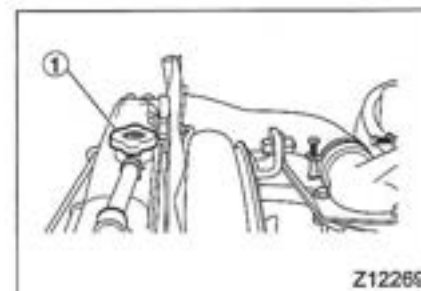
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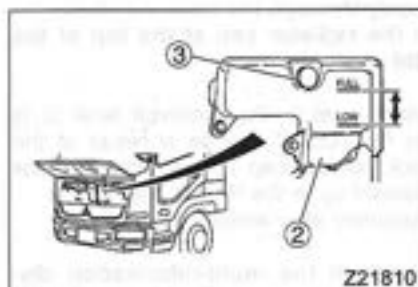
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Z12269

5. Make sure that the coolant level does not drop and then refit the radiator cap firmly.
6. Lower the cab.
7. Open the front panel. Remove the cap ③ from the reservoir tank ② and add coolant up to the "FULL" line.
8. Refit the cap securely after adding coolant.

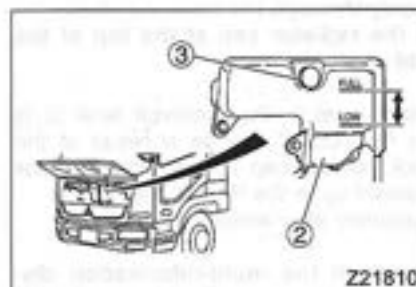


6 Replacement

⚠ WARNING

- The coolant is extremely hot immediately after the vehicle has been driven. If you try to drain the coolant immediately after driving the vehicle, you may be scalded. Give the coolant time to cool before starting the job.
- The coolant you are replacing may be extremely hot. Be very careful not to burn yourself.
- Never remove the radiator cap while the coolant is still hot. If you remove the cap carelessly, boiling coolant and hot steam will gush out and could scald you. Only after the coolant has cooled down sufficiently, remove the radiator cap by gripping it in a folded piece of thick cloth and opening it slowly.

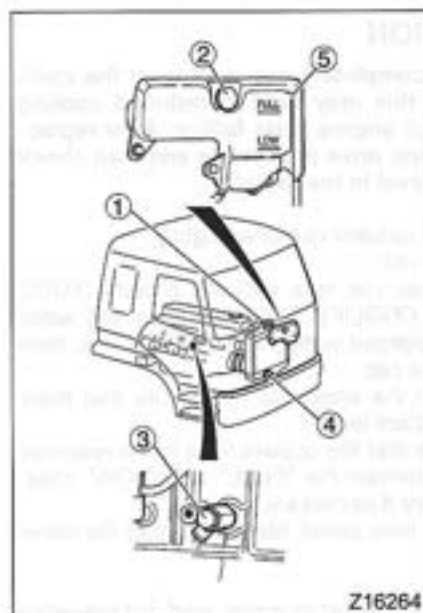
5. Make sure that the coolant level does not drop and then refit the radiator cap firmly.
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1. Open the front panel and remove reservoir tank cap ②.
2. Tilt the cab and remove radiator cap ①.
3. Open engine drain cock ③ and radiator drain cock ④ to drain the coolant. Also drain the coolant in reservoir tank ⑤.
4. After the coolant has been completely drained, close both engine and radiator drain cocks.

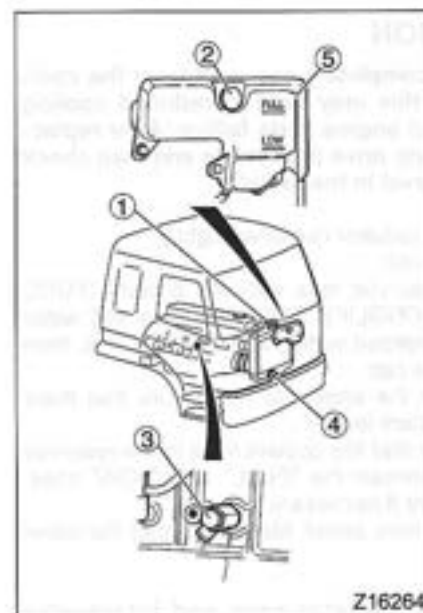
Tightening torque	
Engine drain plug	7 Nm (0.7 kgfm)
Radiator drain cock	2 Nm (0.2 kgfm)

5. Flush the cooling system.
Pour soft water or demineralized water (preferably warm) through the radiator cap opening, and start the engine. Increase the engine speed and allow the coolant to warm up until the water temperature gauge needle is in about the middle of the scale. Run the engine in this condition for about 10 minutes, then stop the engine and drain out the water. Remember that the water is very hot.
Repeat the above procedure until the water is free of dirt.

⚠ CAUTION

If coolant is more contaminated than usual, have your vehicle inspected at your nearest authorized MITSUBISHI FUSO distributor or dealer.

6. Pour coolant (FUSO DIESEL LONG LIFE COOLANT plus soft water or demineralized water) into the radiator up to a level slightly lower than the tank opening. If coolant is poured to the top of the opening, it will overflow as it becomes warm and expands during engine operation.
7. With radiator cap left removed, run the engine for a while in order to remove air from the cooling system.
8. Stop the engine, and add more coolant if necessary.



1. Open the front panel and remove reservoir tank cap ②.
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⚠ CAUTION

If air is not completely removed from the cooling system, this may lead to reduced cooling efficiency and engine parts failure. After replacing the coolant, drive the vehicle and then check the coolant level in the radiator.

9. Screw the radiator cap down tightly.
10. Lower the cab.
11. Fill the reservoir tank with the coolant (FUSO DIESEL LONGLIFE COOLANT plus soft water or demineralized water) to the "FULL" line, then replace the cap.
12. Briefly run the engine to make sure that there are no coolant leaks.
13. Make sure that the coolant level in the reservoir tank is between the "FULL" and "LOW" lines. Add coolant if necessary.
14. Close the front panel. Make sure that the panel is locked.

7 Clean the radiator core and intercooler core.

The radiator core and intercooler core must be cleaned regularly. If they become clogged with mud or dust, their cooling efficiency will deteriorate and they may start to rust.

V-belts – check and adjustment

An excessively slack or tight belt could cause an improperly charged battery or malfunction of the alternator. Always keep belts adjusted to the proper tension.

Inspection intervals	At the time of pre-operational check and every 5,000 km
----------------------	---

The V-belt inspection during the run-in period should be performed at the first 2,000 km.

⚠ WARNING

Always stop the engine before inspecting or adjusting belts. Ensure that the engine cannot be started while you are performing checks or adjustments.

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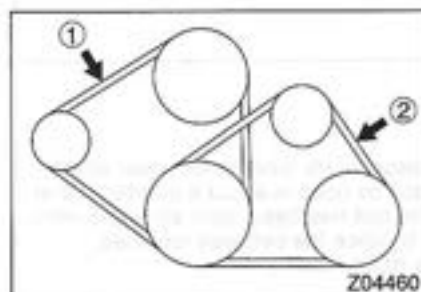
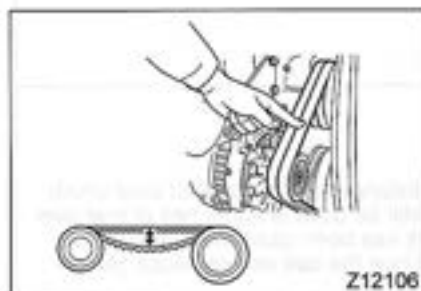
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CAUTION

- Prevent the belt from any contact with oil or grease during check and adjustment. If soiled with oil or grease, the belts will slip and this will shorten their service life.
- If a fan belt needs to be replaced owing to damage, replace both belts at the same time.
- If either belt broke, the engine could suffer damage. If either belt gets damaged, immediately have the belt replaced by authorized MITSUBISHI FUSO distributor or dealer.

1 Check

1. Tilt the cab. ⇨ P. 12-7
2. Press the belt with an approximately 98 N (10 kgf) force at the point midway between the pulleys, and measure the amount of deflection.
3. If the deflection is not as specified below, the tension of the belt must be adjusted.



Belt tension
[Amount of deflection when the belt is pressed with a 98 N (10 kgf) force at the point midway between the pulleys]

① Fan belt	10 to 15 mm
② Air conditioner compressor V-belt	7 to 10 mm

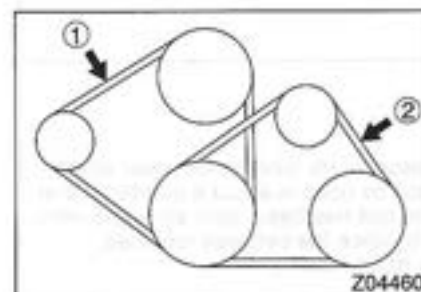
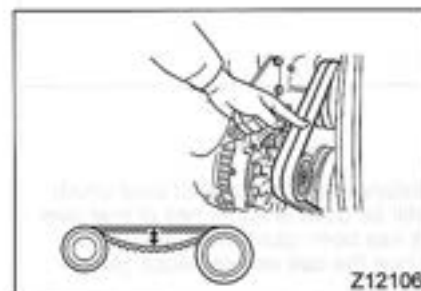
4. Also, check the belts for damage.

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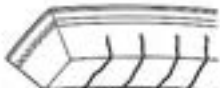


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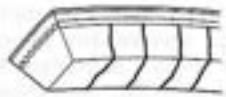
4. Also, check the belts for damage.

If a belt is cracked or otherwise damaged, have it replaced it as soon as possible. Belt replacement requires component disassembly. Please contact an authorized MITSUBISHI FUSO distributor or dealer to have the work done.

Belt condition	Remaining service life (reference)
 Wrinkled Z14645	The driving distance (or time period) over which the belt can still be used is at least as long as that over which the belt has been used since the vehicle was new or since the belt was replaced (whichever is more recent).
 Cracked Z14646	The driving distance (or time period) over which the belt can still be used is about half of that over which the belt has been used since the vehicle was new or since the belt was replaced (whichever is more recent).
 Cracks extending to base rubber Z14647	The driving distance (or time period) over which the belt can still be used is about a quarter of that over which the belt has been used since the vehicle was new or since the belt was replaced (whichever is more recent).

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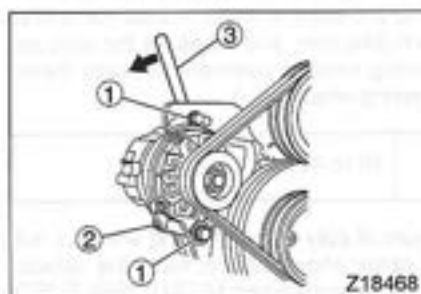
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 Cracks extending to base rubber Z14647	The driving distance (or time period) over which the belt can still be used is about a quarter of that over which the belt has been used since the vehicle was new or since the belt was replaced (whichever is more recent).

 Cracks extending to cords Z14648	The belt has reached the end of its service life and must be replaced.
 Piece(s) missing from belt Z14649	

2 Adjustment

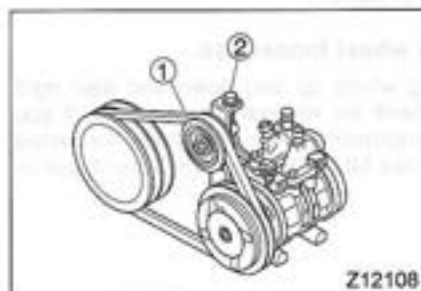
2.1 Fan belt

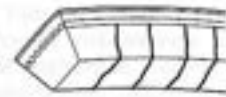
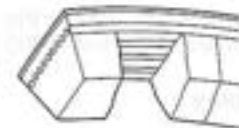
1. Loosen both the upper and lower alternator mounting bolts ① and nut ②.
2. Using a wrench handle ③ or similar tool, pry the alternator outward to adjust the tension of the belt.
3. After the belt has been adjusted to the proper tension, tighten the mounting bolts.



2.2 Air conditioner compressor V-belt

After slightly loosening mounting nut ① of the tension pulley, turn adjusting bolt ② to adjust tension. Turn it clockwise to increase tension. After performing the adjustment, fully tighten the pulley mounting nut.

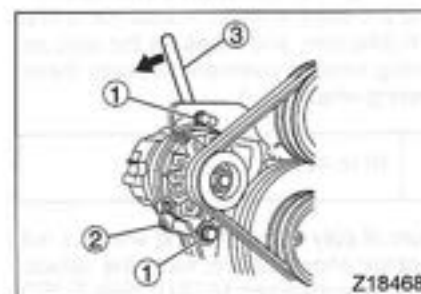


 Cracks extending to cords Z14648	The belt has reached the end of its service life and must be replaced.
 Piece(s) missing from belt Z14649	

2 Adjustment

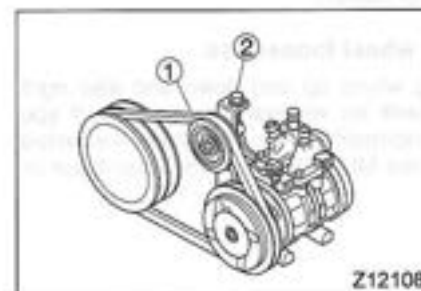
2.1 Fan belt

1. Loosen both the upper and lower alternator mounting bolts ① and nut ②.
2. Using a wrench handle ③ or similar tool, pry the alternator outward to adjust the tension of the belt.
3. After the belt has been adjusted to the proper tension, tighten the mounting bolts.



2.2 Air conditioner compressor V-belt

After slightly loosening mounting nut ① of the tension pulley, turn adjusting bolt ② to adjust tension. Turn it clockwise to increase tension. After performing the adjustment, fully tighten the pulley mounting nut.



Steering wheel – check

The steering wheel is a safety-critical part of the vehicle. If an inspection reveals any abnormality, have it repaired at your nearest authorized MITSUBISHI FUSO distributor or dealer before you drive the vehicle again. Driving the vehicle with the abnormality unrectified could result in a serious accident.

Inspection intervals	At the time of pre-operational check and every 5,000 km
----------------------	---

The steering wheel inspection during the run-in period should be performed at the first 2,000 km.

1 Steering wheel play**NOTE:**

The above check must be performed with the engine running.

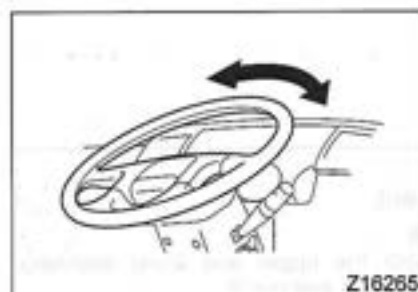
1. Place the steering wheel in its straight-ahead (neutral) position.
2. Turn the steering wheel clockwise and counter-clockwise to the point where a resistance is first felt for each direction, and measure the amount of the steering wheel movement between these points (steering wheel play).

Steering wheel play	10 to 40 mm
---------------------	-------------

3. If the amount of play in the steering wheel is not within the range shown above, have the vehicle inspected by an authorized MITSUBISHI FUSO distributor or dealer.

2 Steering wheel looseness

Move steering wheel up and down and also right and left to check for excessive looseness. If you sense any abnormality, have the vehicle inspected by an authorized MITSUBISHI FUSO distributor or dealer.

**Steering wheel – check**

The steering wheel is a safety-critical part of the vehicle. If an inspection reveals any abnormality, have it repaired at your nearest authorized MITSUBISHI FUSO distributor or dealer before you drive the vehicle again. Driving the vehicle with the abnormality unrectified could result in a serious accident.

Inspection intervals	At the time of pre-operational check and every 5,000 km
----------------------	---

The steering wheel inspection during the run-in period should be performed at the first 2,000 km.

1 Steering wheel play**NOTE:**

The above check must be performed with the engine running.

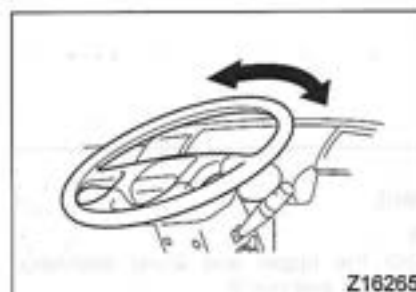
1. Place the steering wheel in its straight-ahead (neutral) position.
2. Turn the steering wheel clockwise and counter-clockwise to the point where a resistance is first felt for each direction, and measure the amount of the steering wheel movement between these points (steering wheel play).

Steering wheel play	10 to 40 mm
---------------------	-------------

3. If the amount of play in the steering wheel is not within the range shown above, have the vehicle inspected by an authorized MITSUBISHI FUSO distributor or dealer.

2 Steering wheel looseness

Move steering wheel up and down and also right and left to check for excessive looseness. If you sense any abnormality, have the vehicle inspected by an authorized MITSUBISHI FUSO distributor or dealer.



3 Steering system function

- While driving slowly (approx. 10 km/h) in a safe place, make sure that the steering wheel is neither too heavy nor too light to turn. Also check for abnormal sound or irregular resistance during operation.
- If any abnormal condition is encountered during the above check, call an authorized MITSUBISHI FUSO distributor or dealer for inspection.

WARNING

Perform the checks in a safe place that provides good visibility all around. During the checks, be sufficiently attentive to surrounding traffic conditions.

Service brakes – check

The service brakes are safety-critical parts of the vehicle. If an inspection reveals any abnormality, contact your nearest authorized MITSUBISHI FUSO distributor or dealer and have the abnormality rectified before you again drive the vehicle. Driving the vehicle with the abnormality unrectified could result in a serious accident.

If the following checks reveal any abnormality, have the vehicle inspected by the nearest authorized MITSUBISHI FUSO distributor or dealer.

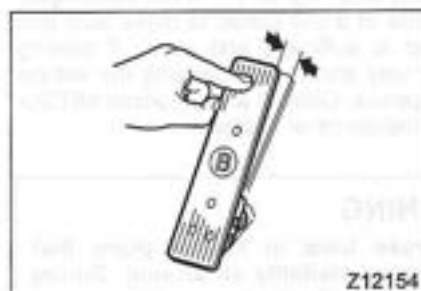
1 Brake pedal play

Inspection intervals	Every 5,000 km or 1 month
----------------------	---------------------------

The brake pedal play inspection during the run-in period should be performed at the first 2,000 km.

To check pedal play, use your finger to press the brake pedal to the point where resistance is felt and measure the distance (or angle) that the pedal has moved.

Brake pedal play	10.0 to 15.5 mm (as measured at the top of pedal)
------------------	--



3 Steering system function

- While driving slowly (approx. 10 km/h) in a safe place, make sure that the steering wheel is neither too heavy nor too light to turn. Also check for abnormal sound or irregular resistance during operation.
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The service brakes are safety-critical parts of the vehicle. If an inspection reveals any abnormality, contact your nearest authorized MITSUBISHI FUSO distributor or dealer and have the abnormality rectified before you again drive the vehicle. Driving the vehicle with the abnormality unrectified could result in a serious accident.

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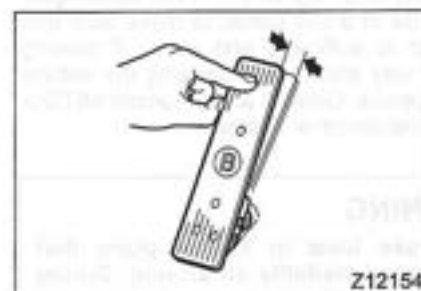
1 Brake pedal play

Inspection intervals	Every 5,000 km or 1 month
----------------------	---------------------------

The brake pedal play inspection during the run-in period should be performed at the first 2,000 km.

To check pedal play, use your finger to press the brake pedal to the point where resistance is felt and measure the distance (or angle) that the pedal has moved.

Brake pedal play	10.0 to 15.5 mm (as measured at the top of pedal)
------------------	--



If the pedal play is not as specified, have the brake system inspected by an authorized MITSUBISHI FUSO distributor or dealer.

⚠ CAUTION

Set the parking brake firmly and block wheels with chocks for added safety.

2 Checking sound of air discharged from the brake valve

Inspection intervals	At the time of pre-operational check and every 5,000 km or 1 month
----------------------	--

The brake valve air discharge inspection during the run-in period should be performed at the first 2,000 km.

Fully depress the brake pedal and then release it. The pedal should return all the way, and simultaneously the sound of discharged air should be heard from the brake valve.

3 Braking performance

Inspection intervals	At the time of pre-operational check and every 5,000 km or 1 month
----------------------	--

The braking performance inspection during the run-in period should be performed at the first 2,000 km.

Perform braking tests in a safe place. After checking that warning lamp  or  is not illuminated, drive the vehicle at a low speed to make sure that braking power is sufficient and even. If braking seems in any way abnormal, operating the vehicle could be dangerous. Contact an authorized MITSUBISHI FUSO distributor or dealer.

⚠ WARNING

Perform brake tests in a safe place that allows for good visibility all around. During the tests, be attentive to surrounding traffic conditions.



Z16962

If the pedal play is not as specified, have the brake system inspected by an authorized MITSUBISHI FUSO distributor or dealer.

⚠ CAUTION

Set the parking brake firmly and block wheels with chocks for added safety.

2 Checking sound of air discharged from the brake valve

Inspection intervals	At the time of pre-operational check and every 5,000 km or 1 month
----------------------	--

The brake valve air discharge inspection during the run-in period should be performed at the first 2,000 km.

Fully depress the brake pedal and then release it. The pedal should return all the way, and simultaneously the sound of discharged air should be heard from the brake valve.

3 Braking performance

Inspection intervals	At the time of pre-operational check and every 5,000 km or 1 month
----------------------	--

The braking performance inspection during the run-in period should be performed at the first 2,000 km.

Perform braking tests in a safe place. After checking that warning lamp  or  is not illuminated, drive the vehicle at a low speed to make sure that braking power is sufficient and even. If braking seems in any way abnormal, operating the vehicle could be dangerous. Contact an authorized MITSUBISHI FUSO distributor or dealer.

⚠ WARNING

Perform brake tests in a safe place that allows for good visibility all around. During the tests, be attentive to surrounding traffic conditions.



Z16962

Air pressure

Inspection
intervalsAt the time of pre-operational
check and every 5,000 km or
1 month

The air pressure inspection during the run-in period should be performed at the first 2,000 km. Check that the air pressure builds up at the proper rate. This can be checked as follows:

1. Set the parking brake and stop the engine.
2. Pull the ring of the drain cock ① (only one drain cock on the air tank) to discharge all compressed air from the air tank. Since some compressed air remains in other air tanks even after the air in the tank is completely released, the air pressure gauge needles will not move to 0.
3. Start the engine and keep it idling.

<Vehicles with multiple air tank drain cocks>

To check the air pressure build-up rate, time how long the air pressure gauge needles take to reach their horizontal position. The needles' horizontal position corresponds to 750 kPa (7.6 kgf/cm²).

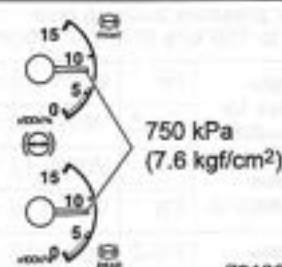
If the air pressure rises at abnormally slow rate, there is a problem in the brake air system. Have the vehicle inspected by an authorized MITSUBISHI FUSO distributor or dealer.

<Vehicles with only one air tank drain cock>

Since some compressed air remains in other air tanks even when the air tank drain cock is opened, the air pressure gauge needles will not indicate 0 kPa (0 kgf/cm²).

Check the air pressure build-up rate in the air tanks by timing how long the air pressure gauge needles take to reach 750 kPa (7.6 kgf/cm²).

If the air pressure rises at an abnormally slow rate, there is a problem in the brake air system. Have the vehicle inspected by an authorized MITSUBISHI FUSO distributor or dealer.



ZZ1800

Air pressure

Inspection
intervalsAt the time of pre-operational
check and every 5,000 km or
1 month

The air pressure inspection during the run-in period should be performed at the first 2,000 km. Check that the air pressure builds up at the proper rate. This can be checked as follows:

1. Set the parking brake and stop the engine.
2. Pull the ring of the drain cock ① (only one drain cock on the air tank) to discharge all compressed air from the air tank. Since some compressed air remains in other air tanks even after the air in the tank is completely released, the air pressure gauge needles will not move to 0.
3. Start the engine and keep it idling.

<Vehicles with multiple air tank drain cocks>

To check the air pressure build-up rate, time how long the air pressure gauge needles take to reach their horizontal position. The needles' horizontal position corresponds to 750 kPa (7.6 kgf/cm²).

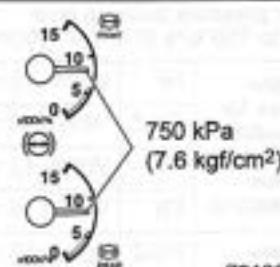
If the air pressure rises at abnormally slow rate, there is a problem in the brake air system. Have the vehicle inspected by an authorized MITSUBISHI FUSO distributor or dealer.

<Vehicles with only one air tank drain cock>

Since some compressed air remains in other air tanks even when the air tank drain cock is opened, the air pressure gauge needles will not indicate 0 kPa (0 kgf/cm²).

Check the air pressure build-up rate in the air tanks by timing how long the air pressure gauge needles take to reach 750 kPa (7.6 kgf/cm²).

If the air pressure rises at an abnormally slow rate, there is a problem in the brake air system. Have the vehicle inspected by an authorized MITSUBISHI FUSO distributor or dealer.



ZZ1800

Air pressure build-up time From 0 to 750 kPa (0 to 7.6 kgf/cm ²)			
Vehicles with multiple air tank drain cocks	Vehicles for Australia and New Zealand	FK	Within 10 minutes
		FK-Z	Within 10 minutes
		FM	Within 12 minutes
		FN	Within 16 minutes
	Vehicles for Hong Kong	FK-Z	Within 10 minutes
		FM	Within 12 minutes
Vehicles with only one air tank drain cock	Vehicles for Singapore	FK-Z	Within 4 minutes
		FM	Within 6 minutes

Parking brake – check

If the following checks reveal any abnormality, have the vehicle inspected by the nearest authorized MITSUBISHI FUSO distributor or dealer.

1 Parking brake lever stroke check

<Center brake type parking brake>

Inspection intervals	At the time of pre-operational check and every 1 month or 5,000 km
----------------------	--

The parking brake inspection of the new vehicle should be performed at the first 2,000 km.

1. Depress the brake pedal firmly not so that the vehicle cannot move.
2. Gently pull up the parking brake lever from the fully returned position while counting the clicks until it cannot be moved any more with a 295 N (30 kgf) force (click are generated by notches).
3. The lever stroke is normal if the number of clicks is from 7 to 10. Otherwise, have your vehicle inspected at the nearest authorized MITSUBISHI FUSO distributor or dealer.



Z12115

Air pressure build-up time From 0 to 750 kPa (0 to 7.6 kgf/cm ²)			
Vehicles with multiple air tank drain cocks	Vehicles for Australia and New Zealand	FK	Within 10 minutes
		FK-Z	Within 10 minutes
		FM	Within 12 minutes
		FN	Within 16 minutes
	Vehicles for Hong Kong	FK-Z	Within 10 minutes
		FM	Within 12 minutes
Vehicles with only one air tank drain cock	Vehicles for Singapore	FK-Z	Within 4 minutes
		FM	Within 6 minutes

Parking brake – check

If the following checks reveal any abnormality, have the vehicle inspected by the nearest authorized MITSUBISHI FUSO distributor or dealer.

1 Parking brake lever stroke check

<Center brake type parking brake>

Inspection intervals	At the time of pre-operational check and every 1 month or 5,000 km
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1. Depress the brake pedal firmly not so that the vehicle cannot move.
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3. The lever stroke is normal if the number of clicks is from 7 to 10. Otherwise, have your vehicle inspected at the nearest authorized MITSUBISHI FUSO distributor or dealer.



Z12115

4. Make sure that the lever is locked securely in the pulled up position.

Parking brake lever stroke	7 to 10 notches
----------------------------	-----------------

2 Parking brake operation

<Wheel brake type parking brake>

Inspection intervals	At the time of pre-operational check and every 1 month or 5,000 km
----------------------	--

The parking brake inspection of the new vehicle should be performed at the first 2,000 km. Pull the hand control valve handle and check that an air discharging sound is heard. In addition, make sure the hand control valve handle moves smoothly without sticking.

3 Braking performance

Inspection intervals	Every 1 month or 5,000 km
----------------------	---------------------------

The service brake inspection during the run-in period should be performed at the first 2,000 km.

WARNING

Perform brake tests in a safe place that allows for good visibility all around. During the tests, be attentive to surrounding traffic conditions.

Stop the vehicle on a dry downgrade, set the parking brake and check to see if the parking brake can hold the vehicle. If an appropriate downgrade is not available, drive the vehicle at a speed lower than 5 km/h and activate the parking brake to make sure that it exhibits satisfactory braking action.



4. Make sure that the lever is locked securely in the pulled up position.

Parking brake lever stroke	7 to 10 notches
----------------------------	-----------------

2 Parking brake operation

<Wheel brake type parking brake>

Inspection intervals	At the time of pre-operational check and every 1 month or 5,000 km
----------------------	--

The parking brake inspection of the new vehicle should be performed at the first 2,000 km. Pull the hand control valve handle and check that an air discharging sound is heard. In addition, make sure the hand control valve handle moves smoothly without sticking.

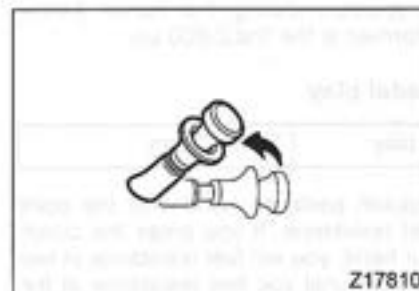
3 Braking performance

Inspection intervals	Every 1 month or 5,000 km
----------------------	---------------------------

The service brake inspection during the run-in period should be performed at the first 2,000 km.

WARNING

Perform brake tests in a safe place that allows for good visibility all around. During the tests, be attentive to surrounding traffic conditions.



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Clutch – check

Inspection intervals	Every 5,000 km
----------------------	----------------

The clutch inspection during the run-in period should be performed at the first 2,000 km.

1 Clutch pedal play

Clutch pedal play	35 to 47 mm
-------------------	-------------

Depress the clutch pedal by hand until the point where you feel resistance. If you press the clutch pedal with your hand, you will feel resistance at two stages. The motion until you feel resistance at the second stage ① is the extent of the pedal play ②. If the pedal play is outside the specified range, or if there is no play at the first stage ③, have the vehicle inspected by an authorized MITSUBISHI FUSO distributor or dealer.

NOTE:

The amount of clutch pedal play decreases as the clutch discs become worn. Continued use of the vehicle with less than the specified amount of clutch pedal play may cause the clutch to slip, rendering the vehicle unusable.

2 Clutch operation

Make sure that the clutch pedal operates without unusual noise or excessive resistance. Check also that depressing the clutch pedal allows you to move the gearshift lever easily to the various gear positions, and that the clutch engages smoothly without slipping when the clutch pedal is released slowly. If any abnormality is apparent, have the vehicle inspected by the nearest authorized MITSUBISHI FUSO distributor or dealer.



Z17679

Clutch – check

Inspection intervals	Every 5,000 km
----------------------	----------------

The clutch inspection during the run-in period should be performed at the first 2,000 km.

1 Clutch pedal play

Clutch pedal play	35 to 47 mm
-------------------	-------------

Depress the clutch pedal by hand until the point where you feel resistance. If you press the clutch pedal with your hand, you will feel resistance at two stages. The motion until you feel resistance at the second stage ① is the extent of the pedal play ②. If the pedal play is outside the specified range, or if there is no play at the first stage ③, have the vehicle inspected by an authorized MITSUBISHI FUSO distributor or dealer.

NOTE:

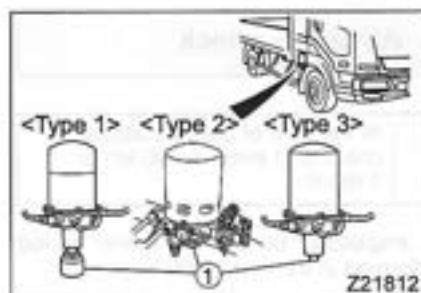
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Z17679



Air drier – check and replacement

Inspection intervals	Every 15,000 km or 3 months
Desiccant, filter and rubber parts replacement intervals	Every 100,000 km or 12 months, whichever occurs first

NOTE:

The air drier contains a desiccant that removes moisture from compressed air.

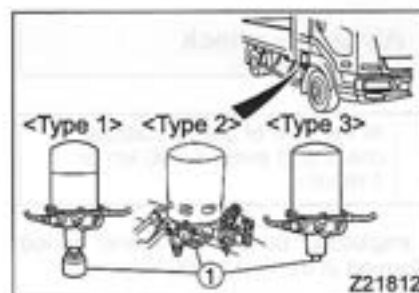
1 Checking desiccant's effectiveness

As part of pre-operational checks, open the drain cock of the air tank. If a large amount of condensate drains out, the desiccant has become ineffective and must be replaced.

If the condensate coming out from the exhaust port ① of the air drier contains an abnormal quantity of oil, have the vehicle inspected by your nearest authorized MITSUBISHI FUSO distributor or dealer.

2 Replacement of desiccant, filter and rubber parts

Replacing the desiccant involves some disassembly. This operation should be performed by your nearest authorized MITSUBISHI FUSO distributor or dealer.



Air drier – check and replacement

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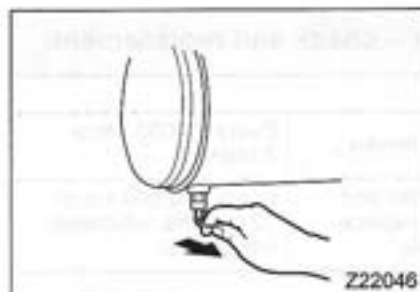
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2 Replacement of desiccant, filter and rubber parts

Replacing the desiccant involves some disassembly. This operation should be performed by your nearest authorized MITSUBISHI FUSO distributor or dealer.



Air tank – check

Inspection intervals

At the time of pre-operational check and every 5,000 km or 1 month

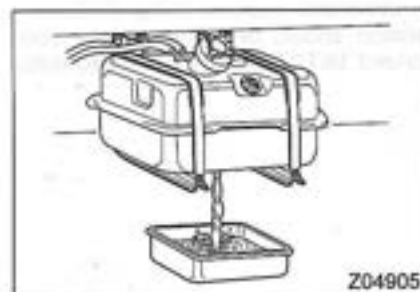
The air tank inspection during the run-in period should be performed at the first 2,000 km.

Pull the ring on the drain cock to discharge any condensate from the air tank.

If a large amount of water drains out from the air tank, have the vehicle inspected by an authorized MITSUBISHI FUSO distributor or dealer.

NOTE:

Since the vehicle is equipped with an air drier, almost no condensate should be discharged; however, a small amount of water may be discharged if the air tank undergoes a temperature drop of more than 16°C. (This can happen when you open the drain cock in the early morning after you have stopped and parked the vehicle during the day time on the preceding day.)

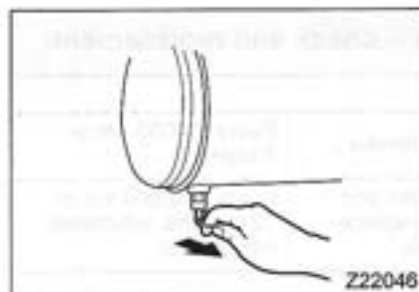


Draining sediment from fuel tank

Sediment draining intervals

Every 15,000 km

Remove the drain plug from the fuel tank to let sediment including water and foreign substances flow out of the tank.



Air tank – check

Inspection intervals

At the time of pre-operational check and every 5,000 km or 1 month

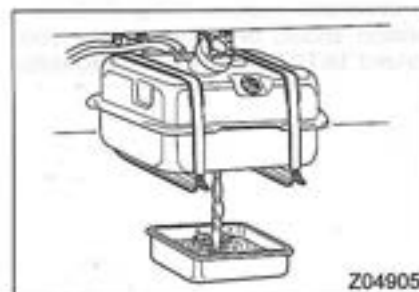
The air tank inspection during the run-in period should be performed at the first 2,000 km.

Pull the ring on the drain cock to discharge any condensate from the air tank.

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Draining sediment from fuel tank

Sediment draining intervals

Every 15,000 km

Remove the drain plug from the fuel tank to let sediment including water and foreign substances flow out of the tank.

Tires – check

Inspection intervals	At the time of pre-operational check and every 5,000 km
----------------------	---

1 Tire information sticker

<Vehicles with tire information sticker>

A tire information sticker is attached near the door striker on the driver's side. It shows the correct tire sizes, rim sizes, and tire inflation pressures as well as the front and rear wheels' load carrying capacities. Keep the tires inflated to the pressures shown on the card.

<Vehicles without tire information sticker>

On vehicles without a tire information sticker, adjust the tire air pressure in accordance with the table below.

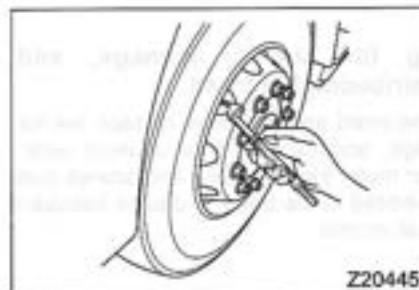
Tire size	Tire inflation pressure kPa (kgf/cm ²)
8.25R16	675 (6.75)
235/75R17.5	775 (7.75)
245/70R19.5	825 (8.25)
265/70R19.5	775 (7.75)
11R22.5	850 (8.50)
275/70R22.5	900 (9.00)

2 Checking inflation pressure

- Check the tire pressure using a tire pressure gauge. Tire pressure should be measured and adjusted before driving when the tire is still cool. Be sure to replace the valve cap after checking.
- The air in the spare tire will gradually leak out by itself. Use an air gauge to check whether the spare tire's inflation pressure is slightly higher than the standard pressure. If you use the spare tire, reduce the inflation pressure to the standard level.
If the tires appear incorrectly inflated, make any air pressure adjustments necessary before driving.



Z18471



Z20445

Tires – check

Inspection intervals	At the time of pre-operational check and every 5,000 km
----------------------	---

1 Tire information sticker

<Vehicles with tire information sticker>

A tire information sticker is attached near the door striker on the driver's side. It shows the correct tire sizes, rim sizes, and tire inflation pressures as well as the front and rear wheels' load carrying capacities. Keep the tires inflated to the pressures shown on the card.

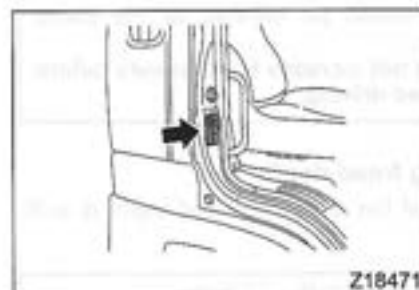
<Vehicles without tire information sticker>

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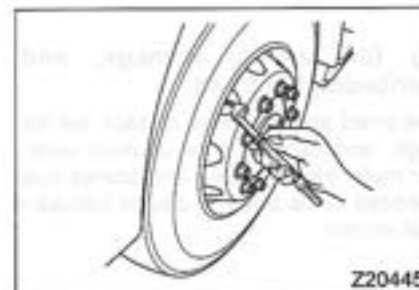
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If the tires appear incorrectly inflated, make any air pressure adjustments necessary before driving.



Z18471



Z20445

⚠ WARNING

- Excessively low or high tire pressures not only give a poor ride but also could cause cargo to be damaged. Moreover, if the pressure is too low, tires could overheat and burst.
- Both the inner and outer tires on dual wheels should be inflated to the same pressure.
- You need not increase tire pressure before high-speed driving.

3 Checking tread depth

Make sure that the remaining tread depth is sufficient.

Tread groove depth limit	1.6 mm
--------------------------	--------

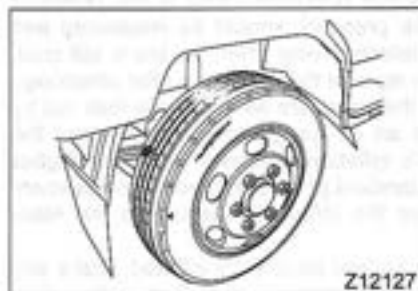
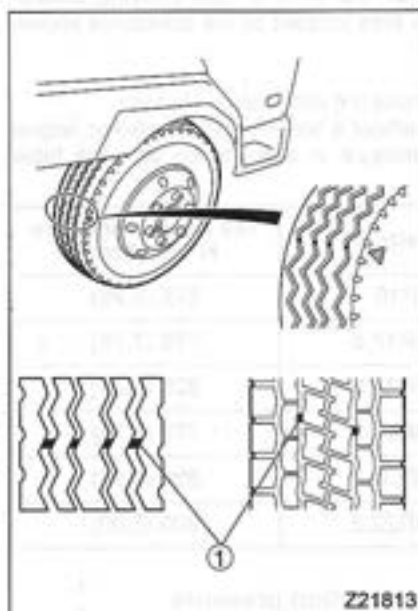
When the tread wears down, slip signs ① (interrupted sections of the grooves) appear across the tire at the locations corresponding to the **⚠** marks. Replace the tire as soon as the slip signs show up as continued use is dangerous.

⚠ CAUTION

If the remaining tread is too shallow, the tires tend to skid and chances of "hydroplaning" during high speed driving increase. Hydroplaning can occur when driving on a wet roads at high speeds. When a vehicle hydroplanes, tires ride up on and slide over a film of water, causing the driver to lose control of both steering and braking.

4 Checking for cracks, damage, and objects embedded in tread

Check both the tread and the sides of each tire for cracks, damage, and excessive or unusual wear. Check also for metal pieces, nails, and stones that might be embedded in the tread or caught between the tires of dual wheels.

**⚠ WARNING**

- Excessively low or high tire pressures not only give a poor ride but also could cause cargo to be damaged. Moreover, if the pressure is too low, tires could overheat and burst.
- Both the inner and outer tires on dual wheels should be inflated to the same pressure.
- You need not increase tire pressure before high-speed driving.

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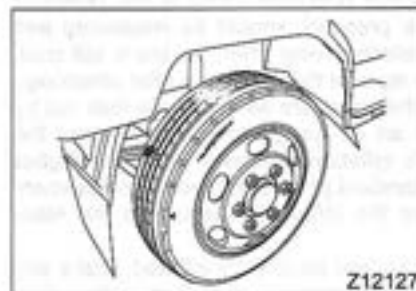
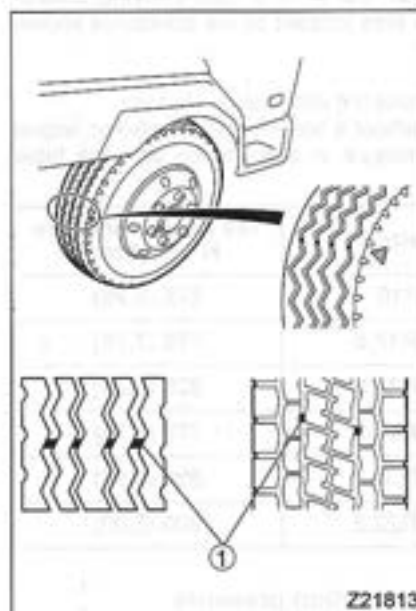
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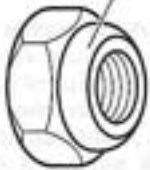
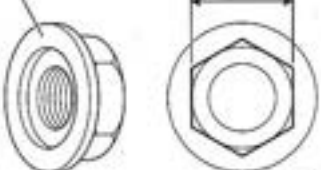
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Tire replacement

1 Notes on disc wheels and wheel nuts

- The 6-stud wheels are of the JIS type. The 10-stud wheels are of the ISO type.
- The 8-stud wheels are either of the JIS or ISO types.

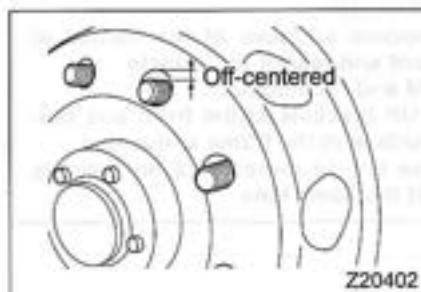
Type of wheel	6-stud and 8-stud (JIS type)	8-stud and 10-stud (ISO type)
Nut tightening direction	Right wheels: Right-hand threaded Left wheels: Left-hand threaded	Right-hand threaded for both left and right wheels
Wheel nut shape	 Spherical seat nut Spherical seat Z20401	 Flat seat nut (nut with washer, width across flats: 33) Flat seat Width across flats: 33 Z20400
Rear wheel nut	Double nut	Single nut (Tightening inner and outer wheels together)

! WARNING

Do not use JIS-type 8-stud wheels on a vehicle with ISO-type 8-stud wheels because a sufficient tightening torque cannot be achieved and a wheel could fall off, resulting in a serious accident.

NOTE:

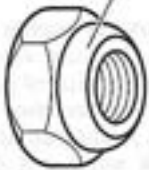
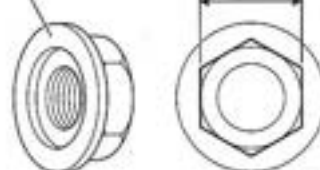
If you fit a JIS-type 8-stud wheel on a vehicle with ISO-type 8-stud wheels by mistake, the wheel bolts will be off-center in the bolt holes.



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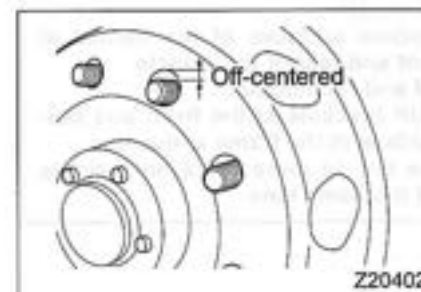
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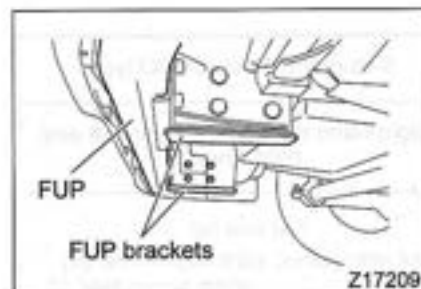
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2 Jacking up the vehicle

! WARNING

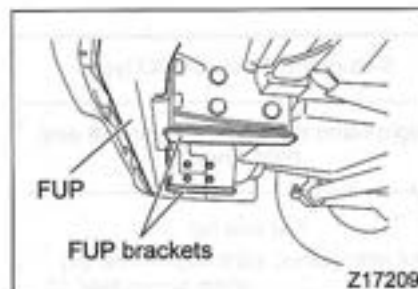
- Securely apply the parking brake.
- Jack up the vehicle on firm, level ground. If you jacked up the vehicle on a slope or on soft ground, the jack could tip and slip out of position, resulting in an accident.
- Apply the jack only to the specified jacking point. If you apply the jack to any other point on the vehicle, it could slip out of position, resulting in an accident. In the case of the FM and FN models, never apply the jack to the FUP and the FUP brackets.
- Make sure there is no oil or grease on the jack or jacking point. (Wipe off any such contamination.) Otherwise, the jack could slip out of position, resulting in an accident.
- Do not start the engine while the vehicle is jacked up. Engine vibration could cause the jack to slip out of position.
- Never get under the vehicle while it is jacked up. A serious accident could result if the jack slips out of position. If it is unavoidable to do some work under a raised vehicle, always secure safety by installing stands or other rigid supports under the appropriate vehicle components as follows.
 - For FK model:
The bottom surfaces of the frames at the front and rear of the vehicle
 - For FM and FN models:
The FUP brackets at the front and bottom surface of the frame at the rear
- If the vehicle is to be kept raised for a long time, secure safety by installing stands or other rigid supports under appropriate vehicle components as follows.
 - For FK model:
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- Never use two or more jacks on a single vehicle at the same time.



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⚠ CAUTION

- Do not raise the jack more than necessary. Doing so could damage the jack.
- Your vehicle's onboard jack is designed specifically for that vehicle. Do not use it with any other vehicle.
- Instructions for using and handling the jack are affixed to the jack. Be sure to read them before using the jack.

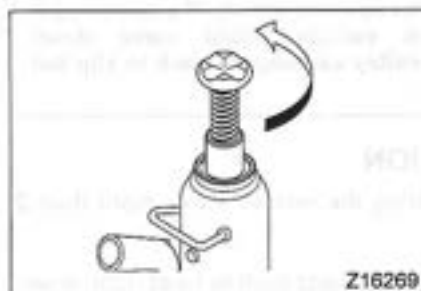
2.1 Before jacking up the vehicle

1. Park the vehicle on a flat, hard surface. Fully apply the parking brake. Place the gearshift/range selector lever in the following position:
Manual transmission vehicle: Neutral
Automatic transmission vehicle: P
2. If you get a flat tire while on the road and need to change it on the spot, pull up your vehicle in a safe place where it will not block traffic, and cause your hazard warning lamps to flash and use a red or white flag or cloth to give warning passing vehicles.
3. Have all passengers get out of the vehicle.
4. Block with a chock the tire diagonally opposite to the tire to be replaced.
Example:
Block the left front tire if the right rear tire is to be replaced.
5. Prepare the spare tire. ⇨ P. 12-105

3 Using the hydraulic jack

3.1 To raise

1. If the place you wish to apply the jack to is too high, extend the jack head (ram) by turning it counterclockwise.



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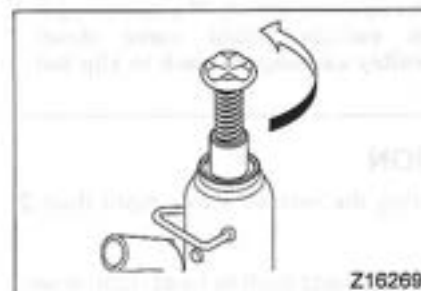
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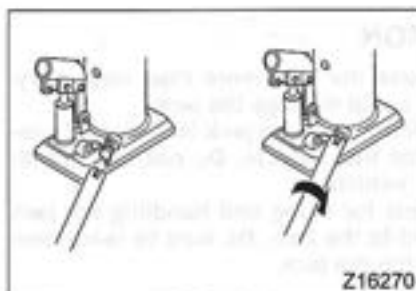
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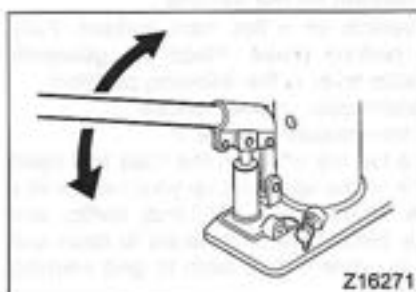
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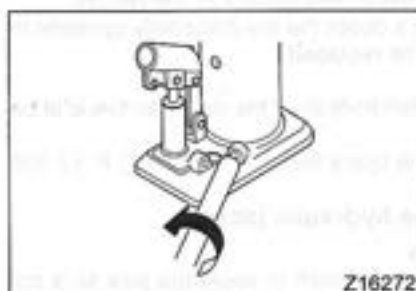




- Using the slit at the end of the wrench handle (onboard tool), turn the release valve clockwise to screw it in.



- Insert the wrench handle into the socket on the jack, and pump the handle up and down to raise the vehicle.



3.2 To lower

- Fit the wrench handle end on the release valve and turn the valve counterclockwise; the jack will lower under the vehicle weight.

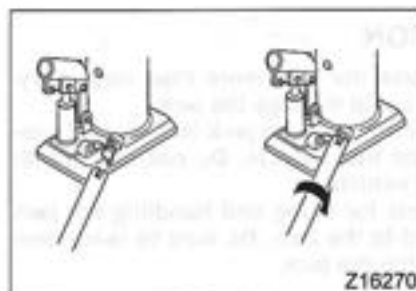
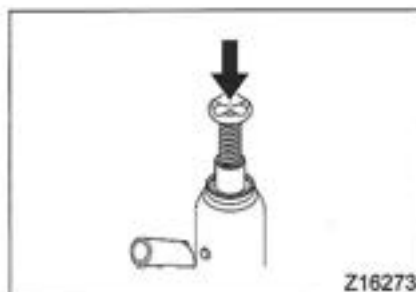
WARNING

Turn the release valve slowly. If you turned it rapidly, the vehicle would come down quickly, possibly causing the jack to slip out of position.

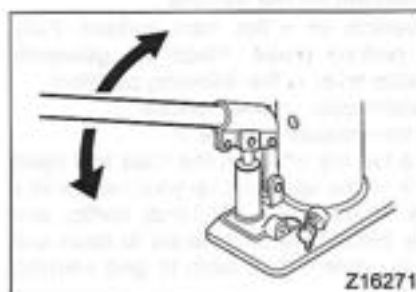
CAUTION

Avoid loosening the release valve more than 2 turns.

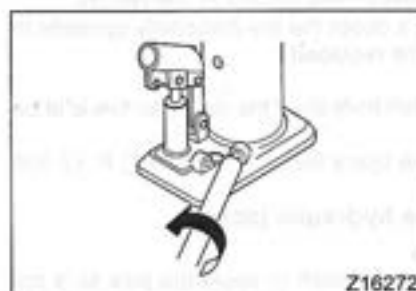
- Take out the jack and push its head (ram) down.



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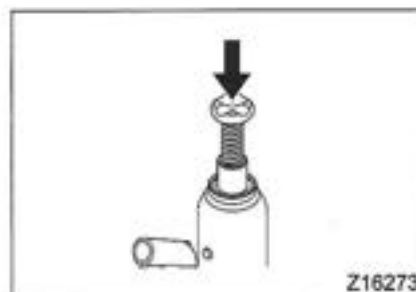
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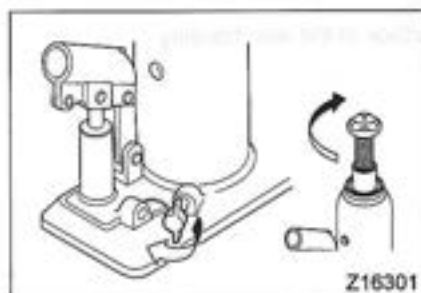
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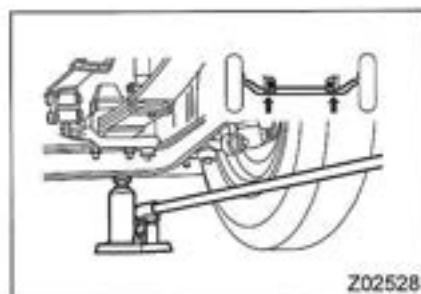




3. Rotate the release valve fully clockwise.
Turn the jack head clockwise to retract it.

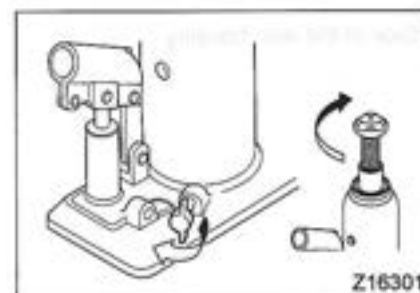
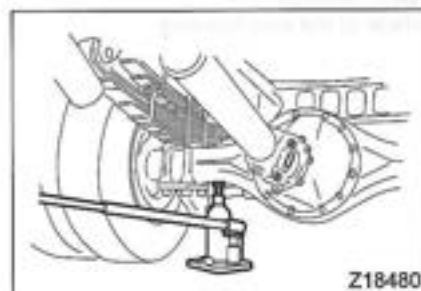
4 Jacking point

- 4.1 Front axle jacking point
Bottom surface of front axle



4.2 Rear axle jacking point

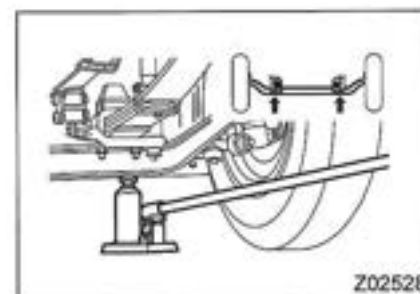
- Leaf suspension vehicles
<FK61, FK62>
Bottom surface of the axle housing (beside leaf spring U-bolt mounting)



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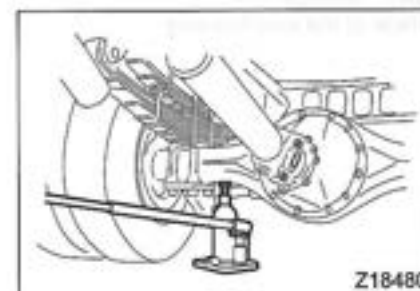
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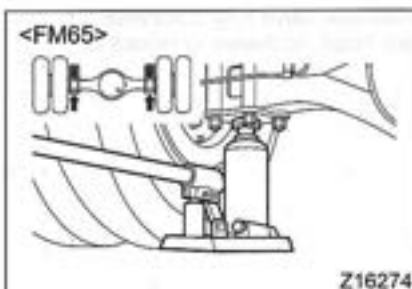
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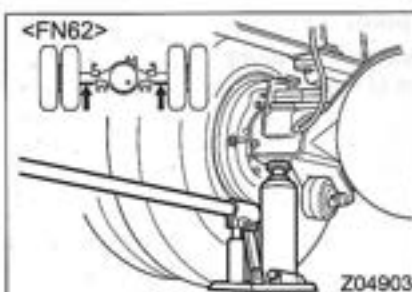
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Bottom surface of the axle housing (beside leaf spring U-bolt mounting)

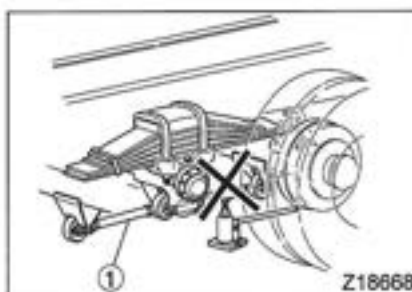
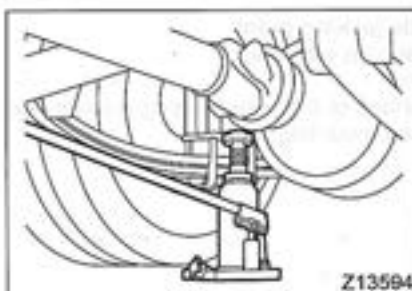




<FM65, FN62>
Bottom surface of the axle housing

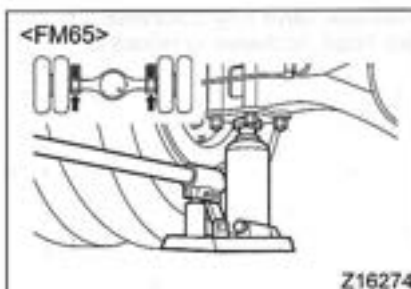


- Air suspension vehicles
Bottom surface of the axle housing

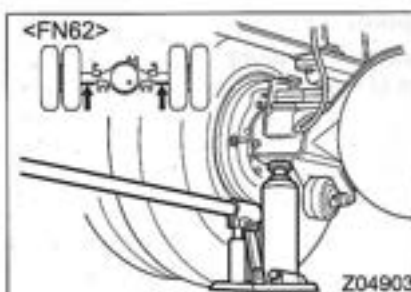


⚠ WARNING

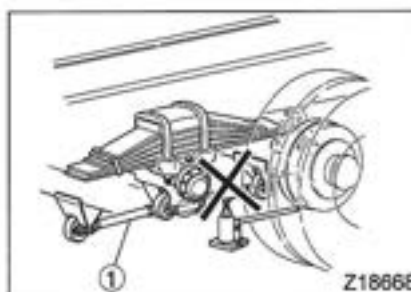
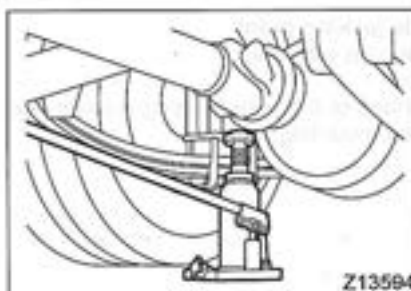
- Under no circumstances should anyone get under the vehicle when it is supported only with the jack. The jack could slip out from under the vehicle. Also, do not attempt to start the engine when the vehicle is jacked up.
- With the FN62 models, securely apply the jack to the bottom surface of the rear axle housing. Never set the jack on any other part, especially on the radius rod ①.



<FM65, FN62>
Bottom surface of the axle housing



- Air suspension vehicles
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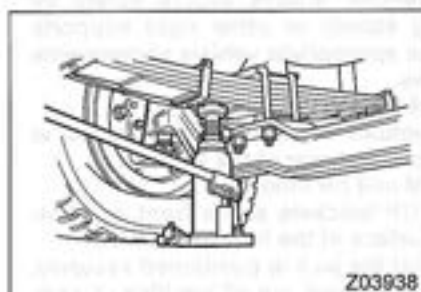
4.3 Jacking up a front wheel with a punctured tire

If a punctured tire prevents the jack from being fitted under the normal jacking point, use blocks of wood to raise the vehicle as described below.

WARNING

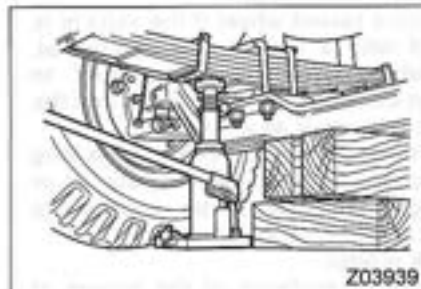
- To achieve stability, use the widest blocks of wood available.
- Do not support the vehicle with a jack at any point other than the bottom of a leaf spring. Jacking it at any other point is dangerous as the jack is liable to slip out of position, possibly causing a serious accident.
- The leaf spring is curved, so take great care when jacking up the vehicle.

1. Apply the jack to the bottom of the leaf spring at the closest possible point to the front axle, then start jacking up the vehicle.



Z03938

2. Place blocks of wood under the front axle.



Z03939

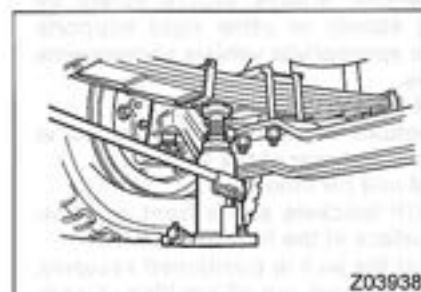
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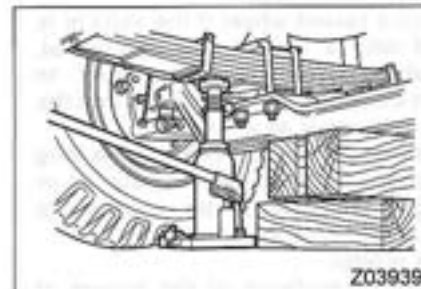
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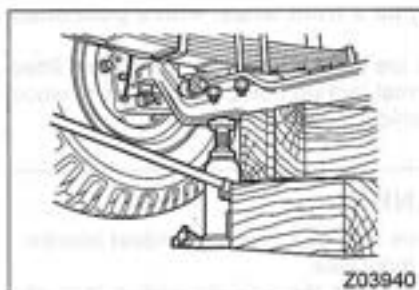


Z03938

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Z03939

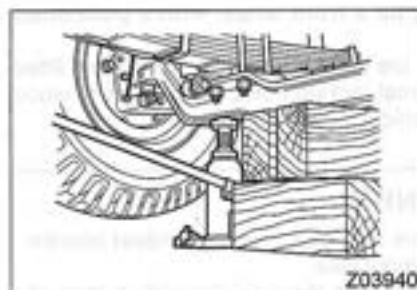
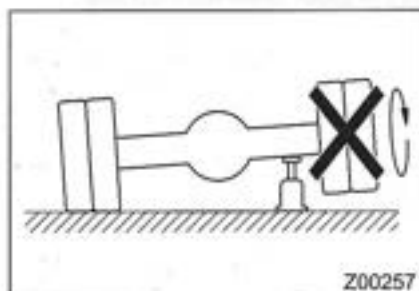


3. Lower the jack and check that the vehicle is safely supported by the blocks of wood. Then, move the jack to the normal jacking point (under the front axle).

5 Removing the tire

! WARNING

- Never get under the vehicle while it is jacked up. A serious accident could result if the jack slips out of position. If it is unavoidable to do some work under a raised vehicle, always secure safety by installing stands or other rigid supports under the appropriate vehicle components as follows.
 - For FK model:
The bottom surfaces of the frames at the front and rear of the vehicle
 - For FM and FN models:
The FUP brackets at the front and bottom surface of the frame at the rear
- Check that the jack is positioned securely. If the jack slipped out of position, a serious accident could occur.
- Never turn a raised wheel if the vehicle is equipped with a limited slip differential. The rotation would be transmitted to wheels in contact with the ground, and the vehicle could move as a result.
- If the vehicle is to be kept raised for a long time, secure safety by installing stands or other rigid supports under appropriate vehicle components as follows.
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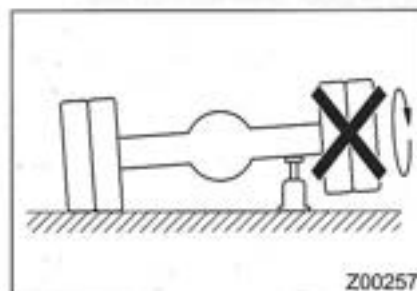


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⚠ CAUTION

- If the vehicle is carrying heavy cargo, unload it before jacking the vehicle up.
- When jacking up the vehicle, be sure to place the jack only in the specified locations as applying the jack to any point other than the jacking-up points could damage the vehicle or cause injury.

5.1 6-stud and 8-stud wheels (JIS type)

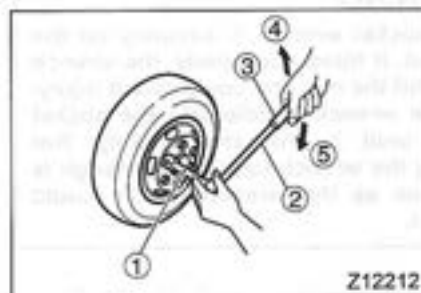
1. Position the jack under the jacking point of the vehicle and raise the vehicle to a point at which the tire is still touching the ground.

⚠ CAUTION

After raising the vehicle slightly, confirm that the jack is securely in position.

⚠ WARNING

If the jack slipped out of position with the vehicle fully raised, the vehicle could fall and cause a serious injury.



2. Using socket wrench ①, wrench handle ②, and extension bar (option) included in the onboard tool set, slightly loosen the wheel nuts. Do not remove the nuts. When using the extension bar, make sure that it is screwed into the wrench handle completely.

On the right-hand side of the vehicle, turn the wheel nuts in the direction of arrow ④. On the left-hand side of the vehicle, turn the wheel nuts in the direction of arrow ⑤.

⚠ WARNING

- Fit the socket wrench securely on the wheel nut. If fitted improperly, the wrench will slip off the nut, and could cause injury.
- Do not loosen the wheel nuts too much or you could damage the threads.
- Push the wrench handle into the socket wrench until it protrudes slightly. Not inserting the wrench handle far enough is dangerous as the wrench handle could come out.

⚠ CAUTION

- If the vehicle is carrying heavy cargo, unload it before jacking the vehicle up.
- When jacking up the vehicle, be sure to place the jack only in the specified locations as applying the jack to any point other than the jacking-up points could damage the vehicle or cause injury.

5.1 6-stud and 8-stud wheels (JIS type)

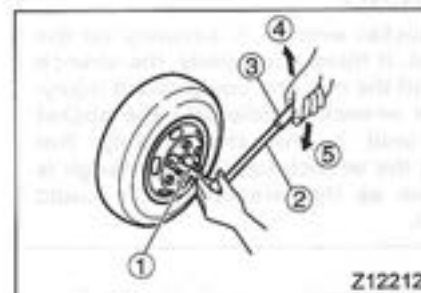
1. Position the jack under the jacking point of the vehicle and raise the vehicle to a point at which the tire is still touching the ground.

⚠ CAUTION

After raising the vehicle slightly, confirm that the jack is securely in position.

⚠ WARNING

If the jack slipped out of position with the vehicle fully raised, the vehicle could fall and cause a serious injury.



2. Using socket wrench ①, wrench handle ②, and extension bar (option) included in the onboard tool set, slightly loosen the wheel nuts. Do not remove the nuts. When using the extension bar, make sure that it is screwed into the wrench handle completely.

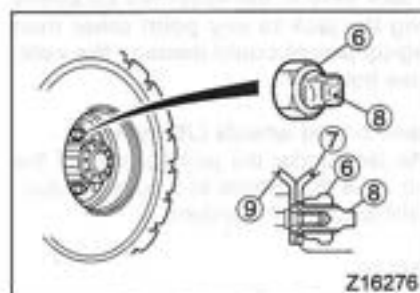
On the right-hand side of the vehicle, turn the wheel nuts in the direction of arrow ④. On the left-hand side of the vehicle, turn the wheel nuts in the direction of arrow ⑤.

⚠ WARNING

- Fit the socket wrench securely on the wheel nut. If fitted improperly, the wrench will slip off the nut, and could cause injury.
- Do not loosen the wheel nuts too much or you could damage the threads.
- Push the wrench handle into the socket wrench until it protrudes slightly. Not inserting the wrench handle far enough is dangerous as the wrench handle could come out.

NOTE:

The wheel nuts on the right-hand wheel are marked with "R" and have right-hand threads. Those on the left-hand wheel are marked with "L" and have left-hand threads.



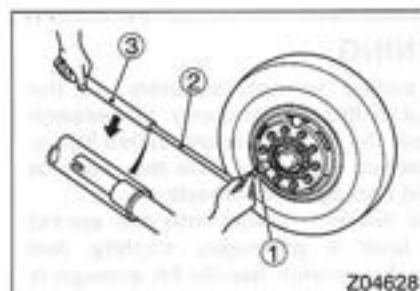
3. Jack up the vehicle until the tire is just clear of the ground.
4. Remove the wheel nuts and then the tire.
5. To remove the tires of a dual wheel, first loosen the outer wheel nuts (5) and remove outer tire (6); then, lower the jack, loosen inner wheel nuts (7) by using the square socket end of the wheel nut wrench, and remove inner tire (8).

5.2 8-stud and 10-stud wheels (ISO type)

1. Position the jack under the jacking point of the vehicle and raise the vehicle to a point at which the tire is still touching the ground. Before continuing, check that the jack is positioned securely.
2. Slightly loosen the wheel nuts.

⚠ WARNING

- Fit the socket wrench (1) securely on the wheel nut. If fitted improperly, the wrench will slip off the nut, and could cause injury.
- Push the wrench handle into the socket wrench until it protrudes slightly. Not inserting the wrench handle far enough is dangerous as the wrench handle could come out.



Using socket wrench (1), wrench handle (2) and extension bar (option) and included in the onboard tool set, slightly loosen the wheel nuts. Do not remove the nuts. Fit the extension bar onto the wrench handle to gain maximum leverage. Loosen the nuts in the direction of the arrow in the illustration.

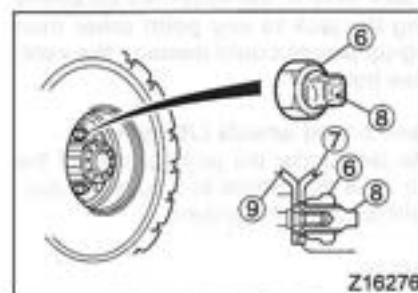
NOTE:

All the wheel nuts have right-hand threads.

3. Jack up the vehicle until the tire is just clear of the ground.

NOTE:

The wheel nuts on the right-hand wheel are marked with "R" and have right-hand threads. Those on the left-hand wheel are marked with "L" and have left-hand threads.



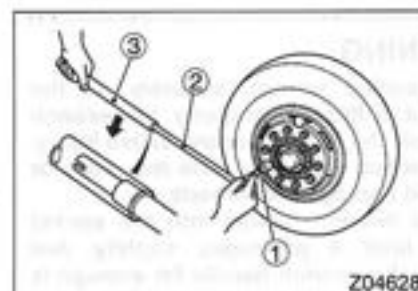
3. Jack up the vehicle until the tire is just clear of the ground.
4. Remove the wheel nuts and then the tire.
5. To remove the tires of a dual wheel, first loosen the outer wheel nuts (5) and remove outer tire (6); then, lower the jack, loosen inner wheel nuts (7) by using the square socket end of the wheel nut wrench, and remove inner tire (8).

5.2 8-stud and 10-stud wheels (ISO type)

1. Position the jack under the jacking point of the vehicle and raise the vehicle to a point at which the tire is still touching the ground. Before continuing, check that the jack is positioned securely.
2. Slightly loosen the wheel nuts.

⚠ WARNING

- Fit the socket wrench (1) securely on the wheel nut. If fitted improperly, the wrench will slip off the nut, and could cause injury.
- Push the wrench handle into the socket wrench until it protrudes slightly. Not inserting the wrench handle far enough is dangerous as the wrench handle could come out.



Using socket wrench (1), wrench handle (2) and extension bar (option) and included in the onboard tool set, slightly loosen the wheel nuts. Do not remove the nuts. Fit the extension bar onto the wrench handle to gain maximum leverage. Loosen the nuts in the direction of the arrow in the illustration.

NOTE:

All the wheel nuts have right-hand threads.

3. Jack up the vehicle until the tire is just clear of the ground.

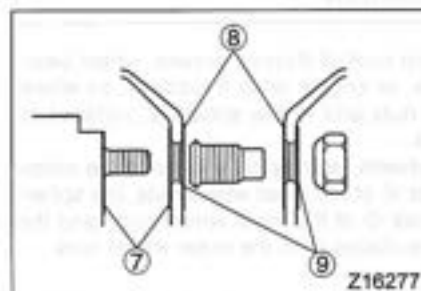
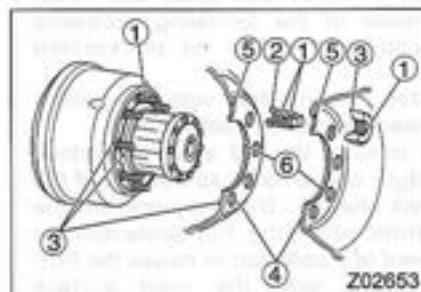
4. Remove the wheel nuts and then the tire.
5. To remove the dual rear wheels, first take off the wheel nuts. The outer and inner wheels can then be removed together.

6 Mounting the tire

6.1 6-stud and 8-stud wheels (JIS type)

1. Clean the following sections before mounting the wheel. If they are dirty, the wheel nuts could become loose during driving.

- ① Threads on wheel bolts and nuts
- ② Spherical surface of wheel nuts
- ③ Disc wheel mounting surface
- ④ Disc wheel mating surface
- ⑤ Wheel nut contact surface on disc wheel
- ⑥ Disc wheel inside surface



⚠ WARNING

- If the above items are dirty, the nuts will become loose during vehicle operation. If the bolt or nut threads are damaged or the wheel disc is deformed or cracked, replace the wheel with a new one. A damaged wheel could work loose and cause a serious accident while the vehicle is in motion.
- Do not paint disc wheel mounting surfaces ⑦, dual wheel mating surfaces ⑧, wheel nut seating surfaces ⑨, and wheel hub mounting surfaces as resulting thicker paint film could cause the wheel nuts to loosen up.
- Be sure to use the specified types of tires and disc wheels. Mixing bias and radial tires results in poor steering and should be avoided at all cost.

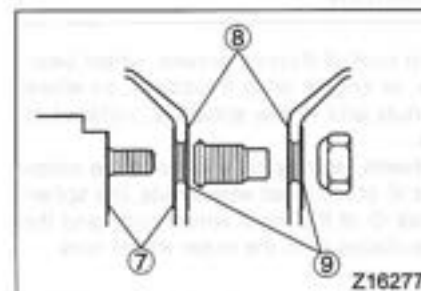
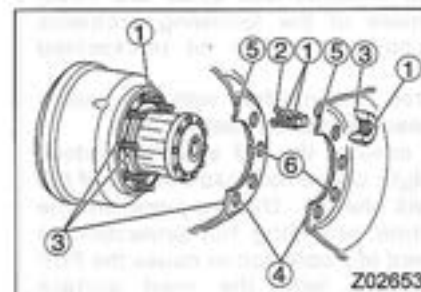
4. Remove the wheel nuts and then the tire.
5. To remove the dual rear wheels, first take off the wheel nuts. The outer and inner wheels can then be removed together.

6 Mounting the tire

6.1 6-stud and 8-stud wheels (JIS type)

1. Clean the following sections before mounting the wheel. If they are dirty, the wheel nuts could become loose during driving.

- ① Threads on wheel bolts and nuts
- ② Spherical surface of wheel nuts
- ③ Disc wheel mounting surface
- ④ Disc wheel mating surface
- ⑤ Wheel nut contact surface on disc wheel
- ⑥ Disc wheel inside surface

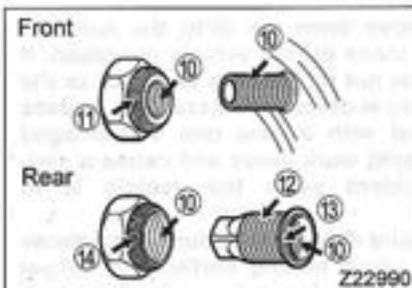


⚠ WARNING

- If the above items are dirty, the nuts will become loose during vehicle operation. If the bolt or nut threads are damaged or the wheel disc is deformed or cracked, replace the wheel with a new one. A damaged wheel could work loose and cause a serious accident while the vehicle is in motion.
- Do not paint disc wheel mounting surfaces ⑦, dual wheel mating surfaces ⑧, wheel nut seating surfaces ⑨, and wheel hub mounting surfaces as resulting thicker paint film could cause the wheel nuts to loosen up.
- Be sure to use the specified types of tires and disc wheels. Mixing bias and radial tires results in poor steering and should be avoided at all cost.

⚠ WARNING

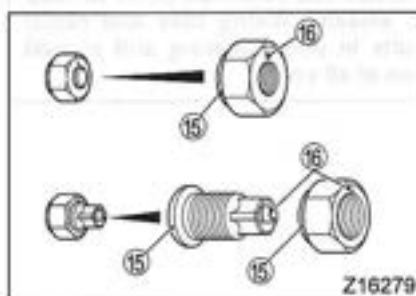
- Avoid using tires and disc wheels of sizes other than those specified. If tires and disc wheels of unauthorized sizes are used, one or more of the following problems could occur and cause an unexpected accident.
- The tires can interfere with the frames and steering system components.
- In the case of the FM and FN models, the height above the road surface of the FUP will change. This may prevent the FUP from providing full protection in the event of a collision or cause the FUP to interfere with the road surface depending on the road surface and driving conditions.



2. Apply a thin coat of chassis grease, wheel bearing grease, or engine oil to threads ⑩ on wheel bolts and nuts and to the spherical surfaces ⑪ of the nuts.
On dual wheels, also apply grease to the external threads ⑫ of the inner wheel nuts, the spherical surfaces ⑬ of the inner wheel nuts, and the spherical surfaces ⑭ of the outer wheel nuts.

⚠ WARNING

Never use a grease that contains molybdenum disulfide.



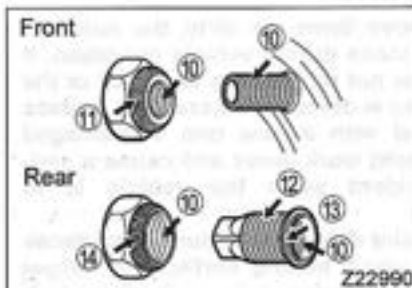
3. Mount the wheel so that the wheel bolts line up with the bolt holes in the disc wheel. Then, tighten the wheel nuts to hold the disc wheel in position. The spherical end ⑮ of the wheel nut should be directed toward the disc wheel.

⚠ WARNING

When replacing the wheel, take care not to damage the threads on the wheel bolts and inner wheel nuts.

⚠ WARNING

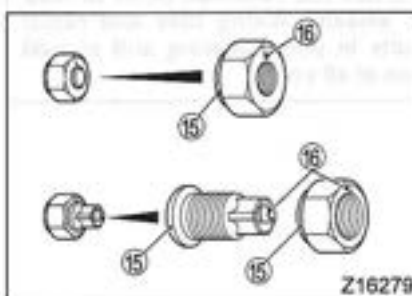
- Avoid using tires and disc wheels of sizes other than those specified. If tires and disc wheels of unauthorized sizes are used, one or more of the following problems could occur and cause an unexpected accident.
- The tires can interfere with the frames and steering system components.
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On dual wheels, also apply grease to the external threads ⑫ of the inner wheel nuts, the spherical surfaces ⑬ of the inner wheel nuts, and the spherical surfaces ⑭ of the outer wheel nuts.

⚠ WARNING

Never use a grease that contains molybdenum disulfide.



3. Mount the wheel so that the wheel bolts line up with the bolt holes in the disc wheel. Then, tighten the wheel nuts to hold the disc wheel in position. The spherical end ⑮ of the wheel nut should be directed toward the disc wheel.

⚠ WARNING

When replacing the wheel, take care not to damage the threads on the wheel bolts and inner wheel nuts.

Front wheels

Left wheel

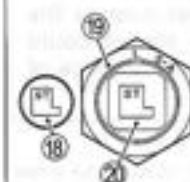


Right wheel



Rear wheels

Left wheel



Right wheel



Z17802

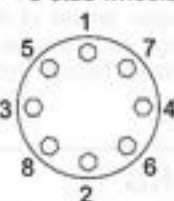
NOTE:

- The wheel bolts and nuts on the right-hand wheels have right-hand threads, and those on the left-hand wheels have left-hand threads. The bolts and nuts have stamped marks for easy identification; an "R" mark for righthand wheels and an "L" mark for left-hand wheels.
- Wheel nuts , wheel bolts , outer wheel nuts and inner wheel nuts are marked with "ST" or "S-A". The "ST" mark indicates that these fasteners are for steel wheels and the "S-A" mark that they are for both steel and aluminum wheels.

<6-stud wheels>



<8-stud wheels>



Z00394

- Lower the vehicle gently until the tire makes contact with the ground.
- Tighten the wheel nuts in the order shown in the illustration, repeating the tightening cycle 2 to 3 times. Finally, tighten the nuts to the following torque using a torque wrench.

Wheel nut tightening torque	
6-stud wheels	450 to 500 Nm (45 to 50 kgfm)
8-stud wheels	550 to 600 Nm (55 to 60 kgfm)

Front wheels

Left wheel

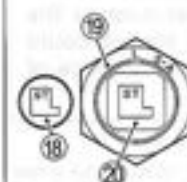


Right wheel



Rear wheels

Left wheel



Right wheel



Z17802

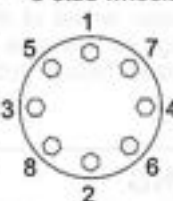
NOTE:

- The wheel bolts and nuts on the right-hand wheels have right-hand threads, and those on the left-hand wheels have left-hand threads. The bolts and nuts have stamped marks for easy identification; an "R" mark for righthand wheels and an "L" mark for left-hand wheels.
- Wheel nuts , wheel bolts , outer wheel nuts and inner wheel nuts are marked with "ST" or "S-A". The "ST" mark indicates that these fasteners are for steel wheels and the "S-A" mark that they are for both steel and aluminum wheels.

<6-stud wheels>



<8-stud wheels>



Z00394

- Lower the vehicle gently until the tire makes contact with the ground.
- Tighten the wheel nuts in the order shown in the illustration, repeating the tightening cycle 2 to 3 times. Finally, tighten the nuts to the following torque using a torque wrench.

Wheel nut tightening torque	
6-stud wheels	450 to 500 Nm (45 to 50 kgfm)
8-stud wheels	550 to 600 Nm (55 to 60 kgfm)

 WARNING

- Fit the socket wrench securely on the wheel nut. If fitted improperly, the wrench will slip off the nut, and could cause injury.
- Push the wrench handle into the socket wrench until it protrudes slightly. Not inserting the wrench handle far enough is dangerous as the wrench handle could come out.
- Do not jump or jerk on the wrench handle when tightening the nut by using your own weight. Doing so can overtighten the nut.
- Be sure to tighten the wheel nuts to the specified torque. Excessive torque could elongate the bolt or deform the surface of the disc wheel.

6. In the case of dual wheels, first mount the inner wheel, then raise the vehicle again to mount the outer wheel in the same way.

NOTE:

When installing dual wheels, make sure that the air valve of the inner wheel is not lined up with the air valve of the outer wheel.

7. If only the outer wheel of the dual wheels is replaced, retighten the inner wheel nuts to the specified torque before mounting the outer wheel.

 WARNING

As the vehicle is driven after a wheel has been replaced, the wheel nuts loosen up somewhat during the early stages of driving due to "wear-in." Therefore, it is necessary to retighten the wheel nuts to the specified torque after driving 50 to 100 km. Thereafter, retighten the nuts at regular intervals.

 WARNING

- Fit the socket wrench securely on the wheel nut. If fitted improperly, the wrench will slip off the nut, and could cause injury.
- Push the wrench handle into the socket wrench until it protrudes slightly. Not inserting the wrench handle far enough is dangerous as the wrench handle could come out.
- Do not jump or jerk on the wrench handle when tightening the nut by using your own weight. Doing so can overtighten the nut.
- Be sure to tighten the wheel nuts to the specified torque. Excessive torque could elongate the bolt or deform the surface of the disc wheel.

6. In the case of dual wheels, first mount the inner wheel, then raise the vehicle again to mount the outer wheel in the same way.

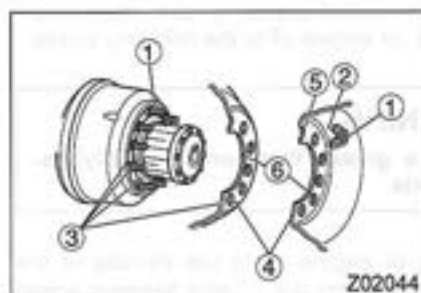
NOTE:

When installing dual wheels, make sure that the air valve of the inner wheel is not lined up with the air valve of the outer wheel.

7. If only the outer wheel of the dual wheels is replaced, retighten the inner wheel nuts to the specified torque before mounting the outer wheel.

 WARNING

As the vehicle is driven after a wheel has been replaced, the wheel nuts loosen up somewhat during the early stages of driving due to "wear-in." Therefore, it is necessary to retighten the wheel nuts to the specified torque after driving 50 to 100 km. Thereafter, retighten the nuts at regular intervals.



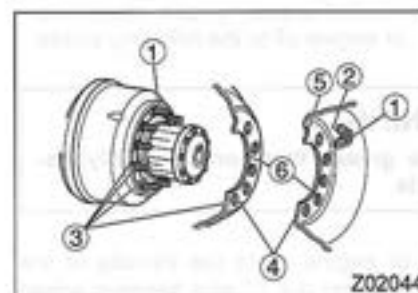
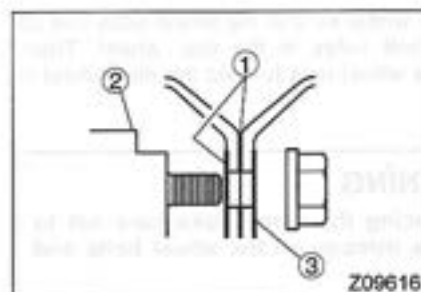
6.2 8-stud and 10-stud wheels (ISO type)

1. Clean the following sections before mounting the wheel.

- ① Threads on wheel bolts and nuts
- ② Bearing surface of wheel nuts
- ③ Disc wheel mounting surface
- ④ Disc wheel mating surface
- ⑤ Wheel nut contact surface on disc wheel
- ⑥ Disc wheel inside surface

⚠ WARNING

- If the above items are dirty, the nuts will become loose during vehicle operation. If the bolt or nut threads are damaged or the wheel disc is deformed or cracked, replace the wheel with a new one. A damaged wheel could work loose and cause a serious accident while the vehicle is in motion.
- Do not paint disk wheel mounting surfaces ①, dual wheel mating surfaces ①, wheel nut seating surfaces ③, and wheel hub mounting surfaces ② as resulting thicker paint film could cause the wheel nuts to loosen up.
- Be sure to use the specified types of tires and disc wheels. Mixing bias and radial tires results in poor steering and should be avoided at all cost.
- Avoid using tires and disc wheels of sizes other than those specified. If tires and disc wheels of unauthorized sizes are used, one or more of the following problems could occur and cause an unexpected accident.
 - The tires can interfere with the frames and steering system components.
 - In the case of the FM and FN models, the height above the road surface of the FUP will change. This may prevent the FUP from providing full protection in the event of a collision or cause the FUP to interfere with the road surface depending on the road surface and driving conditions.



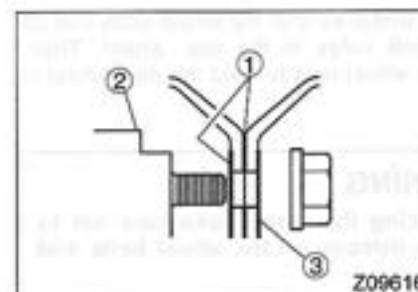
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⚠ WARNING

- If the above items are dirty, the nuts will become loose during vehicle operation. If the bolt or nut threads are damaged or the wheel disc is deformed or cracked, replace the wheel with a new one. A damaged wheel could work loose and cause a serious accident while the vehicle is in motion.
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 - The tires can interfere with the frames and steering system components.
 - In the case of the FM and FN models, the height above the road surface of the FUP will change. This may prevent the FUP from providing full protection in the event of a collision or cause the FUP to interfere with the road surface depending on the road surface and driving conditions.



2. Apply a thin coat of chassis grease, wheel bearing grease, or engine oil to the following points:

⚠ WARNING

Never use a grease that contains molybdenum disulfide.

Apply grease or engine oil to the threads of the wheel bolts and wheel nut. ⑦ and between wheel nut and washer ⑧. Never apply the grease to the bearing surface ⑨ of the nut. Check the wheel nut washers. If a washer does not rotate smoothly, replace the wheel nut.

3. Mount the wheel so that the wheel bolts line up with the bolt holes in the disc wheel. Then, tighten the wheel nuts to hold the disc wheel in position.

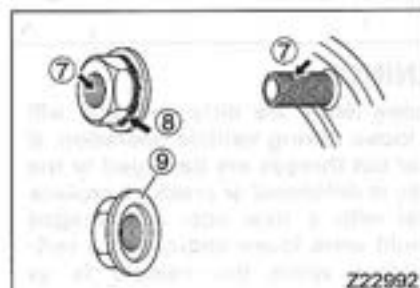
⚠ WARNING

When replacing the wheel, take care not to damage the threads on the wheel bolts and nuts.

NOTE:

All wheel nuts are right-hand threaded.

4. Lower the vehicle gently until the tire makes contact with the ground.



2. Apply a thin coat of chassis grease, wheel bearing grease, or engine oil to the following points:

⚠ WARNING

Never use a grease that contains molybdenum disulfide.

Apply grease or engine oil to the threads of the wheel bolts and wheel nut. ⑦ and between wheel nut and washer ⑧. Never apply the grease to the bearing surface ⑨ of the nut. Check the wheel nut washers. If a washer does not rotate smoothly, replace the wheel nut.

3. Mount the wheel so that the wheel bolts line up with the bolt holes in the disc wheel. Then, tighten the wheel nuts to hold the disc wheel in position.

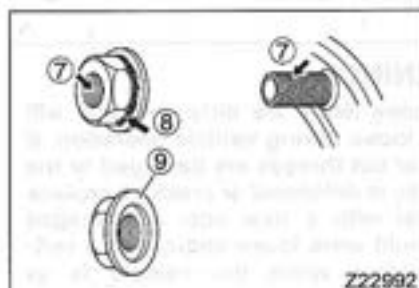
⚠ WARNING

When replacing the wheel, take care not to damage the threads on the wheel bolts and nuts.

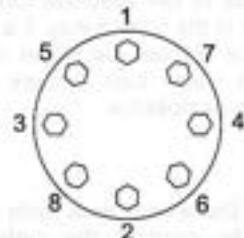
NOTE:

All wheel nuts are right-hand threaded.

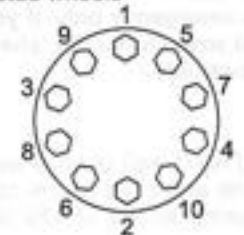
4. Lower the vehicle gently until the tire makes contact with the ground.



<8-stud wheels>



<10-stud wheels>



Z20399

5. Tighten the wheel nuts in the order shown in the illustration, repeating the tightening cycle 2 to 3 times. Finally, tighten the nuts to the following torque using a torque wrench.

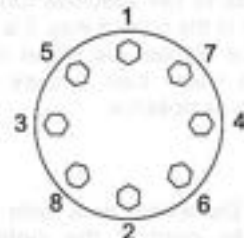
Wheel nut tightening torque	550 to 600 Nm (55 to 60 kgfm)
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6. When installing dual rear wheels, make sure that the air valve of the inner wheel is not lined up with the air valve of the outer wheel.

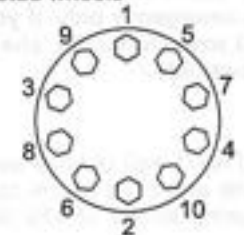
WARNING

- Fit the socket wrench securely on the wheel nut. If fitted improperly, the wrench will slip off the nut, and could cause injury.
- Push the wrench handle into the socket wrench until it protrudes slightly. Not inserting the wrench handle far enough is dangerous as the wrench handle could come out.
- Do not jump or jerk on the wrench handle when tightening the nut by using your own weight. Doing so can overtighten the nut.
- Be sure to tighten the wheel nuts to the specified torque. Excessive torque could elongate the bolt or deform the surface of the disc wheel.
- As the vehicle is driven after a wheel has been replaced, the wheel nuts loosen up somewhat during the early stages of driving due to "wear-in". Therefore, it is necessary to retighten the wheel nuts to the specified torque after driving 50 to 100 km. Thereafter, retighten the nuts at regular intervals.
- Do not use JIS-type 8-stud wheels on a vehicle with ISO-type 8-stud wheels because a sufficient tightening torque cannot be achieved and a wheel could fall off, resulting in a serious accident.

<8-stud wheels>



<10-stud wheels>



Z20399

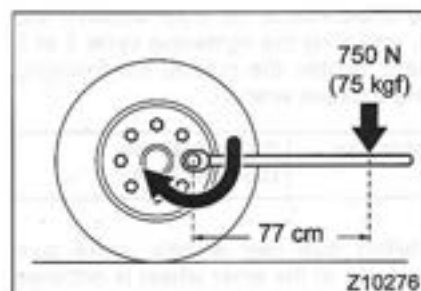
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Wheel nut tightening torque	550 to 600 Nm (55 to 60 kgfm)
-----------------------------	----------------------------------

6. When installing dual rear wheels, make sure that the air valve of the inner wheel is not lined up with the air valve of the outer wheel.

WARNING

- Fit the socket wrench securely on the wheel nut. If fitted improperly, the wrench will slip off the nut, and could cause injury.
- Push the wrench handle into the socket wrench until it protrudes slightly. Not inserting the wrench handle far enough is dangerous as the wrench handle could come out.
- Do not jump or jerk on the wrench handle when tightening the nut by using your own weight. Doing so can overtighten the nut.
- Be sure to tighten the wheel nuts to the specified torque. Excessive torque could elongate the bolt or deform the surface of the disc wheel.
- As the vehicle is driven after a wheel has been replaced, the wheel nuts loosen up somewhat during the early stages of driving due to "wear-in". Therefore, it is necessary to retighten the wheel nuts to the specified torque after driving 50 to 100 km. Thereafter, retighten the nuts at regular intervals.
- Do not use JIS-type 8-stud wheels on a vehicle with ISO-type 8-stud wheels because a sufficient tightening torque cannot be achieved and a wheel could fall off, resulting in a serious accident.



7 Approximating the tightening torque without using torque wrench

Tighten the wheel nuts to the specified torque by using a torque wrench in the correct way. If a torque wrench is not available, tighten the wheel nuts as described below then check their torques with a torque wrench as soon as possible.

CAUTION

You should tighten the wheel nuts with a tool that enables you to control the tightening torques. You should use a socket wrench and wrench handle in an emergency only. If you use a socket wrench and wrench handle, check the torques as soon as possible.

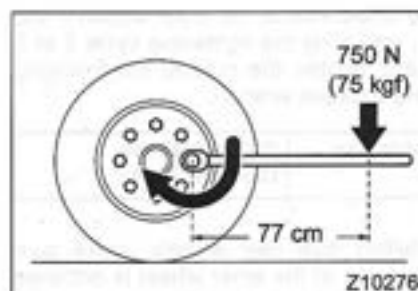
Example

<6-stud wheels>

The application of 750 N (75 kgf) of body weight to a socket wrench handle at a point 63 cm from the nut produces a tightening torque of 470 Nm (47 kgfm).

<8-stud wheels, 10-stud wheels>

The application of 750 N (75 kgf) of body weight to a socket wrench handle at a point 77 cm from the nut produces a tightening torque of 580 Nm (58 kgfm).



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Wheel and wheel nuts – check

1 Installation condition of disc wheels

Inspection interval	At the time of pre-operational check
---------------------	--------------------------------------

Check the wheel nuts, bolts and disc wheels by visual inspection as well as by using an inspection hammer. If any part is faulty, replace it with a new genuine MITSUBISHI part.

WARNING

If any abnormality is found in wheel nuts, bolts or disc wheels, replace the faulty part with a new genuine MITSUBISHI part. If you continue to use the faulty part, the wheel nuts could become loose and a wheel could fall off, resulting in a serious accident.

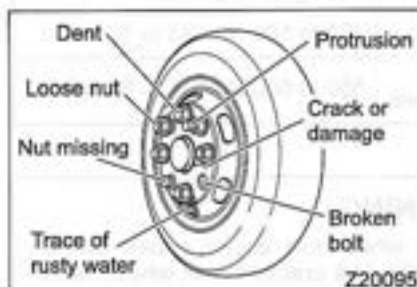
NOTE:

The wheel nuts for 8-stud and 10-stud wheels (ISO type) are right-hand threaded for both the left and right wheels. The wheel nuts for 6-stud and 8-stud wheels (JIS type) are right-hand threaded (marked "R") for the right wheels and left-hand threaded (marked "L") for the left wheels.

1.1 Visual inspection

Visually check the following:

- Check for broken wheel bolts, and loose or missing wheel nuts.
- Check the disc wheels, wheel bolts and wheel nuts for rust and traces of rusty water.
- Check the disc wheels for cracks and damage.
- Check the protrusions of the wheel bolts from the wheel nuts. They should be even between the bolts for one wheel and between bolts for different wheels.



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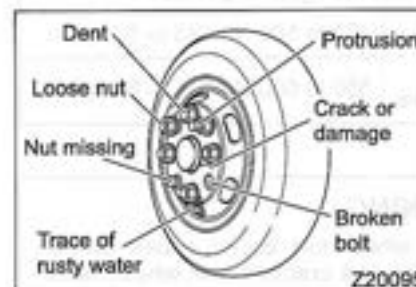
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1.2 Checking with an inspection hammer or small hammer

Check for loose wheel nuts and broken bolts as follows:

Put your fingers on the underside of a wheel nut, hit the top side of the nut with a hammer, and check if the vibrations felt by your fingers are different from those from other nuts or if a hollow sound is produced.

2 Wheel nuts inspection

Inspection interval	Every 5,000 km
---------------------	----------------

The wheel nuts inspection during the run-in period should be performed at the first 2,000 km.

⚠ WARNING

After changing a tire, the wheel nuts will loosen somewhat during the initial stages of driving due to "wear-in." Therefore, retighten the wheel nuts to specification after you have driven 50 to 100 km.

Using a torque wrench, check for loose wheel nuts and tighten as necessary.

Wheel nut tightening torque	
6-stud wheels	450 to 500 Nm (45 to 50 kgfm)
8-stud and 10-stud wheels	550 to 600 Nm (55 to 60 kgfm)

⚠ WARNING

- A loose wheel nut could cause broken wheel bolts or a cracked disc wheel, resulting in a tire coming loose or falling off.
- Fit the socket wrench securely on the wheel nut. If fitted improperly, the wrench will slip off the nut, and could cause injury.



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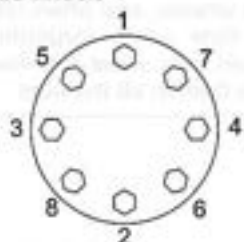
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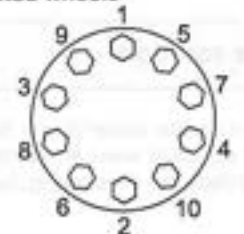
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- A loose wheel nut could cause broken wheel bolts or a cracked disc wheel, resulting in a tire coming loose or falling off.
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<8-stud wheels>



<10-stud wheels>



Z20399

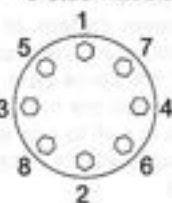
8-stud and 10-stud wheel vehicles (ISO type)

Tighten the wheel nuts to the specified torque. Follow the diagonal tightening sequence indicated in the figure.

<6-stud wheels>



<8-stud wheels>



Z00394

6-stud and 8-stud wheel vehicles (JIS type)

Retighten the wheel nuts using the following 2-process procedure.

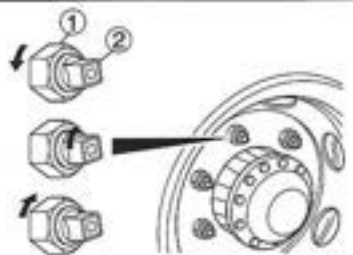
1st process

1. Loosen the outer wheel nuts ① as follows:
Loosen the nuts numbered 1 - 4 - 5 or 2 - 3 - 6 in the figure in this order.
2. Tighten the inner wheel nuts ② corresponding to the loosened outer wheel nuts to the specified torque.

3. Apply a thin coat of chassis grease, wheel bearing grease or engine oil to the external threads ③ of inner wheel nuts and the spherical surfaces ④ of outer wheel nuts. Tighten the outer wheel nuts to the specified torque.

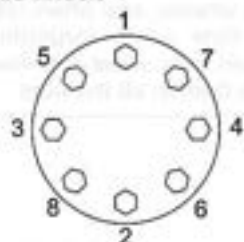
2nd process

4. Perform the above steps 1 through 3 for the remaining outer wheel nuts and inner wheel nuts.

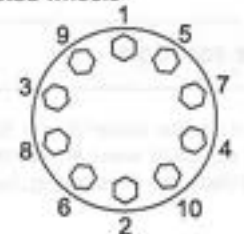


Z00397

<8-stud wheels>



<10-stud wheels>



Z20399

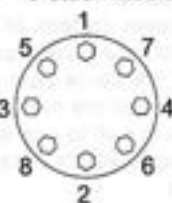
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<8-stud wheels>



Z00394

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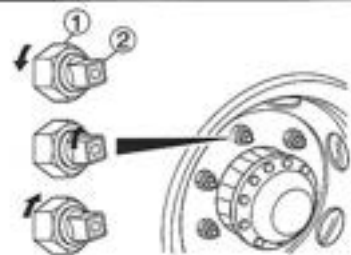
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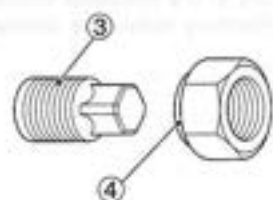
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2nd process

4. Perform the above steps 1 through 3 for the remaining outer wheel nuts and inner wheel nuts.



Z00397

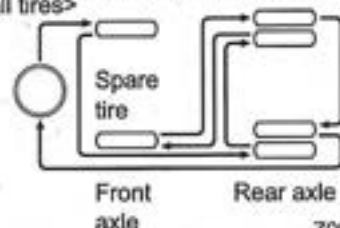


Z13906

! WARNING

In the case of dual wheels, one often retightens outer wheel nuts while forgetting to retighten inner wheel nuts. Always follow the above procedure to tighten all the nuts.

<FK, FM: Same tread pattern on all tires>



Z00398

Tire rotation

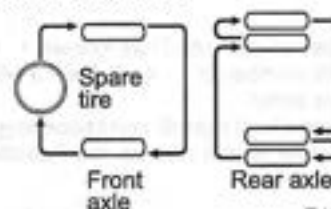
The amount of wear on a tire depends on its position on the vehicle. To equalize wear and extend life as much as possible, rotate the tires at regular intervals.

Tire rotation intervals	Every 10,000 km
-------------------------	-----------------

Tire rotation pattern

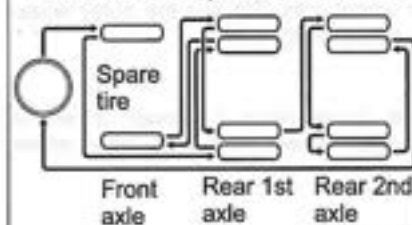
- Plan the rotation pattern of tires so that their rotating directions are reversed.
- Use a tire of the same type on a single axle. If different type tires are mounted on an axle, the vehicle tends to pull to one side during braking, and could cause you to lose directional control of the vehicle.

<FM: Different tread patterns on front and rear tires>

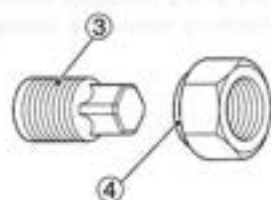


Z18584

<FN: Same tread pattern on all tires>



Z03953

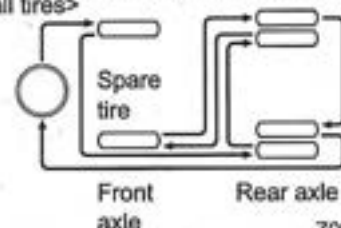


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Z00398

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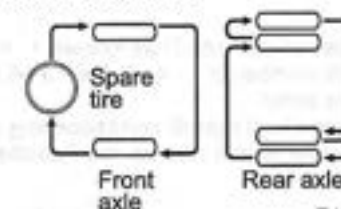
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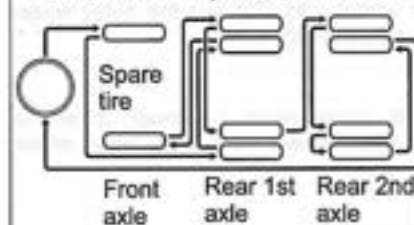
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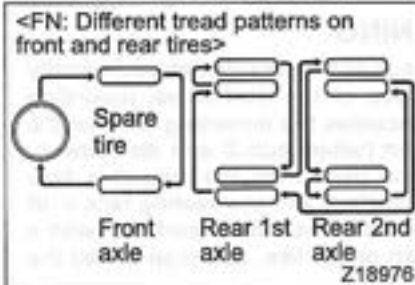


Z18584

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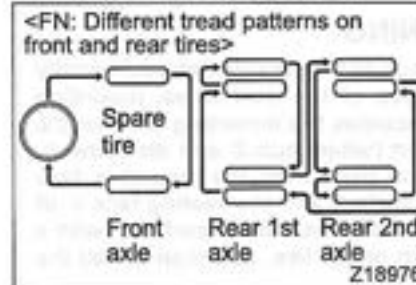


Z03953



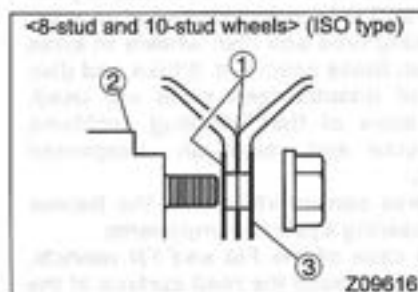
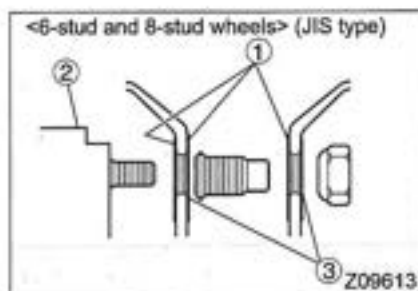
⚠ WARNING

- Mixing bias and radial tires results in poor steering and should be avoided at all cost.
- Avoid using tires and disc wheels of sizes other than those specified. If tires and disc wheels of unauthorized sizes are used, one or more of the following problems could occur and cause an unexpected accident.
 - The tires can interfere with the frames and steering system components.
 - In the case of the FM and FN models, the height above the road surface of the FUP will change. This may prevent the FUP from providing full protection in the event of a collision or cause the FUP to interfere with the road surface depending on the road surface and driving conditions.
- As the vehicle is driven after a wheel has been replaced, the wheel nuts loosen up somewhat during the early stages of driving due to "wear-in". Therefore, it is necessary to retighten the wheel nuts to the specified torque after driving 50 to 100 km. Thereafter, retighten the nuts at regular intervals.



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⚠ WARNING

- If as a result of tire rotation, an additionally painted face of the disk wheel mounting face ① becomes the mounting face for the mating part (wheel hub ② and disk wheel), remove the paint from the mounting face of the disk wheel and the seating face ③ of the wheel nut, clean these surfaces with a wire brush or the like, and then install the wheel.

If you use the mounting faces without removing the paint, the wheel nuts are likely to become loose because the paint film is thick.

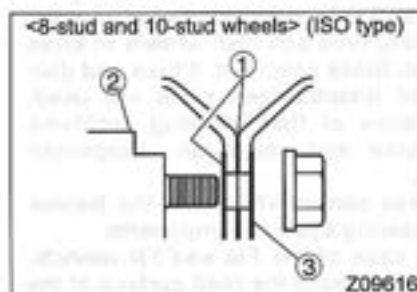
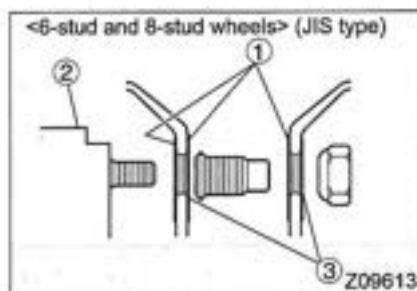
⚠ CAUTION

- Because of their propensity to generate heat, new tires tend to wear quickly. Therefore, a pair of new tires should be placed on the front of the vehicle where the load is smaller. Break in new tires by driving 200 km or more at 60 km/h or less. After this run-in period, check tire pressure.
- If using different tread patterns on the front and rear wheels, select tires with a ribbed tread for the front wheels and tires with a traction-type tread for the rear wheels.
- In the case of dual wheels, ensure the following difference in outside diameter and install the smaller tire inside.

Difference in O.D. between inner and outer tires of dual wheels

Tire size	Difference in O.D. (mm)
8.25R16	6 or less
235/75R17.5	6 or less
245/70R19.5	6 or less
265/70R19.5	8 or less
11R22.5	8 or less
275/70R22.5	8 or less

- When the front wheels and rear wheels are the same size, ensure that the difference between the O.D. of the front and rear wheels is within 5%.



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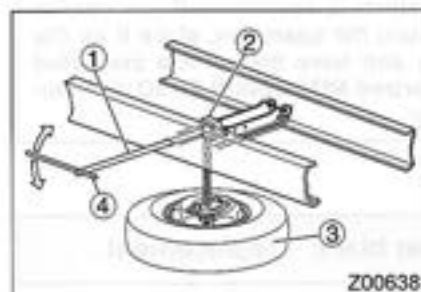
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Spare tire

Over time, the air in the spare tire leaks little by little. Consequently, you should keep the inflation pressure of the spare tire slightly higher than the standard pressure. If you use the spare tire, reduce the inflation pressure to the standard level.

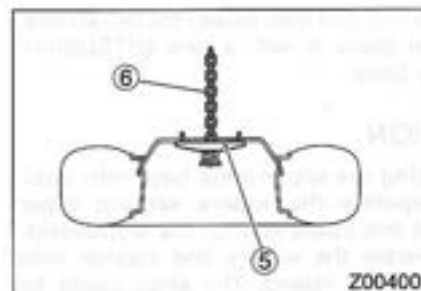
1 To use

Insert wrench handle ① fitted with lever ④ into spare tire carrier ② as illustrated and turn it counter-clockwise to lower spare tire ③.



2 To stow

1. Face up the outer side of the disc wheel and position hanger plate ⑤ as illustrated.
2. Turn the wrench handle clockwise to raise the spare tire.
Slowly raise the spare tire, making sure that chain ⑥ is not twisted and that the hanger plate is not out of position. If the chain is twisted, the spare tire could come loose while the vehicle is in motion.
3. After the spare tire has been raised completely, tighten the wrench handle with a torque of about 49 Nm (5.0 kgfm); then, remove it taking care not to turn it counterclockwise. Applying a force of about 295 N (30 kgf) to the end of the lever results in a tightening torque of about 49 Nm (5.0 kgfm).
4. Kick the spare tire to make sure that it is secure. If it is loose, make sure that the hanger plate and the disc wheel are intact, then tighten the wrench handle further.
If after taking these precautions the spare tire is still loose, remove it from the vehicle before driving as it could drop out of position while the vehicle is in motion.

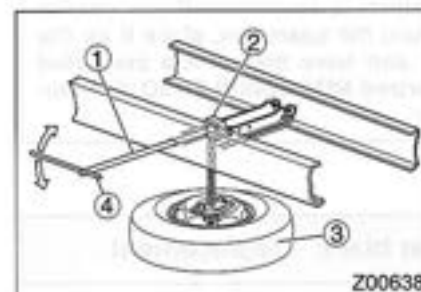


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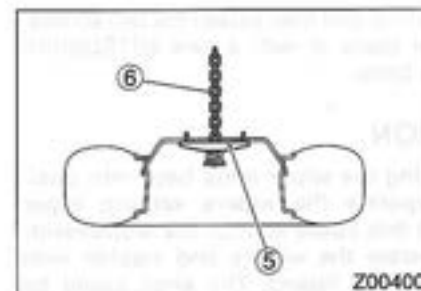
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⚠ CAUTION

Take care not to overtighten the spare tire handle since this could damage the spare tire carrier.

⚠ WARNING

A loose spare tire can drop out of position while the vehicle is in motion. If you cannot securely retain the spare tire, place it on the cargo deck and have the vehicle inspected by an authorized MITSUBISHI FUSO distributor or dealer.

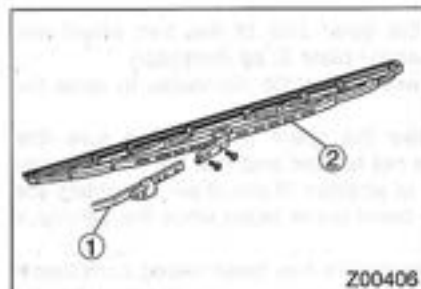
Wiper blade – replacement**1 Replacing wiper blade**

<Type 1>

Raise wiper arm ① and then loosen the two screws. Replace wiper blade ② with a new MITSUBISHI genuine wiper blade.

⚠ CAUTION

- Do not bring the wiper arms back into position or operate the wipers without wiper blades, as this could scratch the windshield.
- Never operate the wipers and washer with the wiper arms raised. The arms could be damaged.



Z00408

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Take care not to overtighten the spare tire handle since this could damage the spare tire carrier.

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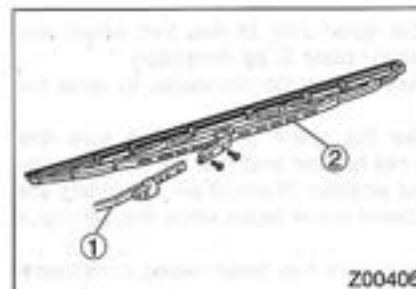
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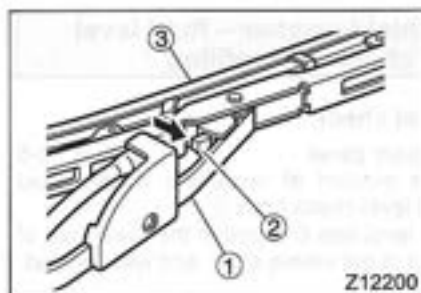
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- Do not bring the wiper arms back into position or operate the wipers without wiper blades, as this could scratch the windshield.
- Never operate the wipers and washer with the wiper arms raised. The arms could be damaged.

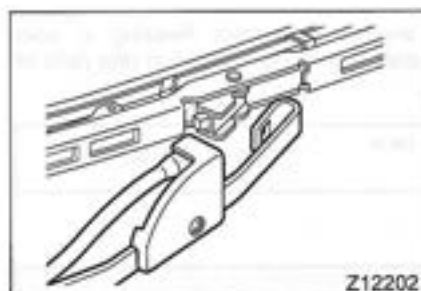
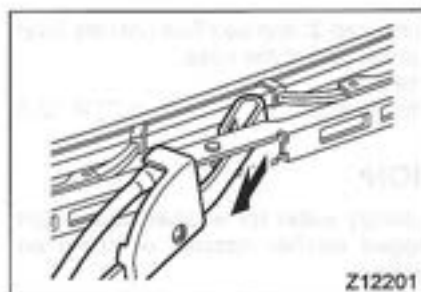


Z00408



<Type 2>

1. Raise the wiper arm ①, push the clip spring ② in the direction of the arrow and keep the spring held in that state.
2. Push the wiper blade ③ against the wiper arm.



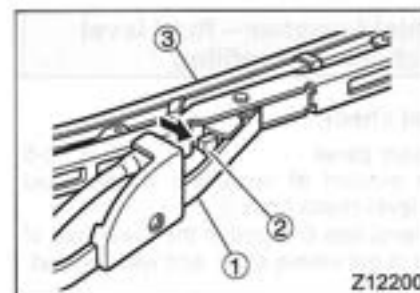
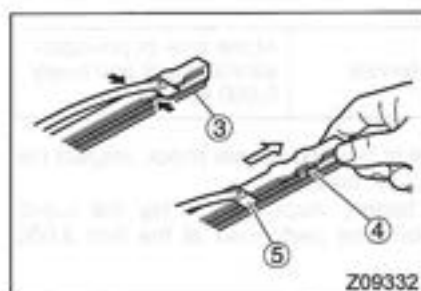
3. The wiper blade and wiper arm will come free. When fitting a new wiper blade, make sure it locks securely onto the wiper arm.

CAUTION

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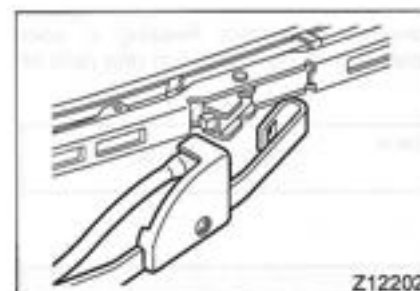
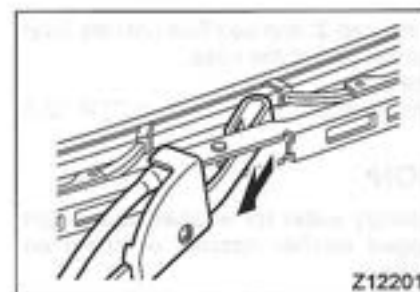
2 Replacing blade rubber only

1. Raise the wiper arm.
Pinch both sides (indicated by arrows) of blade rubber ③ with your fingers and then pull the blade rubber so that claws ⑤ are unhooked from grooves ④ in the blade rubber.
2. Slide out the blade rubber.
3. Replace the old blade rubber with a new MITSUBISHI genuine wiper blade rubber.
To install, reverse the removal procedure. Make sure that the claws fit into the grooves in blade rubber.



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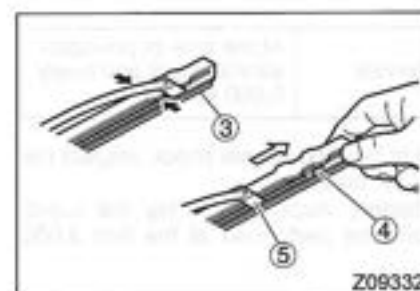
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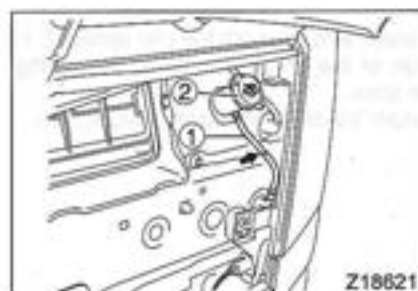
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Windshield washer – fluid level check and refilling

1 Fluid level check

1. Open the front panel. ⇨ P. 12-5
2. Check the amount of remaining washer fluid using fluid level check hose ①.
3. If the fluid level has dropped to the lower part of the hose or is not visible at all, add washer fluid.

2 Refilling

1. Open the tank cap ② and add fluid until the level nears the upper part of the hose.
2. Close the tank cap.
3. Close the front panel. ⇨ P. 12-5

! CAUTION

Substituting soapy water for washer fluid could result in clogged washer nozzles or spots on painted surfaces.

NOTE:

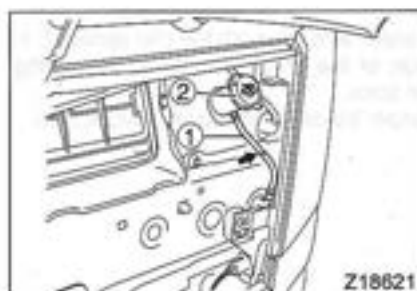
Prevent the washer fluid from freezing in cold weather by increasing its concentration (the ratio of fluid to water).

Washer fluid tank capacity	Approx. 5.5 liters
----------------------------	--------------------

Battery – check

Inspection intervals	At the time of pre-operational check and every 5,000 km
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- At the time of pre-operational check, inspect the battery only for fluid level.
- The first battery inspection during the run-in period should be performed at the first 2,000 km.



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⚠ WARNING

The battery generates flammable hydrogen gas and should be kept away from open flame and spark.

⚠ CAUTION

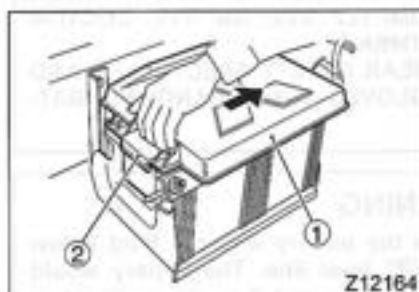
If the battery needs to be charged, remove it from the vehicle and remove the caps where possible before starting the procedure. If it is charged in the vehicle owing to unavoidable circumstances, be sure to disconnect the negative (-) battery cable.

NOTE:

Follow the correct procedure when jump starting a vehicle with a dead battery by connecting it to a live battery using a booster cable. ⇨ P. 13-26

1 Removal and installation of battery cover**1.1 Type 1**

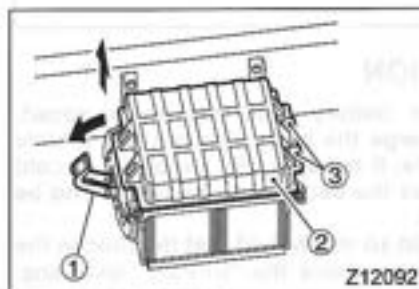
1. Push the battery cover ① towards the front or rear stopper ②.
2. Disengage one end of the bent battery cover from its stopper and remove the battery cover.
3. To replace the battery cover, reverse the steps taken to remove it.



Z12164

1.2 Type 2

1. Pull the stopper ① on the left side of the battery to unlock the cover ② and raise the left end of the cover by approximately 5 cm.
2. Move the cover leftward to disengage it from the right-hand stoppers ③ before removing the cover.
3. Follow the above steps in reverse to reinstall the cover. After installation, make sure the cover is securely locked in position.



Z12092

⚠ WARNING

The battery generates flammable hydrogen gas and should be kept away from open flame and spark.

⚠ CAUTION

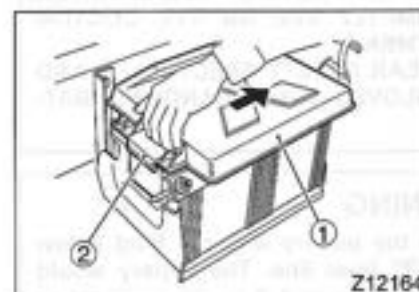
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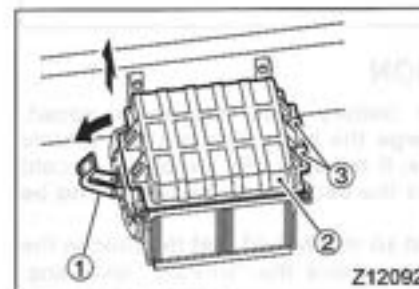
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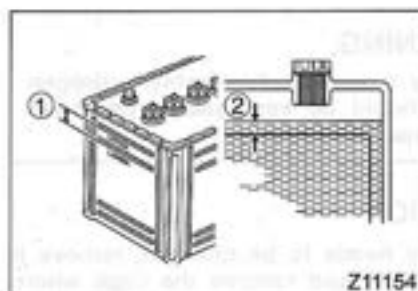
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Z12092



2 Battery fluid level check

- The battery fluid level should be between the "UPPER" and "LOWER" level lines ① marked on the battery case. If the battery fluid level is low, add electrolyte or distilled water to the "UPPER" level line.
- If your battery has no level line markers, the fluid should be ② 10 to 15 mm above the tops of the electrode plates.

⚠ DANGER

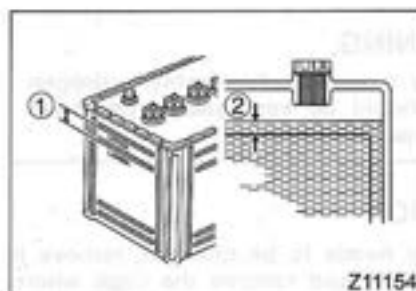
BATTERY FLUID IS DILUTE SULFURIC ACID AND CAN HARM MOST THINGS IT TOUCHES, INCLUDING HUMAN SKIN AND CLOTHING. IF YOU GET IT ON YOUR SKIN OR CLOTHING, FLUSH IT OFF WITH SOAP AND WATER. IF YOU ACCIDENTALLY GET BATTERY FLUID IN YOUR EYES, WASH YOUR EYES WITH LOTS OF CLEAN WATER THEN PROMPTLY SEE AN EYE DOCTOR FOR TREATMENT. ALWAYS WEAR SAFETY SPECTACLES AND RUBBER GLOVES WHEN HANDLING BATTERIES.

⚠ WARNING

Do not use the battery with the fluid below the "LOWER" level line. The battery would deteriorate rapidly, and it could overheat or explode.

⚠ CAUTION

- Whenever battery fluid has been added, either charge the battery or run the vehicle for a while. It is especially important in cold weather as the battery can freeze up and be damaged.
- Do not add so much fluid that the fluid in the battery rises above the "UPPER" level line. With the fluid above the "UPPER" level, fluid could leak out and corrode the battery terminals.



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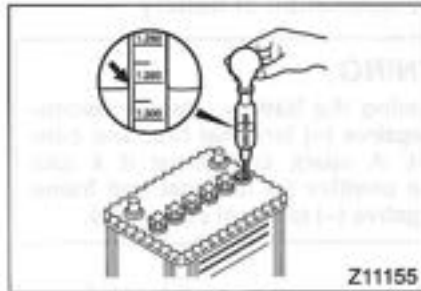
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Z11155

3 Checking specific gravity of battery fluid

You can determine the battery's state of charge by checking the specific gravity of its fluid. Use a hydrometer to measure the specific gravity of the battery fluid. If the specific gravity is lower than 1.220 (battery fluid temperature at 20°C), the battery must be recharged. If the battery fluid temperature is higher or lower than 20°C, you may convert a specific gravity measurement into its 20°C temperature equivalent by using the following formula:

$$S_{20} = S_t + 0.0007 (t - 20)$$

S_{20} : specific gravity at fluid temperature of 20°C

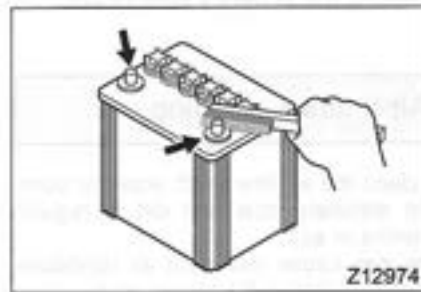
S_t : specific gravity measurement

t : battery fluid temperature (°C)

Have the battery inspected by an authorized MITSUBISHI FUSO distributor or dealer.

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Z12974

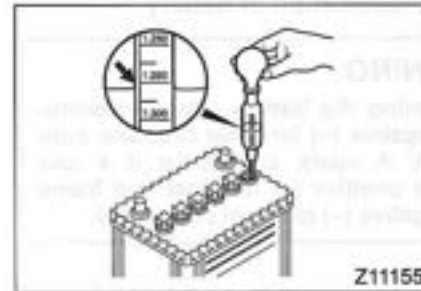
4 Cleaning the terminals

Clean the battery terminals if they become dirty or corroded.

Use warm water to remove any white powder caused by corrosion.

If a terminal is seriously corroded, remove the battery cable and clean the terminal with a wire brush or sandpaper.

After cleaning, apply a thin coat of grease to the terminals.



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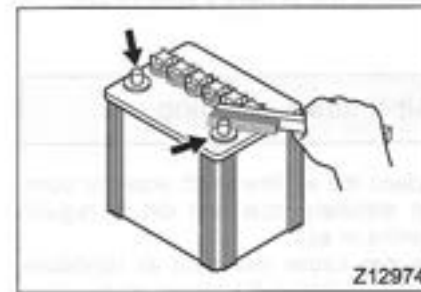
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5 Removal/Installation of battery

⚠ WARNING

When removing the battery, always disconnect the negative (-) terminal first and connect it last. A spark can occur if a tool touches the positive (+) terminal and frame with the negative (-) terminal connected.

1. Loosen the connector nut on the negative (-) terminal ① and disconnect the cable. In the same way, disconnect the cable from the positive (+) terminal ②.
2. Undo the battery holding screws ③ to remove the battery.
3. When reinstalling the battery, carry out these steps in reverse, connecting the negative (-) cable last.

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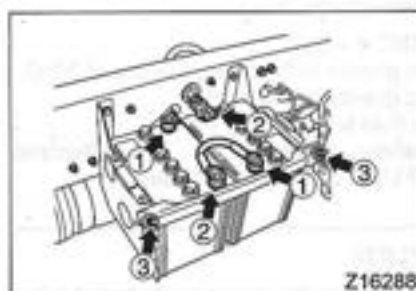
- Store used batteries out of reach of children. Leaking fluid could cause burns and loss of eyesight.
- Keep used batteries upright, i.e., with their terminals on top. Do not lay used batteries on their sides since this can cause fluid leakage and fires.

⚠ CAUTION

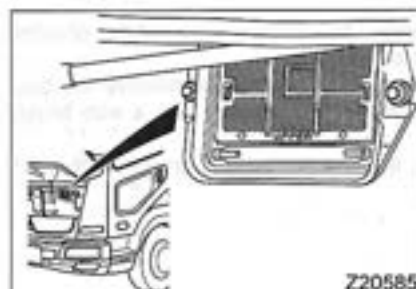
Make sure the battery is fitted securely. If the battery is loose, the vibration caused by vehicle operation may damage the case and plates, thereby shortening the battery's service life.

Air filters – cleaning

Remove and clean the air filters with water or compressed air to eliminate dust and dirt at regular intervals (6 months or so). Clogged filters may cause inefficient air conditioning, and even malfunction of the blower motor.



Z16288



Z20585

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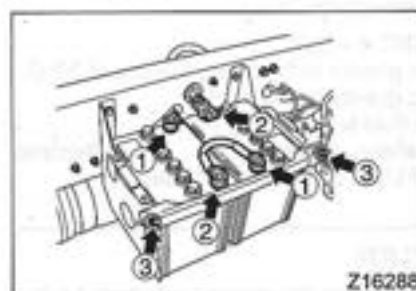
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Z16288



Z20585

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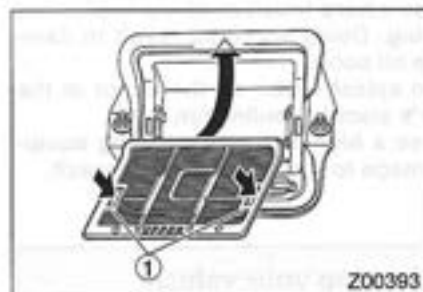
When cleaning the air filters, wear a dust mask to avoid inhaling dust. Dust inhalation can have adverse health effects.

⚠ CAUTION

If your vehicle is used frequently in dusty area, the air filters will be dogged easily. Clean the air filters when the performance of the air conditioner becomes poor.

1 Outside-air filter

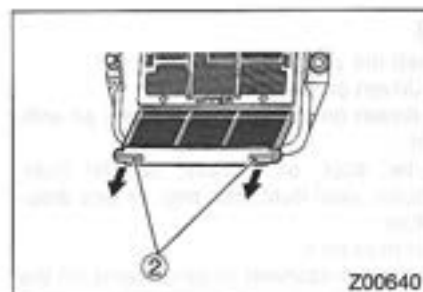
1. Remove the air filter by bending its frame inward to disengage the lugs and pulling the filter downward.
2. To install the air filter, fit the top end into position, then press lugs ① into the catches.



Z00393

2 Inside-air filter

Pull tabs ② to slide out the air filter. To install, press the air filter all the way into position.



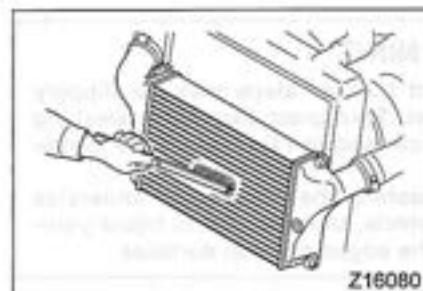
Z00640

Intercooler – cleaning

If the front of the intercooler is heavily clogged with dust or mud, the engine performance may be affected. Clean it from time to time by using a brush or something also appropriate.

⚠ CAUTION

The intercooler could be damaged if an object with a sharp point is used for its cleaning.



Z16080

⚠ WARNING

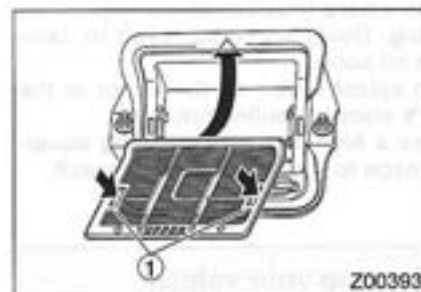
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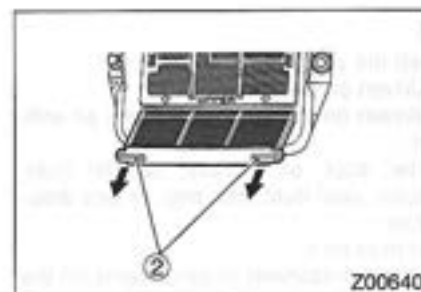
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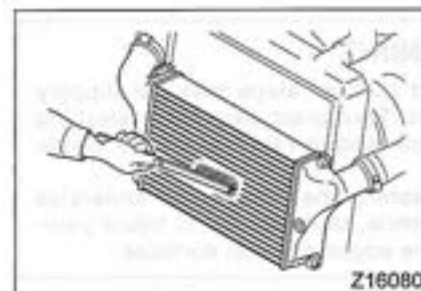
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Z16080



Z21242

Transmission oil cooler – cleaning

<Automatic transmission vehicles>

If a large amount of dirt or mud adheres to the front of the oil cooler, it will reduce the oil cooler's cooling performance and cause rust. From time to time, wash with water the front of the oil cooler and the cover that's attached to it. The oil coolers are located on both sides of the vehicle.

⚠ CAUTION

- Do not use a hard brush or sharp implement for cleaning. Doing so could result in damage to the oil cooler.
- Try not to splash water on the motor of the oil cooler's electric cooling fan.
- Do not use a high-pressure cleaning equipment. Damage to the oil cooler may result.



Z21815

Cleaning your vehicle

1 Washing

Be sure to wash the vehicle whenever it

- has been driven on coastal roads;
- has been driven on a road covered with an anti-icing agent;
- has coal tar, soot, oil, grease, powder dust, metal particles, coal dust, tree sap, or bird droppings on it; or
- has dust or mud on it.

When cleaning the windshield or other items on the front of the vehicle, hold the hand grips securely and stand on the front bumper steps.

⚠ WARNING

- The front bumper steps may be slippery when wet. Take great care when washing the vehicle and in rainy or snowy conditions.
- When washing the wheels and underside of the vehicle, take care not to injure yourself on the edges of metal surfaces.



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- When washing the wheels and underside of the vehicle, take care not to injure yourself on the edges of metal surfaces.

CAUTION

- Do not step on plastic body parts like the fenders ①. Doing so not only may damage these parts but also is dangerous since you could fall down.
- Avoid splashing water on the air intake port or the area where it connects to the engine. Especially when the vehicle is washed with the cab tilted, avoid allowing water to enter the engine through the air intake port.
- Be careful not to allow water to get into the muffler. Take special care when washing the underside of the chassis immediately after driving while the muffler is still hot. If water gets into the muffler, the catalyst or sensors could be damaged.
- Cleaning plastic parts with thinner or gasoline could result in cracking or discoloration.
- When washing the vehicle, pay particular attention to the wheel housings and the underside of the chassis if the vehicle has been driven in a coastal area or on a road covered with an anti-icing agent. Also pay particular attention to the wheel housings and the underside of the chassis if the vehicle is often used to carry marine products or coal and is thus prone to the effects of seawater or to serious paint damage. If anti-icing agent is left on the vehicle, it will stick to the vehicle and become impossible to remove with normal washing. Carefully wash the vehicle with a high-pressure cleaner. Any salt or large amounts of anti-icing agent left on the vehicle will cause premature rust.
- In cold weather, the key holes and rubber parts of the door sometimes freeze, making it hard to open the door. After washing, remove moisture on and around the doors. Applying silicone with antifreeze capabilities is one solution to this problem.



Z16079

1. Wash dirt off the vehicle by spraying water on the vehicle with a hose. Pay attention not only to the cab but also to the wheel housings and the underside of the chassis.
2. Remove any stubborn dirt using car shampoo. Wash the dirt and car shampoo off thoroughly with water.
3. Wipe water off the vehicle so spots do not remain.

CAUTION

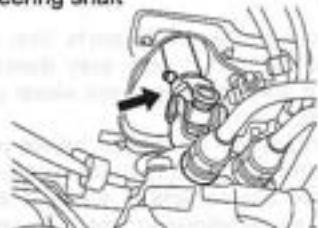
- Do not step on plastic body parts like the fenders ①. Doing so not only may damage these parts but also is dangerous since you could fall down.
- Avoid splashing water on the air intake port or the area where it connects to the engine. Especially when the vehicle is washed with the cab tilted, avoid allowing water to enter the engine through the air intake port.
- Be careful not to allow water to get into the muffler. Take special care when washing the underside of the chassis immediately after driving while the muffler is still hot. If water gets into the muffler, the catalyst or sensors could be damaged.
- Cleaning plastic parts with thinner or gasoline could result in cracking or discoloration.
- When washing the vehicle, pay particular attention to the wheel housings and the underside of the chassis if the vehicle has been driven in a coastal area or on a road covered with an anti-icing agent. Also pay particular attention to the wheel housings and the underside of the chassis if the vehicle is often used to carry marine products or coal and is thus prone to the effects of seawater or to serious paint damage. If anti-icing agent is left on the vehicle, it will stick to the vehicle and become impossible to remove with normal washing. Carefully wash the vehicle with a high-pressure cleaner. Any salt or large amounts of anti-icing agent left on the vehicle will cause premature rust.
- In cold weather, the key holes and rubber parts of the door sometimes freeze, making it hard to open the door. After washing, remove moisture on and around the doors. Applying silicone with antifreeze capabilities is one solution to this problem.



Z16079

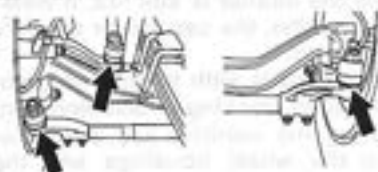
1. Wash dirt off the vehicle by spraying water on the vehicle with a hose. Pay attention not only to the cab but also to the wheel housings and the underside of the chassis.
2. Remove any stubborn dirt using car shampoo. Wash the dirt and car shampoo off thoroughly with water.
3. Wipe water off the vehicle so spots do not remain.

Steering shaft



Z12148

Dust covers on steering system parts and dust covers on front axle

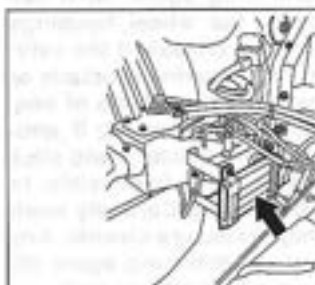


Z12149

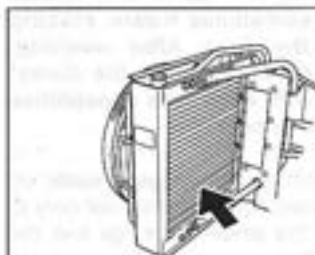
2 Precautions when using a high-pressure cleaner

When washing the inside of the engine compartment or underside of the vehicle, be careful not to direct water or steam from a high-pressure cleaner toward the following parts. Doing so could cause a malfunction and damage to components.

- Connectors on the alternator, starter, and other electrical components and connectors of electrical wiring to them
- High-current fuse box
- Outlet of muffler
- Steering shaft
- Dust covers on steering system parts and dust covers on front axle
- Engine air intake port and its connection
- Components of fuel injector
- Outside air inlet (air filter area of air conditioner)
- Fuel cooler <Fuel cooler vehicles>
- Transmission oil cooler <Automatic transmission vehicles>

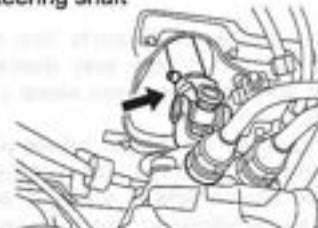


Z21634



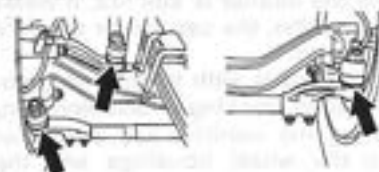
Z21892

Steering shaft



Z12148

Dust covers on steering system parts and dust covers on front axle

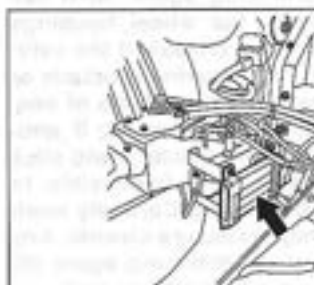


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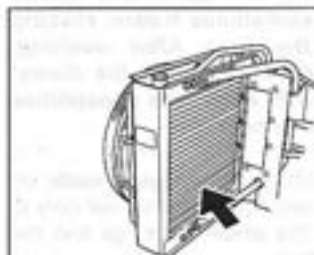
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Z21634



Z21892

3 Waxing the vehicle

To protect the paintwork, we recommend you apply protective wax approximately once per month. Wax the paintwork after washing the vehicle, while the paintwork is no warmer than body temperature, and with the vehicle parked out of direct sunlight.

NOTE:

- *Applying wax when the paintwork is hot could result in stains.*
- *Do not use wax that contains polishing compound. It could scratch the paintwork and destroy the luster. We recommend you use only Mitsubishi Fuso genuine wax.*

4 Inspecting the vehicle for rust and corrosion

- Rust or corrosion on the underside or chassis of the vehicle could cause an accident or breakdown. After washing the vehicle, check for rust and for rust perforation. Remove any rust using a wire brush, then perform paint repair and/or apply rust inhibitor. If you find rust perforation, have corrective work performed promptly by your nearest authorized MITSUBISHI FUSO distributor or dealer.
- To be able to use the vehicle with peace of mind for as long as possible, you must give the vehicle a thorough inspection for rust and corrosion at least once a year, performing paint repair and/or applying rust inhibitor as necessary.

5 Interior care

CAUTION

- Do not use any organic solvent (for example, thinner or gasoline) or any acidic or alkaline solvent. It could cause discoloration and/or stains.
- Do not wash the floor mats with water without removing them from the vehicle. The floor could rust, and water could splash on the relays, electronic control units, and accelerator pedal, causing a malfunction. Remove the floor mats from the vehicle before washing them. Thoroughly dry the backing felt before putting the floor mats back in the vehicle. Make sure the floor mats do not obstruct the accelerator pedal or any other moving part.

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- Do not directly spray or splash water (using a hose, for example) on internal parts of the vehicle to wash them. The floor could rust, and electrical items such as relays and electronic control units could malfunction. If water collects inside the vehicle, either remove the drain plug and allow the water to run out or wipe up all of the water with a cloth.

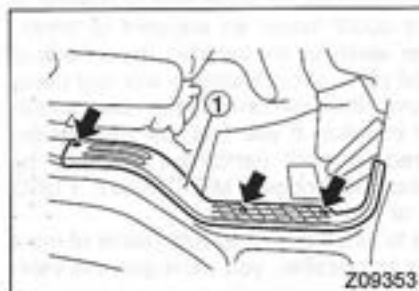
1. Remove dust using a vacuum cleaner.
2. Wipe dirt away using a soft cloth soaked in a water-diluted neutral detergent.
3. Soak a cloth in clean water, wring it thoroughly, and use it to wipe up any remaining detergent.
4. Dry the floor mats in a shaded, well-ventilated place.

5.1 Removing floor mat for cleaning

When removing the floor mat for cleaning, you must remove the scuff plates ①.

WARNING

When refitting the floor mat after cleaning, make sure it does not interfere with the accelerator and brake pedals.



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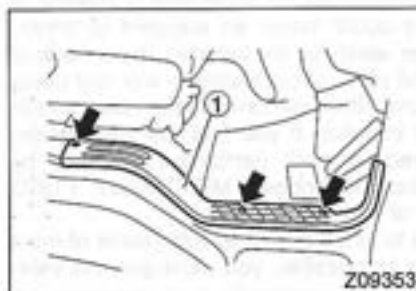
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13. Useful advices for emergencies

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Possible failures, causes and remedies

Performing daily checks and good maintenance are keys to preventing mechanical failures and the resultant accidents. Be sure to check and service your vehicle regularly.

Should your vehicle suffer a mechanical failure or malfunction, the measures needed to correct the problem can be found using the following chart.

If you are unable to correct the problem yourself or the problem persists after you have attempted to repair it, contact an authorized MITSUBISHI FUSO distributor or dealer for technical assistance.

The engine does not start.

The starter does not turn over or turns over too slowly.

Possible cause	Remedy	Ref. page
The starter switch fuse or high-current fuse is blown.	Replace the blown fuse or high-current fuse with a new one of the specified amperage.	13-9
Battery has run down.	Charge or replace the battery.	13-26
Battery cable is disconnected, loose or corroded.	Remove corrosion and connect the cable correctly.	12-108
Connection to ground terminal is open.	Connect securely.	—
Engine oil viscosity is too high.	Replace the oil with an oil of proper viscosity.	12-30
The starter is faulty.	Have the vehicle inspected by your nearest authorized MITSUBISHI FUSO distributor or dealer.	—

The starter turns over normally.

Possible cause	Remedy	Ref. page
Fuel has run out.	Refuel and bleed the system.	13-27
Air is present in the fuel system.	Bleed the system.	13-27
The fuel filter is clogged.	Replace the filter element.	12-47
Fuel is frozen.	Heat the fuel pipe with hot water (60°C or less).	—
The air cleaner is clogged.	Clean or replace the air cleaner element.	12-53

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Possible cause	Remedy	Ref. page
There is malfunction in any of the fuel injection system components.	Have the vehicle inspected by your nearest authorized MITSUBISHI FUSO distributor or dealer.	—

The engine starts but stalls immediately.

Possible cause	Remedy	Ref. page
Idling speed setting is too low.	Have the vehicle inspected by your nearest MITSUBISHI FUSO distributor or dealer.	—
The fuel filter is clogged.	Replace the filter element.	12-47
The air cleaner is clogged.	Clean or replace the air cleaner element.	12-53
There is malfunction in any of the fuel injection system components.	Have the vehicle inspected by your nearest MITSUBISHI FUSO distributor or dealer.	—

Black smoke is emitted in exhaust.

Possible cause	Remedy	Ref. page
The air cleaner is clogged.	Clean or replace the air cleaner element.	12-53

The engine overheats.

Possible cause	Remedy	Ref. page
The front of the radiator is plugged with dust and dirt.	Clean the radiator with a soft brush.	—
The front of the intercooler is plugged with dust and dirt.	Clean the radiator with a soft brush.	—
The coolant level is too low.	Add coolant.	12-58
The radiator cap is not closed completely.	Fit the cap firmly.	—
The V-belt is loose.	Adjust the belt tension.	12-66
The coolant is contaminated.	Flush the cooling system and replace the coolant.	12-58

Engine oil pressure does not build up.

Possible cause	Remedy	Ref. page
Insufficient quantity of engine oil.	Add engine oil.	12-30

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Engine oil pressure does not build up.

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Insufficient quantity of engine oil.	Add engine oil.	12-30

Possible cause	Remedy	Ref. page
Engine oil viscosity is not adequate.	Replace the engine oil with one of a proper viscosity.	12-30

Fuel consumption is excessive.

Possible cause	Remedy	Ref. page
There is a fuel leak.	Check the fuel system and retighten connections as necessary.	—
The air cleaner is clogged.	Clean or replace the air cleaner element.	12-53
Tire pressure is too low.	Adjust to the adequate inflation pressure.	12-79
The clutch is slipping.	Adjust the play.	—

Engine oil consumption is excessive.

Possible cause	Remedy	Ref. page
The wrong oil is being used.	Replace the engine oil with a proper one.	12-30
There is too much oil.	Adjust the quantity to the proper level.	12-30
There is an oil leak.	Check the oil circuit and retighten connections as necessary.	—
Engine oil replacement intervals are too long.	Change the engine oil at prescribed intervals.	12-30
The oil filter is clogged.	Replace the filter element.	12-46

Drive power is insufficient.

Possible cause	Remedy	Ref. page
The parking brake is activated.	Release the parking brake completely.	5-25
The air cleaner is clogged.	Clean or replace the air cleaner element.	12-53
The fuel filter is clogged.	Replace the filter element.	12-47
The clutch is slipping.	Adjust play.	—
Air is present in the fuel system.	Bleed the fuel system.	13-27

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The clutch disengages incompletely.

Possible cause	Remedy	Ref. page
Air pressure is too low.	Increase the engine speed to boost the air pressure.	—
Clutch fluid is insufficient.	Add clutch fluid.	12-42
Clutch pedal play is excessive.	Adjust.	—

Braking is sluggish.

Possible cause	Remedy	Ref. page
Air pressure is too low.	Increase the engine speed to boost air pressure.	—
Brake fluid is insufficient. <Air-over hydraulic brake vehicles>	Add brake fluid.	—
There is an air leak.	Check the air or vacuum circuit and retighten connections as necessary.	—
Brake drum to lining clearance is too large.	Have the vehicle inspected by your nearest authorized MITSUBISHI FUSO distributor or dealer.	—

The vehicle pulls to one side during braking.

Possible cause	Remedy	Ref. page
Tires are not uniformly inflated.	Inflate tires properly.	12-79
Tires wear unevenly.	Replace tires.	12-81
Cargo is heavier on one side than the other.	Load cargo evenly.	—
Brake drum to lining clearances are uneven between left and right brakes.	Have the vehicle inspected by your nearest authorized MITSUBISHI FUSO distributor or dealer.	—

Steering is difficult.

Possible cause	Remedy	Ref. page
Cargo is over-loaded on the front side.	Load cargo evenly.	—
Power steering fluid is insufficient.	Add power steering fluid.	12-45
Front tire pressure is insufficient.	Inflate tires to recommended pressures.	12-79

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The steering wheel vibrates.

Possible cause	Remedy	Ref. page
Wheel nuts are loose.	Tighten the wheel nuts to specification.	12-99
Tires are not uniformly inflated.	Inflate tires properly.	12-79
Tires are damaged.	Replace tires.	12-81
Tires wear unevenly.	Replace tires.	12-81
Wheels are not balanced properly.	Have the vehicle inspected by your nearest authorized MITSUBISHI FUSO distributor or dealer.	—
Brakes are not adjusted properly.	Have the vehicle inspected by your nearest authorized MITSUBISHI FUSO distributor or dealer.	—

The steering wheel does not return to the straight ahead position smoothly.

Possible cause	Remedy	Ref. page
Parts are insufficiently greased.	Grease parts.	12-24

The lamp does not light up.

Possible cause	Remedy	Ref. page
The bulb is out.	Replace the bulb.	13-16
The fuse is blown.	Replace the fuse with one of the correct amperage.	13-9
Open circuit or defective earth connection.	Have the vehicle inspected by your nearest authorized MITSUBISHI FUSO distributor or dealer.	—

The battery frequently runs down.

Possible cause	Remedy	Ref. page
The battery terminals are loose or corroded.	Scrape off corrosion and tighten down terminals.	12-108
The V-belt is loose.	Adjust the belt tension.	12-66
The battery is short of electrolyte.	Add battery electrolyte.	12-108
The life of the battery has expired.	Replace the battery.	12-108
Idling speed setting is too low.	Have the vehicle inspected by your nearest authorized MITSUBISHI FUSO distributor or dealer.	5-5
Vehicle is used only at nighttime.	Charge the battery.	—
Switches are left on.	Be sure to turn off the switches.	—

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Stopping your vehicle in an emergency

Should a mechanical failure occur, do not panic. Simply slow your vehicle while paying attention to the vehicles behind you, and pull off the road at a place where you do not hinder the flow of traffic.

⚠ WARNING

- Stopping your vehicle in a tunnel could be dangerous. Wherever possible, drive out of the tunnel before stopping the vehicle.
- Be sure to block the wheels with chocks after stopping the vehicle as mechanical failure may render the parking brake inoperative.

1 Marking your vehicle

After you have pulled off the road, alert other drivers as follows so that they do not run into your vehicle.

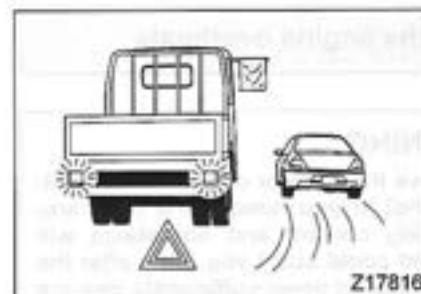
- Flash the hazard warning lamps.
- Put up a red flag or attach a white cloth to your vehicle where it can easily be seen.

2 Repair

Check the mechanical failure and if you judge it readily repairable, fix it while paying attention to the traffic. If you are unable to repair it, call your nearest authorized MITSUBISHI FUSO distributor or dealer for help.

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Never attempt to perform repairs in a tunnel or on free way as doing so is very dangerous.



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If the engine overheats

⚠ WARNING

Never remove the radiator cap while the coolant is still hot. If you remove the cap carelessly, boiling coolant and hot steam will gush out and could scald you. Only after the coolant has cooled down sufficiently, remove the radiator cap by gripping it in a folded piece of thick cloth and opening it slowly.

⚠ CAUTION

- Do not stop the engine immediately. The coolant temperature would rise sharply, and the engine could seize. Before stopping the engine, be sure to run it at a speed slightly higher than the idling speed to allow it to cool down.
- Suddenly pouring cold water into the radiator could make the engine crack. Supply cold water a little at a time.

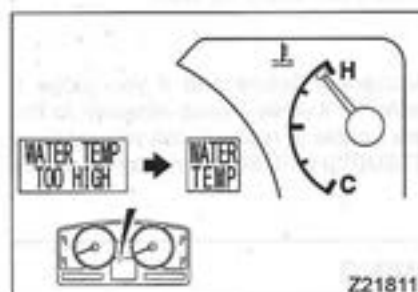
If the multi-information display shows  after showing "WATER TEMP TOO HIGH" in the enlarged display mode and the coolant temperature gauge needle is in the red zone ①, the engine is overheating. Park the vehicle in a safe place and use the engine idling control volume or the accelerator pedal to run the engine at a speed slightly higher than the idling speed in order to cool down the engine. ⇨ P. 5-5

When the needle in the coolant temperature gauge has come down to approximately the middle of the scale, stop the engine and perform the following inspections and corrective steps:

NOTE:

A buzzer sounds when the multi-information display shows the above warning. The buzzer stops sounding when you stop the vehicle and apply the parking brake.

1. Check that coolant is not leaking from the radiator hoses or from other parts.
2. Check that the fan belt is not broken and that its tension is normal. ⇨ P. 12-66



If the engine overheats

⚠ WARNING

Never remove the radiator cap while the coolant is still hot. If you remove the cap carelessly, boiling coolant and hot steam will gush out and could scald you. Only after the coolant has cooled down sufficiently, remove the radiator cap by gripping it in a folded piece of thick cloth and opening it slowly.

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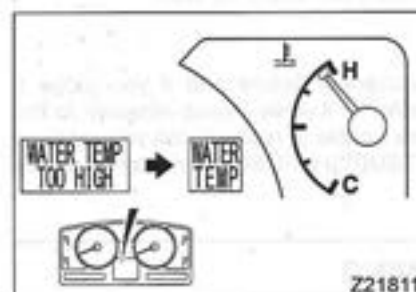
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When the needle in the coolant temperature gauge has come down to approximately the middle of the scale, stop the engine and perform the following inspections and corrective steps:

NOTE:

A buzzer sounds when the multi-information display shows the above warning. The buzzer stops sounding when you stop the vehicle and apply the parking brake.

1. Check that coolant is not leaking from the radiator hoses or from other parts.
2. Check that the fan belt is not broken and that its tension is normal. ⇨ P. 12-66



3. Check the coolant level. If the level is too low, add coolant.
 - Remove the radiator cap, then add coolant until it reaches the top of the radiator cap opening. ⇨ P. 12-58
 - Remove the reservoir tank cap, then add coolant until it reaches the "FULL" line. ⇨ P. 12-58
4. Check that there is no dirt stuck to the front of the radiator.
5. If coolant leaks or the engine repeatedly overheats, the cooling system is faulty. Have the vehicle inspected by your nearest authorized MITSUBISHI FUSO distributor or dealer.

When a fuse has blown

WARNING

Be sure to set the starter switch to "LOCK" and turn off all other electric switches whenever replacing fuses or high-current fuses. Replacing any fuses or high-current fuses while electric circuits are still live could damage related electric equipment. Especially, if a vehicle with a hill start assist system is stopped on a slope by activating the system and the fuses and the high-current fuse protecting its circuits are inadvertently removed, the pressure holding the brakes will be released and the vehicle will start moving down, possibly causing an accident.

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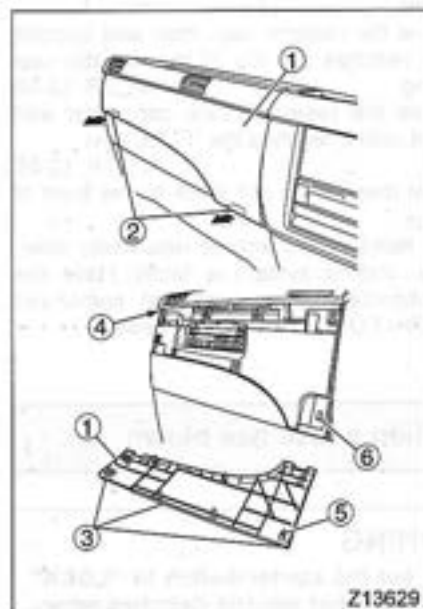
When a fuse has blown

WARNING

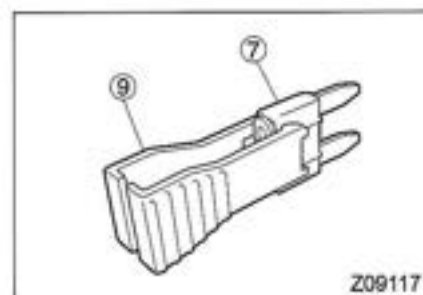
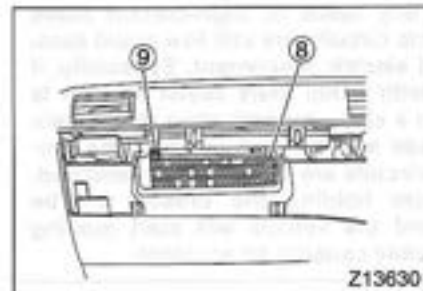
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1 Replacing fuses

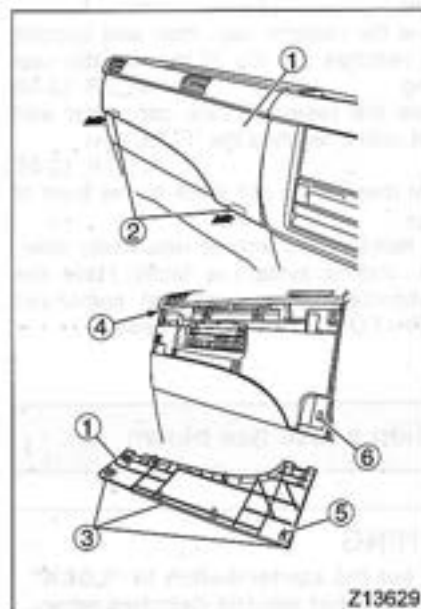
1. To access the fuses, hook your fingers in the recesses ② formed behind the panel ① and pull the panel toward you to remove it. When reinstalling the panel, align the lugs ③ on the panel with the cuts ④ in the dashboard, insert the pins ⑤ (in 8 places) in the holes ⑥, and push the panel into position by hand.



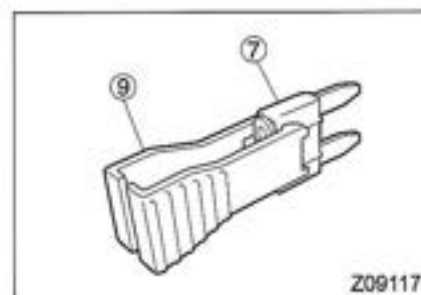
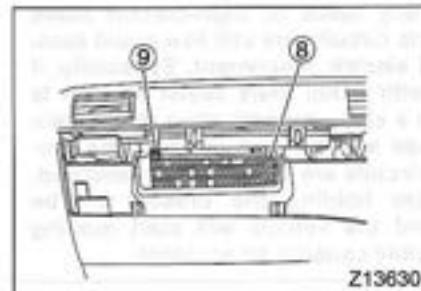
2. To remove a blown fuse ⑦, use fuse puller ⑨ located in the fuse box ⑧. Pinch and pull fuse with the fuse puller. The circuit protected by each fuse and its amperage (A) are indicated on the reverse side of the panel.

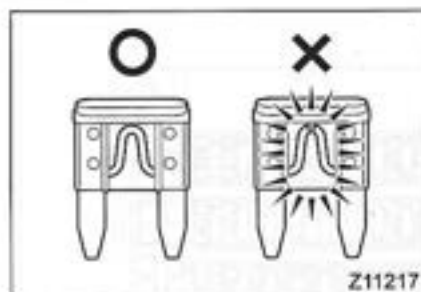
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Z11217

3. When a fuse is blown, be sure to replace it with a spare fuse of the specified amperage (A).

NOTE:

After using a spare fuse, replenish it as soon as possible.

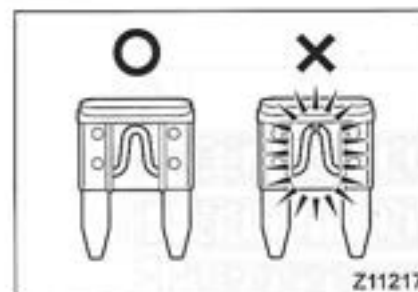
! WARNING

Use MITSUBISHI genuine fuses of the specified amperages.

A fire could result if a fuse of incorrect amperage is used.

! CAUTION

- If the cause of a blown fuse cannot be determined or the same fuse blows frequently, have your vehicle inspected at an authorized MITSUBISHI FUSO distributor or dealer.
- Use care not to splash water on or around the tray. Should water be splashed over the tray, check the inside of the compartment for water. Any drops of water left inside the compartment could cause an electrical fault or a fire.



Z11217

3. When a fuse is blown, be sure to replace it with a spare fuse of the specified amperage (A).

NOTE:

After using a spare fuse, replenish it as soon as possible.

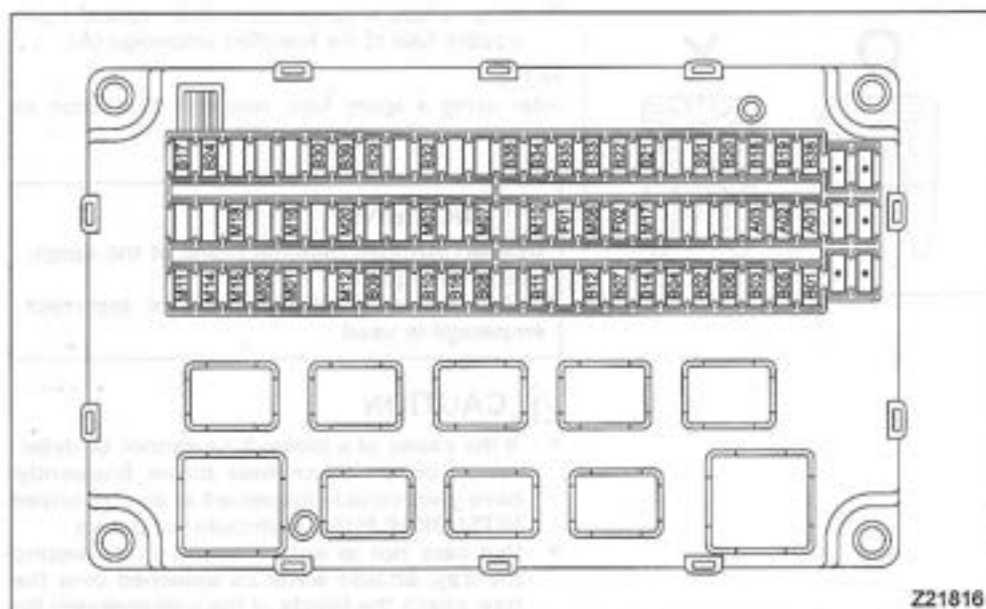
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A fire could result if a fuse of incorrect amperage is used.

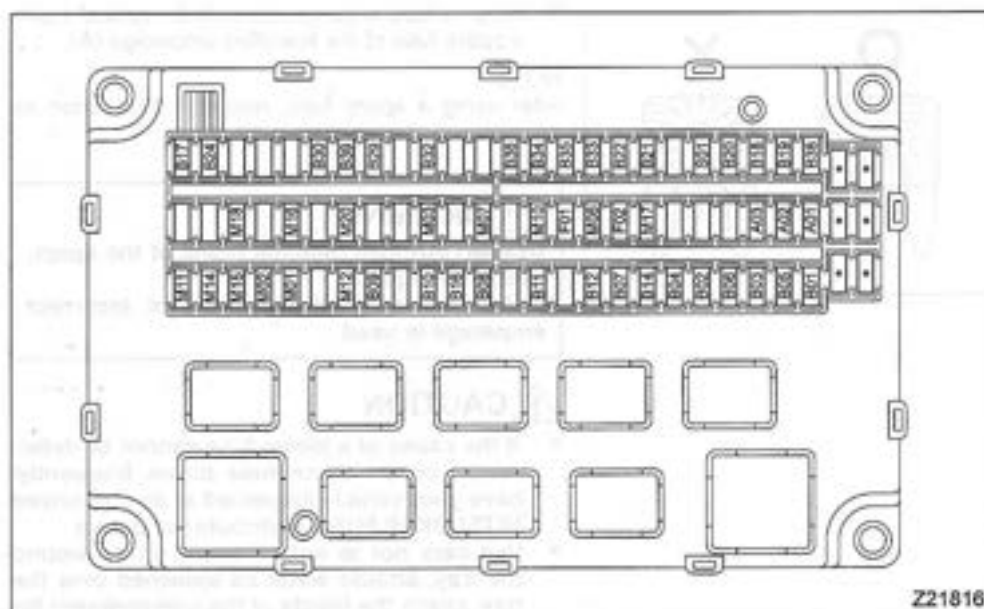
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- If the cause of a blown fuse cannot be determined or the same fuse blows frequently, have your vehicle inspected at an authorized MITSUBISHI FUSO distributor or dealer.
- Use care not to splash water on or around the tray. Should water be splashed over the tray, check the inside of the compartment for water. Any drops of water left inside the compartment could cause an electrical fault or a fire.



Z21816

Fuse No.	Amperage	Protected circuit
A01	10A	Audio system, Air suspension
A02	10A	Cigarette lighter
A03	10A	Auxiliary power supply (accessory circuit)
B01	10A	Meter cluster
B02	10A	MVCU
B03	20A	Engine EDU
B04	20A	Engine ECU
B05	10A	ABS, Hill start assist system
B06	20A	ABS
B07	10A	Stop lamps
B08	10A	Low beam headlamp, LH
B09	15A	High beam headlamps
B10	10A	Low beam headlamp, RH
B11	10A	Tail lamps
B12	15A	Fog lamp
B14	5A	Tail lamp relay (for Australia and New Zealand)
B16	15A	Turn signal lamps, hazard lamp



Z21816

Fuse No.	Amperage	Protected circuit
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A02	10A	Cigarette lighter
A03	10A	Auxiliary power supply (accessory circuit)
B01	10A	Meter cluster
B02	10A	MVCU
B03	20A	Engine EDU
B04	20A	Engine ECU
B05	10A	ABS, Hill start assist system
B06	20A	ABS
B07	10A	Stop lamps
B08	10A	Low beam headlamp, LH
B09	15A	High beam headlamps
B10	10A	Low beam headlamp, RH
B11	10A	Tail lamps
B12	15A	Fog lamp
B14	5A	Tail lamp relay (for Australia and New Zealand)
B16	15A	Turn signal lamps, hazard lamp

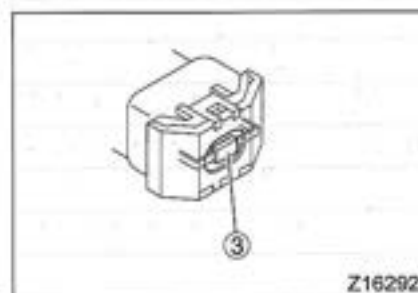
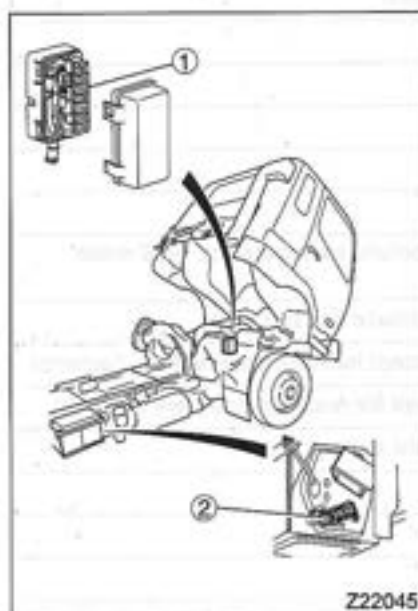
Fuse No.	Amperage	Protected circuit
B17	20A	Blower fan of air conditioner
B18	25A	Power window, driver's door
B19	20A	Power window, assistant driver's door
B20	20A	Air conditioner
B21	10A	Horn
B22	10A	Audio system
B24	10A	Auxiliary power supply (battery circuit)
B29	10A	Air suspension
B30	10A	Automatic transmission
B32	15A	Tester
B33	10A	Power take-off
B34	10A	Mirror heater
B35	10A	Power cab tilt
B36	10A	Interior lamp
B38	30A	ATF cooler fan (Automatic transmission), ABS motor (Hydraulic ABS)
B39	30A	ATF cooler fan (Automatic transmission)
F01	5A	Head lamp relay (except for Australia and New Zealand)
F02	5A	Tail lamp relay (except for Australia and New Zealand)
M01	10A	MVCU, Hill start assist system
M02	15A	Power take-off
M03	10A	MUTIC, relay control
M06	5A	Power windows
M07	10A	Air suspension (Electronically-controlled air suspension)
M10	5A	Engine ECU
M11	15A	Engine ACT.
M12	10A	Air bag
M14	10A	Air drier (with heater)
M15	10A	Meter cluster
M16	10A	Backup lamps
M17	15A	Wipers, washers
M18	10A	Automatic transmission

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B32	15A	Tester
B33	10A	Power take-off
B34	10A	Mirror heater
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M15	10A	Meter cluster
M16	10A	Backup lamps
M17	15A	Wipers, washers
M18	10A	Automatic transmission

Fuse No.	Amperage	Protected circuit
M20	10A	ABS
S01	10A	Starter
	5A	Spare fuses
	10A	
	15A	
	25A	
	30A	
	20A	

2 High-current fuse – Replacement

- There are high-current fuses (50 A, 60 A, 140 A) between the battery and fuse box, and between the battery and alternator. These protect circuits in the same way that ordinary fuses do. If a high-current fuse is blown, most of the vehicle's electrical circuits become inoperative.
 - High-current fuse box
 - Single-pole high-current fuse box
- Check for a blown high-current fuse by looking into the inside through inspection window ③. If it is blown, immediately call an authorized MITSUBISHI FUSO distributor or dealer and have them check your vehicle.



⚠ WARNING

Replacement high-current fuses should always be genuine ones and of appropriate amperage. Using a high-current fuse of incorrect amperage could cause a fire.

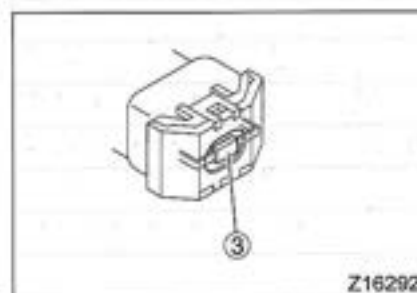
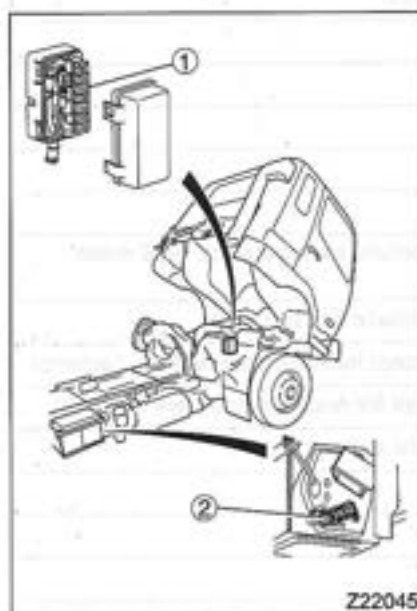
⚠ CAUTION

Close the cover completely to prevent rain water from entering the fuse box.

Fuse No.	Amperage	Protected circuit
M20	10A	ABS
S01	10A	Starter
	5A	Spare fuses
	10A	
	15A	
	25A	
	30A	
	20A	

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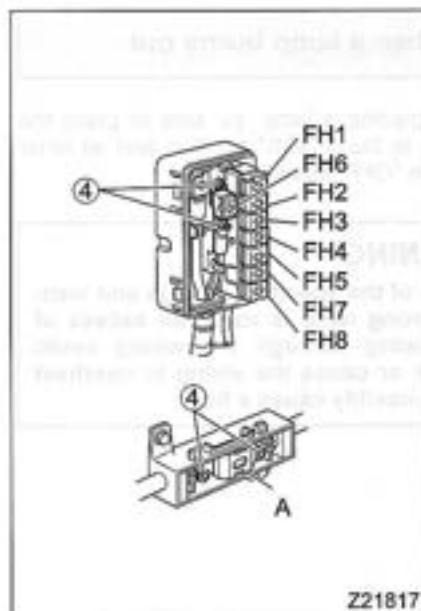


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⚠ CAUTION

Close the cover completely to prevent rain water from entering the fuse box.



No.	Amperage (casing color)	Protected circuit
FH1	60 A (yellow)	Starter switch
FH2	60 A (yellow)	Fuse box (B07 – B16)
FH3	60 A (yellow)	Fuse box (B17 – B26)
FH4	60 A (yellow)	Fuse box (B01 – B06)
FH5	50 A (red)	Fuse box (B38: Hydraulic ABS), Glow system
FH6	140 A (russet)	Alternator
FH7	60 A (yellow)	Fuse box (B28 – B36)
FH8	40 A (yellow)	BlueTec® exhaust gas aftertreatment
A	60 A (green)	Power supply for user-fitted special body, Power cab tilt, Fuse box (B38-B39: Automatic transmission)

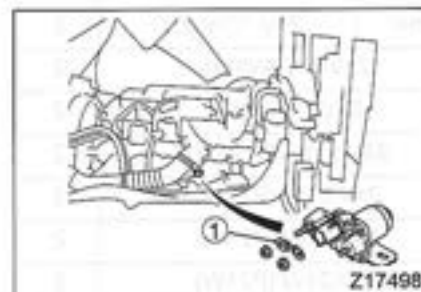
- For high-current fuses (FH6, A), first remove their mounting nuts ④ and then remove the fuses. For other fuses, simply pull them off.

3 Replacing engine preheating circuit fuse

<Vehicles with engine preheating system>

If the  indicator lamp does not light up in cold weather, check whether glow relay fuse ① is blown or not.

If the fuse is blown, first disconnect the negative cable from the battery and then replace the fuse with a genuine one (127A).

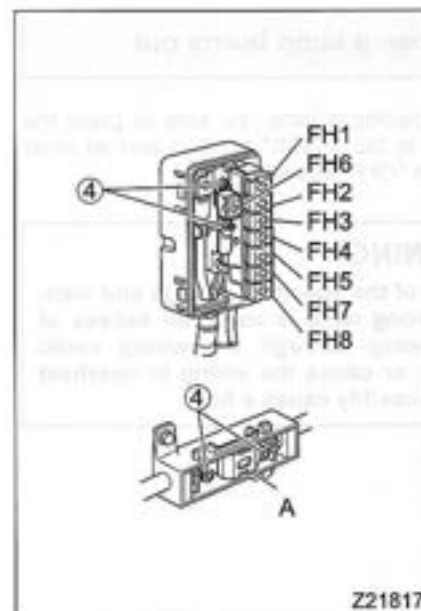


⚠ WARNING

- Electricity is always present at one end of the glow relay. To be safe, always disconnect the negative cable from the battery before replacing the fuse.
- Use genuine fuses of the specified amperages. A fire could result if a fuse of incorrect amperage is used.

⚠ CAUTION

Use only a genuine fuse of the specified amperage.



No.	Amperage (casing color)	Protected circuit
FH1	60 A (yellow)	Starter switch
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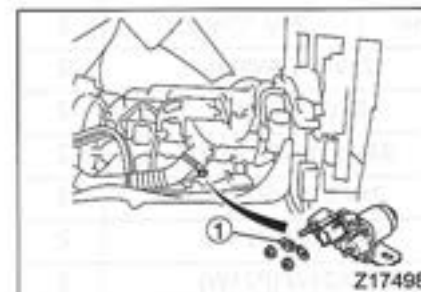
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3 Replacing engine preheating circuit fuse

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- Use genuine fuses of the specified amperages. A fire could result if a fuse of incorrect amperage is used.

⚠ CAUTION

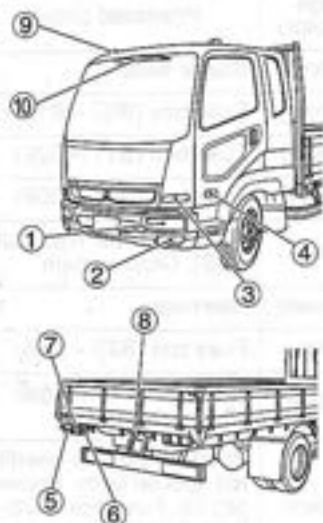
Use only a genuine fuse of the specified amperage.

When a lamp burns out

Whenever replacing a lamp, be sure to place the starter switch in the "LOCK" position and all other switches in the "OFF" position.

⚠ WARNING

Use a lamp of the specified voltage and wattage. If a wrong lamp is used, an excess of current flowing through the wiring could blow a fuse or cause the wiring to overheat and could possibly cause a fire.



Z21818

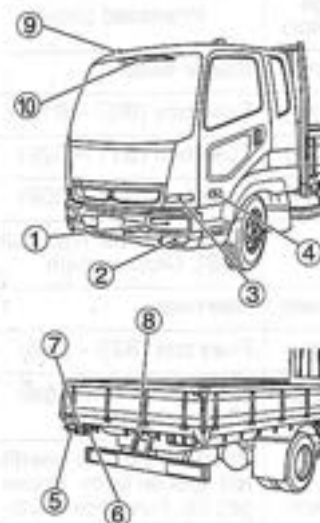
Ref. No.	Lamp	Bulb wattage (bulb type)		Q'ty
		Outer	Inner	
①	Headlamp (halogen bulbs)	24V-70W (H11)	24V-70W (H1)	2
	Clearance lamp	24V-5W (W5W)		2
②	Fog lamp (halogen bulbs)	24V-70W (H3)		2
③	Front turn signal lamp	24V-21W (PY21W)		2
④	Side turn signal lamp <FK>	24V-21W (P21W)		2
⑤	Rear turn signal lamp	24V-21W (P21W)		2
⑥	Backup lamp	24V-21W (P21W)		2
⑦	Stop/tail lamp (double-filament type)	24V-21/5W (P21/5W)		2
⑧	License plate lamp	24V-10W (R10W)		2
⑨	End-outline marker lamp	24V-10W (R10W)		2
⑩	Interior lamp/personal lamp	24V-10W		2
	Fluorescent lamp	24V-18W		1
-	Interior lamp <Crew-cab model, rear seat>	24V-10W		2

When a lamp burns out

Whenever replacing a lamp, be sure to place the starter switch in the "LOCK" position and all other switches in the "OFF" position.

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Z21818

Ref. No.	Lamp	Bulb wattage (bulb type)		Q'ty
		Outer	Inner	
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	Clearance lamp	24V-5W (W5W)		2
②	Fog lamp (halogen bulbs)	24V-70W (H3)		2
③	Front turn signal lamp	24V-21W (PY21W)		2
④	Side turn signal lamp <FK>	24V-21W (P21W)		2
⑤	Rear turn signal lamp	24V-21W (P21W)		2
⑥	Backup lamp	24V-21W (P21W)		2
⑦	Stop/tail lamp (double-filament type)	24V-21/5W (P21/5W)		2
⑧	License plate lamp	24V-10W (R10W)		2
⑨	End-outline marker lamp	24V-10W (R10W)		2
⑩	Interior lamp/personal lamp	24V-10W		2
	Fluorescent lamp	24V-18W		1
-	Interior lamp <Crew-cab model, rear seat>	24V-10W		2

⚠ CAUTION

Do not clean lamps with alcohol or thinner, because their lenses are made of plastic. When refilling clutch fluid, do not allow it to adhere to them because it will cause discoloration and cracks. When the fluid adheres, immediately wipe it off or wash it with water.

NOTE:

Inside lenses in lamps such as headlamps temporarily fog during driving in the rain or vehicle wash. Just as in the case of window glass fogging in the rain, fogging is formed by difference of the temperature between inside and outside of the lamp. No functional problem develops and fogging will disappear by itself.

1 Headlamp bulb – Replacement

⚠ CAUTION

Do not touch the glass surfaces of halogen bulbs with bare fingers. Oil and other contamination from the skin causes deterioration of the glass, thereby shortening the bulbs' service lives.

NOTE:

Do not disturb the setting of the aim adjustment screws.

Should you accidentally turn any of them, the aiming must be readjusted at an authorized MITSUBISHI FUSO distributor or dealer.

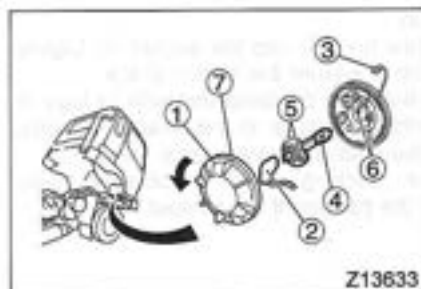
1.1 High-beam headlamps (inner lamps)

• Removal

1. Tilt the cab. ⇨ P. 12-7
2. Remove the cover ① after turning it counter-clockwise to a stop.
3. Disconnect the connector ②.
4. Unhook the spring ③, then pull out the bulb ④.

• Installation

1. Install a new bulb into the lamp unit while aligning the boss ⑤ on the bulb with the cuts ⑥ in the lamp unit. Hold the bulb in place by hooking the spring ③.



Z13633

⚠ CAUTION

Do not clean lamps with alcohol or thinner, because their lenses are made of plastic. When refilling clutch fluid, do not allow it to adhere to them because it will cause discoloration and cracks. When the fluid adheres, immediately wipe it off or wash it with water.

NOTE:

Inside lenses in lamps such as headlamps temporarily fog during driving in the rain or vehicle wash. Just as in the case of window glass fogging in the rain, fogging is formed by difference of the temperature between inside and outside of the lamp. No functional problem develops and fogging will disappear by itself.

1 Headlamp bulb – Replacement

⚠ CAUTION

Do not touch the glass surfaces of halogen bulbs with bare fingers. Oil and other contamination from the skin causes deterioration of the glass, thereby shortening the bulbs' service lives.

NOTE:

Do not disturb the setting of the aim adjustment screws.

Should you accidentally turn any of them, the aiming must be readjusted at an authorized MITSUBISHI FUSO distributor or dealer.

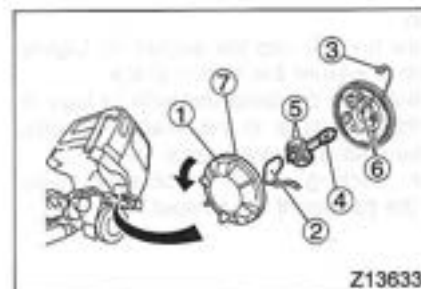
1.1 High-beam headlamps (inner lamps)

• Removal

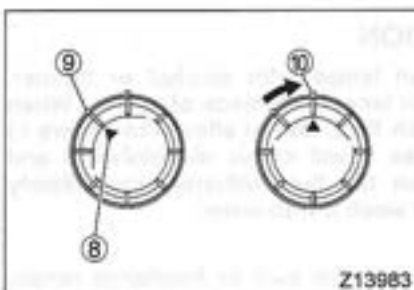
1. Tilt the cab. ⇨ P. 12-7
2. Remove the cover ① after turning it counter-clockwise to a stop.
3. Disconnect the connector ②.
4. Unhook the spring ③, then pull out the bulb ④.

• Installation

1. Install a new bulb into the lamp unit while aligning the boss ⑤ on the bulb with the cuts ⑥ in the lamp unit. Hold the bulb in place by hooking the spring ③.



Z13633



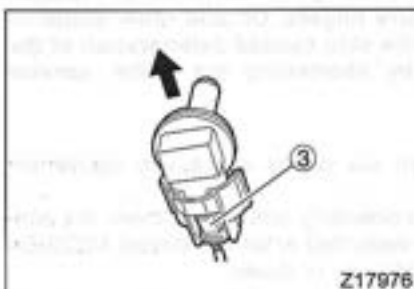
2. Connect the connector ②.
3. Clean the packing ⑦ if necessary. Also straighten the packing if it is twisted.
4. Install the cover on the lamp unit by first setting it in place with the ▲ mark ⑩ on the cover aligned with the boss ⑧ (removal/installation position mark) on the lamp unit, then turning the cover clockwise until the ▲ mark aligns with the other boss ⑨ (lock position mark).
5. Lower the cab. ⇨ P. 12-7

1.2 Low-beam headlamps (outer lamps)

• Removal

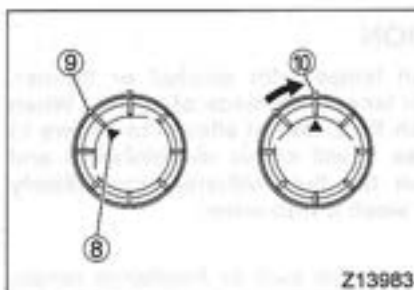
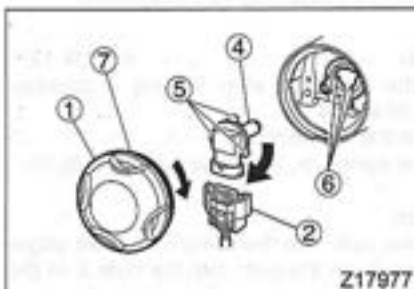
1. Tilt the cab. ⇨ P. 12-7
2. Remove the cover ① after turning it counterclockwise to a stop.
3. Turn the socket ② counterclockwise, then remove it together with the bulb.

4. Pull out the bulb from the socket while pushing the hook ③ on the socket.



• Installation

1. Install a new bulb ④ into the socket ②. Lightly pull the bulb to ensure it is held in place.
2. Insert the bulb into the lamp unit with its lugs ⑤ aligned with the cuts ⑥ in the headlamp body, then turn the socket clockwise to a stop.
3. Clean the packing ⑦ if necessary. Also straighten the packing if it is twisted.



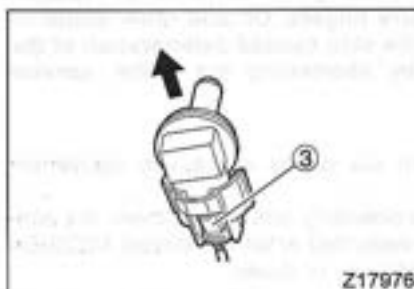
2. Connect the connector ②.
3. Clean the packing ⑦ if necessary. Also straighten the packing if it is twisted.
4. Install the cover on the lamp unit by first setting it in place with the ▲ mark ⑩ on the cover aligned with the boss ⑧ (removal/installation position mark) on the lamp unit, then turning the cover clockwise until the ▲ mark aligns with the other boss ⑨ (lock position mark).
5. Lower the cab. ⇨ P. 12-7

1.2 Low-beam headlamps (outer lamps)

• Removal

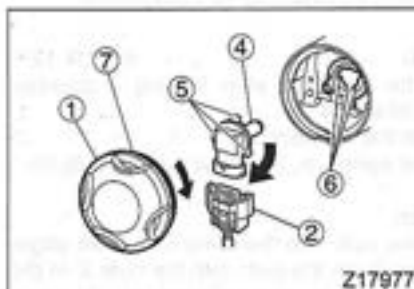
1. Tilt the cab. ⇨ P. 12-7
2. Remove the cover ① after turning it counterclockwise to a stop.
3. Turn the socket ② counterclockwise, then remove it together with the bulb.

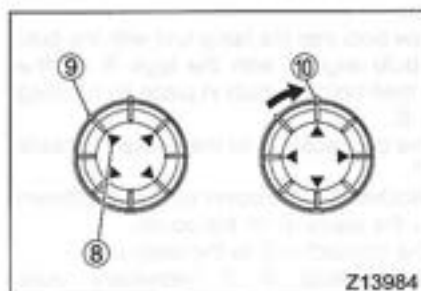
4. Pull out the bulb from the socket while pushing the hook ③ on the socket.



• Installation

1. Install a new bulb ④ into the socket ②. Lightly pull the bulb to ensure it is held in place.
2. Insert the bulb into the lamp unit with its lugs ⑤ aligned with the cuts ⑥ in the headlamp body, then turn the socket clockwise to a stop.
3. Clean the packing ⑦ if necessary. Also straighten the packing if it is twisted.



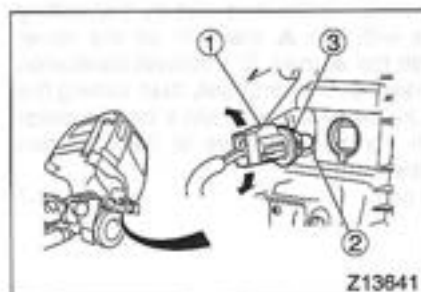


Z13984

4. Install the cover on the lamp unit by first setting it in place with the ▲ mark ⑩ on the cover aligned with the boss ⑧ (removal/installation position mark) on the lamp unit, then turning the cover clockwise until the ▲ mark aligns with the other boss ⑨ (lock position mark) on the lamp unit.
5. Lower the cab. ⇨ P. 12-7

2 Replacing the clearance lamp bulb

1. Tilt the cab. ⇨ P. 12-7
2. Remove the socket ① after turning it counter-clockwise.
3. Pull out the bulb ②.
4. Install a new bulb following the above steps in reverse.
5. Clean the packing ③ if necessary.



Z13841

3 Replacing the fog lamp bulb

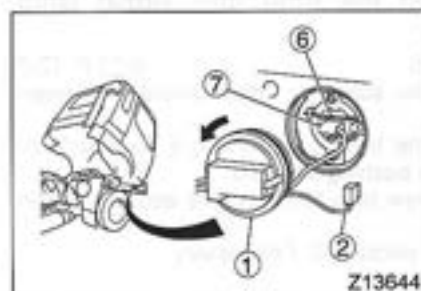
<Vehicles with fog lamp>

⚠ CAUTION

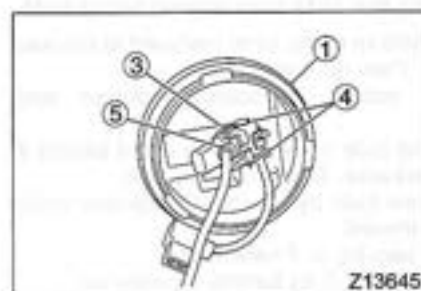
Do not touch the glass surfaces of halogen bulbs with bare fingers. Oil and other contamination from the skin causes deterioration of the glass, thereby shortening the bulbs' service lives.

• Removal

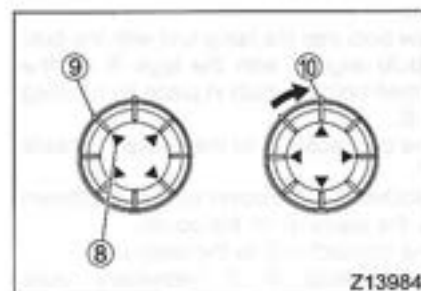
1. Tilt the cab. ⇨ P. 12-7
2. Remove the cover ① after turning it counter-clockwise to a stop.
3. Disconnect the connector ② from the lamp unit.
4. Pull the socket ③ inside the cover out of the claws ④.
5. Disconnect the connector ⑤.
6. Unhook the spring ⑥, then pull out the bulb ⑦.



Z13644



Z13645

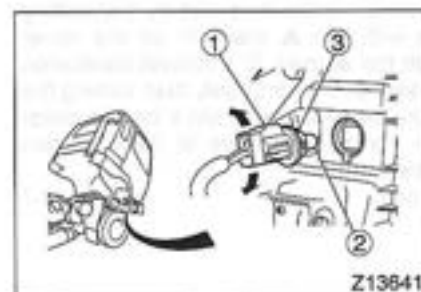


Z13984

4. Install the cover on the lamp unit by first setting it in place with the ▲ mark ⑩ on the cover aligned with the boss ⑧ (removal/installation position mark) on the lamp unit, then turning the cover clockwise until the ▲ mark aligns with the other boss ⑨ (lock position mark) on the lamp unit.
5. Lower the cab. ⇨ P. 12-7

2 Replacing the clearance lamp bulb

1. Tilt the cab. ⇨ P. 12-7
2. Remove the socket ① after turning it counter-clockwise.
3. Pull out the bulb ②.
4. Install a new bulb following the above steps in reverse.
5. Clean the packing ③ if necessary.



Z13841

3 Replacing the fog lamp bulb

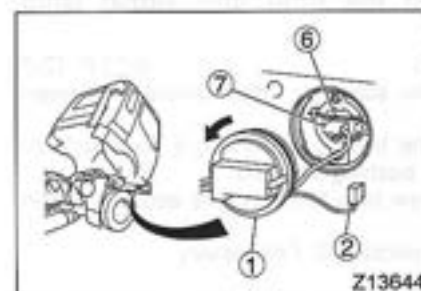
<Vehicles with fog lamp>

⚠ CAUTION

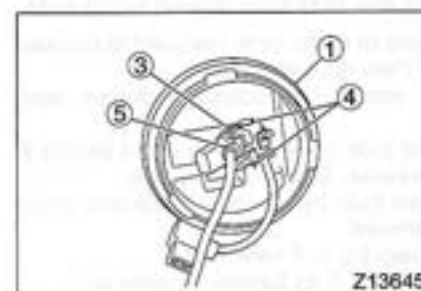
Do not touch the glass surfaces of halogen bulbs with bare fingers. Oil and other contamination from the skin causes deterioration of the glass, thereby shortening the bulbs' service lives.

• Removal

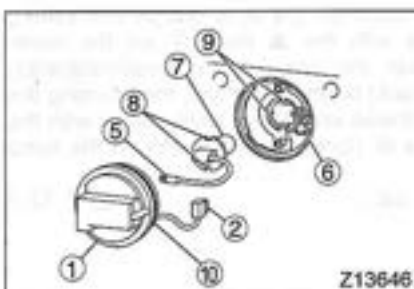
1. Tilt the cab. ⇨ P. 12-7
2. Remove the cover ① after turning it counter-clockwise to a stop.
3. Disconnect the connector ② from the lamp unit.
4. Pull the socket ③ inside the cover out of the claws ④.
5. Disconnect the connector ⑤.
6. Unhook the spring ⑥, then pull out the bulb ⑦.



Z13644

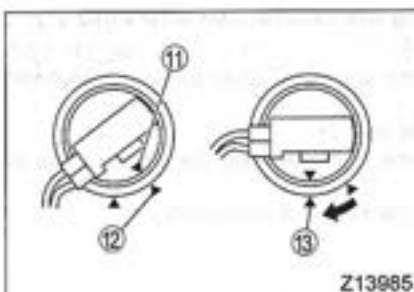


Z13645



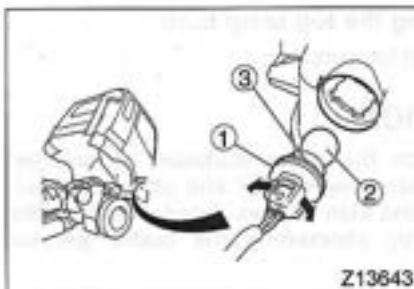
• Installation

1. Install a new bulb into the lamp unit with the cuts ⑧ in the bulb aligned with the lugs ③ on the lamp unit, then hold the bulb in place by hooking the spring ⑥.
2. Connect the connector ⑤ to the socket ③ inside the cover.
3. Push the socket into the cover until it is retained in place by the claws ④ on the cover.
4. Connect the connector ② to the lamp unit.
5. Clean the packing ⑩ if necessary. Also straighten the packing if it is twisted.
6. Install the cover on the lamp unit by first setting it in place with the ▲ mark ⑪ on the cover aligned with the ▲ mark ⑫ (removal/installation position mark) on the lamp unit, then turning the cover clockwise until the ▲ mark on the cover aligns with the other ▲ mark ⑬ (lock position mark) on the lamp unit.
7. Lower the cab. ⇨ P. 12-7



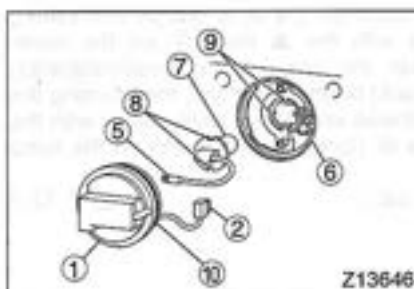
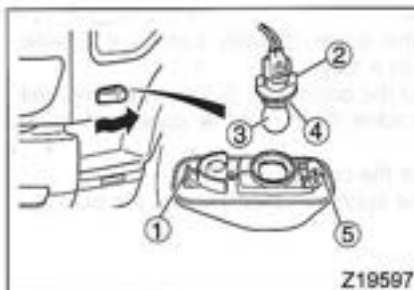
4 Replacing the front turn signal lamp bulb

1. Tilt the cab. ⇨ P. 12-7
2. Pull out the socket ① after turning it counterclockwise.
3. Remove the bulb ② by turning it counterclockwise while pushing it inward.
4. Install a new bulb following the above steps in reverse.
5. Clean the packing ③ if necessary.



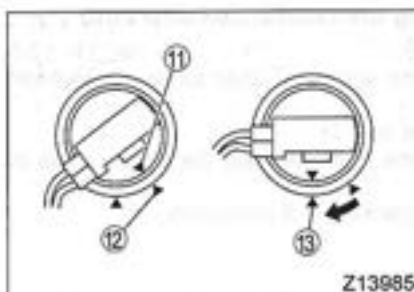
5 Replacing the side turn signal lamp bulb

1. Push the bottom of the lamp rearward to release the tab ①. Then remove the lamp unit.
2. Turn the socket ② counterclockwise and remove it.
3. Remove the bulb ③ by pressing it and turning it counterclockwise. Then, fit a new bulb.
4. Install a new bulb by turning it clockwise while pushing it inward.
5. Clean the packing ④ if necessary.
6. Install the socket ② by turning it clockwise.
7. Refit the lamp unit in the vehicle body by fitting the clip ⑤ first and then pressing lightly the tab into place.
After installation, make sure that the lamp unit is securely retained.



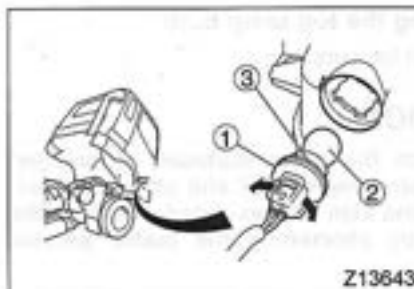
• Installation

1. Install a new bulb into the lamp unit with the cuts ⑧ in the bulb aligned with the lugs ③ on the lamp unit, then hold the bulb in place by hooking the spring ⑥.
2. Connect the connector ⑤ to the socket ③ inside the cover.
3. Push the socket into the cover until it is retained in place by the claws ④ on the cover.
4. Connect the connector ② to the lamp unit.
5. Clean the packing ⑩ if necessary. Also straighten the packing if it is twisted.
6. Install the cover on the lamp unit by first setting it in place with the ▲ mark ⑪ on the cover aligned with the ▲ mark ⑫ (removal/installation position mark) on the lamp unit, then turning the cover clockwise until the ▲ mark on the cover aligns with the other ▲ mark ⑬ (lock position mark) on the lamp unit.
7. Lower the cab. ⇨ P. 12-7



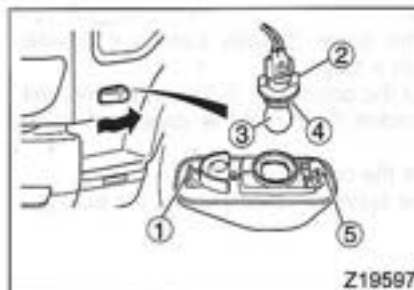
4 Replacing the front turn signal lamp bulb

1. Tilt the cab. ⇨ P. 12-7
2. Pull out the socket ① after turning it counterclockwise.
3. Remove the bulb ② by turning it counterclockwise while pushing it inward.
4. Install a new bulb following the above steps in reverse.
5. Clean the packing ③ if necessary.



5 Replacing the side turn signal lamp bulb

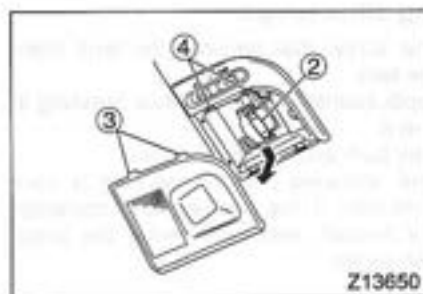
1. Push the bottom of the lamp rearward to release the tab ①. Then remove the lamp unit.
2. Turn the socket ② counterclockwise and remove it.
3. Remove the bulb ③ by pressing it and turning it counterclockwise. Then, fit a new bulb.
4. Install a new bulb by turning it clockwise while pushing it inward.
5. Clean the packing ④ if necessary.
6. Install the socket ② by turning it clockwise.
7. Refit the lamp unit in the vehicle body by fitting the clip ⑤ first and then pressing lightly the tab into place.
After installation, make sure that the lamp unit is securely retained.



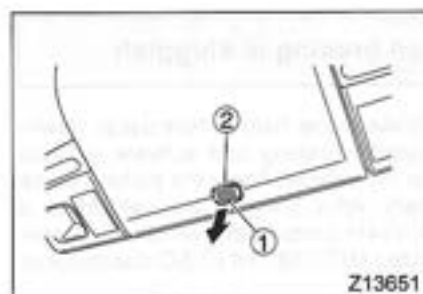


6 Replacing the interior/personal lamp bulb

1. Remove the lens ① by pulling its bottom end toward you.

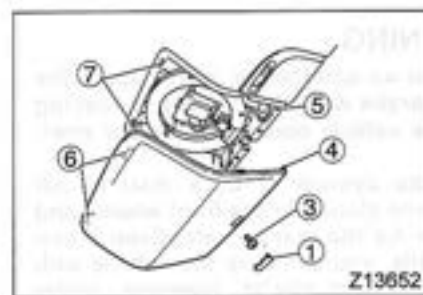


2. Remove the bulb ② while pushing it downward.
3. Install a new bulb by pushing it into place.
4. Install the lens by inserting the lugs ③ on the top end of the lens into the holes ④ and then pushing on the bottom end of the lens.

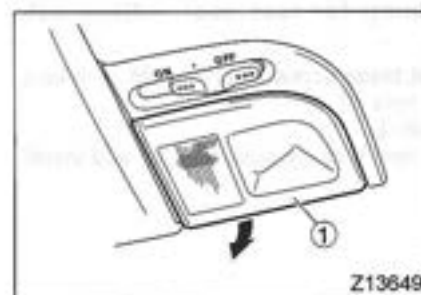


7 Replacing the fluorescent lamp bulb

1. Remove the lens lock ① by inserting a flat-blade screwdriver into the slot ② in the lock.

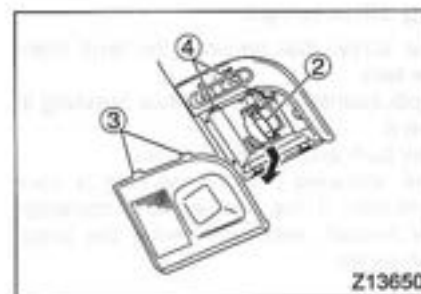


2. Remove the screw ③ using a Phillips screwdriver to remove the lens ④.
3. Replace the fluorescent lamp bulb ⑤.
4. Install the lens by first fitting its top end lugs ⑥ in the holes ⑦ and then pushing on its bottom end.
5. Secure the lens with the screw, then fit the lens lock ① in place.

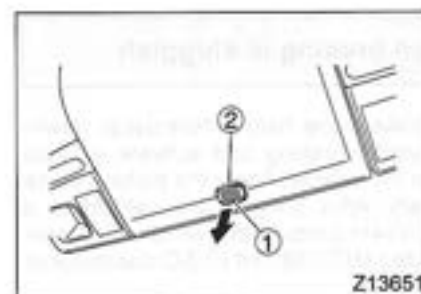


6 Replacing the interior/personal lamp bulb

1. Remove the lens ① by pulling its bottom end toward you.

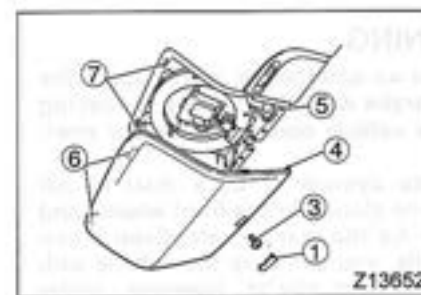


2. Remove the bulb ② while pushing it downward.
3. Install a new bulb by pushing it into place.
4. Install the lens by inserting the lugs ③ on the top end of the lens into the holes ④ and then pushing on the bottom end of the lens.

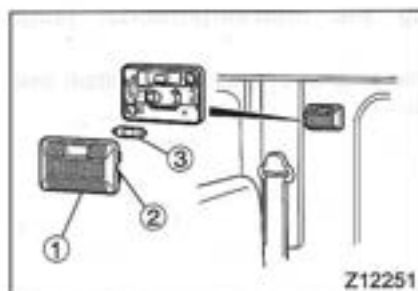


7 Replacing the fluorescent lamp bulb

1. Remove the lens lock ① by inserting a flat-blade screwdriver into the slot ② in the lock.



2. Remove the screw ③ using a Phillips screwdriver to remove the lens ④.
3. Replace the fluorescent lamp bulb ⑤.
4. Install the lens by first fitting its top end lugs ⑥ in the holes ⑦ and then pushing on its bottom end.
5. Secure the lens with the screw, then fit the lens lock ① in place.



8 Interior lamp for rear seat – Crew-cab models

1. Insert a flat blade screwdriver into slit ② in lens ① and pry lens off.
2. Pull out bulb ③.
3. Install the new bulb by pushing it in, and install the lens.

9 Replacing other lamps

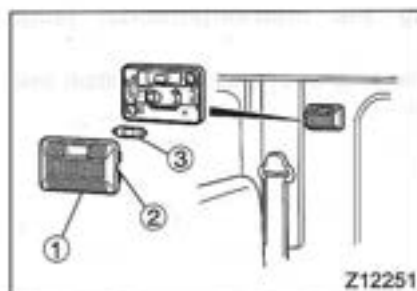
1. Loosen the screw that secures the lens then remove the lens.
2. Turn the bulb counterclockwise while pressing it and remove it.
3. Insert a new bulb and turn it clockwise.
4. Fit the lens, ensuring that the packing is correctly positioned. If the packing is incorrectly installed or twisted, water can enter the lamp and shorten its life.

When braking is sluggish

Depress the brake pedal harder than usual, downshift to use engine braking and activate exhaust braking to stop the vehicle. Apply the parking brake when necessary. After bringing the vehicle to a stop, check relevant parts of the vehicle then contact an authorized MITSUBISHI FUSO distributor or dealer.

⚠ WARNING

- Except in an emergency, never apply the parking brake while the vehicle is moving since the vehicle could spin and/or overturn.
- The brake system is of a dual circuit design, one circuit for the front wheels and the other for the rear wheels. Even if one circuit fails, you can stop the vehicle with the other intact circuit. However, under these circumstances, braking power is very much reduced. Never continue driving with one circuit inoperative, as it is very dangerous.



8 Interior lamp for rear seat – Crew-cab models

1. Insert a flat blade screwdriver into slit ② in lens ① and pry lens off.
2. Pull out bulb ③.
3. Install the new bulb by pushing it in, and install the lens.

9 Replacing other lamps

1. Loosen the screw that secures the lens then remove the lens.
2. Turn the bulb counterclockwise while pressing it and remove it.
3. Insert a new bulb and turn it clockwise.
4. Fit the lens, ensuring that the packing is correctly positioned. If the packing is incorrectly installed or twisted, water can enter the lamp and shorten its life.

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Depress the brake pedal harder than usual, downshift to use engine braking and activate exhaust braking to stop the vehicle. Apply the parking brake when necessary. After bringing the vehicle to a stop, check relevant parts of the vehicle then contact an authorized MITSUBISHI FUSO distributor or dealer.

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If parking brake cannot be released normally

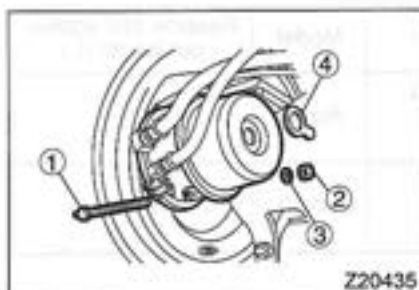
<Vehicles with wheel brake type parking brake>
In the event of a fault in the brake lines, the resulting drop in air pressure may make it impossible to release the parking brake using the hand control valve. In such a case, the parking brake can be released by manually releasing all the rear brake chambers as described below.

! WARNING

- Do not manually release the parking brake on a slope. Without sufficient air pressure, the brakes may operate poorly or not at all. Also, the parking brake will be completely ineffective once manually released.
- The manual release function is intended only to allow the vehicle to be towed by a specially equipped truck or moved safely to the side of the road. Do not attempt to resume your journey after manually releasing the parking brake.
- If the brake lines are faulty, have the vehicle inspected immediately by the nearest authorized MITSUBISHI FUSO distributor or dealer.

1 Full air brake vehicles

1. Apply chocks (available as accessories) to the wheels.
2. Remove the release bolt ①, nut ②, and washer ③ from the brake chamber.
3. Remove the plastic cap ④ from the brake chamber. Keep the removed plastic cap.



Z20435

If parking brake cannot be released normally

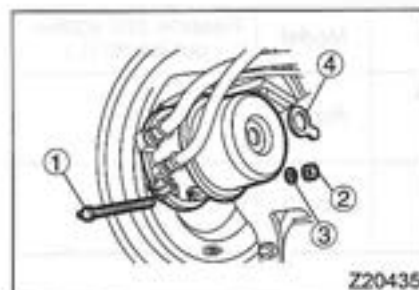
<Vehicles with wheel brake type parking brake>
In the event of a fault in the brake lines, the resulting drop in air pressure may make it impossible to release the parking brake using the hand control valve. In such a case, the parking brake can be released by manually releasing all the rear brake chambers as described below.

! WARNING

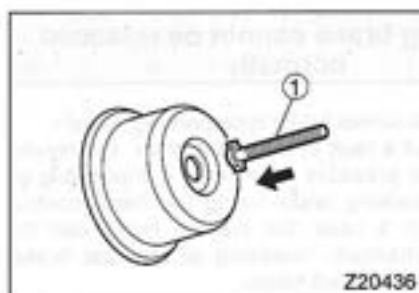
- Do not manually release the parking brake on a slope. Without sufficient air pressure, the brakes may operate poorly or not at all. Also, the parking brake will be completely ineffective once manually released.
- The manual release function is intended only to allow the vehicle to be towed by a specially equipped truck or moved safely to the side of the road. Do not attempt to resume your journey after manually releasing the parking brake.
- If the brake lines are faulty, have the vehicle inspected immediately by the nearest authorized MITSUBISHI FUSO distributor or dealer.

1 Full air brake vehicles

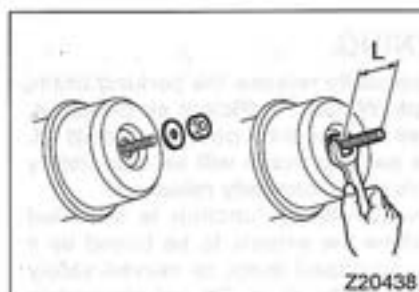
1. Apply chocks (available as accessories) to the wheels.
2. Remove the release bolt ①, nut ②, and washer ③ from the brake chamber.
3. Remove the plastic cap ④ from the brake chamber. Keep the removed plastic cap.



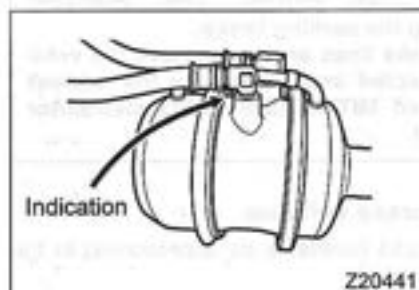
Z20435



4. Insert the release bolt head-first into the hole in the brake chamber. Push the release bolt until it stops.
5. Give the release bolt 1/4 of a turn clockwise, then check that it cannot be pulled out.



6. Fit the washer and nut onto the release bolt. Then, turn the nut down the bolt using a wrench with a face-to-face dimension of 19 mm. The parking brake will be completely released when the nut's top surface is L mm from the bolt's free end.



The screw-out length (L) of the release bolt is as follows:

Vehicles for Australia: 82 mm

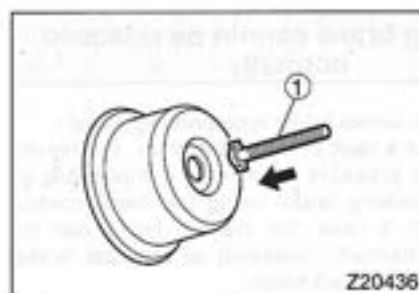
Vehicles for New Zealand, Hong Kong and Singapore:

The screw-out length (L) depends on the brake chamber model, which is indicated on the brake chamber.

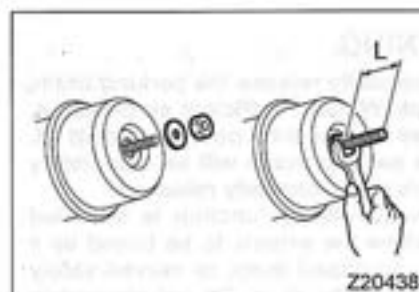
Indication	Model	Release bolt screw-out length (L)
TYPE 24 L SPRING BRAKE	No.24	82 mm
TYPE 30 SPRING BRAKE	No.30	76 mm

⚠ CAUTION

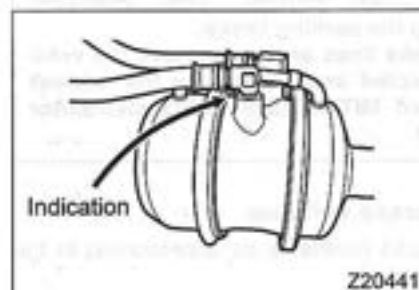
To avoid damaging the brake chamber, do not turn the nut further than L mm from the bolt's free end.



4. Insert the release bolt head-first into the hole in the brake chamber. Push the release bolt until it stops.
5. Give the release bolt 1/4 of a turn clockwise, then check that it cannot be pulled out.



6. Fit the washer and nut onto the release bolt. Then, turn the nut down the bolt using a wrench with a face-to-face dimension of 19 mm. The parking brake will be completely released when the nut's top surface is L mm from the bolt's free end.



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Vehicles for Australia: 82 mm

Vehicles for New Zealand, Hong Kong and Singapore:

The screw-out length (L) depends on the brake chamber model, which is indicated on the brake chamber.

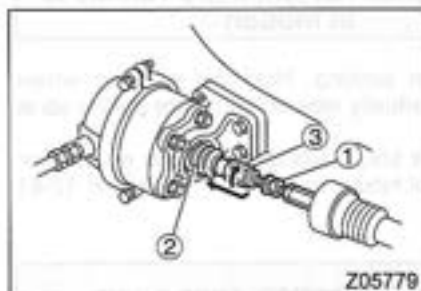
Indication	Model	Release bolt screw-out length (L)
TYPE 24 L SPRING BRAKE	No.24	82 mm
TYPE 30 SPRING BRAKE	No.30	76 mm

⚠ CAUTION

To avoid damaging the brake chamber, do not turn the nut further than L mm from the bolt's free end.

2 Air-over hydraulic brake vehicles

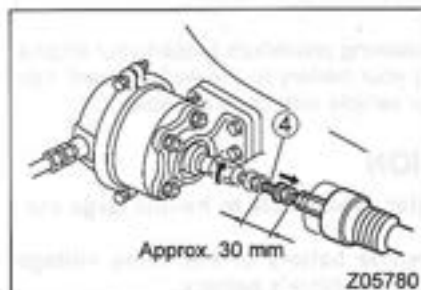
1. Apply chocks (available as accessories) to the wheels.
2. Loosen the nut ① using a wrench with a face-to-face dimension of 22 mm.
3. Compress the boot ② and turn the turnbuckle ③ clockwise with your hand until it becomes heavy.



4. Using a wrench with a face-to-face dimension of 27 mm, turn the turnbuckle clockwise further to move the rod ④. When the rod moves approx. 30 mm, the parking brake is released completely.

⚠ CAUTION

Do not move the rod more than 30 mm. Doing so may damage the brake chamber.



If the engine stalls while the vehicle is in motion

The vehicle will be set into the following very dangerous condition. Immediately pull up the vehicle and try to start the engine.

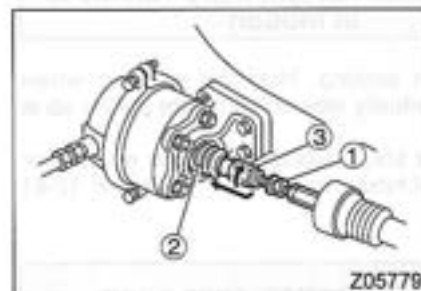
- The braking power is significantly reduced because no compressed air is supplied.
- Power assistance is not available, so steering becomes extremely difficult. Turn the steering wheel with as much force as you can master.

⚠ WARNING

The brakes completely cease to function as soon as the available compressed air is used up.

2 Air-over hydraulic brake vehicles

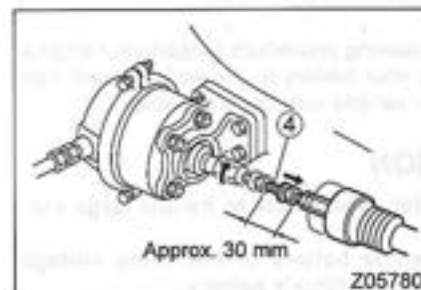
1. Apply chocks (available as accessories) to the wheels.
2. Loosen the nut ① using a wrench with a face-to-face dimension of 22 mm.
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⚠ WARNING

The brakes completely cease to function as soon as the available compressed air is used up.

If a tire goes flat while the vehicle is in motion

Avoid sudden braking. Hold the steering wheel firmly, and gradually slow down before pulling up at a safe place.

To replace the tire, select a flat surface where your vehicle will not hinder traffic. → P. 12-81

When the battery runs down

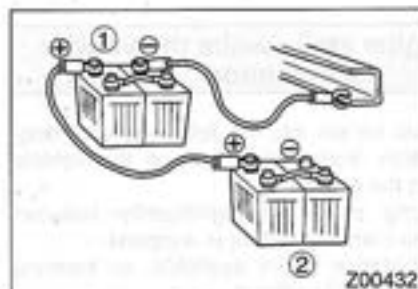
Perform the following procedure to start your engine by connecting your battery to the well charged battery of another vehicle with booster cables.

CAUTION

- Use booster cables able to handle large currents.
- Use a booster battery of the same voltage (24V) as your vehicle's battery.

1. Stop the engine of the vehicle giving the boost.
2. Connect one end of the red booster cable to the positive (+) terminal of the dead battery. Connect the other end of the red booster cable to the positive (+) terminal of the booster battery.
3. Connect one end of the black booster cable to the negative (-) terminal of the booster battery and connect the other end of the black booster cable to a section of frame on the vehicle with the dead battery at a point as far away as possible from the battery.

①: Booster battery
②: Dead battery



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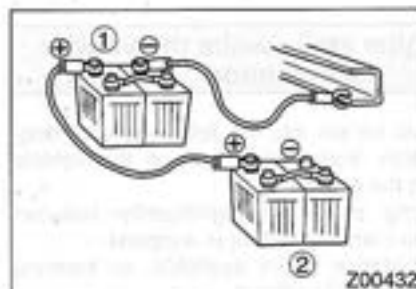
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①: Booster battery
②: Dead battery



⚠ WARNING

- Check the battery's fluid level before connecting booster cables. If the fluid is below the "LOWER" level line, add distilled water. If the battery was charged with an excessively low fluid level, it would deteriorate rapidly and could overheat or explode.
- Sparks are often produced when you connect the booster cable to the vehicle's frame. Therefore, if the cable is connected to a section of the frame near the battery, the spark could set off the hydrogen given off by the battery to cause an explosion. Be sure to connect the cable end to a point as far away as possible from the battery.
- Avoid getting the engine started by towing or pushing the vehicle unless absolutely necessary as doing so is quite dangerous.

4. After the above connections have been completed, start the engine of the vehicle with the booster battery and let it run at an RPM slightly higher than idling speed. Then, attempt to start the engine of the vehicle with the dead battery. If the engine starts with difficulty because of cold weather or a dead battery, let it draw a charge for several minutes from the vehicle from which you are receiving the boost before attempting to turn over the engine.
5. After the engine of the vehicle with the dead battery has been started, disconnect the booster cables by reversing the order of connection.

**When the fuel has run out
(Bleeding the fuel system)**

When the vehicle runs out of fuel and the engine stalls, when the fuel filter element has been replaced, or when the water in the fuel filter has drained, air that has entered the fuel system prevents the engine from being started even after the engine is refueled.

In these cases, bleed the fuel system by performing the following steps.

⚠ WARNING

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In these cases, bleed the fuel system by performing the following steps.

! WARNING

A fire could result if there is a fuel leak or if spilt fuel is not removed. Always wipe off spilt fuel after air bleeding. Also be sure to check for fuel leakage.

! CAUTION

The fuel injection system may fail if the engine stops due to lack of fuel.

The fuel filter is located in the area behind the front left wheel mudguard.

1. Loosen one of the air bleeder plugs ① of the fuel filter.

NOTE:

Use whichever of the two air bleeder plugs is the most convenient; both plugs provide the same effect.

2. Cover the loosened air bleeder plug with a cloth and operate the priming pump ② to pump out fuel.

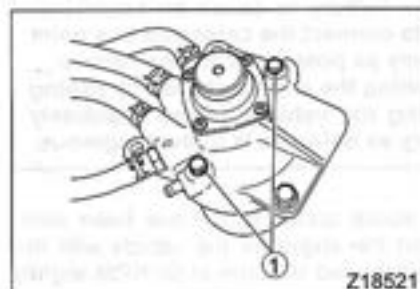
NOTE:

Alternatively, connect a hose with an inside diameter of 8 mm (commercially-available product) to the pipe portion of the air bleeder plug in order to prevent fuel from splashing. Use a transparent hose so you can easily check for air bubbles in the fuel.

3. Fuel containing air bubbles will be discharged from the air bleeder plug. Press the manual pump several dozen times until air is no longer present in the fuel. (You will need to operate the priming pump approximately 60 to 80 times.)
4. After making sure that there are no air bubbles in the fuel emerging from the air bleeder plug, fasten the plug tightly. Operate the priming pump again several times until you feel an increase in resistance. Be sure to operate the pump several times, even if the resistance does not increase because the fuel is cold.

Bleeder plug tightening torque	$10 \pm 2.0 \text{ Nm}$ ($1 \pm 0.2 \text{ kgfm}$)
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5. Wipe thoroughly the spilled fuel and then start the engine.
6. Check for any fuel leakage.



Z18521



Z18522

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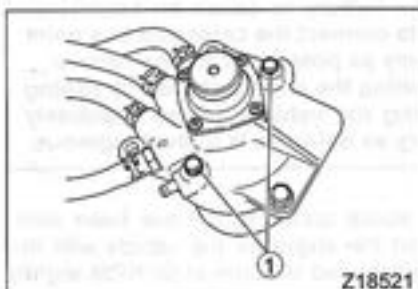
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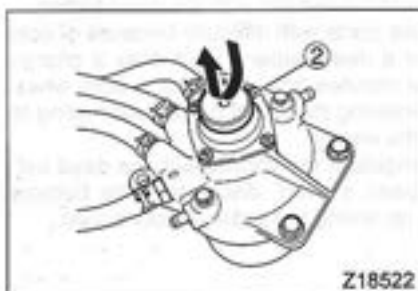
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Z18521



Z18522

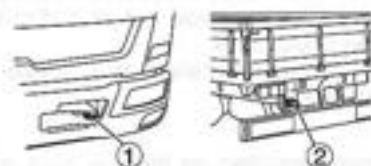
When AdBlue® runs out



Z21787

- The urea tank is empty when the warning lamp flashes and the warning lamp lights. Replenish the AdBlue®. For the method of replenishing the AdBlue®, refer to Page 1-10.

Towing



Z21893

⚠ WARNING

- If the engine will not turn over or the air pressure fails to increase, have the vehicle towed by a special towing vehicle.
- When the propeller shaft is disconnected, it is not possible to use engine braking and the exhaust brake. Exercise great caution when towing the vehicle in this condition.
- Make sure the braking system is functioning normally.

⚠ CAUTION

When towing an automatic transmission vehicle, either disconnect the propeller shaft or lift the rear wheels off the ground with a special tow truck. Failure to do so will damage the automatic transmission. Do not attach a towrope to the FUP or lift the front of the vehicle by the FUP, as this will damage the FUP and vehicle frame.

- Use a strong towing rope, and make sure it is attached securely to the towing hook.
 - ①: Front hook
 - ②: Rear hook <Vehicles with rear hook>

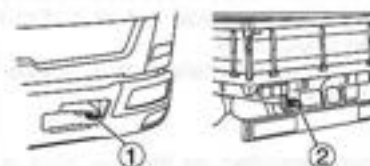
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Towing



Z21893

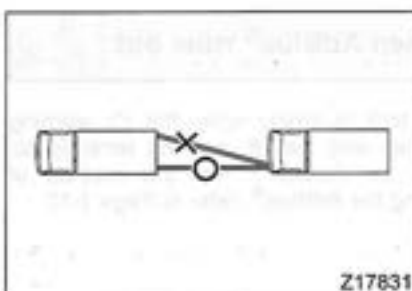
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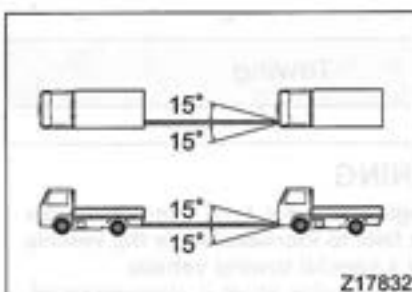
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- Position the tow rope on the same side of both vehicles.

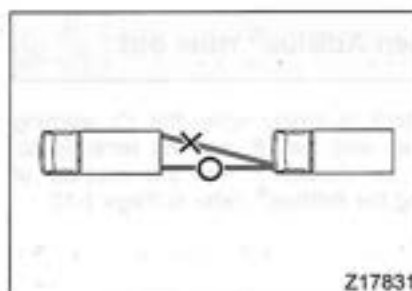


- For safety, do not exceed the towing angles shown in the drawing. Also, do not tow a vehicle under conditions that could impose sudden undue stress on the hooks (for example, pulling a vehicle out of a ditch) since the hooks could break. Never attempt to tow a vehicle that is heavier than your own vehicle.

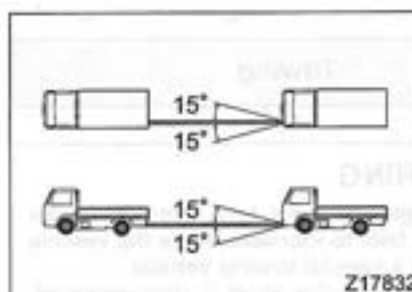
NOTE:

The maximum load permitted on the tow hook is 16,660 N (1,700 kgf) when applied in the direction of towing.

- Unload all cargo from the disabled vehicle.
- Unless using a special towing vehicle, do not drive faster than 30 km/h while towing.
- Avoid sudden starts, and try to keep the tow rope taut.
- Prepare the disabled vehicle for towing as follows:
 - On manual transmission vehicles, place the gearshift lever in the neutral position. On automatic transmission vehicles, place the range selector lever in the N position.
 - To avoid damaging the transmission, disconnect the propeller shaft or arrange for the vehicle to be towed with its rear wheels raised by a special towing vehicle. If the differential is faulty, the vehicle must be towed with its rear wheels raised.
 - When the propeller shaft has been removed, keep the engine running. If the engine is stopped, the service brakes will be inoperable and the steering will become extremely heavy.



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14. Service data

Inspection/replacement schedule for lubricants, hydraulic fluid and filter elements	14-2
Recommended lubricants/hydraulic fluids and quantities	14-4
Service data	14-7

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Inspection/replacement schedule for lubricants, hydraulic fluid and filter elements	14-2
Recommended lubricants/hydraulic fluids and quantities	14-4
Service data	14-7

Inspection/replacement schedule for lubricants, hydraulic fluid and filter elements

Period or distance	Inspection/replacement items	Ref. page
Pre-operational	Check the coolant.	12-18
	Check the engine oil.	12-18
	Check the brake fluid. <Vehicles with air-over hydraulic brakes>	12-22
Every 5,000 km	Check clutch fluid.	12-42
	Check manual transmission gear oil. <Manual transmission vehicles>	12-35
	Grease various moving sections of chassis parts.	12-24
	Check differential gear oil.	12-39
	Check power steering fluid.	12-45
	Check the coolant.	12-58
	Grease door hinges.	12-29
Every 5,000 km or 1 month	Check brake fluid.	12-42
Every 10,000 km	Change engine oil. <Vehicles for Hong Kong and Singapore>	12-30
	Check automatic transmission fluid. <Automatic transmission vehicles>	12-38
Every 20,000 km	Replace oil filter element. <Vehicles for Hong Kong and Singapore>	12-46
Every 25,000 km	Change wheel hub bearing grease.	
	Grease cab rear mount cushion.	12-30
Every 30,000 km	Replace fuel filter element. <Vehicles for Hong Kong and Singapore>	12-47
	Change engine oil. <Vehicles for Australia and New Zealand>	12-30
Every 30,000 km or 12 months	Replace PCV (Positive Crankcase Ventilation) valve element.	12-56
Every 50,000 km	Change manual transmission gear oil. <Manual transmission vehicles>	12-35
	Change differential gear oil.	12-39
	Change power steering fluid.	
	Replace fuel filter element. <Vehicles for Australia and New Zealand>	12-47
	Replace power steering fluid filter element.	
	Check cab tilt system fluid. <Crew-cab model>	

Inspection/replacement schedule for lubricants, hydraulic fluid and filter elements

Period or distance	Inspection/replacement items	Ref. page
Pre-operational	Check the coolant.	12-18
	Check the engine oil.	12-18
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	Replace fuel filter element. <Vehicles for Australia and New Zealand>	12-47
	Replace power steering fluid filter element.	
	Check cab tilt system fluid. <Crew-cab model>	

Period or distance	Inspection/replacement items	Ref. page
Every 60,000 km	Replace oil filter element. <Vehicles for Australia and New Zealand>	12-46
Every 80,000 km or 12 months	Replace the air cleaner element.	12-53
Every 12 months	Change brake fluid. <Vehicles with air-over hydraulic brakes>	▲
	Change clutch fluid.	▲
Every 24 months	Replace coolant.	12-58
	Change cab tilt system fluid. <Crew-cab model>	▲
Every 200,000 km or 2 years	Replace urea filter element.	12-51
Every 5 years (or when the service indicator lights, regardless of the replacement interval)	Change automatic transmission fluid. <Automatic transmission vehicles>	▲

⚠ CAUTION

- The inspection or replacement jobs marked ▲ in the "Ref. page" column involve disassembly work and require special equipment. Ask your nearest authorized MITSUBISHI FUSO distributor or dealer to do these jobs for you.
- In the "new vehicle inspection" period, change the following oil/fluid and filter element at the specified distances.

At the first 2,000 km:

Engine oil
Engine oil filter element
Transmission gear oil
Differential gear oil
Power steering fluid
Power steering fluid filter element

Period or distance	Inspection/replacement items	Ref. page
Every 60,000 km	Replace oil filter element. <Vehicles for Australia and New Zealand>	12-46
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Every 24 months	Replace coolant.	12-58
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Recommended lubricants/hydraulic fluids and quantities

1 Quantities of lubricants/hydraulic fluids

liters

Item			Quantity	
Engine	Oil pan		Approx. 11	
	Oil filter		Approx. 2.3	
Manual transmission	6-speed	M060S6	Approx. 6.7	
		M070S6 (Overdrive)	Approx. 8.5	
		M070S6 (Direct drive)	Approx. 8.1	
	In case of vehicles with power take-off, increase the oil quantity by approx. 0.5 liters.		—	
	9-speed	EATON FS8209	Approx. 8.5	
Automatic transmission	• Total fluid quantity (for the entire transmission system): 27 • Fluid quantity to be replaced: 18 When replacing the oil filter alone: 9.5			
Differential gear	Housing	FK	Approx. 6.5	
		FM	6-speed transmission vehicles and automatic transmission vehicles	Approx. 6.5
			9-speed transmission vehicles	Approx. 10
		FN		Approx. 10
	Carrier	FN62, FN64	Approx. 1	
	Interaxle differential		Approx. 0.5	
	Power steering			As required
Brake fluid, clutch fluid			As required	
Cab tilt system fluid <Crew-cab model>			Approx. 0.59	
Engine coolant			Approx. 23	
Windshield washer fluid			Approx. 5.5	

The oil quantity values in the above table are approximate ones. After every addition of oil, finally check the level by using the oil level gauge or removing the inspection plug.

Recommended lubricants/hydraulic fluids and quantities

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	Oil filter		Approx. 2.3	
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			9-speed transmission vehicles	Approx. 10
		FN	Approx. 10	
	Carrier	FN62, FN64	Approx. 1	
	Interaxle differential		Approx. 0.5	
	Power steering			As required
Brake fluid, clutch fluid			As required	
Cab tilt system fluid <Crew-cab model>			Approx. 0.59	
Engine coolant			Approx. 23	
Windshield washer fluid			Approx. 5.5	

The oil quantity values in the above table are approximate ones. After every addition of oil, finally check the level by using the oil level gauge or removing the inspection plug.

2 Recommended lubricants/hydraulic fluids

Be sure to use the specified lubricants.

Parts		Category	Classification	Viscosity		Remarks
				Atmospheric temperature	SAE viscosity class	
Engine	Vehicles for Australia, and New Zealand	Engine oil	API CD, CD/SF, CE, CE/SF, CF-4, JASO DH-1, Ash 1.5% wt or higher	Below 0°C	10W-30	MIL-L-2104C
				Above -15°C	15W-40	
				-15 - 15°C	20W-20	
				Above -5°C	30	
				Above 30°C	40	
	Vehicles for Hong Kong, and Singapore	Engine oil	API CD, CD/SF, CE, CE/SF, CF-4, CJ-4 JASO DH-1, DH-2 ACEA E6	Below 0°C	10W-30	MIL-L-2104C
				Above -15°C	15W-40	
				-15 - 15°C	20W-20	
				Above -5°C	30	
				Above 30°C	40	
Manual transmission	6-speed transmission	Gear oil	API GL-3	General	80	-
				Warm region	90	
		API GL-4	Tropical region	90	MIL-L-2105	
	Engine oil	API CC	Long period of high-speed driving	30 or 40	MIL-L-2104B	
9-speed transmission	Gear oil	API GL-4	-	90	MIL-L-2105	
	Engine oil	API CD	-	30, 40 or 50	MIL-L-2104C	
Automatic transmission		Automatic transmission fluid	Allison TES295	-	-	TranSynd®
Differential		Gear oil	API GL-5*	Below 40°C	90	MIL-L-2105B
				Above 40°C	140	
Differential <vehicles with limited slip differential>		Gear oil for limited slip differential	API GL-5	-	90	MITSUBISHI genuine gear oil, part No. 8149630EX
Power steering		Automatic transmission fluid	DEXRON II, DEXRON III type	-	-	MIL-H-5806B
Brake and clutch		Brake fluid	SAE J1703, FMVSS No. 116 (Grade DOT3)	-	-	-

2 Recommended lubricants/hydraulic fluids

Be sure to use the specified lubricants.

Parts		Category	Classification	Viscosity		Remarks
				Atmospheric temperature	SAE viscosity class	
Engine	Vehicles for Australia, and New Zealand	Engine oil	API CD, CD/SF, CE, CE/SF, CF-4, JASO DH-1, Ash 1.5% wt or higher	Below 0°C	10W-30	MIL-L-2104C
				Above -15°C	15W-40	
				-15 - 15°C	20W-20	
				Above -5°C	30	
				Above 30°C	40	
	Vehicles for Hong Kong, and Singapore	Engine oil	API CD, CD/SF, CE, CE/SF, CF-4, CJ-4 JASO DH-1, DH-2 ACEA E6	Below 0°C	10W-30	MIL-L-2104C
				Above -15°C	15W-40	
				-15 - 15°C	20W-20	
				Above -5°C	30	
				Above 30°C	40	
Manual transmission	6-speed transmission	Gear oil	API GL-3	General	80	-
				Warm region	90	
		API GL-4	Tropical region	90	MIL-L-2105	
	Engine oil	API CC	Long period of high-speed driving	30 or 40	MIL-L-2104B	
	9-speed transmission	Gear oil	API GL-4	-	90	MIL-L-2105
		Engine oil	API CD	-	30, 40 or 50	MIL-L-2104C
Automatic transmission		Automatic transmission fluid	Allison TES295	-	-	TranSynd®
Differential		Gear oil	API GL-5*	Below 40°C	90	MIL-L-2105B
				Above 40°C	140	
Differential <vehicles with limited slip differential>		Gear oil for limited slip differential	API GL-5	-	90	MITSUBISHI genuine gear oil, part No. 8149630EX
Power steering		Automatic transmission fluid	DEXRON II, DEXRON III type	-	-	MIL-H-5806B
Brake and clutch		Brake fluid	SAE J1703, FMVSS No. 116 (Grade DOT3)	-	-	-

Parts	Category	Classification	Viscosity		Remarks
			Atmospheric temperature	SAE viscosity class	
Chassis grease fittings, door hinge cab mount cushion	Chassis grease	NLGI No. 1 (Li soap)	—	—	Consistency: 310 to 340 (at 25°C) Dropping point: 130°C or higher
Kingpin, steering shaft, wheel hub bearing, propeller shaft, clutch shifter, clutch fork shaft, trunnion plane bearing	Wheel bearing grease (Multi-purpose type grease)	NLGI No. 2 (Li soap)	—	—	Consistency: 265 to 295 (at 25°C) Dropping point: 185°C or higher
Transmission control select shaft	Molybdenum disulfide base grease	NLGI No.2 (Li soap)	—	—	Consistency: 265 to 295 (at 25°C) Dropping point: 200°C
Cab tilt system	Hydraulic oil	—	—	—	MIL-H-5606F
Coolant	Mixture of soft water or demineralized water and FUSO DIESEL LONGLIFE COOLANT	SAE J814-C	—	—	—

*: At ambient temperatures higher than 10°C, use an oil conforming to SAE140 if the vehicle is used under such a heavy load conditions as continuous upgrade climbing.

NOTE:

Special oils must be used in areas where the lowest temperature is below -25°C For details, consult the nearest authorized MITSUBISHI FUSO distributor or dealer.

Parts	Category	Classification	Viscosity		Remarks
			Atmospheric temperature	SAE viscosity class	
Chassis grease fittings, door hinge cab mount cushion	Chassis grease	NLGI No. 1 (Li soap)	—	—	Consistency: 310 to 340 (at 25°C) Dropping point: 130°C or higher
Kingpin, steering shaft, wheel hub bearing, propeller shaft, clutch shifter, clutch fork shaft, trunnion plane bearing	Wheel bearing grease (Multi-purpose type grease)	NLGI No. 2 (Li soap)	—	—	Consistency: 265 to 295 (at 25°C) Dropping point: 185°C or higher
Transmission control select shaft	Molybdenum disulfide base grease	NLGI No.2 (Li soap)	—	—	Consistency: 265 to 295 (at 25°C) Dropping point: 200°C
Cab tilt system	Hydraulic oil	—	—	—	MIL-H-5606F
Coolant	Mixture of soft water or demineralized water and FUSO DIESEL LONGLIFE COOLANT	SAE J814-C	—	—	—

*: At ambient temperatures higher than 10°C, use an oil conforming to SAE140 if the vehicle is used under such a heavy load conditions as continuous upgrade climbing.

NOTE:

Special oils must be used in areas where the lowest temperature is below -25°C For details, consult the nearest authorized MITSUBISHI FUSO distributor or dealer.

Service data

Description				Standard value	
Engine idling speed				Approx. 550 rpm	
Belt tension <amount of deflection when the belt is pressed with a 98 N (10 kgf) force at the point midway between the pulleys>		Fan belt		10 to 15 mm	
		Air conditioner compressor V-belt		7 to 10 mm	
Clutch pedal play				35 to 47 mm	
Brake pedal play (as measured at the top of pedal)				10.0 to 15.5 mm	
Air pressure build-up time From 0 to 750 kPa (0 to 7.6 kgf/cm ²)	Vehicles with multiple air tank drain cocks	Vehicles for Australia and New Zealand	FK	Within 10 minutes	
			FK-Z	Within 10 minutes	
			FM	Within 12 minutes	
			FN	Within 16 minutes	
	Vehicles with only one air tank drain cock	Vehicles for Hong Kong	FK-Z	Within 10 minutes	
			FM	Within 12 minutes	
		Vehicles for Singapore	FK-Z	Within 4 minutes	
			FM	Within 6 minutes	
Parking brake lever stroke <When pulled with a 295 N (30 kgf) force>				7 to 10 notches	
Wheel nut tightening torque	6-stud wheels			450 to 500 Nm (45 to 50 kgfm)	
	8-stud wheels			550 to 600 Nm (55 to 60 kgfm)	
	10-stud wheels				
Tread groove depth				more than 1.6 mm	
Steering wheel play				10 to 40 mm	

Service data

Description				Standard value	
Engine idling speed				Approx. 550 rpm	
Belt tension <amount of deflection when the belt is pressed with a 98 N (10 kgf) force at the point midway between the pulleys>		Fan belt		10 to 15 mm	
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			FK-Z	Within 10 minutes	
			FM	Within 12 minutes	
			FN	Within 16 minutes	
	Vehicles with only one air tank drain cock	Vehicles for Hong Kong	FK-Z	Within 10 minutes	
			FM	Within 12 minutes	
		Vehicles for Singapore	FK-Z	Within 4 minutes	
			FM	Within 6 minutes	
Parking brake lever stroke <When pulled with a 295 N (30 kgf) force>				7 to 10 notches	
Wheel nut tightening torque	6-stud wheels			450 to 500 Nm (45 to 50 kgfm)	
	8-stud wheels			550 to 600 Nm (55 to 60 kgfm)	
	10-stud wheels				
Tread groove depth				more than 1.6 mm	
Steering wheel play				10 to 40 mm	

15. New vehicle inspection record

15. New vehicle inspection record

INITIAL SERVICE ON THE NEW VEHICLE DURING RUN-IN PERIOD
1st inspection at 2,000 km

Date _____

Total running distance _____

Servicing dealer's name _____

Address _____

INITIAL SERVICE ON THE NEW VEHICLE DURING RUN-IN PERIOD
1st inspection at 2,000 km

Date _____

Total running distance _____

Servicing dealer's name _____

Address _____

INSPECTION OF NEW VEHICLE (For dealer's use) 2,000 km

Owner's name _____

Engine No. _____

Signature _____

Chassis No. _____

Address _____

Servicing dealer's name _____

Date _____

Address _____

INSPECTION OF NEW VEHICLE (For dealer's use) 2,000 km

Owner's name _____

Engine No. _____

Signature _____

Chassis No. _____

Address _____

Servicing dealer's name _____

Date _____

Address _____

New Vehicle Inspection Items

Lubrication

- ☐ Engine oil replacement
- ☐ Clutch fluid inspection <Manual transmission vehicles>
- ☐ Manual transmission gear oil replacement <Manual transmission vehicles>
- ☐ Rear differential gear oil replacement
- ☐ Power steering fluid replacement (filter element replacement)
- ☐ Brake fluid inspection <Air-over hydraulic brake vehicles>
- ☐ Door hinge greasing
- ☐ Trunnion plain bearing greasing <FN62>
- ☐ Greasing through grease nipples

Inspection and maintenance

- ☐ Oil filter element replacement
- ☐ Engine condition inspection
- ☐ Retightening of manifolds
- ☐ Valve clearance adjustment
- ☐ Fan belt inspection
- ☐ Coolant inspection
- ☐ Clutch system inspection <Manual transmission vehicles>
- ☐ Transmission gear shift control inspection <Manual transmission vehicles>
- ☐ Retightening propeller shaft flange yoke tightening bolt
- ☐ Propeller shaft center bearing mounting bolts retightening
- ☐ Disc wheel inspection
- ☐ Wheel nut inspection
- ☐ Steering system inspection
- ☐ Steering wheel inspection
- ☐ Service brake system inspection
- ☐ Air tank inspection
- ☐ Brake shoe clearance adjustment
- ☐ Parking brake inspection
- ☐ Suspension system inspection
- ☐ Leaf spring inspection
- ☐ Shock absorber inspection
- ☐ Electrical wiring inspection
- ☐ Air spring inspection <Rear air suspension vehicles>
- ☐ Lighting system inspection
- ☐ Instrument panel inspection
- ☐ Battery inspection
- ☐ AdBlue® line leakage and damage check
- ☐ Fuel, oil, coolant and air leak check

New Vehicle Inspection Items

Lubrication

- ☐ Engine oil replacement
- ☐ Clutch fluid inspection <Manual transmission vehicles>
- ☐ Manual transmission gear oil replacement <Manual transmission vehicles>
- ☐ Rear differential gear oil replacement
- ☐ Power steering fluid replacement (filter element replacement)
- ☐ Brake fluid inspection <Air-over hydraulic brake vehicles>
- ☐ Door hinge greasing
- ☐ Trunnion plain bearing greasing <FN62>
- ☐ Greasing through grease nipples

Inspection and maintenance

- ☐ Oil filter element replacement
- ☐ Engine condition inspection
- ☐ Retightening of manifolds
- ☐ Valve clearance adjustment
- ☐ Fan belt inspection
- ☐ Coolant inspection
- ☐ Clutch system inspection <Manual transmission vehicles>
- ☐ Transmission gear shift control inspection <Manual transmission vehicles>
- ☐ Retightening propeller shaft flange yoke tightening bolt
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- ☐ Wheel nut inspection
- ☐ Steering system inspection
- ☐ Steering wheel inspection
- ☐ Service brake system inspection
- ☐ Air tank inspection
- ☐ Brake shoe clearance adjustment
- ☐ Parking brake inspection
- ☐ Suspension system inspection
- ☐ Leaf spring inspection
- ☐ Shock absorber inspection
- ☐ Electrical wiring inspection
- ☐ Air spring inspection <Rear air suspension vehicles>
- ☐ Lighting system inspection
- ☐ Instrument panel inspection
- ☐ Battery inspection
- ☐ AdBlue® line leakage and damage check
- ☐ Fuel, oil, coolant and air leak check

16. Periodic inspection schedule

16. Periodic inspection schedule

Perform periodic inspection according to the established schedule and record the results in the "Periodic inspection record".

CAUTION

- Periodic inspections must be performed according to either the odometer reading or the period of use, whichever is applicable.
- If your vehicle is operated under strenuous conditions, the inspection intervals should be shortened accordingly.
- In the following inspection schedule table, the items that have parenthesized numbers are explained under NOTE at the end of the table by the descriptions designated by the same numbers.
Also, asterisks (★) identify the items for which you can perform inspections or maintenance work yourself. For instruction on the inspection and maintenance procedures for these items, refer to the "Simple inspection and service" section of this Owner's Handbook.
- During the "new vehicle period" when various parts are subject to initial seating, the vehicle requires special inspections. These inspections should be performed at the first 2,000 km according to the new vehicle inspection schedule provided in the previous section.
- Rubber hoses, particularly for the brake system and for the fuel system, should be periodically inspected and serviced. Because they decay, swell, chafe, and crack over time, for the sake of safety it is necessary that they be inspected by technicians according to the periodic inspection schedule, and that they be replaced at regular intervals. The hoses must be replaced whenever they are deteriorated or broken.

Perform periodic inspection according to the established schedule and record the results in the "Periodic inspection record".

CAUTION

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- If your vehicle is operated under strenuous conditions, the inspection intervals should be shortened accordingly.
- In the following inspection schedule table, the items that have parenthesized numbers are explained under NOTE at the end of the table by the descriptions designated by the same numbers.
Also, asterisks (★) identify the items for which you can perform inspections or maintenance work yourself. For instruction on the inspection and maintenance procedures for these items, refer to the "Simple inspection and service" section of this Owner's Handbook.
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- Symbols used
 - ☆1: 1st maintenance at 2,000 km
 - I : Inspect, and correct or replace as necessary.
 - C : Clean.
 - R : Replace or change.
 - T : Tighten.
 - L : Lubricate.
 - : No inspection is necessary.
 - ★ : Inspection and maintenance that can be performed by the user.
 - (xx): The numbers in parenthesis correspond to NOTE at the end of the table.

CAUTION

- Determine the inspection period according to the odometer reading or the number of months elapsed, whichever occurs first.
- When 100,000 km has reached, repeat from 5,000 km.

- Symbols used
 - ☆1: 1st maintenance at 2,000 km
 - I : Inspect, and correct or replace as necessary.
 - C : Clean.
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CAUTION

- Determine the inspection period according to the odometer reading or the number of months elapsed, whichever occurs first.
- When 100,000 km has reached, repeat from 5,000 km.

[illegible]

[illegible][illegible]

Intervals:	x 1 000 km	☆1	5	10	15	20	25	30	35	40
Brake										
★ Brake fluid <Air-over hydraulic brake vehicles>										
★ Service brake system (23)										
★ Air tank (24)										
★ Air drier (25)		•	•	•		•	•		•	•
Service brake shoe clearance										
Service brake lining (26)		•	•	•		•	•		•	•
Service brake drum (27)		•	•	•	•	•	•	•	•	•
★ Parking brake (28)										
Parking brake drum and lining (29) <Air-over hydraulic brake vehicles>		•	•	•	•	•	•	•	•	•
Brake hose (30)		•	•	•		•	•		•	•
Rubber parts and packing of brake system (31)										
Wheel park spring in brake chamber and rubber parts in expander <Full air brake vehicles>										
Hose connecting air compressor and air drier		•	•	•		•	•		•	•
Expander in brake chamber (32) <Full air brake vehicles>		•	•	•	•	•	•	•	•	•
Rubber parts and packings of brake booster										
Packings of brake booster power cylinder <Air-over hydraulic brake vehicles>										
Brake fluid reservoir tank tube <Air-over hydraulic brake vehicles>										
Suspension										
★ Trunnion plain bearing <FN62>		L	L	L	L	L	L	L	L	L
Suspension system (33)										
Leaf springs (34)										
Shock absorber			•	•		•	•		•	•

Intervals:	x 1 000 km	☆1	5	10	15	20	25	30	35	40
Brake										
★ Brake fluid <Air-over hydraulic brake vehicles>										
★ Service brake system (23)										
★ Air tank (24)										
★ Air drier (25)		•	•	•		•	•		•	•
Service brake shoe clearance										
Service brake lining (26)		•	•	•		•	•		•	•
Service brake drum (27)		•	•	•	•	•	•	•	•	•
★ Parking brake (28)										
Parking brake drum and lining (29) <Air-over hydraulic brake vehicles>		•	•	•	•	•	•	•	•	•
Brake hose (30)		•	•	•		•	•		•	•
Rubber parts and packing of brake system (31)										
Wheel park spring in brake chamber and rubber parts in expander <Full air brake vehicles>										
Hose connecting air compressor and air drier		•	•	•		•	•		•	•
Expander in brake chamber (32) <Full air brake vehicles>		•	•	•	•	•	•	•	•	•
Rubber parts and packings of brake booster										
Packings of brake booster power cylinder <Air-over hydraulic brake vehicles>										
Brake fluid reservoir tank tube <Air-over hydraulic brake vehicles>										
Suspension										
★ Trunnion plain bearing <FN62>		L	L	L	L	L	L	L	L	L
Suspension system (33)										
Leaf springs (34)										
Shock absorber			•	•		•	•		•	•

45	50	55	60	65	70	75	80	85	90	95	100	Remarks
												R: Every 12 months
												I: Every 5,000 km or 1 month
	.	.		.	.		.	.		.	.	I: Every 15,000 km or 3 months Replace desiccant, filter and rubber parts every 100,000 km or 12 months, whichever occurs first.
	.	.		.	.		.	.		.	.	
.	.	.		.	.	.	.	.	.	.	.	
												I: Every 5,000 km or 1 month
.	.	.		.	.	.	.	.	.	.	.	
	.	.		.	.		.	.		.	.	R: Every 12 months
												R: Every 12 months
												R: Every 36 months
	.	.		.	.		.	.		.	.	R: Every 24 months
.	.	.		.	.	.	.	.	.	.	.	
												R: Every 12 months
												R: Every 24 months
												R: Every 48 months
L	L	L	L	L	L	L	L	L	L	L	L	
	.	.		.	.		.	.		.	.	

45	50	55	60	65	70	75	80	85	90	95	100	Remarks
												R: Every 12 months
												I: Every 5,000 km or 1 month
	.	.		.	.		.	.		.	.	I: Every 15,000 km or 3 months Replace desiccant, filter and rubber parts every 100,000 km or 12 months, whichever occurs first.
	.	.		.	.		.	.		.	.	
.	.	.		.	.	.	.	.	.	.	.	
												I: Every 5,000 km or 1 month
.	.	.		.	.	.	.	.	.	.	.	
	.	.		.	.		.	.		.	.	R: Every 12 months
												R: Every 12 months
												R: Every 36 months
	.	.		.	.		.	.		.	.	R: Every 24 months
.	.	.		.	.	.	.	.	.	.	.	
												R: Every 12 months
												R: Every 24 months
												R: Every 48 months
L	L	L	L	L	L	L	L	L	L	L	L	
	.	.		.	.		.	.		.	.	

16-10 Periodic inspection schedule

Intervals:	x 1 000 km	☆1	5	10	15	20	25	30	35	40
Air springs (35) <Rear air suspension vehicles>		•		•		•		•		
Air spring diaphragm <Rear air suspension vehicles>										
★ Front and rear spring pins	•	L	L	L	L	L	L	L	L	L
Electrical system										
Electrical wiring (36)										
★ Lighting system										
★ Instrument panel (37)										
Switches	•	•	•	•	•	•	•	•	•	•
★ Horn	•									
★ Battery (38)										
Stop lamp switch										
Other chassis parts										
★ Chassis grease nipples pins (39)	L	L	L	L	L	L	L	L	L	L
★ Door hinge	L	L	L	L	L	L	L	L	L	L
★ Cab rear mount cushion	•	•	•	•	•	L	•	•	•	•
Cab tilt system fluid <Crew-cab models>	•	•	•	•	•	•	•	•	•	•
★ Leaks – fuel, oil, coolant, air (40)										
Seat belts (41)	•									
★ Door lock	•									
Exhaust pipe and muffler functions (42)	•	•	•		•	•		•	•	

16-10 Periodic inspection schedule

Intervals:	x 1 000 km	☆1	5	10	15	20	25	30	35	40
Air springs (35) <Rear air suspension vehicles>		•		•		•		•		
Air spring diaphragm <Rear air suspension vehicles>										
★ Front and rear spring pins	•	L	L	L	L	L	L	L	L	L
Electrical system										
Electrical wiring (36)										
★ Lighting system										
★ Instrument panel (37)										
Switches	•	•	•	•	•	•	•	•	•	•
★ Horn	•									
★ Battery (38)										
Stop lamp switch										
Other chassis parts										
★ Chassis grease nipples pins (39)	L	L	L	L	L	L	L	L	L	L
★ Door hinge	L	L	L	L	L	L	L	L	L	L
★ Cab rear mount cushion	•	•	•	•	•	L	•	•	•	•
Cab tilt system fluid <Crew-cab models>	•	•	•	•	•	•	•	•	•	•
★ Leaks – fuel, oil, coolant, air (40)										
Seat belts (41)	•									
★ Door lock	•									
Exhaust pipe and muffler functions (42)	•	•	•		•	•		•	•	

45	50	55	60	65	70	75	80	85	90	95	100	Remarks
.		.		.		.		.		.		
												R: Every 36 months
L	L	L	L	L	L	L	L	L	L	L	L	R: Every 36 months
.		.	.	.	.	.	.	.	.	.		
												R: Every 24 months
L	L	L	L	L	L	L	L	L	L	L	L	
L	L	L	L	L	L	L	L	L	L	L	L	
.	L	.	.	.	.	L	.	.	.	.	L	
.		.	.	.	.	.	.	.	.	.		R: Every 24 months
	.	.		.	.		.	.		.	.	

NOTE:

- (1) Check the engine for startability and idling RPM. Also check for unusual noises and vibrations, and the condition of the exhaust smoke while the engine is running.
- (2) Check the tightening torque of bolts and nuts using the "loosening-and-tightening" method. Tighten to specification if they are loose.
- (3) Remove the drain plug from the fuel tank to remove water and sediment from the tank. Also, check each section of the tank for damage.
- (4) Check the V-belt for tension and damage.
- (5) Remove the hose of compressor wheel side and check the play of the rotor shaft and the rotating condition of the turbine wheel.

45	50	55	60	65	70	75	80	85	90	95	100	Remarks
.		.		.		.		.		.		
												R: Every 36 months
L	L	L	L	L	L	L	L	L	L	L	L	R: Every 36 months
.		.	.	.	.	.	.	.	.	.		
												R: Every 24 months
L	L	L	L	L	L	L	L	L	L	L	L	
L	L	L	L	L	L	L	L	L	L	L	L	
.	L	.	.	.	.	L	.	.	.	.	L	
.		.	.	.	.	.	.	.	.	.		R: Every 24 months
	.	.		.	.		.	.		.	.	

NOTE:

- (1) Check the engine for startability and idling RPM. Also check for unusual noises and vibrations, and the condition of the exhaust smoke while the engine is running.
- (2) Check the tightening torque of bolts and nuts using the "loosening-and-tightening" method. Tighten to specification if they are loose.
- (3) Remove the drain plug from the fuel tank to remove water and sediment from the tank. Also, check each section of the tank for damage.
- (4) Check the V-belt for tension and damage.
- (5) Remove the hose of compressor wheel side and check the play of the rotor shaft and the rotating condition of the turbine wheel.

- (6) Check the fuel hose for deterioration, swelling, chafing, and cracks.
- (7) Check for leakage of AdBlue® from the BlueTec® exhaust gas aftertreatment. Check the mounting condition of the urea tank, supply unit, dosing unit, and the urea piping of the dosing nozzle.
- (8) Replace the wheel hub bearing grease. At the same time, replace the oil seal. When the wheel hub bearing grease is replaced, check the wheel hub bearing for damage, unusual wear, and cracks.
- (9) Check for clutch pedal play, engagement and slippage of the clutch.
- (10) Check each section of the transmission gearshift control mechanism for looseness. Check also for smooth gearshift operation.
- (11) Check the propeller shaft splines and universal joint for excessive play, the propeller shaft for eccentric rotation, and the center bearing for excessive play.
- (12) Check the front axle for damage, cracks, and deformation.
- (13) Jack up the front axle and, holding the tire at the top and the bottom with your hands, move it back and forth to check for abnormal play in the wheel bearings.
- (14) Check the rear axle for damage, cracks, and deformation.
- (15) Remove the rear axle shaft and check for twists, cracks, and unusual wear in the splines.
- (16) When the wheel hub bearing grease is replaced, check the wheel hub bearing for damage, unusual wear, and cracks.
- (17) Check the disc wheel for damage and cracks.
- (18) Check tires for damage, cracks, and metal for pieces or other foreign objects wedged in tread grooves. Check also the tread depth.
- (19) Check various parts of the steering system for excessive looseness and play. Check the power steering system, including the oil pipes and hoses, for looseness, damage, and leaks.
- (20) Check the steering wheel for excessive play and looseness. Drive the vehicle and check that the steering wheel does not vibrate excessively, pull to one side, turn with excessive difficulty or return sluggishly.
- (21) Make sure that the power steering system is fully operational.

- (6) Check the fuel hose for deterioration, swelling, chafing, and cracks.
- (7) Check for leakage of AdBlue® from the BlueTec® exhaust gas aftertreatment. Check the mounting condition of the urea tank, supply unit, dosing unit, and the urea piping of the dosing nozzle.
- (8) Replace the wheel hub bearing grease. At the same time, replace the oil seal. When the wheel hub bearing grease is replaced, check the wheel hub bearing for damage, unusual wear, and cracks.
- (9) Check for clutch pedal play, engagement and slippage of the clutch.
- (10) Check each section of the transmission gearshift control mechanism for looseness. Check also for smooth gearshift operation.
- (11) Check the propeller shaft splines and universal joint for excessive play, the propeller shaft for eccentric rotation, and the center bearing for excessive play.
- (12) Check the front axle for damage, cracks, and deformation.
- (13) Jack up the front axle and, holding the tire at the top and the bottom with your hands, move it back and forth to check for abnormal play in the wheel bearings.
- (14) Check the rear axle for damage, cracks, and deformation.
- (15) Remove the rear axle shaft and check for twists, cracks, and unusual wear in the splines.
- (16) When the wheel hub bearing grease is replaced, check the wheel hub bearing for damage, unusual wear, and cracks.
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- (21) Make sure that the power steering system is fully operational.

- (22) Check the power steering hoses for deterioration, swelling, chafing, and cracks. Check also for loose connections. To ensure safety, replace the hose every 4 years.
- (23) Check the brake system, including pipes and hoses, for looseness and damage. Check that when the brake pedal is pressed and then released, the sound of air being released is heard and the pedal returns completely without catching. Check the brake pedal for proper play. Check to see if the service brakes operate properly.
Use an air pressure gauge to check that the compressed air pressure builds up at the correct rate while the engine is running.
- (24) Pull the drain cock of the air tank to drain condensate.
- (25) Every 15,000 km or 3 months (whichever is sooner), check the air drier for proper operation by pulling the drain cock of the air tank and making sure that there is no condensate coming out of the tank. Check also that drainage from the air drier exhaust port does not contain oil. When a little condensate comes out, disassemble the air drier to check the desiccant. If 1/5 or more of the desiccant has turned brown, replace the desiccant.
Every 100,000 km or 12 months, whichever comes first, disassemble the air drier to replace the desiccant, oil filter, filter, and related rubber parts.
- (26) Check to see if the service brake shoe linings are worn to the limit.
Check the brake shoes for damage and wear.
- (27) Check the brake drums for wear, cracks, and damage.
- (28) Stop the vehicle on a dry downgrade, set the parking brake and check to see if the parking brake can hold the vehicle. If an appropriate downgrade is not available, drive the vehicle at a speed lower than 5 km/h and activate the parking brake to make sure that it exhibits satisfactory braking action.
For vehicles with a center brake type parking brake, check that the parking brake lever stroke is normal.
For vehicles with a wheel brake type parking brake, check that a normal air discharging sound is heard when the hand control valve handle is pulled. Also make sure the handle moves smoothly without sticking.

- (22) Check the power steering hoses for deterioration, swelling, chafing, and cracks. Check also for loose connections. To ensure safety, replace the hose every 4 years.
- (23) Check the brake system, including pipes and hoses, for looseness and damage. Check that when the brake pedal is pressed and then released, the sound of air being released is heard and the pedal returns completely without catching. Check the brake pedal for proper play. Check to see if the service brakes operate properly.
Use an air pressure gauge to check that the compressed air pressure builds up at the correct rate while the engine is running.
- (24) Pull the drain cock of the air tank to drain condensate.
- (25) Every 15,000 km or 3 months (whichever is sooner), check the air drier for proper operation by pulling the drain cock of the air tank and making sure that there is no condensate coming out of the tank. Check also that drainage from the air drier exhaust port does not contain oil. When a little condensate comes out, disassemble the air drier to check the desiccant. If 1/5 or more of the desiccant has turned brown, replace the desiccant.
Every 100,000 km or 12 months, whichever comes first, disassemble the air drier to replace the desiccant, oil filter, filter, and related rubber parts.
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- (29) Check the parking brake drums for wear, cracks, and damage. Also check the thickness of the brake shoe lining.
- (30) Check the brake hoses for deterioration, swelling, chafing, and cracks. To ensure safety, replace the hoses every year.
- (31) Replace the rubber parts such as piston cups, dust seals, gaskets, diaphragms, etc. used in the brake system components*.
*: Wheel cylinders, brake valve, relay valve, quick release valve, check valve, hand control valve, brake chamber, etc.
- (32) Check that the brake chamber expander operates normally. Also check the expander parts for wear and damage.
- (33) Check the suspension system parts for looseness and damage.
- (34) Check the leaf springs for cracked, broken or displaced leaves.
- (35) Check the air springs for air leaks, and the bellows for damage. Measure bellows height to see if it is correct.
- (36) Check for loose harness connectors, damaged harness wires, and loose harness connection.
- (37) Check that the gauges, warning lamps, and indicator lamps operate properly.
- (38) Check the level and specific gravity of the battery electrolyte.
- (39) Apply grease to each grease nipple of the propeller shaft, front spring, rear spring, kingpin top and bottom sections, cab hinge, clutch fork shaft, clutch shifter, and steering shaft.
- (40) Check for leaks in the fuel system, engine lubrication circuit, brake system, clutch hydraulic system and cooling system.
- (41) Check the seat belts for proper installation, damage and wear.
- (42) Check the exhaust pipe and muffler for loose installation, damage, and exhaust leaks.

- (29) Check the parking brake drums for wear, cracks, and damage. Also check the thickness of the brake shoe lining.
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Date km 35 000 km (or 7 months)	Date km 40 000 km (or 8 months)	Date km 45 000 km (or 9 months)
Date km 50 000 km (or 10 months)	Date km 55 000 km (or 11 months)	Date km 60 000 km (or 12 months)
Date km 65 000 km (or 13 months)	Date km 70 000 km (or 14 months)	Date km 75 000 km (or 15 months)
Date km 80 000 km (or 16 months)	Date km 85 000 km (or 17 months)	Date km 90 000 km (or 18 months)

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Date km 125 000 km (or 25 months)	Date km 130 000 km (or 26 months)	Date km 135 000 km (or 27 months)
Date km 140 000 km (or 28 months)	Date km 145 000 km (or 29 months)	Date km 150 000 km (or 30 months)
Date km 155 000 km (or 31 months)	Date km 160 000 km (or 32 months)	Date km 165 000 km (or 33 months)
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BlueTec®: A brand of Daimler AG

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