FOREWORD

This manual has been prepared to acquaint you with the operation and maintenance of your Isuzu vehicle, and to provide important safety information. We urge you to read it carefully and follow the recommendations to help assure the most enjoyable and trouble-free operation of your vehicle.

When it comes to service, remember that your Isuzu dealer knows your vehicle best and is interested in your complete satisfaction.

We would like to take this opportunity to thank you for choosing an Isuzu product and assure you of our continuing interest in your motoring pleasure and satisfaction.

This manual should be considered a permanent part of the vehicle, and must remain with the vehicle at time of resale.

Cautionary statements

1. ***Statements concerning the possibility of personal injury are titled "WARNING" and appear within a shaded block.***
2. ***Statements concerning the possibility of mechanical damage to the vehicle are titled "CAUTION".***
3. ***Other information which needs to be emphasized but which does not concern the possibility of personal injury or mechanical damage is titled "NOTE".***

All Information, illustrations and specifications contained in this manual are based on the latest product information available at the time of publication. The right is reserved to make changes at any time without notice.

Isuzu Motors Limited
Tokyo, Japan

ABBREVIATIONS USED IN THIS MANUAL

V	Variation (Optional on some models).
OPT	Optional equipment.
RHD	Right-hand drive.
LHD	Left-hand drive.
MT	For manual transmission models only.
SA	For Smoother models only.
4JB	4JB1 engine models only.
4JG	4JG2 engine models only.
4JH	4JH1-TC engine models only.
4J	4JB1, 4JB1-TC, 4JG2 and 4JH1-TC engine models only.
4H	4HF1, 4HF1-2, 4HE1-TC, 4HG1, 4HG1-T and 4HK1-TC engine models only.
4HE1-TC	4HE1-TC engine model only.
4HF1-2	4HF1-2 engine model only.
4HG1-T	4HG1-T engine model only.
4HK1-TC	4HK1-TC engine models only.
TRB	Turbo charged engine model only.
4WD	Four wheel drive model only.
FL	Flat-low model only.

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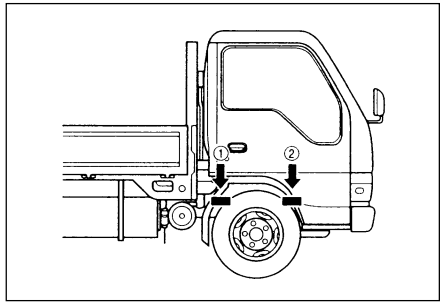
N-SERIES

IMPORTANT INFORMATION

The following information is important for proper care and economical operation of your Isuzu vehicle and should be thoroughly understood before operating it into service.



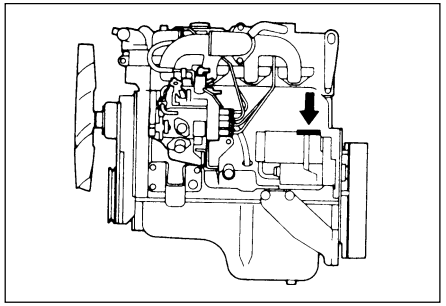
LOCATION OF CHASSIS AND ENGINE NUMBER

It is advisable to record the chassis and engine number as they are required when contacting your Isuzu dealer for repair services.

Chassis number:

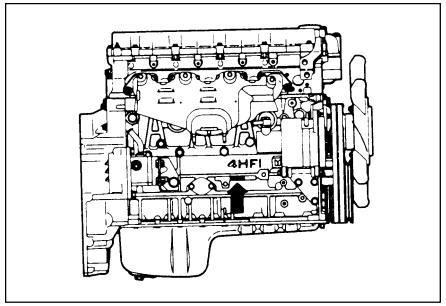
The chassis number is stamped on the front right-hand side face of the chassis side member.

1. NKR with independent front suspension.
2. NKR, NPR, NPS and NQR with rigid axle front suspension.

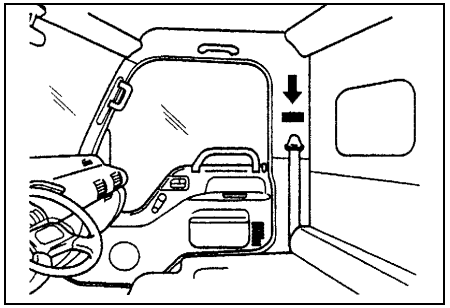


Engine number:

The engine number is stamped on the left side of the cylinder body. 4J

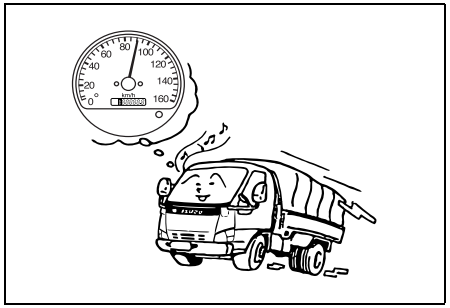


The engine number is stamped on the right side of the cylinder body. 4H



Vehicle identification plate:

The vehicle identification plate is attached to the interior side of the cab side panel on the right side.



Speed limitation device:

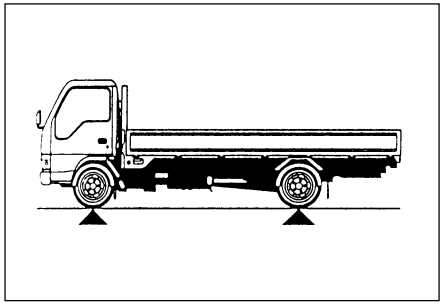
(For Europe model) V

The maximum speed of the vehicle equipped with speed limitation device is limited to 90 km/h by controlling fuel injection.

The speed limitation device sticker is attached to the door of the driver's side.

CAUTION

- ***On a downhill road, the vehicle speed may exceed 90 km/h.***
- ***In order to avoid the wrong operation of the speed limitation device, please consult with your Isuzu dealer when the tire size changed.***



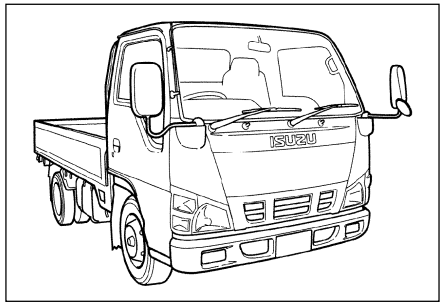
OVERLOADING

WARNING

Overloading not only shortens the service life of your vehicle, but also creates serious potential safety hazards.

The weight of the payload must be limited within the GVM rating and distributed over the front and rear axles so as not to exceed the axle capacities.

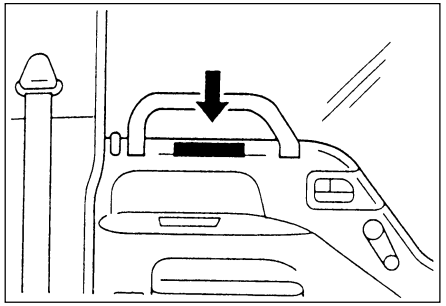
Refer to "MAIN DATA AND SPECIFICATIONS" for GVM and Axle capacities.



OPERATION OF NEW VEHICLE

The subsequent performance and the service life of your vehicle are under the direct influence of the care and treatment that your vehicle will receive during the initial break-in period. It is therefore always recommended that during the initial 1,000 km (600 miles) break-in period, the following few simple precautions are carefully observed.

1. It is recommended that your speed during initial 1,000 km (600 miles) be confined to the following:



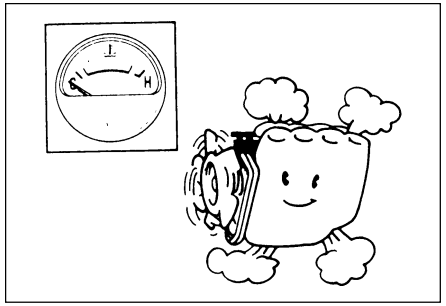
Without tachometer:

The shift speed label is attached to the inside of the driver's door.
Shift each gear at 10 km/h (6 mph) lower than the recommended shift speed.

With tachometer:

The shift speed label is not attached.
It is recommended that engine speed is restricted to the following:

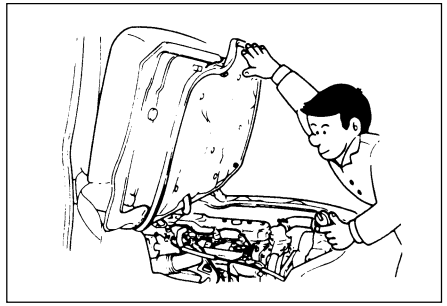
4HE1-TC, 4HK1-TC : 2,300rpm
4JH1-TC, 4HF1, 4HF1-2, 4HG1 : 2,600rpm
4JB1, 4JB1-TC, 4JG2, 4HG1-T : 2,800rpm



2. Avoid engine racing, abrupt starting and needless hard stops by popping the clutch.
3. Always let the engine idle until it becomes thoroughly warmed up.

OPERATION AND CARE OF VEHICLE

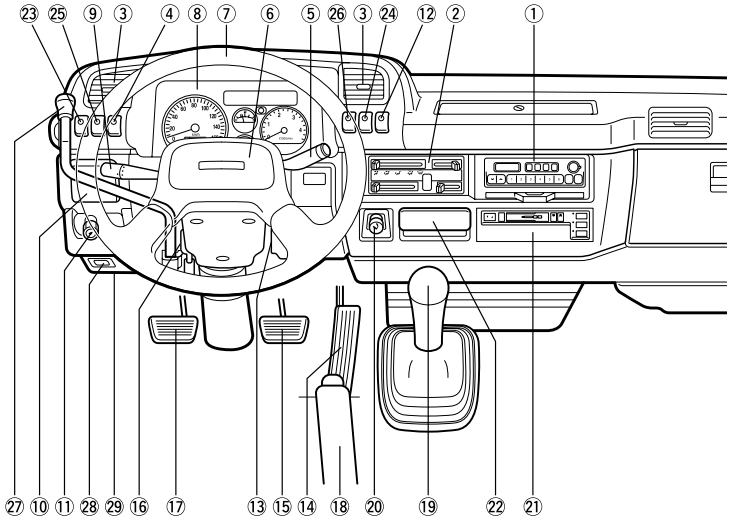
Every component and system of your vehicle should be checked with the aid of "CONTROLS AND INSTRUMENTS" and "DRIVING" sections in this manual.



MAINTENANCE

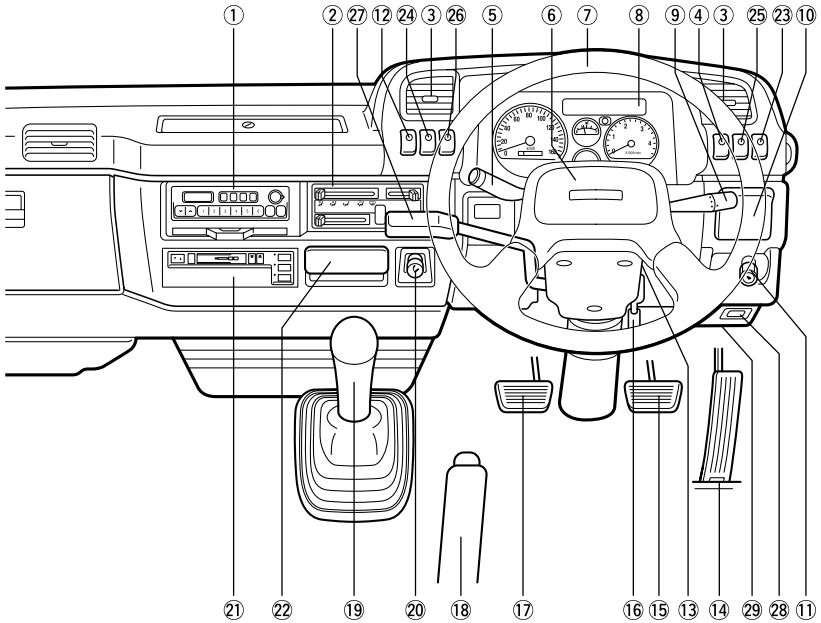
In order to maintain safe and dependable vehicle operation, inspection and adjustments should be performed as outlined in the "SERVICE AND MAINTENANCE" section. Your Isuzu dealer is trained to perform regular maintenance operation on your vehicle.

CONTROLS AND INSTRUMENTS LHD



1 OPT Radio
2 OPT Heater and defroster control panel
OPT Air conditioner control panel
3 Meter panel ventilators
4 OPT Front fog light switch
5 Windshield wiper and washer switch lever
OPT Exhaust brake switch lever
6 Horn button
7 Steering wheel
8 Meter and Indicator light panel
9 Combination switch lever
10 OPT Ash tray (Driver side)
11 Idling control knob
12 Hazard warning flasher switch
13 Ignition key switch
14 Accelerator pedal
15 Brake pedal
16 OPT Steering adjusting lock lever (Vertical, back and forth)
17 MT Clutch pedal
18 Parking brake lever
19 Transmission gearshift lever
20 Cigarette lighter
21 OPT Cassette/stereo player
22 Ash tray (passenger side)
23 OPT Dome light switch
24 4WD Four wheel drive (4WD) switch
V ASR OFF switch
25 V Warm-up switch
26 OPT P.T.O. switch
27 4WD Transfer gearshift lever
28 SA Smoother adjust switch
29 SA Smoother reset switch

CONTROLS AND INSTRUMENTS RHD



1 OPT Radio
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3 Meter panel ventilators
4 OPT Front fog light switch
5 Windshield wiper and washer switch lever
OPT Exhaust brake switch lever
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8 Meter and Indicator light panel
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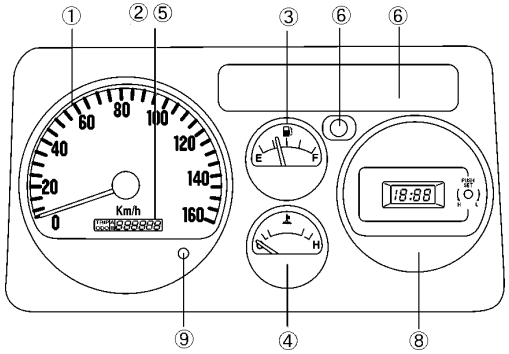
15 Brake pedal
16 OPT Steering adjusting lock lever (Vertical, back and forth)
17 MT Clutch pedal
18 Parking brake lever
19 Transmission gearshift lever
20 Cigarette lighter
21 OPT Cassette/Stereo player
22 Ash tray (companion side)
23 OPT Dome light switch
24 4WD Four wheel drive (4WD) switch
V ASR OFF switch
25 V Warm-up switch
V HSA OFF switch
26 OPT P.T.O. switch
27 4WD Transfer gearshift lever
28 V HSA adjust switch
SA Smoother adjust switch
29 V HSA reset switch
SA Smoother reset switch

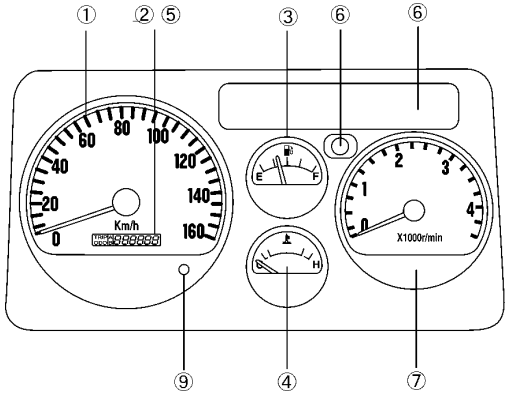
METERS AND INDICATOR LIGHTS

Meter panel

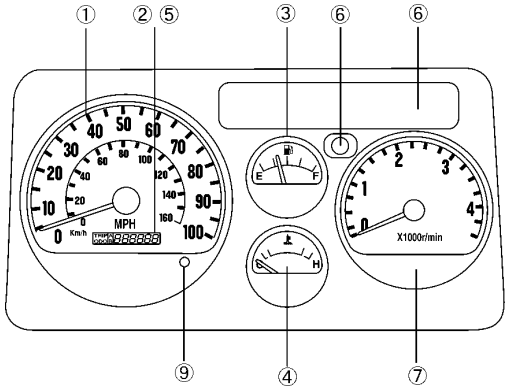


1 Speedometer
2 Odometer
3 Fuel gauge
4 Temperature gauge
5 Trip meter
6 Indicator lights and warning light panel
7 Engine tachometer
8 Digital clock
9 Push button
10 Tachograph
11 Smoother shift indicator light

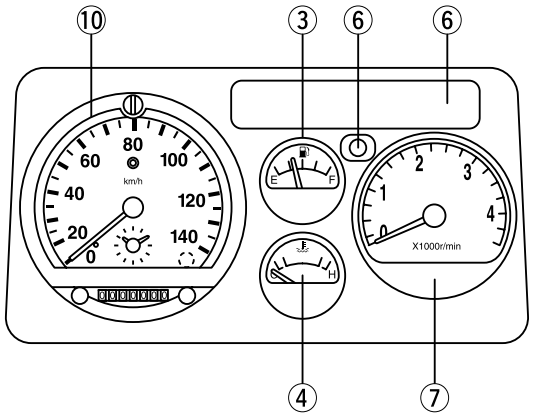
V



V



V


10
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6
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100
40
km/h
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140
0
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1
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X1000r/min
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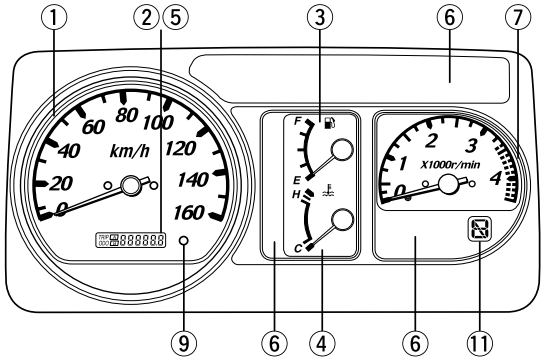
4
7

4HK1-TC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E
H
C
1
2
3
4
0
X1000r/min
9
6
4
6
11

Indicator and warning lights

 ..... Turn signal indicator light

 ..... High beam indicator light

 ..... [V] Rear fog indicator light

 ..... Fuel indicator light

 ..... Battery/Generator indicator light

 ..... Parking brake indicator and brake fluid level indicator light

 ..... Glow plug indicator light
[V] Check engine malfunction indicator light

 ..... Oil pressure indicator light

 ..... Exhaust brake indicator light

 ..... [V] Water separator indicator light

 ..... [V] Brake booster warning light

 ..... [4WD] Four wheel drive (4WD) indicator light

 ..... [V] Anti-lock brake system (ABS) malfunction warning light

 ..... [4JH] Check engine indicator light

 ..... [4HK1-TC] Check engine indicator light

 ..... [V] Seat belt warning light (for GCC model)

 ..... [OPT] P.T.O. indicator light

 ..... [V] SRS airbag warning light

 ..... [SA] Smoother warning light

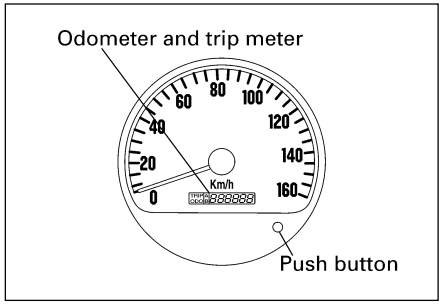
CONTROLS AND INSTRUMENTS

1ST START ..... SA 1st start mode indicator light

ECONO ..... SA ECONO mode indicator light

H.S.A ..... V HSA indicator light

A S R ..... V ASR indicator light



Speedometer

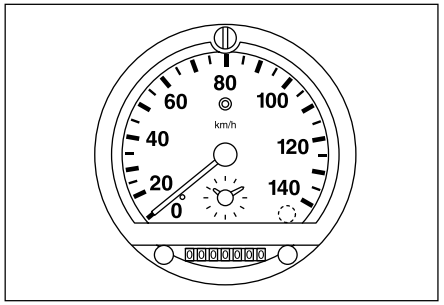
The speedometer indicates the vehicle speed in kilometers per hour (kph) or miles per hour (mph).

Odometer and trip odometer

The odometer and the trip odometer indicate kilometers (or miles).
The odometer indicates total running mileage, and the trip odometer is used when you want to know point-to-point distance and running mileage reached in a certain period of time. Further, the trip odometer can indicate two kinds of point-to-point distance.

Change indicator and push button

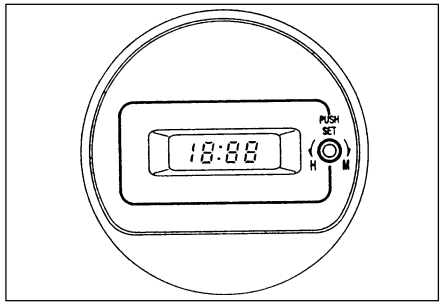
Push the button for approximately one second or less, and the indication will be changed in order of odometer, trip meter A, trip meter B, and odometer. Continue to push the knob for approximately one second or more when the meter (trip A, trip B) is indicated, and the indication will return to 0 (zero).



Tachograph V

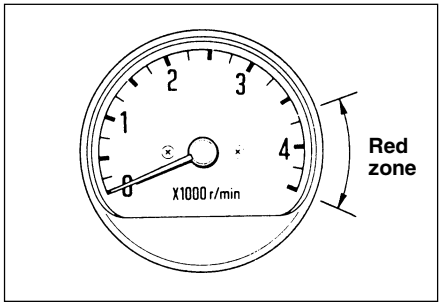
The tachograph built in the speedometer is useful for improving vehicle control as the following factors can be automatically recorded.

1. Vehicle speed.
2. Time and duration of vehicle operation and running distance.
3. Time and duration of parking and stopping.
4. Distance between stops.
5. Driver shifting time and working hours.



Digital clock

When the key switch is turned to the "ACC" or "ON" position, the time will appear digitally on the clock face.
To set the time, operate the knob for the following functions:
To set hours:
Depress and turn the knob counter-clockwise to advance the hour.
To set minutes:
Depress and turn the knob clockwise to advance the minutes. The hour indication will remain unchanged when the minute changes from "59" to "00".
To reset minutes:
Pull the knob out to reset the minutes to "00".



Engine tachometer V

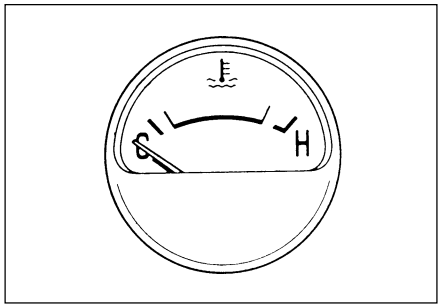
The engine tachometer indicates the engine speed in rpm, the red zone represents over-running the engine.

NOTE

The calibration and the red zone of tachometer are various depending on the models fitted.

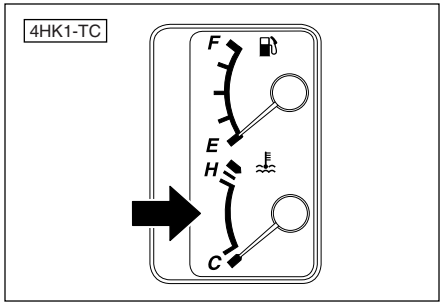
CAUTION

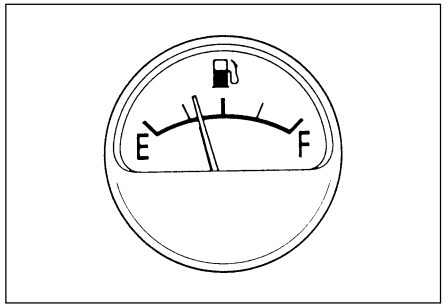
Never operate the vehicle with the tachometer needle in the red zone. Continued operation with the tachometer needle in the red zone can lead to serious engine damage.

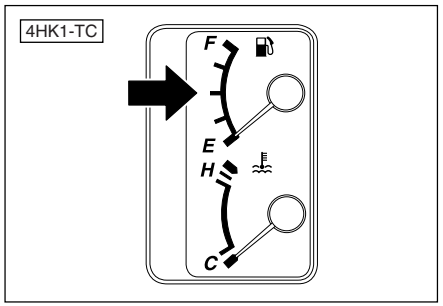


Temperature gauge

The temperature gauge shows the engine coolant temperature when the ignition key switch is turned "ON". The letters "C" and "H" on the dial represent "cold" and "hot". Normal coolant temperature indication is when the gauge needle is within the yellow line (4HK1-TC white line).







CAUTION

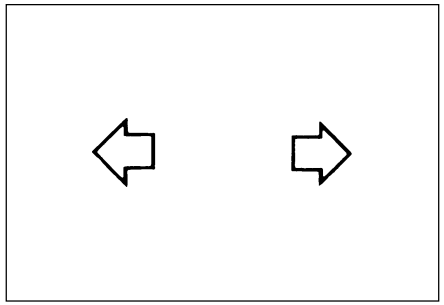
- ***If the gauge needle is beyond the red line, it indicates an engine overheating condition.***
  Stop the vehicle safely and follow the instructions given under the heading "Engine Overheating" in "DRIVING" section of this manual.
- ***Continued operation of an overheated engine can result in serious engine damage.***

Fuel gauge

The fuel gauge indicates the level of fuel in the fuel tank. When the key is turned to the "LOCK" position:
the needle does not return to the E (empty) mark but remains at the appropriate fuel level. (Except 4HK1-TC)
the needle returns to the E (empty) mark and does not remain at the fuel level. (4HK1-TC)
The letters "F" and "E" represent "Full" and "Empty" respectively.

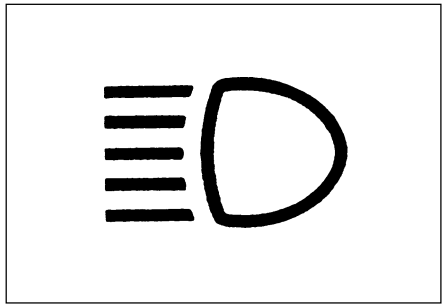
NOTE

Make a habit of refueling early and take care not to run short of fuel.



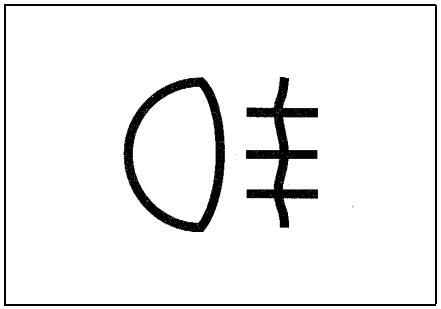
Turn signal indicator lights

When the turn signal switch or hazard warning flasher switch is turned on, the turn signal indicator light flashes to indicate the operation of the external turn signals or hazard warning flasher.



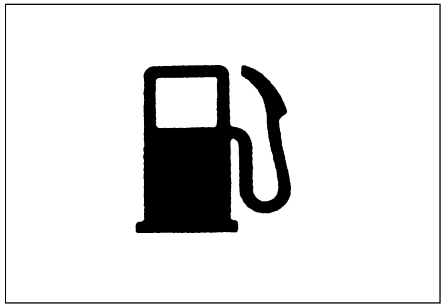
High beam indicator light

The high beam indicator light comes on when the headlight high beams are in use.



Rear fog indicator light V

The rear fog indicator light comes on when the rear fog lights are in use.

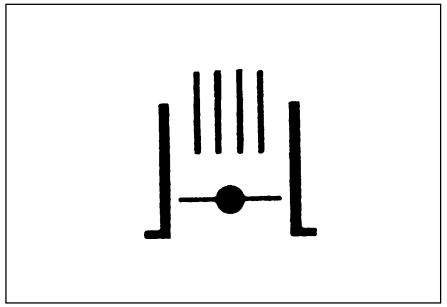


Fuel indicator light

The low fuel indicator light comes on when the fuel in the tank is lower than at the specified level. (7 to 10 liters, 1.5 to 2.2 gal (UK)).
Fill up the tank as soon as possible. The indicator light comes on when the ignition key switch is turned to "ON" position and after starting the engine, it goes off normally.

NOTE

Driving on a road with many sharp curves may cause the fuel indicator light to blink intermittently. This is normal and should be ignored.

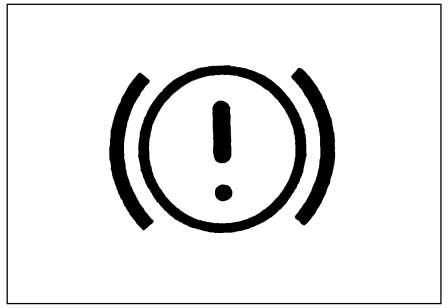


Exhaust brake indicator light

When the exhaust brake switch is set to the "ON" position, the indicator light comes on.

NOTE

During ABS operation, the exhaust brake may be inactive even if the exhaust brake switch is in the "ON" position and the indicator light is lit. When traveling over an uneven road surface, the exhaust brake may be disengaged for short intervals even if the brake pedal is not depressed.



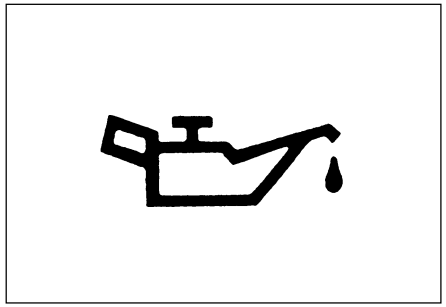
Parking brake indicator and Brake fluid level indicator light

The parking brake indicator light comes on when the parking brake lever is pulled with the ignition key switch "ON".
The brake fluid level indicator light comes on when the brake fluid in the reservoir is lower than the specified level.
The indicator light comes on when the ignition key switch is turned to the "ON" position and after starting the engine, it goes off normally.

WARNING

If the light comes on while driving, stop the vehicle immediately and check the level of the brake fluid in the reservoir.

If the level is too low and braking force is lost, have the vehicle towed in for repairs.

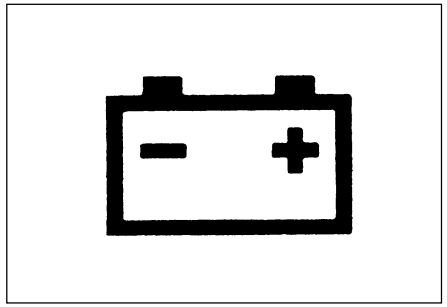


Oil pressure indicator light

The oil pressure indicator light comes on when the ignition key is turned to the "ON" position and goes off when the engine is started.

CAUTION

If the oil pressure indicator light comes on while driving, it indicates that the oil pressure is dangerously low. Stop the engine immediately and check the level of the oil in the engine crankcase. If the oil level is normal, have the lubricating system checked at your nearest Isuzu dealer. Do not run the engine if the light is continuously illuminated.

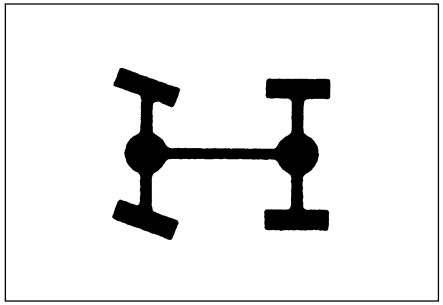


Battery/Generator indicator light

The battery/generator indicator light comes on when the ignition key switch is turned to the "ON" position and goes off when the engine is started and the generator circuit is brought into normal function.

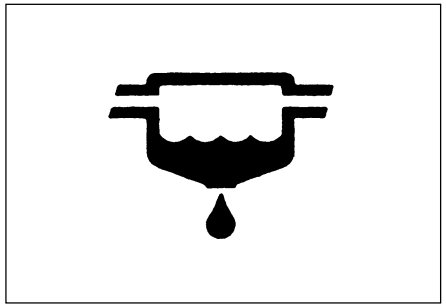
NOTE

If the battery/generator indicator light comes on while driving, have the generator circuit checked at your nearest Isuzu dealer.



Four wheel drive (4WD) indicator light 4WD

When you push the 4WD switch to select the 4WD mode, the 4WD indicator light on the instrument panel is actuated.
After operating the 4WD switch, make sure that the indicator light is on or off and then start the vehicle.

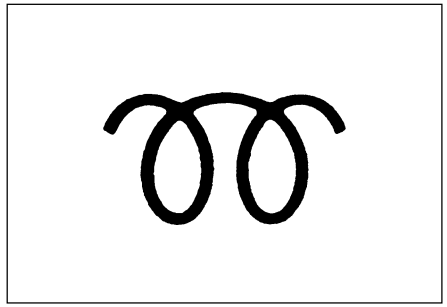


Water separator indicator light V **(Except** 4HE1-TC **)**

The indicator light comes on when the water level in the water separator on the fuel line is beyond the specified level.

NOTE

If the indicator light comes on while driving, stop the vehicle and drain the water immediately. Refer to the "DRIVING" section.

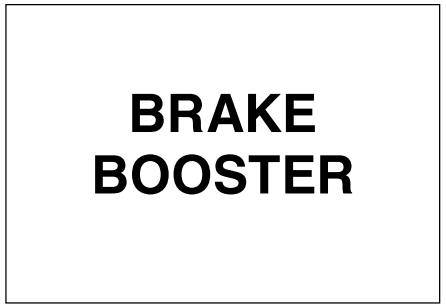


Glow plug indicator light

The glow plug indicator light comes on when the ignition key switch is turned to the "ON" position and goes off when the glow plug is sufficiently heated.

Check engine malfunction indicator light 4H

It monitors operation of your electronic control system.
If the light flashes on while driving, it indicates that the engine electronic control system is defective. You should take your vehicle in for service soon.



Brake booster warning light V

The brake booster warning light goes on when the ignition switch is turned on and goes off when the engine starts. The buzzer remains silent. The brake booster warning light also goes on and the buzzer is sounded when the fluid level in the hydro booster reservoir is low or when the pressure level in the hydro booster accumulator is low. The buzzer remains silent when the parking brake is applied.

CAUTION

Do not drive the vehicle if the light remains on after the engine is started. Consult the service garage immediately.

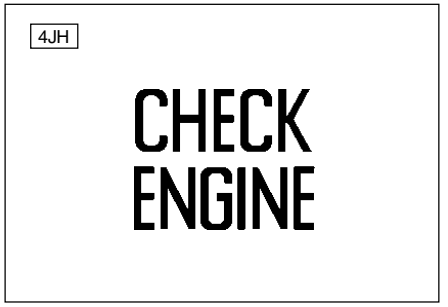
Vacuum warning buzzer

The buzzer sounds when the vacuum pressure in the vacuum tank is insufficient and the brakes will not operate to their full capacity. Park the vehicle in a safe place and run the engine at a medium speed to increase the vacuum pressure.

CAUTION

Do not drive while the buzzer sounds, as the brakes and clutch are not operating to their full capacity.

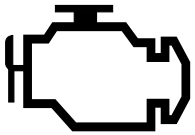
4JH



CHECK ENGINE indicator light 4JH 4HK1-TC

The "CHECK ENGINE" light on the instrument panel is designed to indicate the need for system service. It will come on when the starter switch is in the "ON" position, but before the engine started, to let you know the bulb is working. (The light will stay on a short time after the engine starts.) Have the system repaired if the "CHECK ENGINE" light does not come on when the starter switch is in the "ON" position, but before the engine is started.

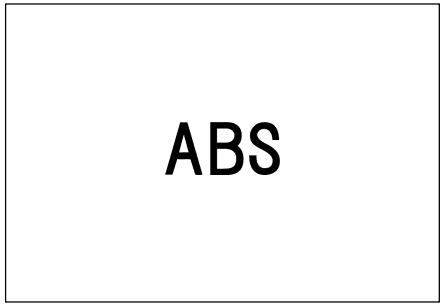
4HK1-TC



CAUTION

If the light comes on either intermittently or continuously while driving, service is required.

Even if the vehicle is driveable, and does not require towing, see your Isuzu dealer as soon as possible for service of the system. Continued driving without having the system serviced could cause damage to the emission control system. It could also affect fuel economy and driveability.



Anti-lock brake system (ABS) malfunction warning light V

When the ignition switch is turned on, the ABS warning light comes on for approximately 2 seconds and then goes off automatically.
The ABS warning light comes on when there is a problem with the ABS.
Until fixed, you will have normal brakes, but you won't have ABS.

NOTE

If the light comes on during vehicle operation, move the vehicle to a safe spot which does not cause an obstruction to traffic. Then take the following action:

(1) Stop the engine.

(2) Restart the engine. If the light comes on, and then goes off after 2 seconds, there is no problem with the ABS.

(3) Move the vehicle slowly forward. Gradually increase the speed to 13 km/h (8 mph). If the light goes off, the ABS is normal.

If the light does not go off or comes on frequently, see your Isuzu dealer to have the system repaired.

Vehicle Data Collection

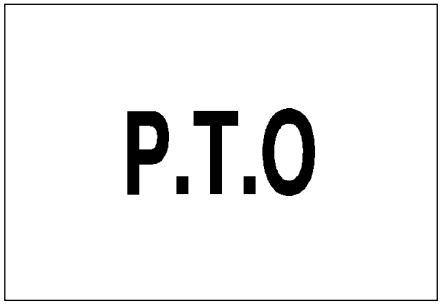
Your vehicle, like other modern motor vehicles, has a number of sophisticated computer systems that monitor and control several aspects of the vehicle's performance. Your vehicle uses on-board vehicle computers to monitor emission control components to optimize fuel economy, to monitor conditions for airbag deployment and, if so equipped, to provide anti-lock braking and to help the driver control the vehicle in difficult driving situations. Some information may be stored during regular operations to facilitate repair of detected malfunctions.
Isuzu may download and retrieve stored information for the purpose of diagnosing, servicing, repairing your motor vehicle or improvement to future motor vehicles of Isuzu.

Seat belt warning light V
(for GCC model)

The seat belt warning light comes on when the driver does not fasten the seat belt with the ignition key switch “ON”.

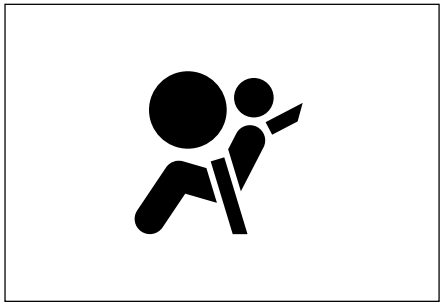
NOTE

This warning light goes off when the driver fastens the seat belt.



P.T.O. indicator light OPT

The P.T.O. indicator light comes on when the P.T.O. switch is pushed.



SRS airbag warning light V

The SRS airbag warning light checks the normal function of the SRS airbag system and indicates an error if detected.
[Normal]
If the light flashes 7 times when the starter switch is turned "ON" and goes off, the airbag is in normal condition.
[Error]
- If the SRS airbag warning light lights while driving the vehicle.
- If the light does not light when the starter switch is turned "ON".
- If the light lights when the starter switch is turned "ON" but does not go off.

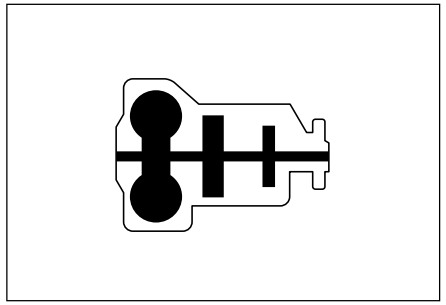
CAUTION

The SRS airbag system may not operate properly if an error occurred. Contact your nearest Isuzu dealer immediately.

NOTE

The SRS airbag warning light may flash immediately after the engine is started. The system is in normal conditions if the light goes off after flashing 7 times.

When the starter switch is turned "OFF" or an electric device is activated, the SRS airbag warning light may flash for a moment. This, however, is not an error.



Smoother warning light SA

The warning light functions normal if it illuminates for about 2 seconds when the starter switch is turned "ON" and then goes off. Also, it blinks when the Smoother emergency switch is turned "ON", and goes off with the switch "OFF".

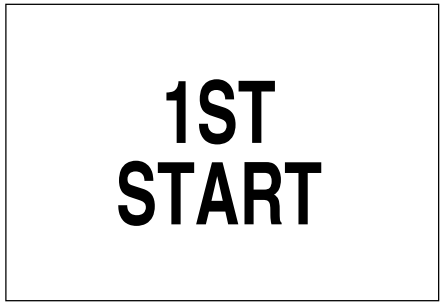
NOTE

- ***When the warning light comes on, immediately contact your Isuzu dealer for an inspection.***

NOTE (Continued)

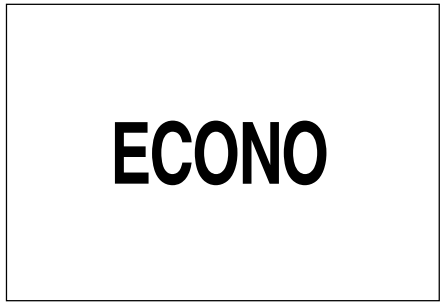
NOTE (Continued)

- ***When the warning light blinks while the vehicle is running, the oil temperature in the system becomes abnormally high. Immediately stop the vehicle in a place that does not obstruct the traffic. Resume the drive after confirming the warning light goes off.***



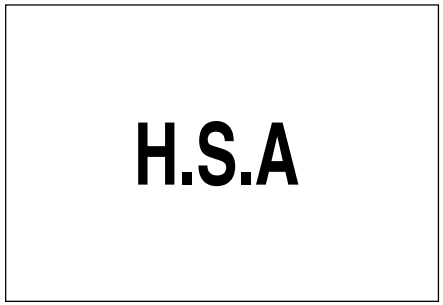
1st start mode indicator light SA

The indicator light comes on when the 1st start mode is selected.



ECONO mode indicator light SA

The indicator light comes on when the ignition key switch is turned to the "ON" position and goes off after approximately 2 seconds.
This indicates the driving mode according to the setting of ECONO mode changeover switch.



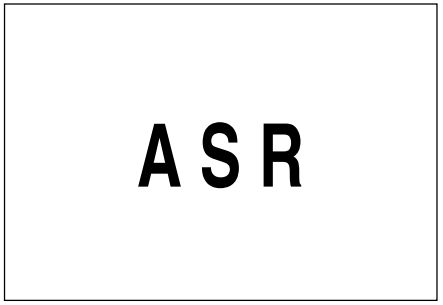
HSA indicator light V

The HSA indicator light comes on when the HSA is engaged. In the following conditions while the HSA is engaged, the light blinks and warning buzzer sounds to indicate a problem.

- A door is opened.
- HSA is engaged for a long time.
- Vehicle begins to move.
- There is a problem in the HSA system.

NOTE

If there is a problem with the HSA, press the HSA OFF switch to cancel it and have the HSA system checked at your nearest Isuzu dealer immediately.



ASR indicator light V

The indicator light functions normal if it comes on with the starter switch "ON", and goes off in about 2 seconds.
It blinks while the ASR operates. It comes on when the ASR equipment is faulty, or when the ASR equipment is deactivated with the ASR OFF switch operated.

NOTE

When the indicator light comes on while the vehicle is running (ASR OFF switch not pressed), immediately stop the vehicle in a place which does not obstruct the traffic, and do the followings:

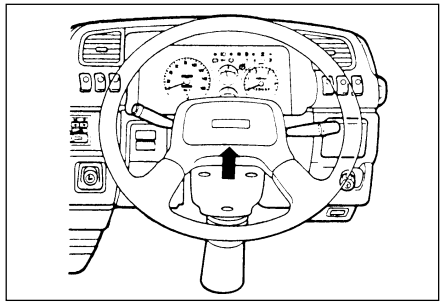
NOTE (Continued)

NOTE (Continued)

(1) Stop the engine.

(2) Turn the starter switch to "ON" position. At this time, the ASR equipment functions normal if the indicator light comes on once and then goes off in 2 seconds. The system is in good condition.

When the indicator light does not go off, or when it comes on intermittently, immediately contact your Isuzu dealer for an inspection and repair.



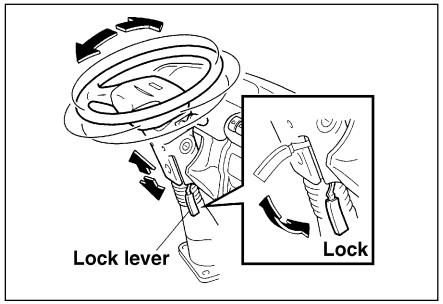
STEERING COLUMN CONTROLS

Steering wheel and horn button

The horn button on the steering wheel operates the horn.

WARNING

Never turn the steering wheel while the vehicle is stationary and never keep the steering wheel turned fully for a long period. The temperature of oil in the power steering oil pump will rise abnormally high and cause the insufficient lubrication, damage to the hose or deterioration of the seal. This may lead to the damage to the power steering oil pump and power steering unit etc. and as a result, the steering wheel operation may get heavy suddenly.



Fully adjustable steering wheel OPT

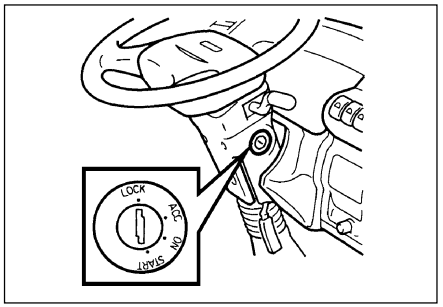
The steering wheel is adjustable in a back and forth direction and a vertical direction. Adjust the steering wheel position along with the driver seat for maximum comfort.

CAUTION

Fully tighten the lock lever after making adjustments. Always make an adjustment with the vehicle stationary and NEVER attempt to adjust while driving.

Adjustment procedure:

1. Release the steering column by rotating the lock lever to the upright position.
2. Sit upright in your seat and move the steering wheel up or down and the steering column back or forward as desired.
3. At the desired position, lock the column rotating the lock lever down.



Ignition key switch

The ignition key switch has four positions as shown in the figure.

"LOCK": Normal parking position. Locks the steering and prevents normal use of the steering wheel.
The key can be removed only when the ignition switch is in this position.

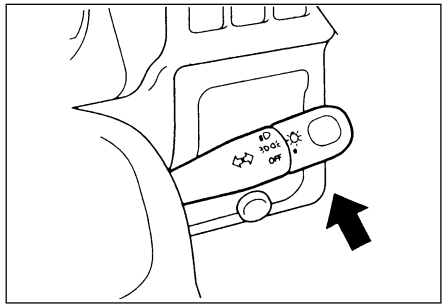
WARNING

- ***If you need to turn off the engine with the vehicle in motion, turn the key only to "ACC". DO NOT turn the key to "LOCK". This will result in locking the steering wheel and loss of steering control.***
- ***Turning the engine off with the vehicle in motion is dangerous, as braking efficiency will be reduced.***

"ACC": You can use some electrical accessories when the engine is not running.
"ON": The "ON" position is for pre-heating and normal running.
"START": Turning the key to this position will start the engine. The key returns to the "ON" position when released.

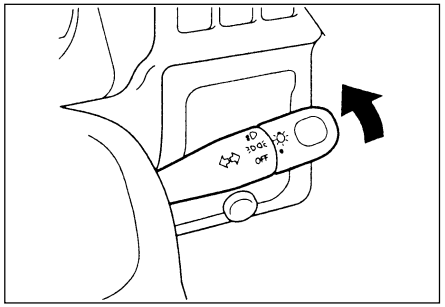
CAUTION

Do not keep the starter engaged for more than 10 seconds.



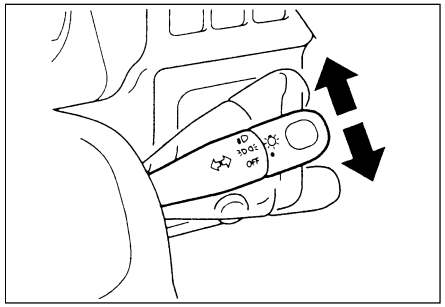
Combination switch lever

The combination switch lever consists of the light control switch, turn signal switch, dimmer switch and passing light switch. On the LHD model, this switch is on the left side of the steering column.



Light control switch

The control switch operates in three steps to operate the following lights:
1st step: Clearance lights, tail lights, license plate lights and instrument cluster lights.
2nd step: Headlights in addition to the above lights.
3rd step: Rear fog lights in addition to the above lights.

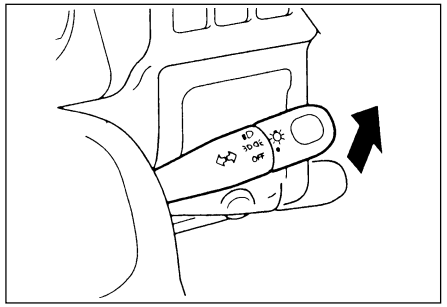


Turn signal switch

Move the switch in the direction of the turn being made so that the external turn signal lights operate and the turn signal indicator light on the instrument panel flashes. The switch returns automatically to the neutral position when steering wheel is returned to a straight-ahead position.

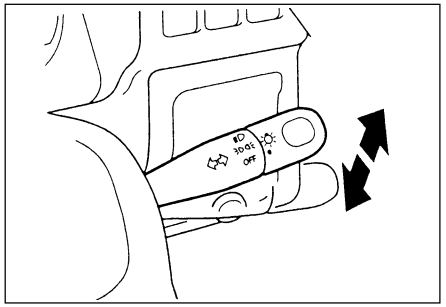
Cornering light V

When the headlights and a turn signal light are both turned on, the cornering light will automatically come on.



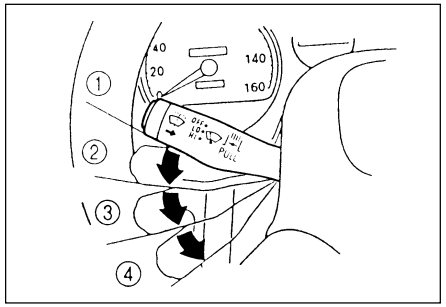
Dimmer switch

The headlight beam is alternately switched from high to low or low to high each time the switch is raised. The headlight high beam indicator on the instrument panel lights up when the headlights are on high beam.



Passing light switch

The headlight high beam comes on and goes off each time the switch is raised and released with the light switch in either "OFF" or the first stop position. To give a signal of overtaking, operate the lever repeatedly so that the headlights flash in the daytime and at night the high and low beams come on alternately.



Windshield wiper switch lever

The windshield wiper switch has 3 (or 4) positions to control the windshield wipers.

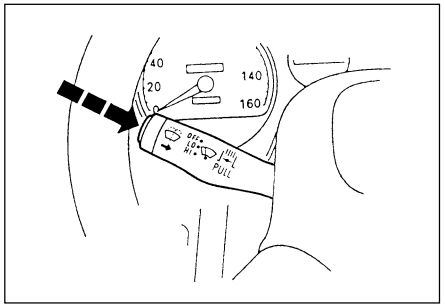
1. Off
2. OPT Intermittent
3. Low speed
4. High speed

WARNING

In cold weather, warm the windshield with the defrosters before using the washer. This will help prevent icing which may block the driver's vision.

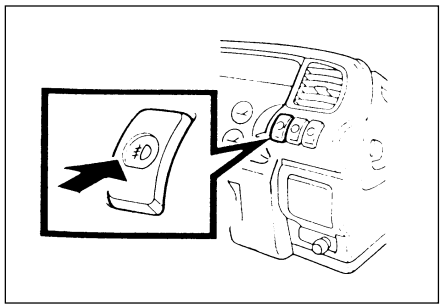
CAUTION

Do not operate the wipers when the windshield is dry. It may scratch the windshield glass. Clear ice or packed snow from the wiper blades before using the wipers. If they are frozen to the windshield, carefully loosen or thaw them.



Windshield washer switch lever

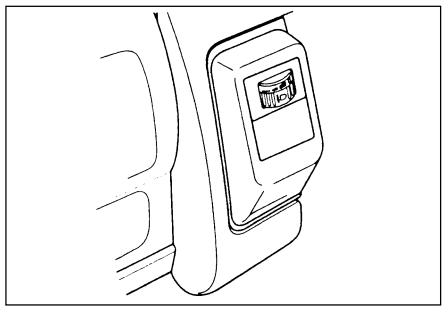
Push and hold the center switch button so that the washing solution is squirted to the windshield.
On the LHD model this switch is on the right side of the steering column.



INSTRUMENT CLUSTER

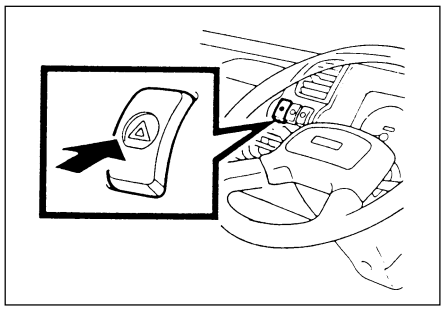
Front fog light switch OPT

When fog or heavy mist reduce your forward vision, push this switch to turn the fog lights on.
The fog lights will operate only when the headlights low beams are in use. The indicator light in this switch will turn on when the front fog lights are operated.
To turn off the switch press it again.



Headlight leveling switch OPT

With the headlight high beam switched on, adjust the headlight range by turning the leveling switch to suit the vehicle load.

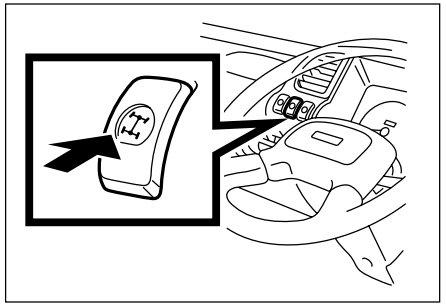


Hazard warning flasher switch

When the switch is pushed, all the turn signal lights are made to flash, regardless of the turn signal position.
To turn off the switch press it again.

CAUTION

- ***Use the warning flasher to warn other drivers that your vehicle is a traffic hazard, day or night.***
- ***Avoid stopping on a roadway if at all possible.***

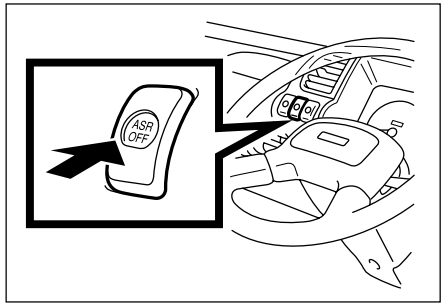


Four wheel drive (4WD) switch 4WD

Switching between 2WD and 4WD is done by pushing the 4WD switch on the instrument panel. Be sure to bring the vehicle to a complete stop before operating the 4WD switch.

NOTE

When you drive in the 4WD mode, make sure that the free wheel hubs are in the "LOCK" position.

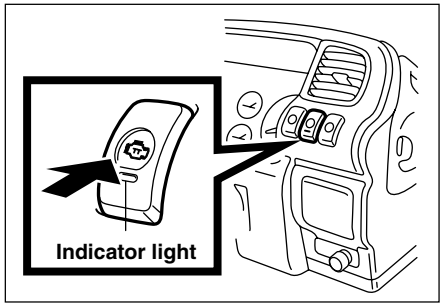


ASR OFF switch V

This switch is used when you wish to deactivate the ASR equipment. After engine starts when the ASR equipment is in active condition, press the switch. This will deactivate the ASR equipment and the indicator light on the instrument panel comes on. Press once more to activate the ASR again.

NOTE

- ***Note that the ASR equipment will not work once you deactivate the ASR equipment. Be careful when driving on a slippery road.***
- ***After stopping the engine with the ASR inactive condition, the ASR equipment will automatically be active when you start the engine again.***



Warm-up switch V

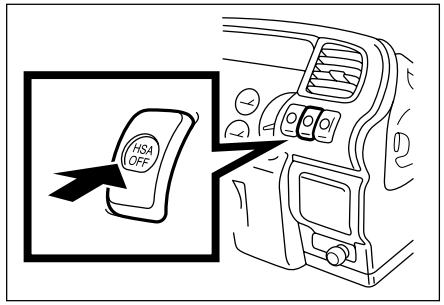
The warm-up system is used to warm the engine quickly in cold weather and/or when the engine is cold. When warm-up switch is pressed, the indicator light in the switch is lit and engine warm-up operation is started. On completion of warm-up operation, re-press the switch to put off the warm-up system. The indicator light goes off.

CAUTION

When the warm-up system is on, be sure not to try to increase engine speed by operating idling control knob.

NOTE

The warm-up system does not actuate in warm weather or when the engine is sufficiently warmed.



HSA OFF switch V

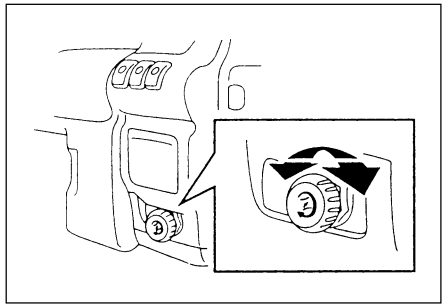
Press the switch to cancel the HSA. Press once more to activate the HSA again.

CAUTION

Do not use the HSA on snowy or icy road surface. On these road condition, if the tires are locked, the HSA would be engaged and the tires would be kept locking.

NOTE

When the HSA is canceled, the brake will return to the ordinary braking condition. The braking force will not be kept when the driver's foot is moved from the brake pedal.



Idling control knob

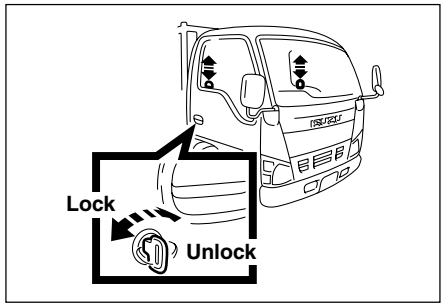
Turning the knob clockwise (in the direction of the arrow) after cold starting of the engine will increase idling speed thereby facilitating smooth engine idling. Always drive with the knob returned to the home position.

CAUTION

Please use the warm-up system to stabilize engine speed at the start-up time when engine speed still remains unstable with the warm-up switch being off.

WARNING

Do not use the idle control while the vehicle is in motion. This could reduce your ability to stop in an emergency, resulting in personal injury and/or property damage.

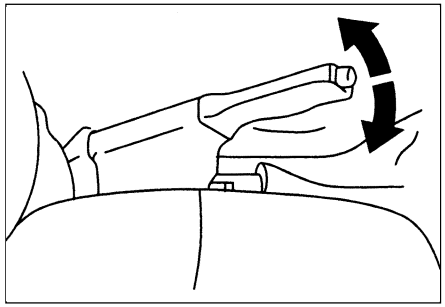


Central locking door OPT

Locking or unlocking the driver's door with either the key or the lock button will also lock or unlock the remaining door.
Locking or unlocking the passenger door with the key will also lock or unlock the other doors.
Locking or unlocking the passenger door with the lock button will not lock or unlock the remaining doors.

WARNING

Before driving, make sure that the doors are closed and locked, especially when young children are in the vehicle.



Parking brake lever

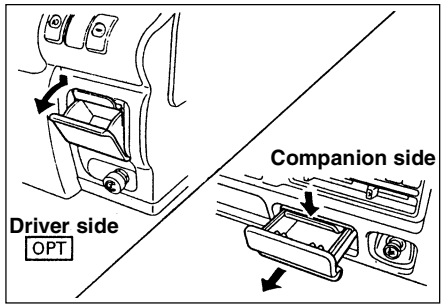
To set the parking brake, fully pull up on the lever between the seats.
To release the parking brake, pull upward slightly. Then depress the push button and push down all the way.
To help remind you, the brake system indicator light is designed to come on if the parking brake control is not fully released when the key is on.

WARNING

The indicator light has no relationship to the efficiency of the parking brake.

Always pull the parking brake lever as far up as possible when setting the parking brake.

Failure to fully set the parking brake could result in vehicle movement on an inclined surface.

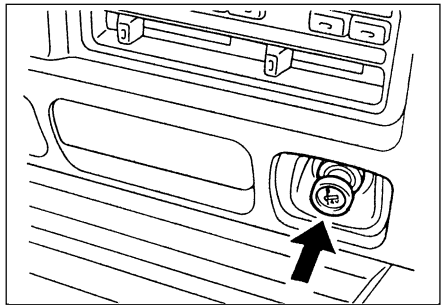


Ash tray

To use, pull the tray out. To clean, pull the tray out further while pushing down on the ash dump plate.

WARNING

After using the ash tray, push it back in completely. If not, the flame of a cigarette may cause other cigarette butts to burn, resulting in a fire.



Cigarette lighter

To operate the lighter with the key switch in the "ACC" or "ON" position, push the light in all the way and then release it. The lighter will spring back to its normal position within about 15 seconds after being pushed in and when it is ready for use. Pull the lighter out and use it.

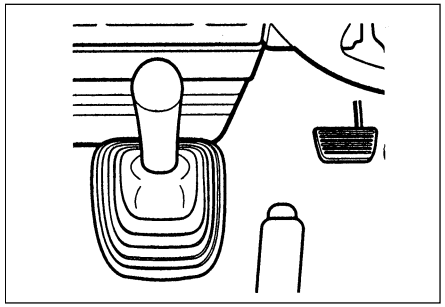
CAUTION

Avoid holding the lighter in by hand while it is heating, as damage to the heating element may result.

NOTE

If the lighter does not spring back after 18 seconds, it is faulty and must be pulled out in its normal position by hand.

A deformed lighter will not spring back properly. Always replace it with a new Isuzu genuine cigarette lighter.



FLOOR CONTROLS

Transmission gearshift lever MT

When shifting the transmission, depress the clutch pedal completely. The gearshift pattern is shown on the lever knob. The back-up lights operate when shifted into reverse with the key switch in the "ON" position.
If a back-up warning buzzer is provided, the buzzer sounds when shifted to reverse. V

NOTE

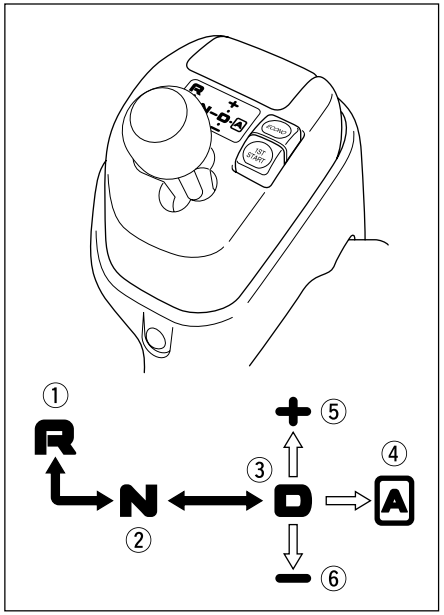
Allow the vehicle to stop completely before shifting into reverse.

Smoother change lever SA

Move the Smoother change lever to change the gear position.

WARNING

When you operate the change lever during parking, be sure to depress the brake pedal securely and keep it depressed until the shift indicator changes from blinking to lighting. During the shift indicator is blinking, a creep is not engaged. If the brake pedal is released on an uphill grade, the vehicle may move backward and it can lead to an accident.



↔ : Operate the lever with the brake pedal depressed.

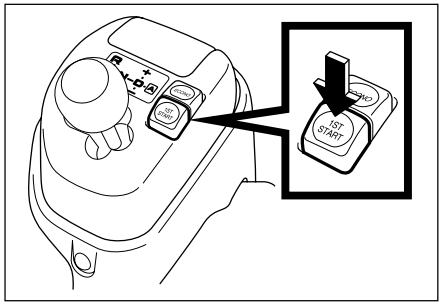
⇨ : After the operation, the lever returns to "D" position when you release the hand.

1 REVERSE
2 NEUTRAL
3 DRIVE
4 Change to Auto shift mode
5 Change to Manual shift mode; Upshift
6 Change to Manual shift mode; Downshift

NOTE

- ***When you operate the lever to "+" (upshift) or "-" (downshift) directions during parking, be sure to depress the brake pedal.***
- ***When operating the lever from "N" (NEUTRAL) to "D" (DRIVE), the shift mode will be automatically set to Auto shift mode.***

Change lever position		Shift indicator	Gear position
R		R	REVERSE For backing
N		N	NEUTRAL For starting the engine
D	A	A	DRIVE; Auto shift mode Appropriate gear is automatically selected according to vehicle speed.
	+	1, 2, 3, 4 5, 6 [6 speed]	DRIVE; Manual shift mode You can select desired gear by "+" (upshift) or "-" (downshift) lever operation.
	−		



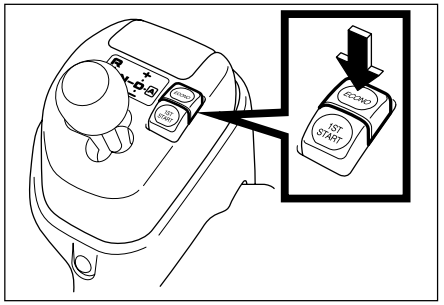
1st start switch SA

Normally the vehicle starts with the 2nd gear. If you need strong driving force such as due to heavy load, press this switch to select the 1st start mode.

When the 1st start switch is pressed, the starting gear is set to 1st and the 1st start mode indicator light on the instrument panel comes on. Press the switch again to return to the normal (2nd start) mode.

WARNING

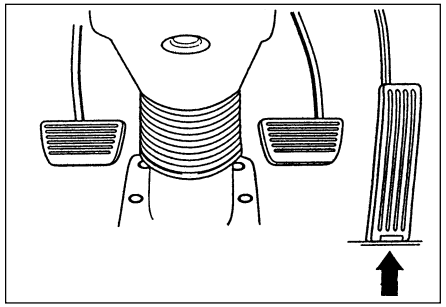
When you operate the 1st start switch during parking, be sure to depress the brake pedal securely and keep it depressed until the indicator light changes from blinking to lighting. During the indicator light is blinking, a creep is not engaged. If the brake pedal is released on an uphill grade, the vehicle may move backward and it can lead to an accident.



ECONO mode changeover switch SA

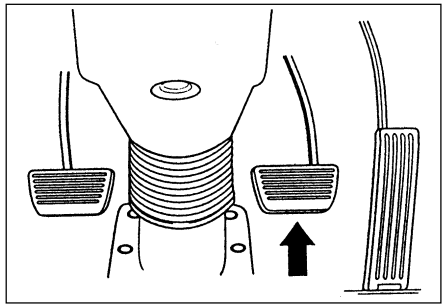
When driving in Auto shift mode, selecting the ECONO mode can improve fuel efficiency.

When the ECONO mode changeover switch is pressed, the ECONO mode is selected and the ECONO mode indicator light on the instrument panel comes on. Press the switch again to return to the normal mode.



Accelerator pedal

To avoid an unnecessary increase in fuel consumption, the accelerator pedal should be operated smoothly and reasonably.

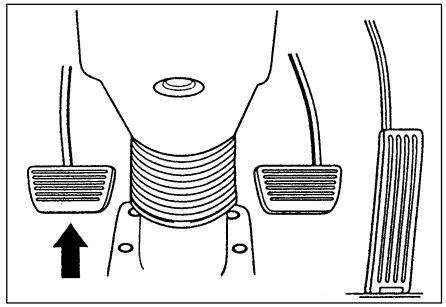


Brake pedal

Avoid hard stops by depressing the foot brake pedal smoothly. When descending a slope, it is always advisable to use the foot brake in combination with the engine braking effect.

NOTE

If the engine stops while the vehicle is running, the brake booster is not effective and braking efficiency is reduced. Vehicle stopping is still possible by depressing the brake pedal strongly.

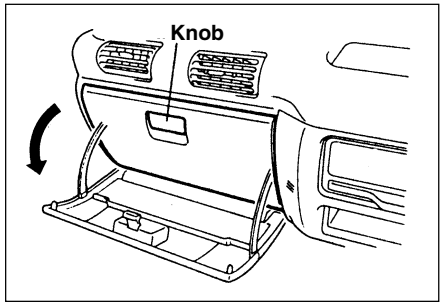


Clutch pedal V

The clutch pedal should be fully depressed when disengaging. If this is not done, grating of the gears may result.

NOTE

Do not allow your foot to rest on the pedal when not using the clutch.



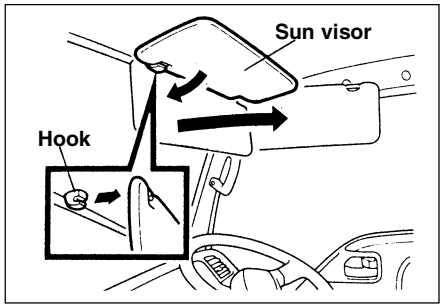
OTHERS

Glove box

The glove compartment is provided on the passenger side end of the instrument panel.
To open the glove compartment, pull the compartment lid out while pulling the knob outward.

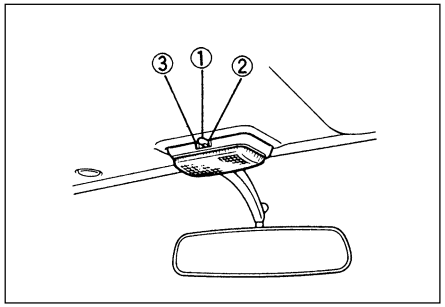
WARNING

Avoid driving with the glove box lid open. In the event of a sudden stop or an accident, it could cause injuries.



Sun visors

Lower the sun visors when you are facing the sun. The sun visors can be moved to the side by unhooking them at the ends. For passenger seat side the hook is on the opposite side. OPT



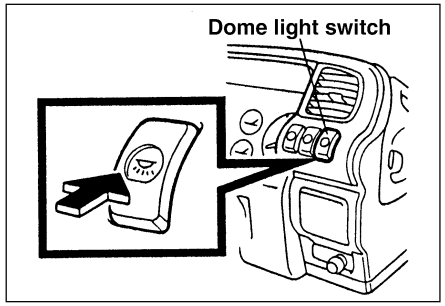
Dome light

The dome light is operated at any key switch position.

1. "OFF" position:
   The light remains off.
2. "DOOR" position:
   The dome light turns on when the driver side door is opened (Except Australia models).
   The dome light turns on when the all doors are opened (For Australia models).
3. "ON" position:
   The light turns on regardless of the door position.

NOTE

To prevent the light from being left on and discharging the battery, be sure to completely close the doors.



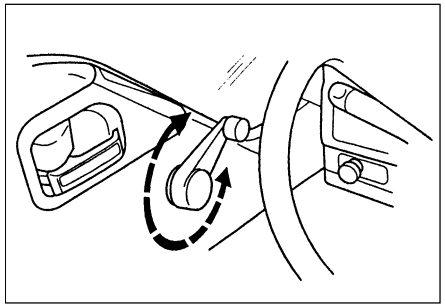
Dome light switch OPT

Regardless of the dome light's body switch, you can turn on the light by pressing this dome light switch. The table shows how it all works.

		Dome light's body switch		
		ON	OFF	DOOR
Dome light switch	ON	LIGHTED	LIGHTED	LIGHTED
	OFF	LIGHTED	UNLIT	LIGHTED WHEN THE DOOR IS OPEN

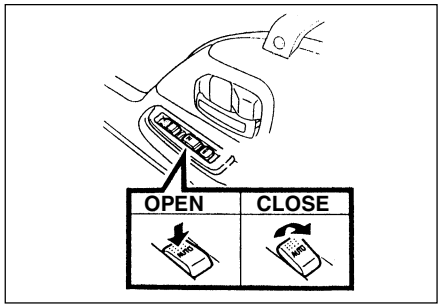
NOTE

Don't leave the dome light switch pressed down, otherwise the battery might run down.



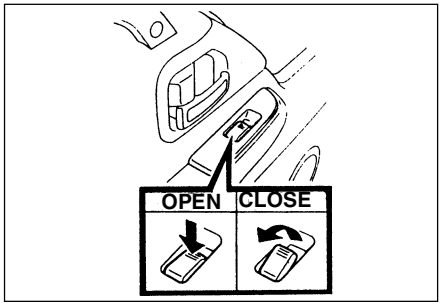
Door window

Turn the handle to raise or lower the door window.



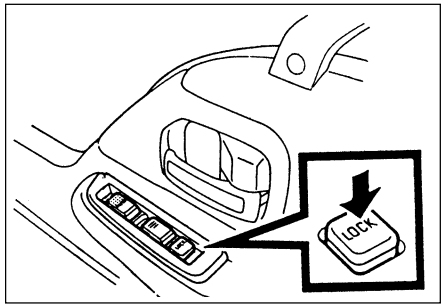
Power window switch on the driver's door OPT

When the ignition key switch is in the "ON" position, you can open and close the window on all doors by operating the power window switches on the driver's door side.
Lightly press the switch end, and the window will continue to open until the switch is released. Press the switch end hard, and the window will open automatically to a full open position even if the switch is released. To stop the window on its way, pull the switch end lightly.
Lightly pull the switch end, and the window will continue to close until the switch is released.



Power window switch on the passenger door OPT

When the ignition key switch is in the "ON" position, you can open and close the window by operating the power window switch on the passenger door.
Press the switch end, and the window will continue to open until the switch is released.
Pull the switch end, and the window will continue to close until the switch is released.



Power window lock OPT

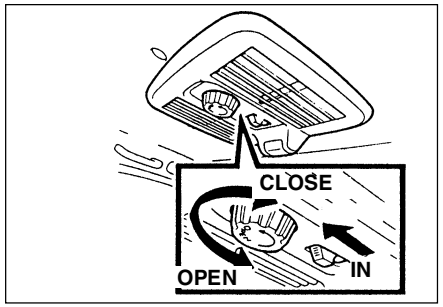
When the power window lock switch is in the "ON" position, you cannot open or close by means of the power window switch on the driver's door or passenger door. Press the lock switch once again and the power window will be unlocked.

WARNING

- ***To ensure the safety of children and others make sure that all passengers have their hands, etc. inside the vehicle before closing the windows.***
- ***Remove the key when leaving the vehicle to avoid unintentional window operation by children.***

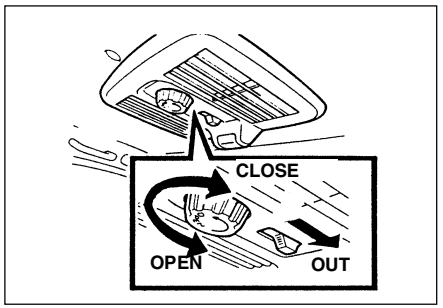
Roof ventilator OPT

The induction of the outside air and expelling stale air in the cab interior can be selected by turning the switch.



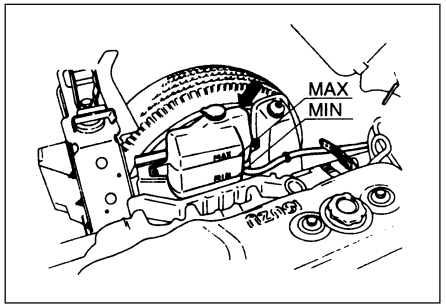
Induction of the outside air

1. Make sure that the roof ventilator is closed completely by turning the handle clockwise.
2. Turn the switch to "IN" and turn the handle in the OPEN direction (counterclockwise). The front of the roof ventilator will be open and the outside air will flow into the cab.



Expelling stale air

1. Make sure that the roof ventilator is closed completely by turning the handle clockwise.
2. Turn the switch to "OUT". Turn the knob in a counterclockwise direction. The rear of the roof ventilator will open which expels stale air in the cab. It can even be opened in a light rain.

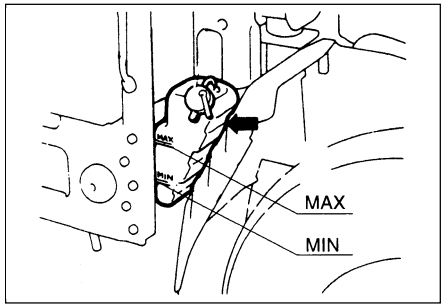


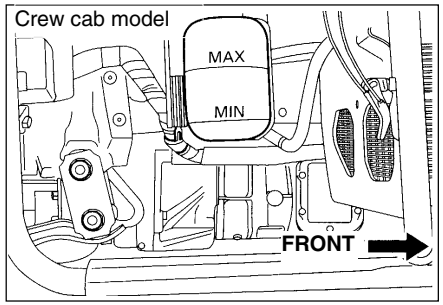
Radiator surge tank

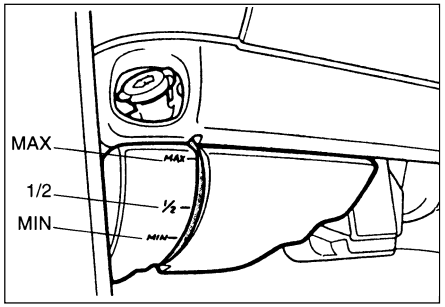
The radiator surge tank is located on the left side of the engine compartment or on the right side behind the cab.

WARNING

Coolant level check or replenishment should be made at the surge tank and the radiator cap should not be removed unless necessary. Refer to the section of "SERVICE AND MAINTENANCE" for more details.







Windshield washer tank

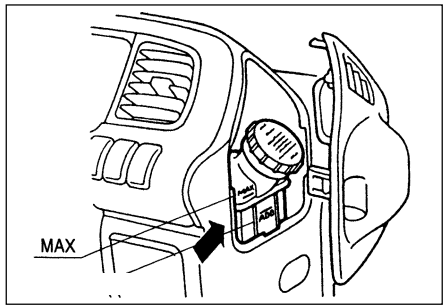
The windshield washer tank is located under passenger side of the instrument panel.
The washer tank should be filled only with plain water or Isuzu genuine washer solution.

WARNING

In cold weather, warm the windshield with the defrosters before using the washer.
This will help prevent icing which may block the driver's vision.

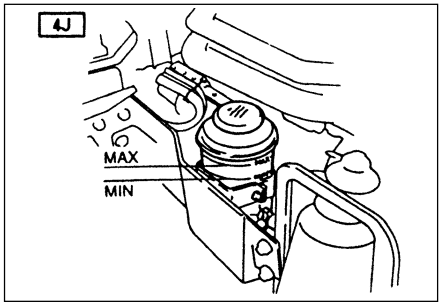
CAUTION

- ***Do not use radiator coolant in the windshield washer, as it could cause paint damage.***
- ***Clear ice or packed snow from the wiper blades before using the wipers.***



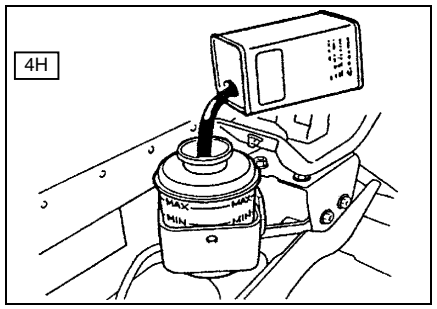
Brake and clutch fluid reservoir

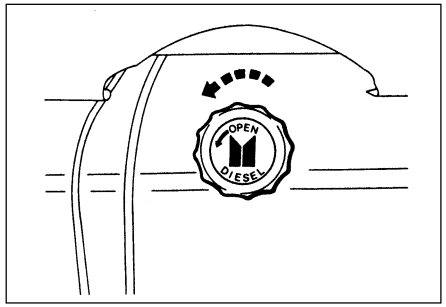
The fluid reservoir is beside the meter panel of the driver's side.

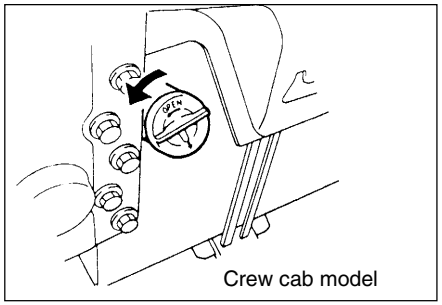


Power steering oil tank V

The power steering fluid tank is located on the right side of the engine compartment 4J or on the right side behind the cab 4H. It has a removable plastic shield cover.







Crew cab model

Fuel tank filler cap

The fuel tank filler cap is provided on the fuel tank. To open, turn the cap counterclockwise.

NOTE

Use diesel fuel at 40 cetane rating or higher.

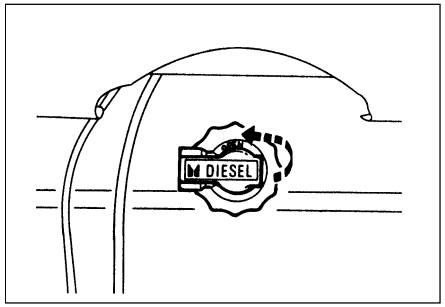
4JH

Do not use any additive fuel or water treatment.

WARNING

If you need to replace the fuel filler cap, use only a genuine Isuzu fuel filler cap.

The use of an improper fuel filler cap could cause fuel spillage in the event of an accident. The use of an improper fuel filler cap could also affect the fuel system and the emission control system.



Fuel tank filler cap with key OPT

(Except crew cab models) OPT

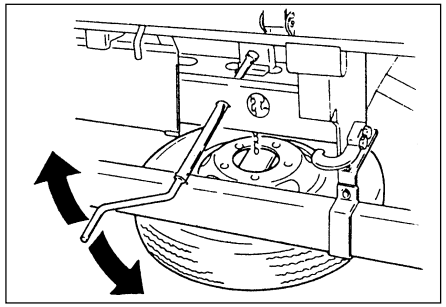
Open the filler lid and unlock and lock with the key. Turn the filler cap counterclockwise to remove it.

NOTE

Use diesel fuel at 40 cetane rating or higher.

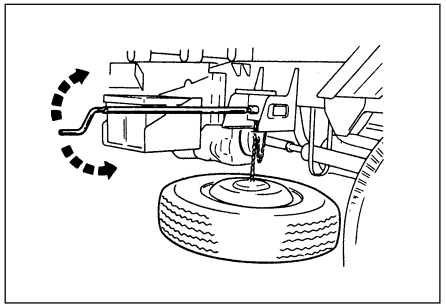
4JH

Do not use any additive fuel or water treatment.



Spare wheel hanger

The spare wheel is secured to either the rear of the frame or the left side of the frame with a chain. To lower the spare wheel, insert the handle into the hole in the rear of the vehicle to engage the catch and turn the handle counterclockwise.

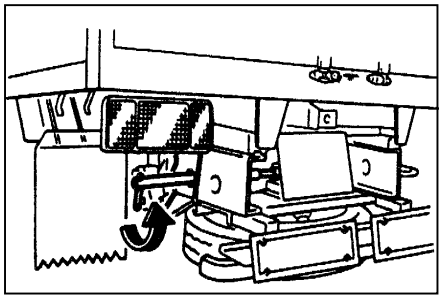


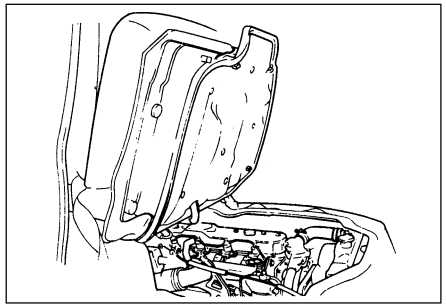
To raise, turn the handle clockwise until it stops. Give an additional tug on the handle to securely hold the spare wheel in position of stowage.

WARNING

Turn the handle clockwise to raise the spare wheel, give a final turn by hand (with a force of 20kg or more) and make sure the spare wheel is securely fixed in position.

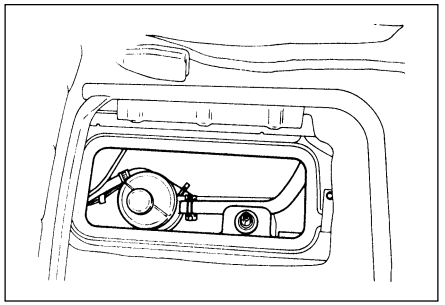
Be sure the spare tire assembly is properly secured to prevent it from becoming a hazard in the event of a sudden stop or an accident.





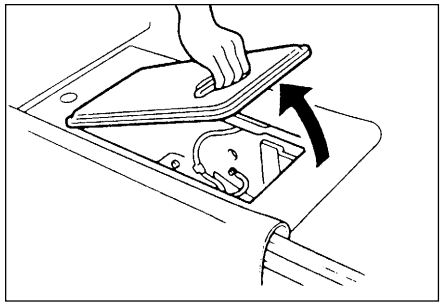
Engine inspection cover

To gain access to the engine, release the catch hooks and raise the entire seat cushion. The cover can be held up by a strap, permitting engine inspection and adjustment.



Engine inspection sub cover (Non tilt cab)

To gain more access to the engine compertment, raise the driver's seat cushion and remove the sub cover.



Battery and radiator surge tank inspection cover (Crew cab model)

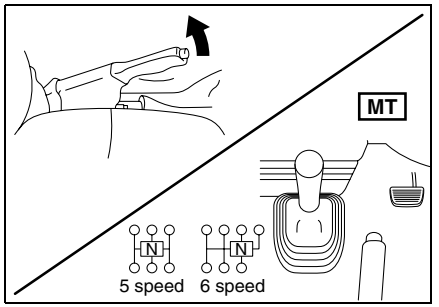
To gain access to the battery and radiator surge tank, raise the rear seat cushion and remove the inspection cover.

Tilt cab (Except crew cab model)

When inspecting or servicing the engine, the cab can be tilted to gain access to the engine compartment.

WARNING

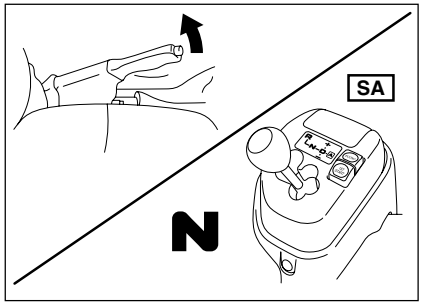
To help prevent personal injury, keep hands, tools and clothing clear of the engine cooling fan when the engine is running.

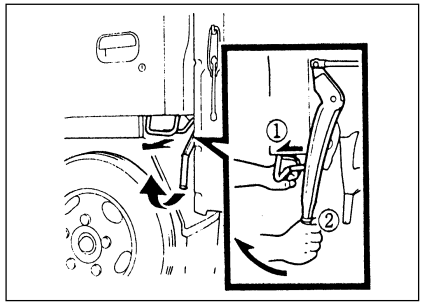


1. Preparation for cab tilting

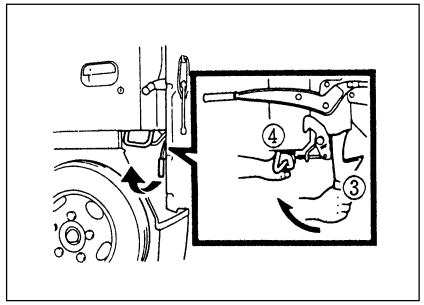
WARNING

- ***Park the vehicle on level ground and check that that there is sufficient space in front of the cab and above the cab.***
- ***Set the parking brake firmly.***
- ***Put the gearshift lever in the neutral position.***
- ***Keep the interior of the cab free from items that are liable to fall.***
- ***Close the doors completely.***

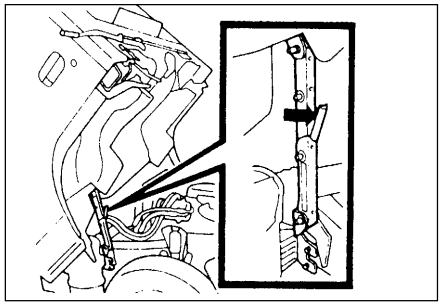




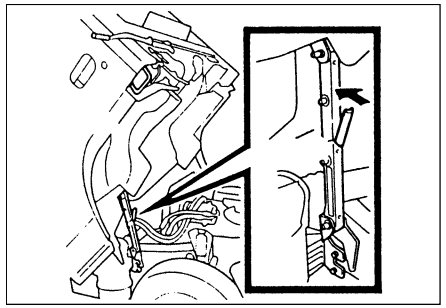
2. 1. Squeeze the lock lever.
   2. Pull the cab tilt out and up.



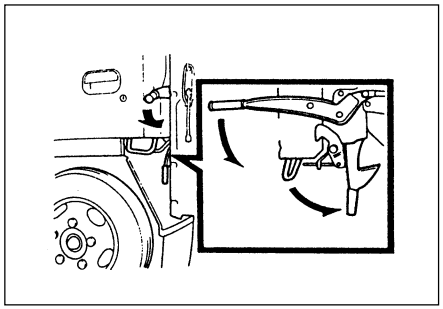
3. Pull the safety lever 3 while holding the assist handle 4 to prevent abrupt raising of the cab.



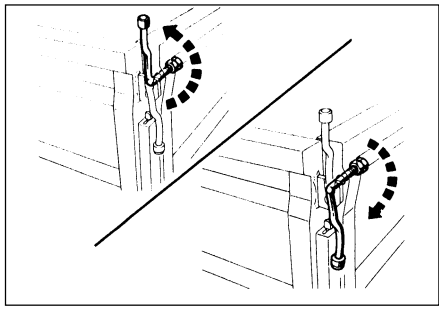
4. Raise the cab to the stop position and check that the cab stay is locked.



5. To lower the cab, unlock the cab stay by pulling the stay rearward. Lower the cab by holding the assist handle.



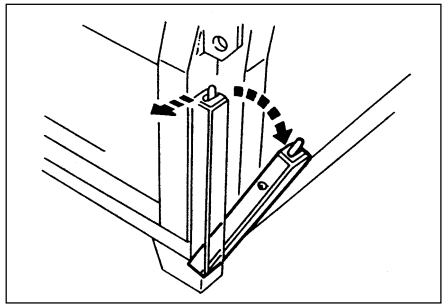
6. To lock the cab, push the cab tilt lever downward firmly, then visually check that the cab is locked with the main hook and tilting lever securely.



Rear body

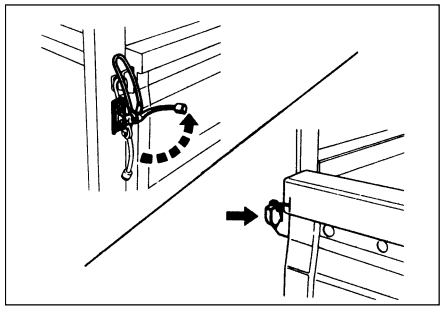
Opening and closing rear gate:

Turn the left and right levers up 180°, release the locks and open the gate. To close, shut the gate then lower the lever to secure the gate.



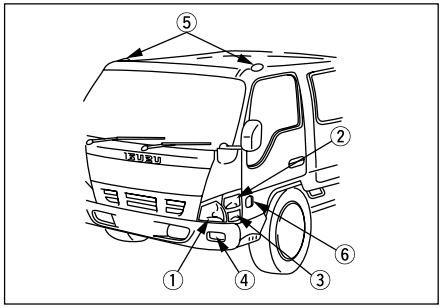
Opening and closing left and right side gates:

1. Release the rear gate locks.
2. Release the vertical lock by sliding the lock lever to the left and lower the lever.



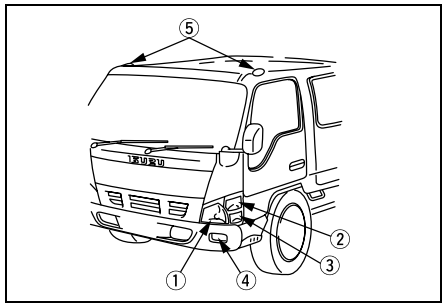
3. Release the front hook by raising the hook lever at the front of the gate.
4. The front of the gate is temporarily secured by the gate hold at this time. To open the gate, pull it with some force.

   To close the gate, lock the front of the gate securely with the hook lever, push in the vertical lock of the rear gate and lock the gate with the lever.



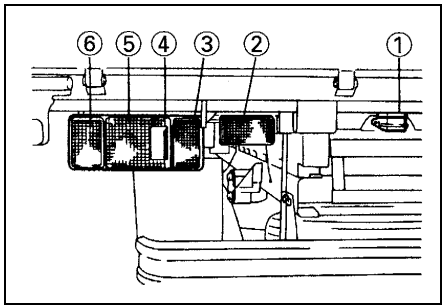
External lights (Except Australia and Hongkong models)
Front side:

1 Headlights
2 Turn signal lights
3 Clearance lights
4 Fog lights [OPT]
5 [V] Roof mounted clearance lights
6 [V] Side turn signal lights



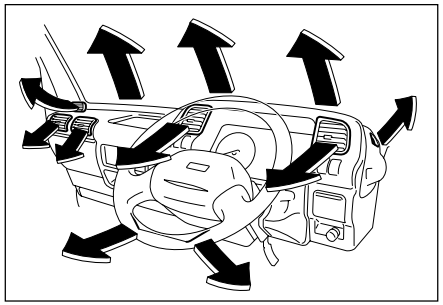
External lights (For Australia and Hongkong models)
Front side:

1 Head lights
2 Turn signal lights
3 Clearance lights
4 [V] Fog lights
5 [V] Roof mounted clearance lights (For Australia only)



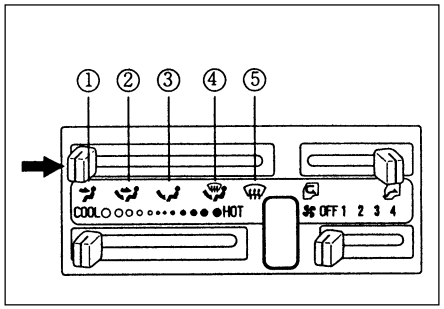
Rear side:

1 License plate light
2 Rear fog light
3 Back up lights
4 Turn signal lights
5 Tail and stop lights
6 Reflectors



Heater-defroster and air conditioning
OPT

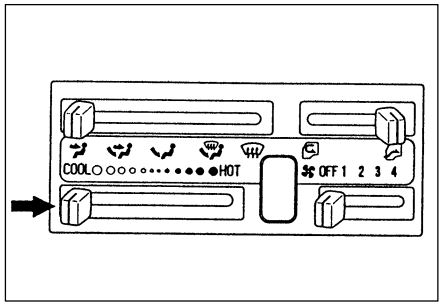
The air flows out from the outlets shown in the figure.



Air outlet select lever:

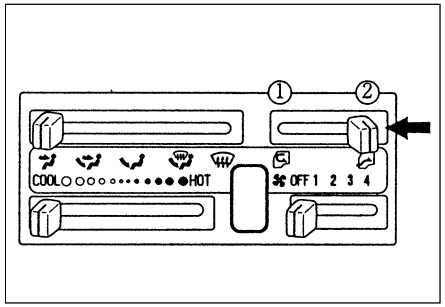
The select lever is used to control the mode of operation.

1 FACE (Air to your face)
2 BI-LEVEL (Air to your face and foot)
3 FOOT (Air to your foot)
4 FOOT/DEF. (Air to your foot and windshield)
5 DEF. (Air to windshield)



Temperature lever:

The temperature lever is for temperature control (through controlling of the hot air flow rate).

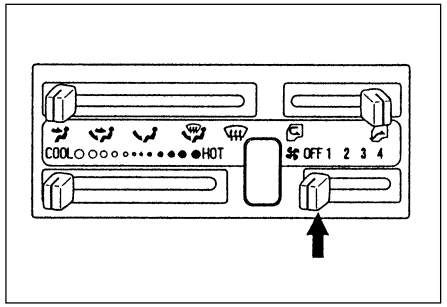


Air source select lever:

The air source select lever controls the setting of the air intake between the outside air and the circulation.

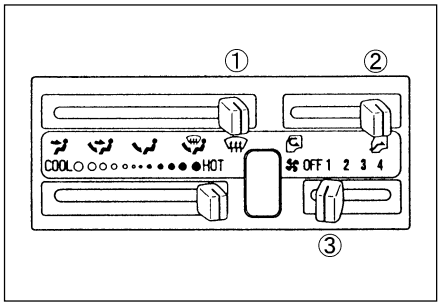
1 Air circulated in the vehicle.

2 Outside air brought into the vehicle.



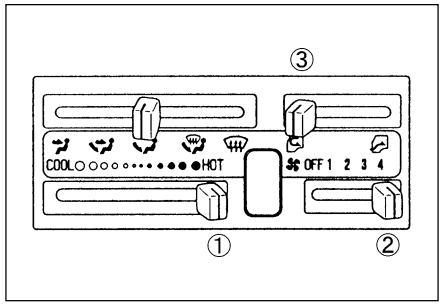
Fan blower switch:

The blower fan switch controls the volume of air delivery in four steps.



Windshield demisting:

Set the air outlet select lever 1 and air source select lever 2 as shown in the figure, and slide the fan blower switch 3 on.

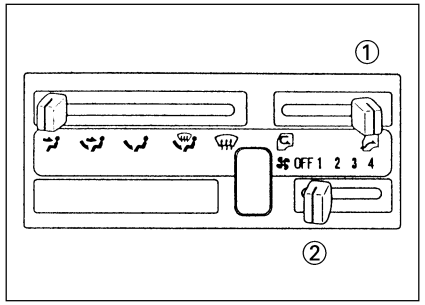


Heating:

Set the temperature lever 1 as shown in the figure and slide the fan blower switch 2 on. When you want to warm up quickly, set the air source select lever 3 as shown in the figure and slide the fan blower switch to the "4" position.

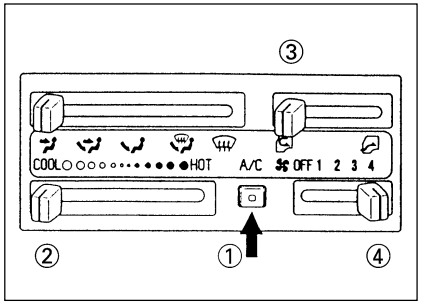
NOTE

Windshield is often misted up when the air source select lever 3 is set as shown. To demist, slide the lever 3 to the far right.



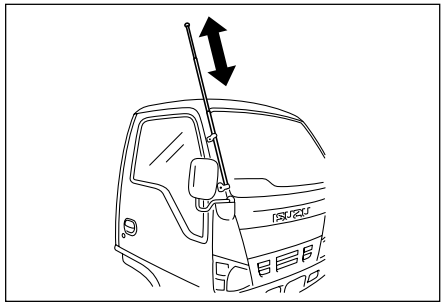
Power ventilator (on models with and without heater):

The fan blower 2 switch can be in any position except "OFF".
Set the air source lever 1 as shown in this figure.
Fresh air will then be drawn in from outside the vehicle.



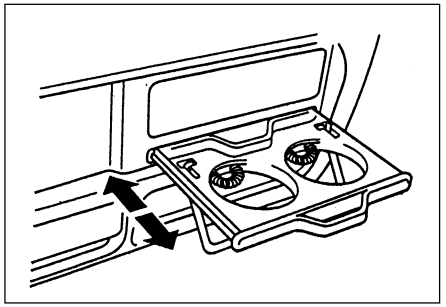
Cooling control (on models with air conditioner): OPT

1. The cooling can be adjusted as desired. To turn on, push the "A/C" button in, and to turn off, push the button in once more.
2. To adjust cooling as desired adjust the temperature lever 2 and also turn the fan blower switch 4 to the desired position.
3. To cool the interior quickly, set the air source select lever 3 as shown in the figure and turn the fan blower 4 switch to the "4" position.



Antenna

Pull out the antenna to gain sensitivity. The antenna should be fully extended when the radio is to be used.
Retract the antenna before entering an area with restricted headroom.

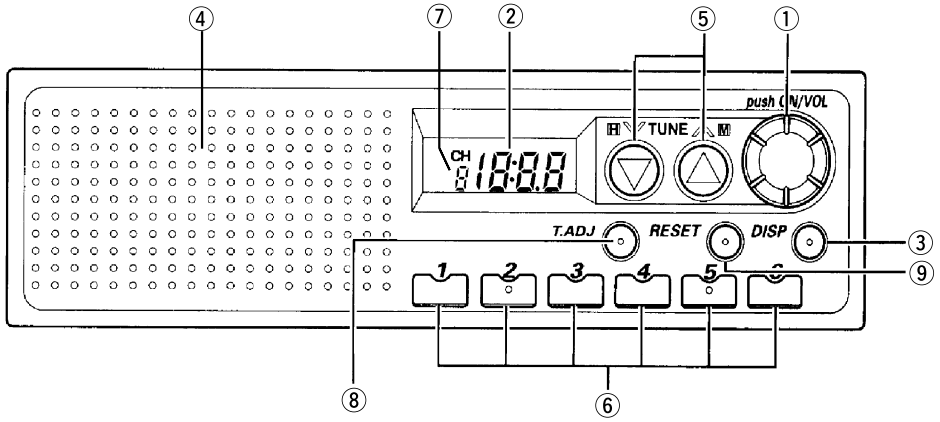


Cup holder OPT

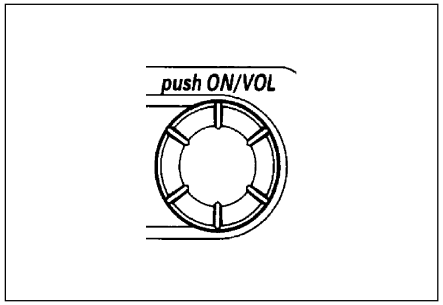
In the center of the dash, there is a cup holder in which two beverage cups or cans etc. can be placed.

CONTROLS AND INSTRUMENTS

AM ELECTRONIC TUNING RADIO WITH CLOCK OPT

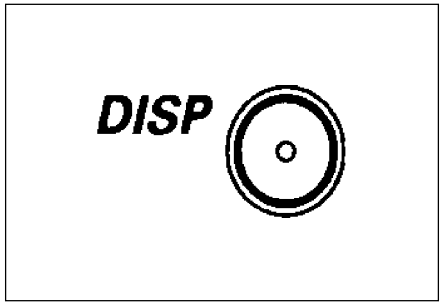


1 ON/OFF switch, volume control (push ON/VOL)
2 Display
3 Display button (DISP)
4 Speaker
5 Manual/Auto tuning button (TUNE)
6 Preset buttons
7 Preset button number indicator
8 Hour and minute set button (T.ADJ)
9 Reset button (RESET)



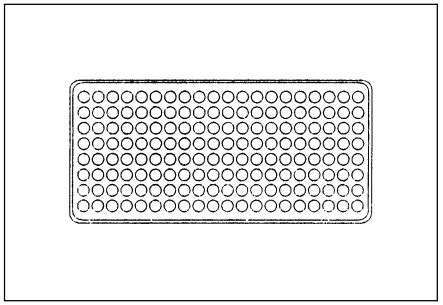
ON/OFF switch,volume control (ON/VOL)

Press this knob to turn on the radio. To turn off the radio, press the button again. Turn the knob clockwise to increase the volume, and counterclockwise to decrease it.

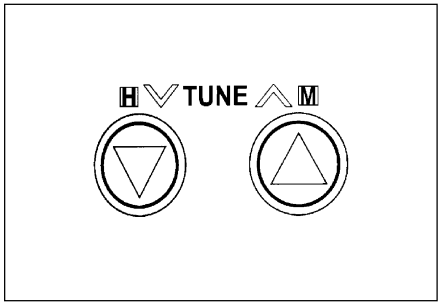


Display
Display button (DISP)

The displayed information changes from the frequency to the current time each time this button is pressed. The display automatically returns to the current time after approximately 5 seconds.



Speaker



Manual/auto tuning (TUNE)

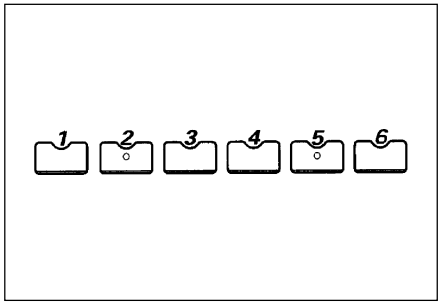
Press this button to select a desired radio frequency (station). Different frequencies will be selected one after another, each time you press this button.

"△" side: Selects higher numbered frequencies.

"▽" side: Selects lower numbered frequencies.

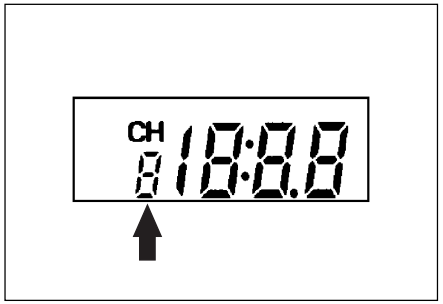
NOTE

- ***When you hold the button "△" side or "▽" side continuously, the tuning frequency will count up or down rapidly.***
  The tuning will stop instantly at a nearest strong broadcast station as soon as you let go of the button.
- ***AM radio frequency will count in 9 kHz increments up or down.***



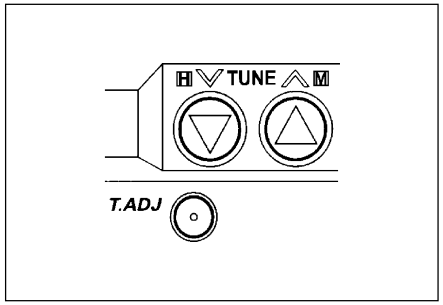
Preset buttons

This unit has 6 preset buttons. Each button can store an AM station.
How to memorize the stations;
Press one of the preset buttons in for about 2 seconds until the preset button number indicator is displayed. This signals that the memory has now been set.
How to recall the preset stations;
If the preset button is pressed and held for less than 2 seconds that preset station will be selected.



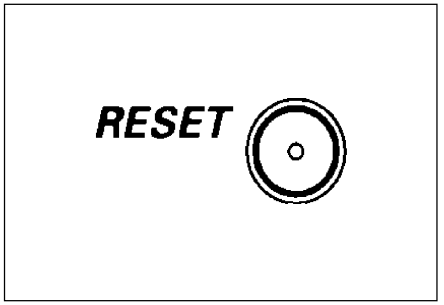
Preset button number indicator

When you press the preset station selector to preset a station, the selector number will appear on the display.



How to set the clock

While pressing and holding the "T.ADJ" button, Press "▽" to advance the hours. Press "△" to advance the minutes. Time is displayed in the 12 hour-mode. To keep changing the time, press and hold these buttons. (These buttons are effective when the display is in the clock mode.)



Reset button (RESET)

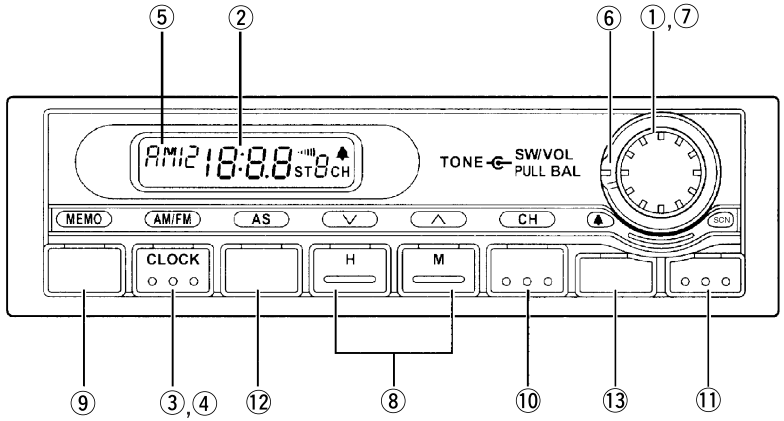
The reset button is effective when the ACC is on and the radio is also on. The reset button is effective even when the radio is being heard (ACC and radio are on). And the frequency is indicated on the display. But during seeking, it is not effective.

IF THE RESET BUTTON IS PRESSED

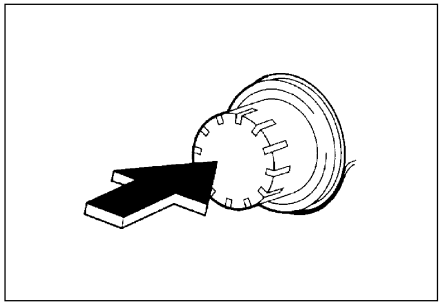
- When the minutes display is less than "30", the minutes display changes to "00". (e.g. :12:00 to 12:29 => 12:00)
- When the minutes display is "30" or more, the minutes display changes to "00", and the hour display increases by a hour up. (e.g.: 12:30 to 12:59 => 1:00)

CONTROLS AND INSTRUMENTS

AM/FM ELECTRONIC TUNING RADIO WITH CLOCK AND ALARM OPT

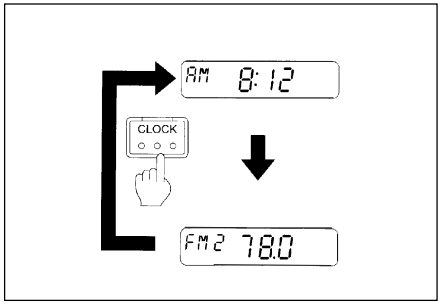


1 ON/OFF switch, volume control (SW/VOL)
2 Display
3 Display button
4 Band button
5 Band indicator (AM, FM)
6 Tone control knob (TONE)
7 Balance control knob (pull BAL)
8 Manual/Auto tuning button (∨∧)
9 MEMO button
10 Channel button (CH)
11 Scan button (SCN)
12 Auto store button (AS)
13 Alarm button (⏏)



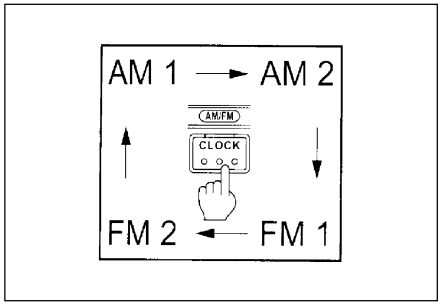
ON/OFF switch, volume control (SW/VOL)

Press this button to turn on the radio. To turn off the radio, press the button again.
Turn the button clockwise to increase the volume, and counterclockwise to decrease it.



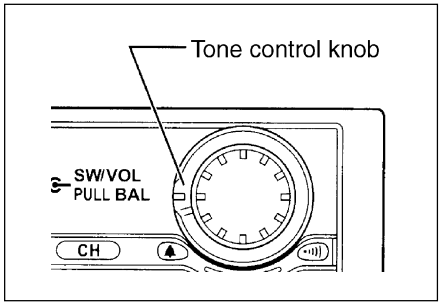
Display
Display button

The clock indication takes priority one other indications. The display automatically returns to the current time after approximately 5 seconds after pressing one of the buttons. When the radio is on, with each press of the button, the indication shift from clock to frequency.



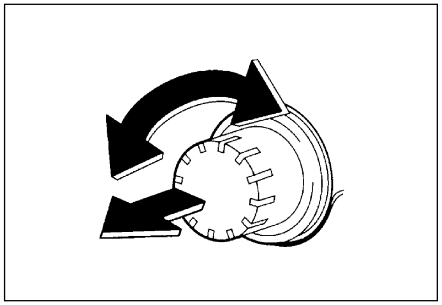
Band switch

Pressing the button will change to the AM1 to AM2 to FM1 and to FM2.The FM or AM band indicator "AM" or "FM" mark is indicated on the display.



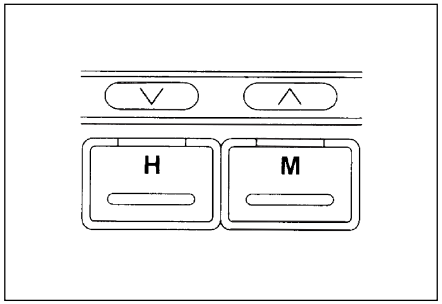
Tone control knob (TONE)

Turn this knob clockwise to emphasize the treble, and counterclockwise to emphasize the bass.



Balance control knob (pull BAL)

Pull and turn the knob clockwise to increase the volume from the right speaker and counterclockwise to increase the volume from the left speaker. Push the knob to the original position after adjustment.



Manual/Auto tuning button (∨∧)

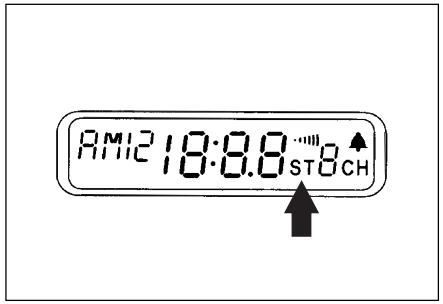
To use these buttons, first push the display button and select the frequency mode on the display.

Automatic tuning

Pushing the "∧" button to increases the frequency.
Pushing the "∨" button to decreases the frequency.
Push one of the buttons for 0.5 seconds or longer to select automatic tuning. The frequency display will increment or decrement and stops automatically when a live frequency is detected and indicated in the digital display.

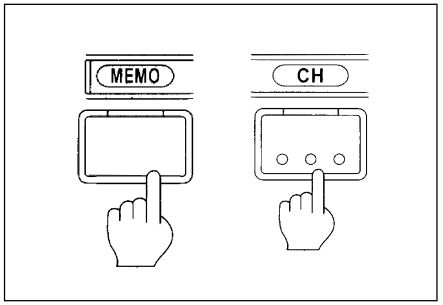
Manual tuning

When in an area of poor radio reception or weak wave environment (weak electric field), push one of the buttons momentarily (less than 0.5 seconds) for manual tuning. The frequency display increments or decrement by (1kHz:AM, 0.1MHz:FM) each time you push the button.



Stereo reception indicator (ST)

The radio will change automatically to stereo reception when a clear FM stereo broadcast is being received. At the same time, the "ST" mark is indicated on the display.



MEMO and channel button

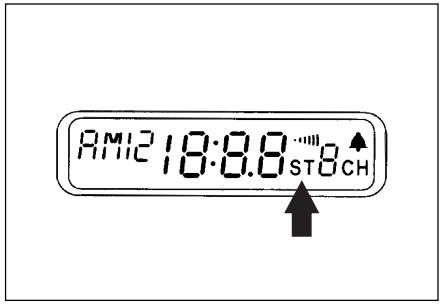
This unit has 6 preset channels. Each 6 stations can store in AM1, AM2, FM1 and FM2.

How to memorize the stations:

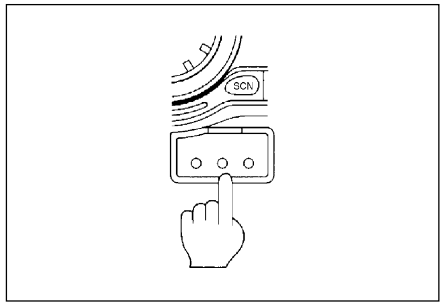
- Select the AM band or FM band with the FM / AM band button.
- Select a desired broadcast with the Manual / Auto tuning button or SCN button.
- Press the MEMO button, the CH No. blinks to enter the preset memory write mode.
- Press the channel button (CH) to select CH No. and press MEMO button again to write the station and release the preset memory mode.

How to recall the preset stations:

- When the channel button (CH) pressed, the stored station in CH1 is recalled.
- When pressed again, next stored station is recalled.
  From CH4 to CH6 shall be skipped if no stored station.

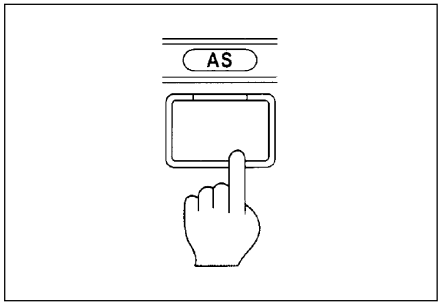


Preset channel number indicator



Scan button (SCN)

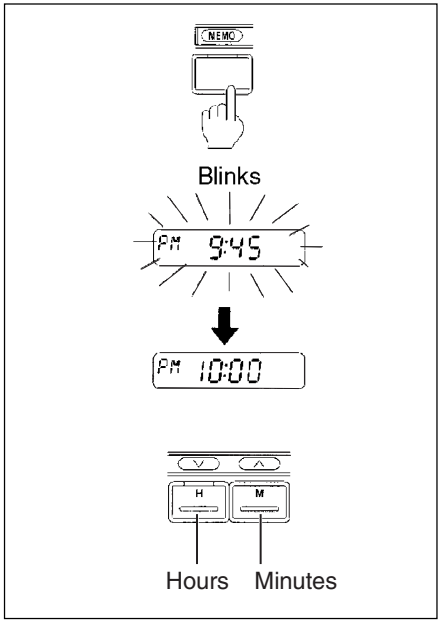
If the Scan button is pressed, the auto starts towards higher frequencies from that point. When a station is received, the unit stops at each station for 5 seconds. Then it resumes the auto search. During the 5 seconds in which the unit is receiving the searched station, if the button is pressed, the unit will cancel the scan mode and continue receiving the current station.



Auto store button (AS)

Usually, it is convenient to select radio stations by preset memory, but when memorized stations show poor reception, it is better to select by means of auto memory, because well received stations in an area will be memorized in ascending order of frequency by each of the channels:1 to 6.
How to use the Auto store memory:
Press the Auto store button (AS) for 2 seconds or more.
At this time, Auto store selecting a station from the band (AM1, AM2, FM1 or FM2) being received to start memorization.
If the memory is completed, the sound of "beep" is heard.

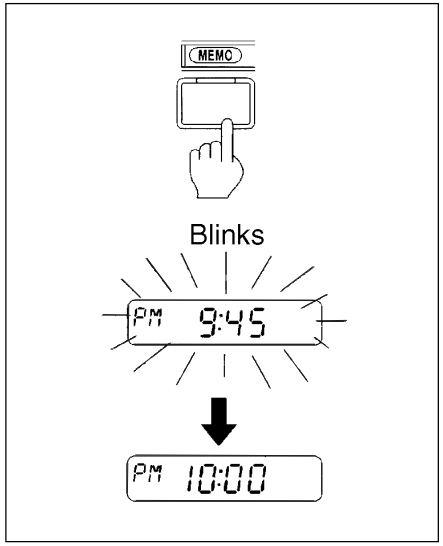
When the channel button (CH) is pressed, the stored station is recalled.
Auto store is performed in regards to the stations of the band currently being selected.



Digital clock

To reset the hours, minutes;
If AM/FM (CLOCK) button is kept pressed for more than 2 seconds while the current time is shown in the display.

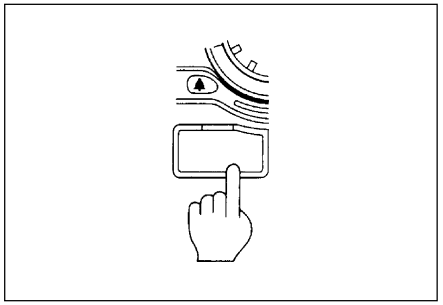
The display blinks to enter the time adjustment mode.
Adjust the "hours" with the ⌄ (H) button and the "minutes" with the ⌃ (M) button.
Press AM/FM (CLOCK) button again to release the time adjustment mode.
When clock is indicated, the up and down buttons are used to adjust the time.
With each press of the up button, the display shifts from 1 to 12. When adjusting the time, the minute and the second do not change only the hour.
As for the down button, the display shifts from 00 to 59. It doesn't change to the hour display. With each adjustment of the minute display, the second display is reset.



Reset button:

When adjusting the clock.
If the "MEMO" button is pressed, when the minute display is less than "30", the minute display changes to "00".

If the "MEMO" button is pressed, when the minute display is "30" or more, the minute display changes to "00", and the hour display carries up.



Alarm button (⏏)

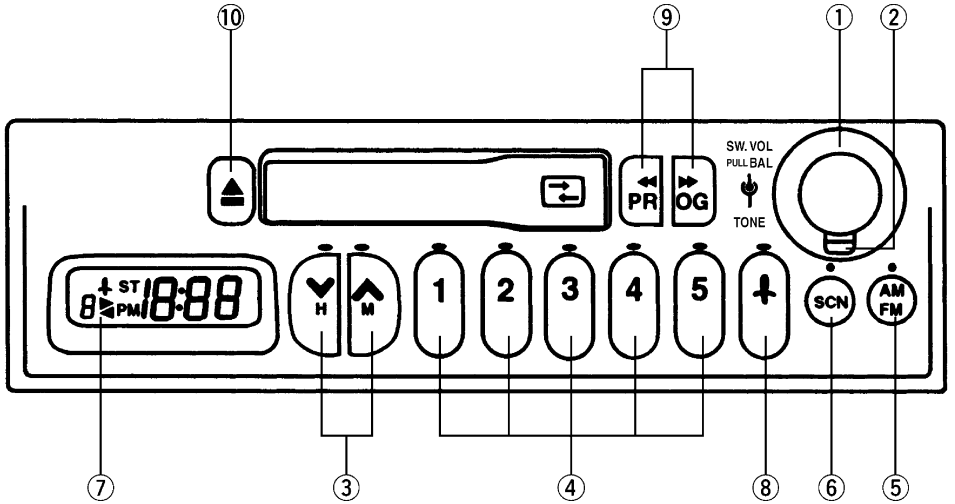
How to set the alarm:
Press the alarm button for more than 2 seconds and the alarm symbol blinks to enter the alarm time adjustment mode.
Setting a desired time in the same way as to correct the time.
Press the alarm button again to release the alarm time adjustment mode and the alarm function is activated.
How to cancel the alarm:
Each time the alarm button is pressed, the function turns ON/OFF.
The appearance of the alarm symbol in the LCD display means that the alarm is turned ON and its disappearance means that the alarm is turned OFF.

The alarm sounds at the set time. To discontinue the sound, press the alarm button.

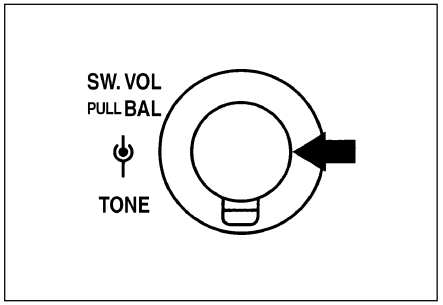
NOTE

When releasing the alarm, press the alarm button and make sure that there is no alarm symbol indicated on the display.
When not using the vehicle for long periods of time, be sure to press the alarm button to turn off the alarm.

CASSETTE DECK WITH ELECTRONIC TUNING RADIO WITH CLOCK OPT



1 ON/OFF switch knob
2 Tone control knob
3 Seek/Tuning button (^ v)
4 Preset button
5 AM/FM band selector
6 Scan button
7 Digital clock
8 Alarm button
9 FF/REW button
10 Eject button

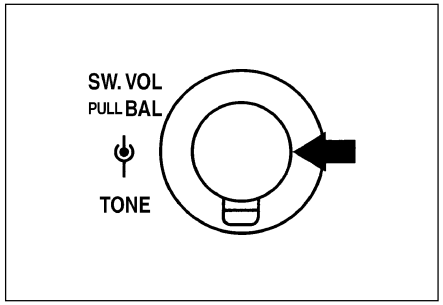


ON/OFF switch knob

Press this switch to turn on the radio. To turn off the radio, press the button again.

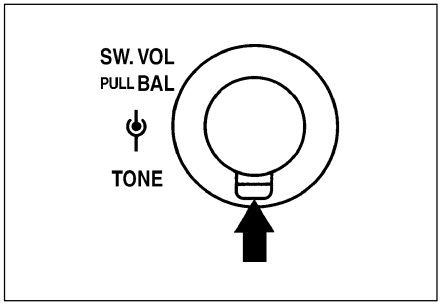
Volume control knob

Turn the knob clockwise to increase the volume, and counterclockwise to decrease it.



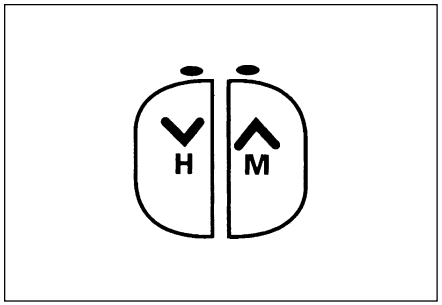
Balance control

Pull out the knob and turn it in either direction to adjust left/right for best stereo effect.



Tone control knob

Turn this knob clockwise to emphasize the treble, and counterclockwise to emphasize the bass.



Seek/Tuning button (^ v)

Pushing the "^" button increases the frequency. Pushing the "v" button decreases the frequency.

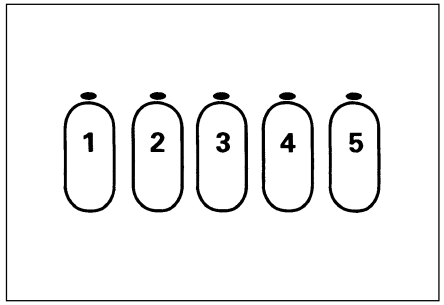
Automatic tuning:

Push one of the buttons for 0.5 seconds or longer to select automatic tuning. The frequency display will increment or decrement and stops automatically when a live frequency is detected and indicated in the digital display.

Manual tuning:

When in an area of poor radio reception or weak wave environment (weak electric field), push one of the buttons momentarily (less than 0.5 seconds) for manual turning.

The frequency display increments or decrements by 1 kHz (AM) or 0.1 MHz (FM) each time you push the button.



Preset button

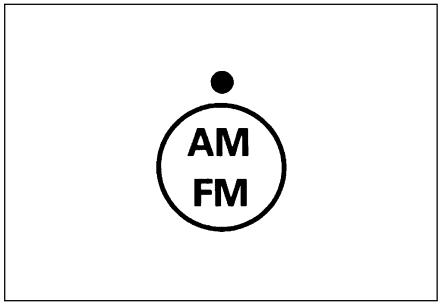
This unit has 5 preset buttons. Each button can store an AM and FM station.

How to memorize the stations:

Push one of the preset button in for 1.5 seconds or longer. You hear a "Beep", this signals that the memory has now been set.

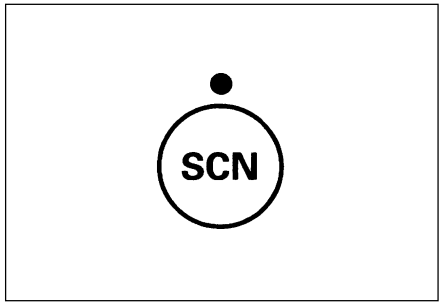
How to recall the preset stations:

As the preset button is pressed for less than 1.5 seconds.



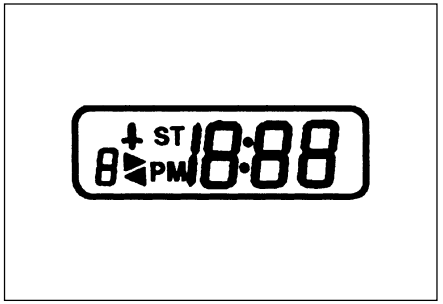
AM/FM band selector

Pressing the button will alternately select either the AM or FM.



Scan button

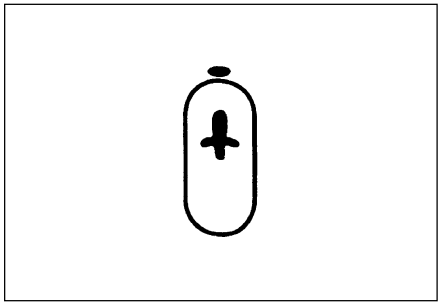
As this button pressed, the auto search starts towards higher frequency from that point.
When a station is received, the unit stops searching and receiving the station for 5 seconds. Then it resumes the auto search.
During the 5 seconds in which the unit is receiving the searched station, if the button is pressed, the unit will cancel the scan mode and continue receiving the current station.



Digital clock

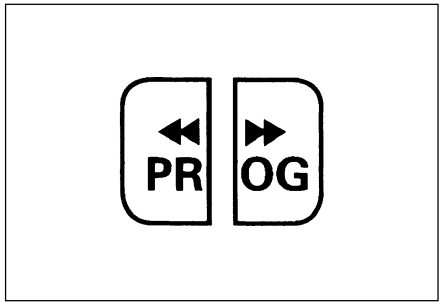
- To set the hours:
  While holding the AM/FM button down, push the "˅" button to set the hours.
- To set the minutes:
  While holding the AM/FM button down, push the "˄" button to set the minutes.

When adjust the clock, the AM/FM button should be pressed simultaneously with the preset button (No. 3). When the minute display is less than "30", the minute display changes to "00". When the minute display is "31" or more, the minute display changes to "00", and the hour display carries up.



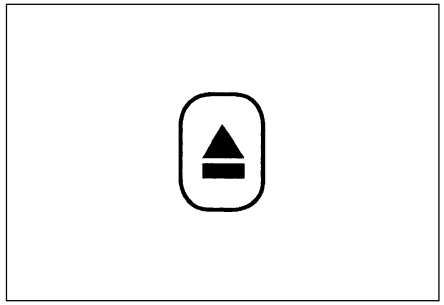
Alarm button

As the alarm button is pressed for 1.5 seconds or more, the alarm set mode is turned on. During the alarm set mode, alarm indicator is indicated on the display. The tuning buttons are used to set the alarm. When it reaches the set time, the alarm rings. To stop the alarm, press the button. If any button is not pressed when the alarm begins to ring, the alarm continues to rings for 3 minutes.
To select ON/OFF of alarm, push the alarm button. While the alarm is ON, the alarm symbol appears on the display.
To make sure of the set time, press the alarm button for 1.5 seconds or more. Then push the alarm button to select the current time mode.



FF/REW button

When "FF/REW" buttons are pushed, the buttons are locked for fast feed and rewind of tape. Specifically push the button on the same direction as the indicated on the display, the tape will be fast fed. If the button on the other side is pushed, the tape will be rewound. To release the "FF" or "REW", push another direction button lightly.
When one program has almost come to an end, it is automatically switched over to the reverse side of the tape. Pressing the "FF/REW" buttons at once, it is possible to change the playing sides of the tape.

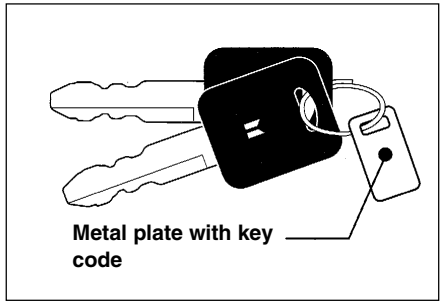


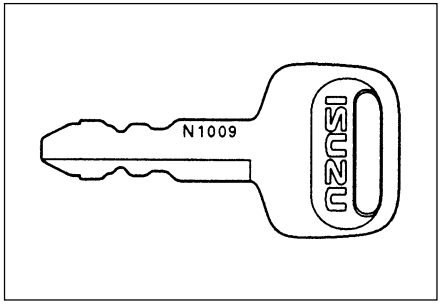
Eject button

When the eject button is depressed, the cassette tape is ejected. When the power switch is on, the unit is switched to the radio mode.

BEFORE DRIVING YOUR VEHICLE

Proper care and driving is important not only in extended service life of your vehicle, but also in improved fuel and oil economy. Drive carefully and defensively.





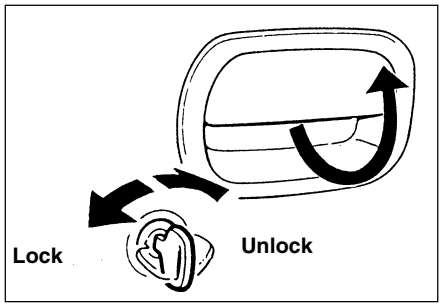
OPERATION OF CONTROLS

Key

This key is used for the ignition key switch and the door lock. The code number of each key is stamped on the metal plate attached to the key ring.
Record the key number and keep it in a safe place such as your wallet, NOT IN THE VEHICLE.

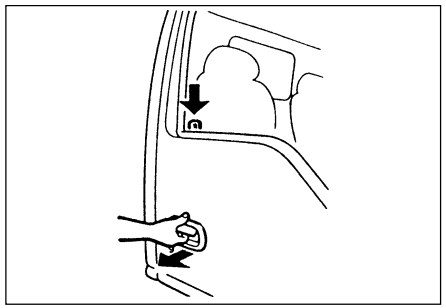
NOTE

In the event that the original keys are lost, duplicates can be made by your Isuzu dealer using the key code information.



Outside door handle

The doors can be opened by pulling the outside door handle.
Doors can be locked by inserting the key in the door key hole and turning it.

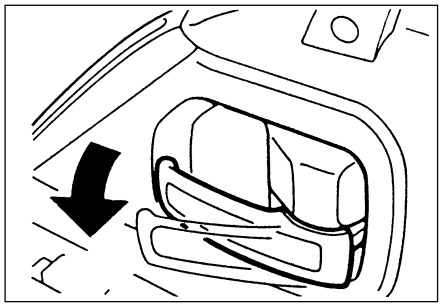


Door lock (Outside)

The doors can be locked from outside without using the key by setting the door lock lever on the door inside to the "lock" position and closing the door with the outside handle pulled outward.

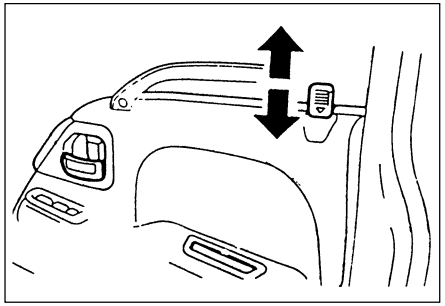
NOTE

Avoid leaving the key inside.



Inside door handle

The doors can be opened by pulling the inside door handle.



Door lock (Inside)

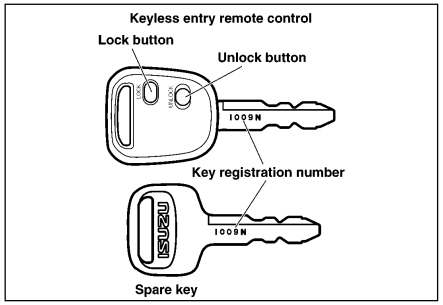
The doors can be locked by pressing the door lock lever after closing the door.

WARNING

- ***When driving keep doors locked. Locked doors will provide maximum protection for both passenger and driver. When seat belts (if so equipped) are properly used and all the doors are locked, it is highly improbable that anyone would be thrown from the vehicle in the event of an accident.***

Locking the doors will also discourage intruders while the vehicle is temporarily stopped.

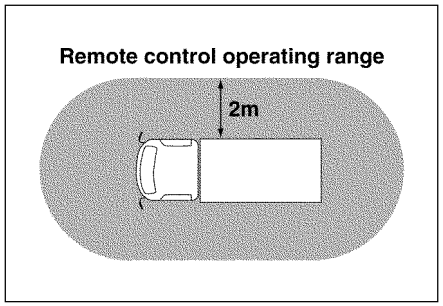
- ***When leaving the vehicle unattended, shut off the engine and lock all doors.***



Keyless entry (If so equipped)

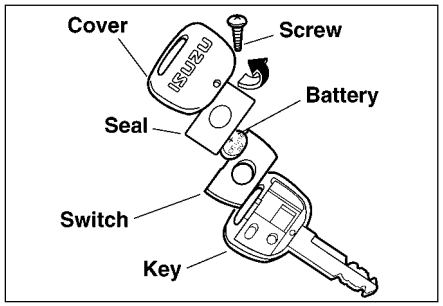
There are two keys. One key contains the built-in keyless entry remote control device. The other is a spare.

The remote control device allows you to simultaneously lock and unlock all the vehicle doors from outside the vehicle without inserting the key into the keyhole (you must be standing within 2 meters of the vehicle).



NOTE

- ***After using the remote control device to lock the vehicle doors, pull on the outside door handle to confirm that the door is locked.***
- ***To avoid damage to the remote control device, do not allow it to become wet. Do not drop it. Do not place it on the vehicle floor where it will be stepped on. Do not place it on top of the dashboard or any other place where direct sunlight may cause the temperature to exceed 60°C.***
- ***If the remote control device is used to lock and unlock the doors 10 times in quick succession, the reset circuit is activated and the device stops functioning. Normal operation resumes after a short time.***
- ***Press and hold the remote control device buttons for at least 1 second.***
- ***The door must be opened within 20 seconds of the time remote control device is used to unlock it. If the door is not opened, it will automatically relock. This provides additional theft protection.***
- ***The remote control device may not work in close proximity to a commercial broadcast tower or an electrical power station.***
- ***The range of the remote control device may be affected in areas where a strong electrical force or electrical noise is present (see above).***
- ***Estimated battery life is 2 years. This assumes that the remote control device is operated 10 times a day.***
- ***If the remote control device does not operate or operates intermittently, the battery is probably weak. Replace the battery with a new one immediately.***

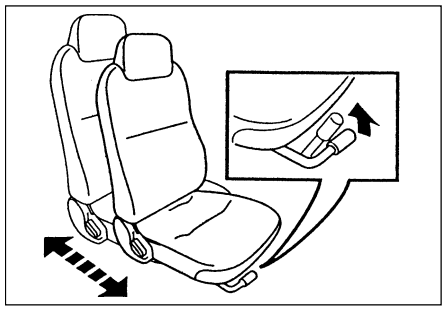


Battery replacement

1. Use a small screwdriver to loosen and remove the screw and the cover.
2. Peel the seal from the switch.
3. Remove the battery.
4. Install the new battery (CR1216-3V). The positive side (marked with a "+") must be facing up.
5. Apply a new seal to the switch (this holds the battery in place).
6. Install the cover and tighten the screw.

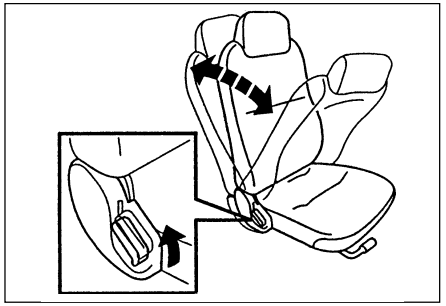
CAUTION

- ***Always install a new seal to the switch when replacing the battery. Use of an old seal or no seal at all will result in switch damage.***
- ***Be absolutely sure that the positive side of the battery is facing up (reversing the battery position will result in battery fluid leakage).***
- ***The battery and the seal is available from your Isuzu dealer. The items are sold as a set. Their use is strongly recommended.***

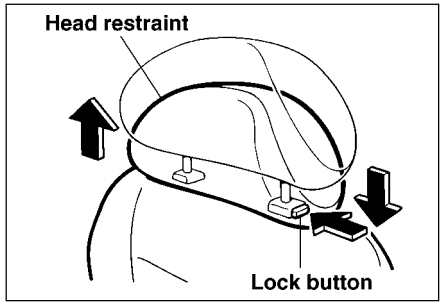


Driver's seat

The driver's seat may be adjusted forward or backward by pulling up the lever at the front of the seat and then using your body to move the seat to the desired position. Let go of the lever at the desired position.



Front seatbacks can be tilted backward if so desired, using the lever on the door side of each front seat. Raise the lever and the front seatback will tilt forward. Raise the lever and adjust the seatback to the desired position. Keep seat belt and latch clear of the seat when you tilt the folding seats forward or backward. This helps to prevent damage to the seat belt system.

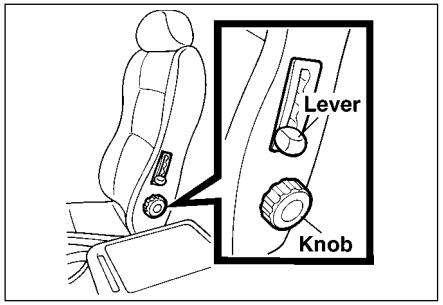


Head restraint (If so equipped)

The head restraint reduces the risk of neck and back injury if your vehicle is involved in an accident.

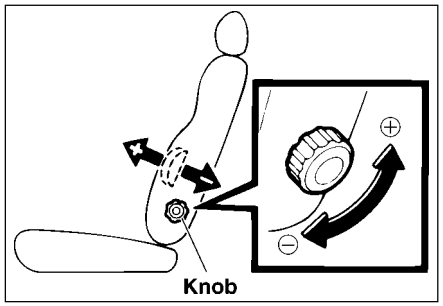
Head restraint height is adjustable. The restraint should be about the same level as the top of your ears.

To adjust the restraint height, grasp the restraint with both hands. Use your thumb to press and hold the lock button (left side). Slide the restraint down to the appropriate height.



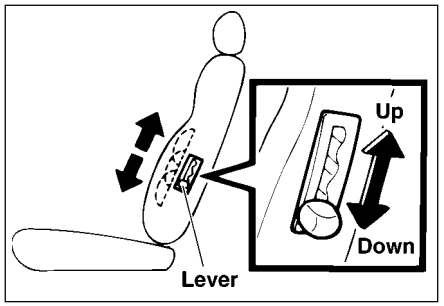
Lumbar support (If so equipped)

Lumbar support height and projection is adjusted with the lever and knob on the left side of the driver's seat.



To increase the lumbar support projection, use your left hand to turn the knob toward the front of the vehicle.

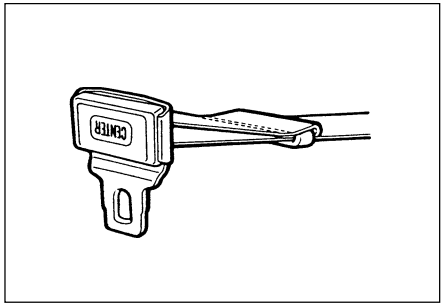
To reduce the projection, turn the knob toward the rear of the vehicle.

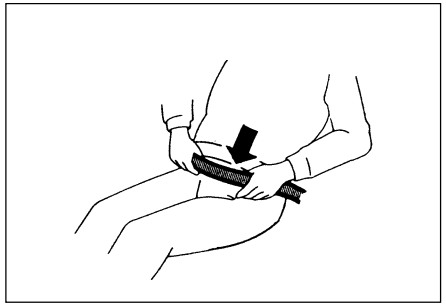


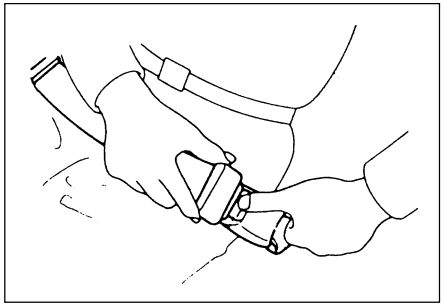
Move the adjustment lever up or down to adjust the height of the lumbar support.

WARNING

- ***After adjusting a manually operated seat, always use your body weight to push forward and backward on the seat to be sure the seat adjusters have latched.***
- ***Movement of the seat indicates that at least one latch did not engage. This could increase the chance of injury and/or the degree of injury in an accident. Take the vehicle to your Isuzu dealer for service if you find that your seat adjusters do not latch.***
- ***Do not attempt to adjust the driver's seat while the vehicle is in motion. The seat could move suddenly, causing you to lose control of your vehicle.***





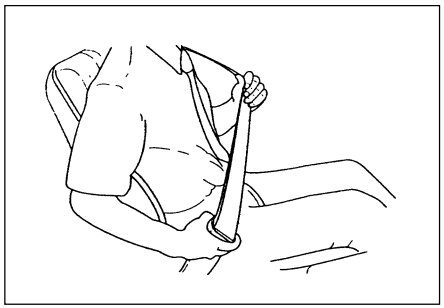


Seat belt (2-points)

1. Sit up straight and well back in the seat.
2. Take hold of the latch plate at an angle to the strap and slide it toward the front of the vehicle.
   Then pull it slowly across your lap and push the latch plate into the buckle until it clicks.
3. Position the lap belt across the lap as low on the hips as possible. Then, adjust to a snug fit by holding the free end of the strap and pulling it through the latch plate until the lap belt is snug across the lap. This reduces the risk of sliding under the belt during an accident.
4. To unfasten the belt, push in the button on the buckle.

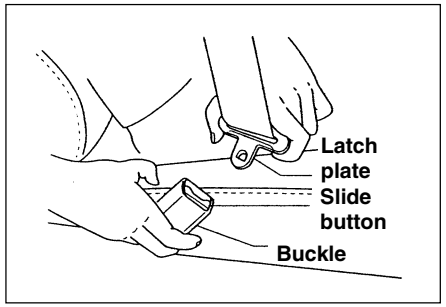
WARNING

- ***A snug fit with the lap belt positioned low on the hips is necessary to lessen the chance of injury and/or a degree of injury in an accident. This spreads the force of the lap belt over the hip bone instead of across the abdomen.***
- ***Never use the same seat belt for more than one person at a time. A seat belt worn by more than one person will not provide adequate protection in the event of a collision.***
- ***Never wear twisted seat belts.***
- ***Be very careful not to damage seat belts or seat belt buckles by pinching them in the seat or the door.***
- ***Too much slack could increase the amount of injury because the belt would not be able to properly restrain you in an accident.***



Seat belt (3-points)

1. Adjust the seat as needed and sit well back and straight up. Grasp the latch plate and:
   - Pull the belt as far as it will reach across your lap.
   - Hold the latch plate at an angle to the strap and slide it further (toward the front of the vehicle).
   - Then pull it slowly across your lap and push it into the buckle until it clicks. If the retractor locks before the latch plate reaches the buckle, let the belt retract slightly, then withdraw it more slowly than before.

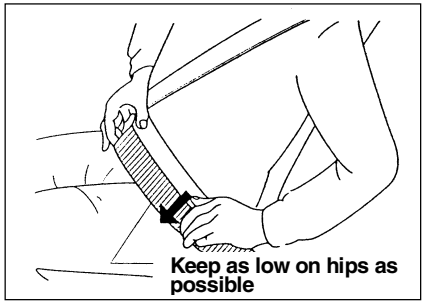


2. To reduce the risk of sliding under the belt during a collision, position the belt across your lap as low on your hips as possible and adjust it to a snug fit by pulling the "shoulder" portion upward through the latch plate.

   The lap-shoulder belt is designed to lock during a sudden stop or impact. At other times it should move freely.

CAUTION

To help reduce the risk of personal injury in an accident, if a shoulder belt is on or very close to a child's face or neck, move the child toward the center, away from the shoulder belt.



3. To unfasten the belt, push the button on the buckle. The belt should retract when the buckle is unlatched but hold the latch plate as it does so, to keep it from hitting people or nearby objects. To help prevent damage to the safety belt and interior trim, before closing the door be sure the belt is fully retracted and the latch plate is out of the way.

Seat belt inspection and care:

- Periodically inspect belts, buckles, latch plates, retractors and anchors for damage that could lessen the effectiveness of the restraint system.
- Keep sharp edges and damaging objects away from belts.
- Replace belts if cut, weakened, frayed or subjected to collision loads.
- Check that anchor mounting bolts are tight to the floor.
- Have questionable parts replaced.
- Keep seat belts clean and dry.
- Clean only with mild soap solution and lukewarm water.
- Do not bleach or dye belts since this may weaken belts.
- Care should be taken to avoid contamination of the strap with polishes, oils and chemicals, and particularly battery electrolyte.
- No modifications or additions should be made by the user that will affect its function.

CAUTION

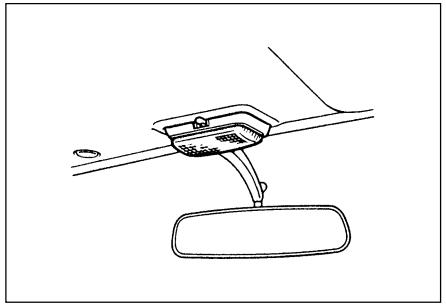
It is important that you understand how to correctly wear a seat belt. You should also ensure that all occupants wear a properly adjusted seat belt whenever the vehicle is moving.

AUSTRALIAN DESIGN RULES: WARNINGS

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.
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.
Belts should not be worn with straps twisted.
Each 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.
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.
The positioning of the tongue restrictor must never interfere with or stop the belt from fully retracting.

General notice

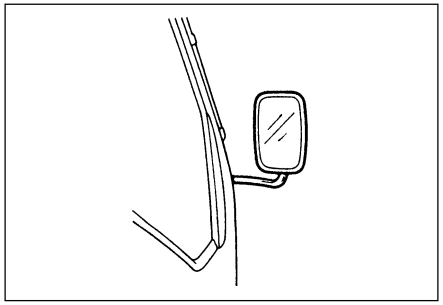
Australian design rules require seat belts to be fitted as standard equipment, therefore this section should be carefully studied.
In the interest of safety, seat belts should be checked regularly. Your dealer will inspect and check the belts for you as part of the normal guardian maintenance service.
Never attempt to modify or change the seat belt away from the original specification as this will affect the operation of the belts and reduce their effectiveness, in preventing injury in an accident.



Mirrors

Inside rearview mirror

To adjust, push the mirror right or left, and up or down.

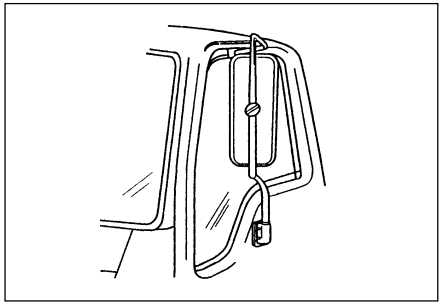


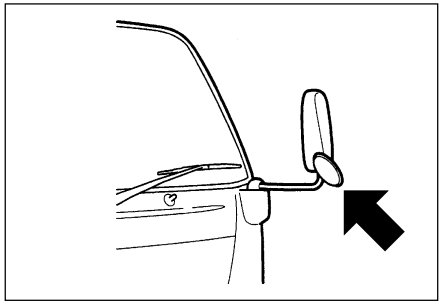
Outside rearview mirrors

Adjust the outside rearview mirrors so you can see not only each side of the road behind you but also each side of your vehicle. This helps you determine your relation to the objects behind.

WARNING

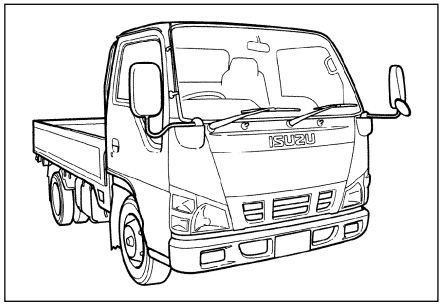
Do not adjust the exterior mirrors while the vehicle is moving.





Underview mirror OPT

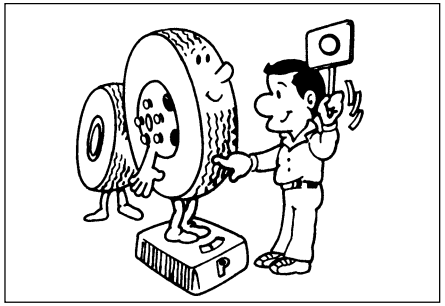
Adjust the underview mirror so you can just see the front end of your vehicle.



DRIVER'S CHECK LIST (REGULAR INSPECTION)

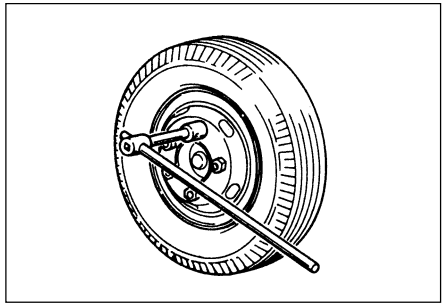
The following checks should be performed to maintain safe and dependable vehicle operation.

(Refer to the "MAINTENANCE GUIDE" for proper check-up procedures).

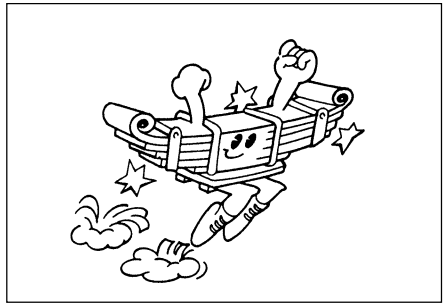


Exterior

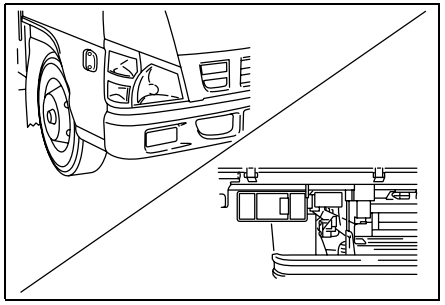
1. Check tires for inflation pressure and damage.



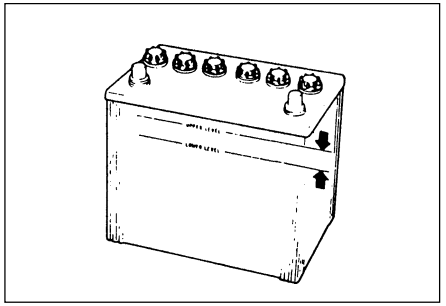
2. Check wheel nuts for looseness.



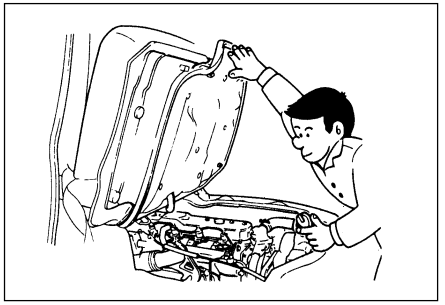
3. Check chassis springs for damage.



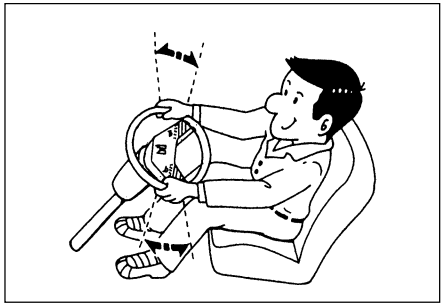
4. Check operation of lights.



5. Check level of electrolyte in each cell of the battery (batteries).

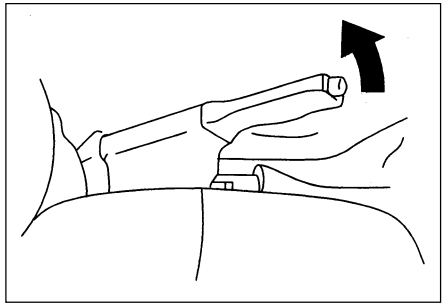


6. Check for any oil, water, fuel and brake fluid leakage.

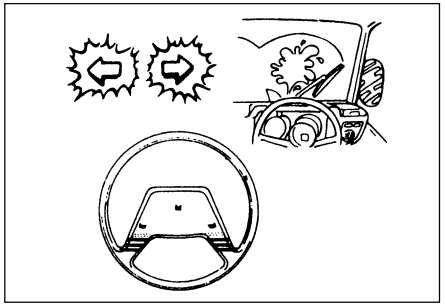


Within cab

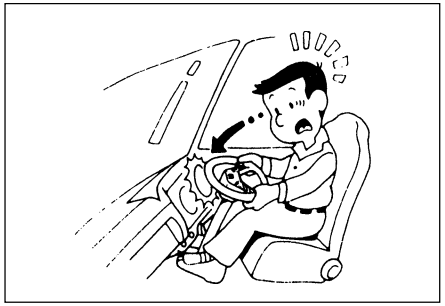
1. Check for steering wheel excess play and looseness in its mounting.
   If the vehicle is equipped with a power steering unit, the wheel free play should be checked with the engine running.



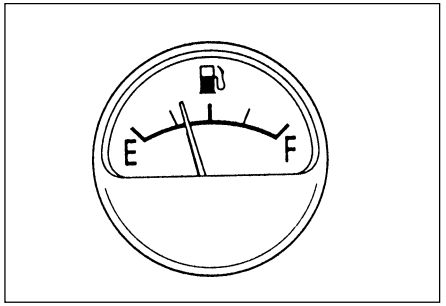
2. Check parking brake lever travel.



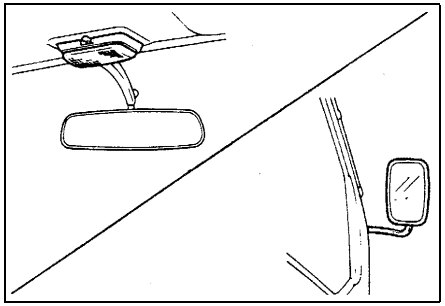
3. Check operation of horns, windshield wipers and turn signals.



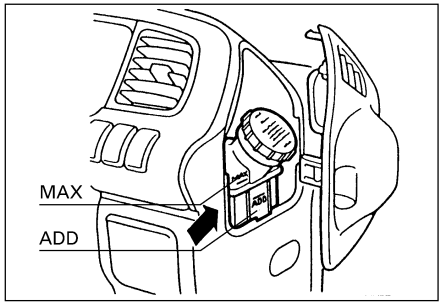
4. Check operation of instruments and indicator lights.



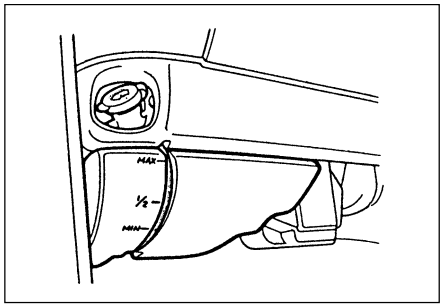
5. Check the fuel gauge for the level of the fuel in the tank against fuel gauge.



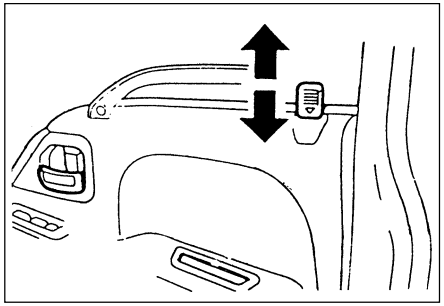
6. Check the angle of rearview mirrors.



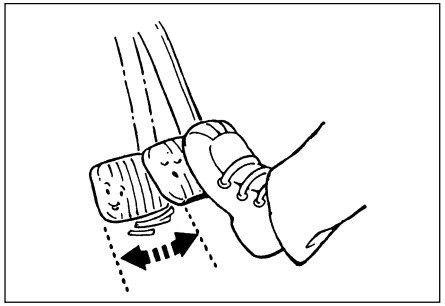
7. Check the level of clutch and brake fluid in the reservoir.



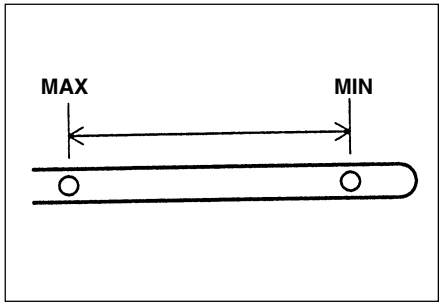
8. Check the level of the windshield washer solution in the washer tank.



9. Check the operation of the door locking mechanism.

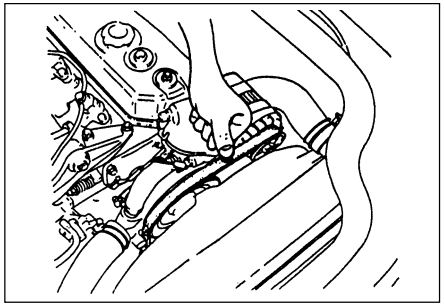


10. Check the clutch pedal play and function.

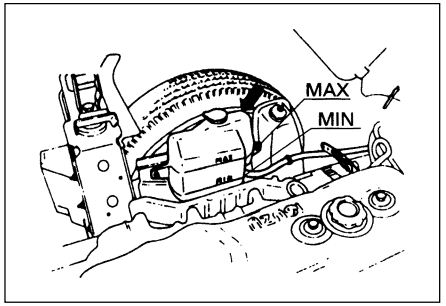


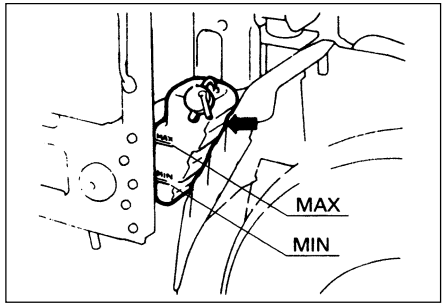
Within engine compartment

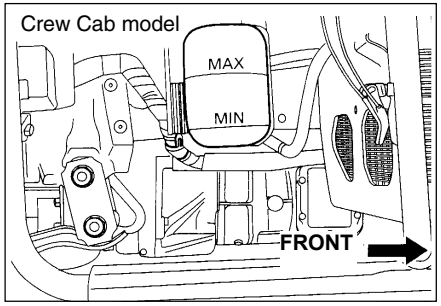
1. Check the engine oil level.



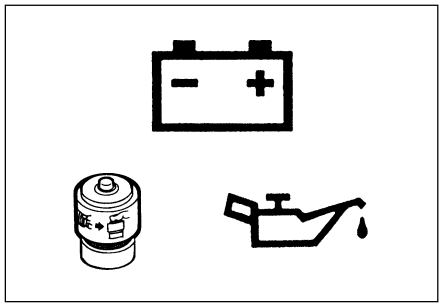
2. Check the fan belt tension.





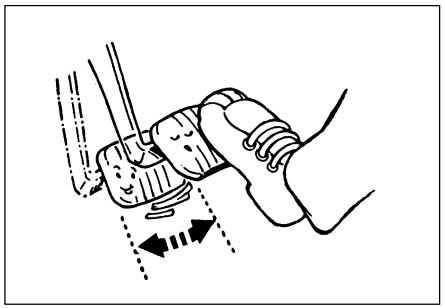


3. Check the engine coolant level and the radiator cap for looseness.



After starting engine

1. With the engine running, check that the generator indicator light, oil pressure indicator light and check engine indicator light [4JH] go off and remain off.



2. Check the brake pedal free play and function.

HBB model [V]

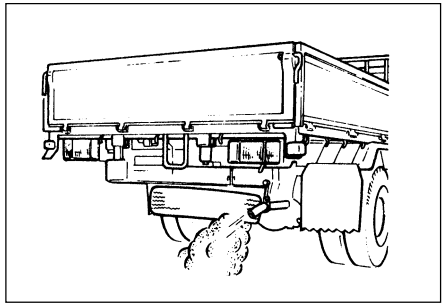
- Squeaking sounds are heard several times when the brake pedal is depressed with the engine turned off. They are operating sounds of the brake assist accumulator and do not indicate a trouble. Similar sounds are heard also when the brake pedal is operated quickly while the engine is running.

- The accumulator pressure may drop when the brake pedal is depressed, but the accumulator is charged automatically if the engine is running. The automatic charge is also caused by temperature fluctuation in the accumulator regardless of the brake pedal operation. Hissing and click sounds are normally heard during an automatic charge.

- Booming sounds may be heard when the brake pedal is depressed hard while the engine is running. They are pulsating sounds of the oil pump and do not indicate a trouble.

CAUTION

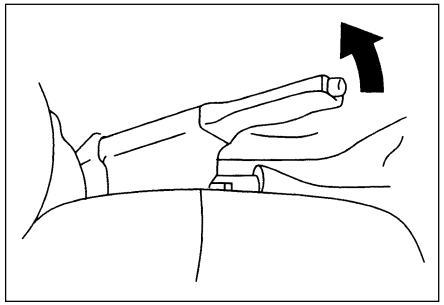
Do not leave the brake pedal depressed hard longer than necessary as it will cause abnormal temperature rise in the oil pump.



3. Check for any abnormal engine noise or color of exhaust gases.

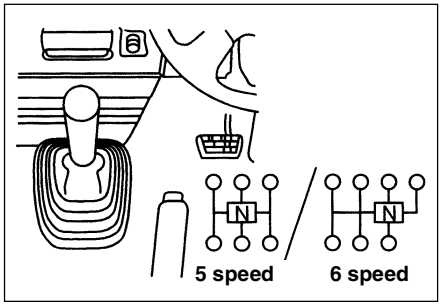
DRIVING

Proper care and operation will not only extend the service life of your vehicle but also improve oil and fuel economy.

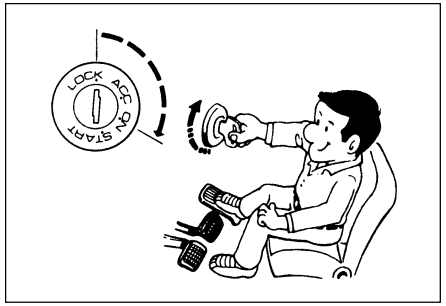


PREPARATION FOR STARTING ENGINE

1. Apply the parking brake.



2. Place the transmission in the neutral position.

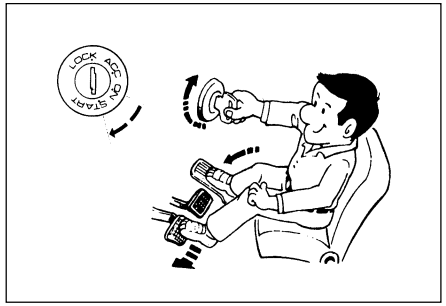


STARTING ENGINE

1. When the ignition key is turned to the "ON" position, the glow plug indicator light comes on and goes off after approx. 0.5 seconds (with warm engine) to approx. 4.0 seconds with cold engine.

CAUTION

Do not step on the accelerator pedal before starting. When the accelerator pedal is depressed before the ignition key switch is turned on, the "START FUEL ENRICH SYSTEM" may not function correctly.
Accordingly, starting becomes substantially more difficult.



2. Warm weather or hot engine:

   Turn the key switch to the "START" position (do not step on the accelerator pedal). Release the key switch as soon as the engine starts.

   Cold weather (Except 4HK1-TC):

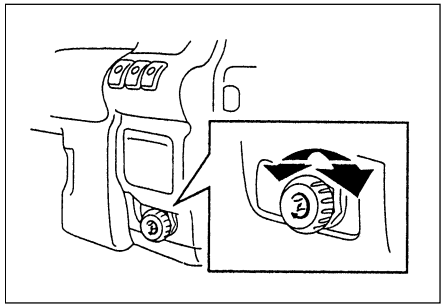
   When the glow plug light goes off, depress the clutch and accelerator pedals to floor and hold. Turn the key switch to the "START" position. Release the key switch, clutch pedal and accelerator pedal as soon as the engine starts.

   Cold weather (4HK1-TC):

   When the glow plug light goes off, depress clutch pedal to floor and hold, but do not step on the accelerator pedal. Turn the key switch to the "START" position. Release the key switch and clutch pedal as soon as the engine starts.

CAUTION

Do not activate the starter motor continuously for more than 10 seconds, or the starter motor and the battery will be adversely affected. Repeat step 1 and 2 above after one minute break if the engine does not start.



3. Turn the idling control knob as needed to achieve a smooth idle.

NOTE

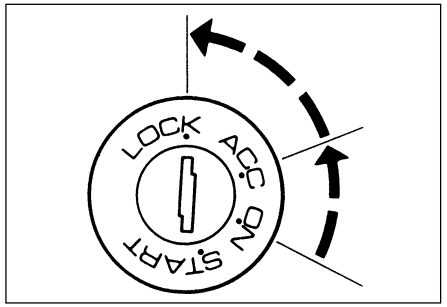
4HE1-TC 4HK1-TC

When the engine is warming up, do not use idle control knob.

CAUTION

Do not leave the vehicle at this time.

4. When the engine is thoroughly warmed up, turn the idling control knob to the home position.

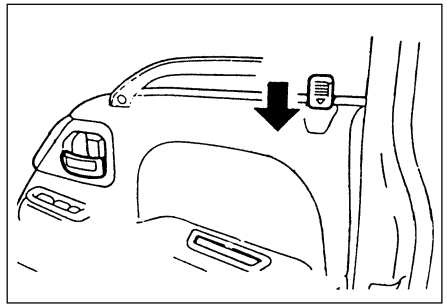


STOPPING ENGINE

1. Turn the ignition key switch to the "ACC" or "LOCK" position.

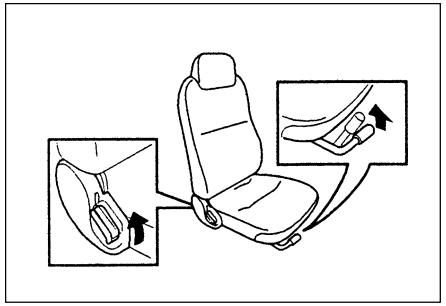
NOTE

If the engine gives a sign of overheating, do not stop it immediately. Keep it running at a fast idle for a while.

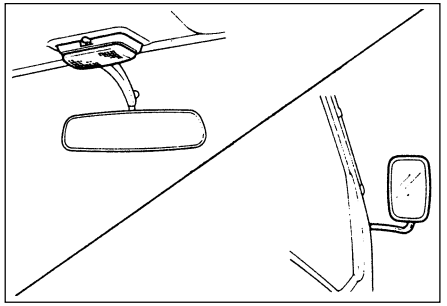


BEFORE DRIVING OFF

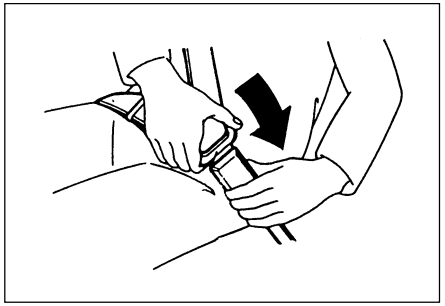
1. Lock all doors.



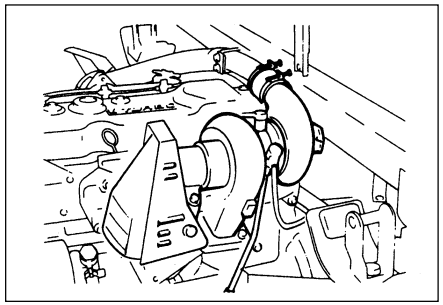
2. Adjust the seat position.



3. Adjust the inside and outside mirrors.



4. Fasten the seat belt.



OPERATING PRECAUTIONS FOR TURBOCHARGED ENGINE TRB

Engine starting in general

The turbocharged engine should be started in a way which ensures the bearings supporting the rotating parts of the turbocharger are sufficiently lubricated.
Do not race a cold engine.

Engine shut-off in general

CAUTION

After highway driving, at least 3 minutes of operation should be at idle until it cools down.
This allows the turbocharger to return to idle speed. Engine oil pressure is available for lubrication at this time and will prolong the life of the turbocharger bearings.

OPERATING METHODS FOR Smoother SA

This system enables to start, shift, and stop the vehicle without clutch pedal operation; only with change lever, accelerator pedal and brake pedal operations. Moreover, you can drive the vehicle with automatic gearshift. Please understand the characteristics of Smoother vehicle and get accustomed to correct operations of this system.

WARNING

- ***Securely depress the brake pedal to prevent the vehicle from moving, while the vehicle is stopped, even on a level ground. Move the change lever in "N" position and apply the parking brake as necessary.***
- ***Immediately after starting engine or when the air conditioner operates, the engine speed increases. This causes the vehicle to creep stronger than usual. Be sure to depress the brake pedal securely.***

NOTE

- ***If you increase the engine speed with the idle control knob, you may feel larger shock when the clutch is engaged. Move back the idle control knob fully left when you move the change lever to other than "N" position.***
- ***When driving the vehicle in a traffic jam or in a narrow space, use brake pedal only (no accelerator pedal operation) to adjust the vehicle speed utilizing creep phenomenon for smooth movement of the vehicle.***

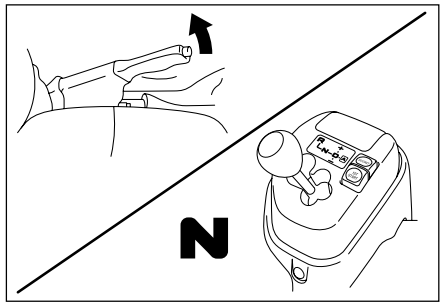
How to use the Smoother

CAUTION

- ***Move the change lever to "N" position, apply the parking brake, and securely depress the brake pedal before starting the engine.***
- ***When you move the change lever from "N" to either "D" or "R", be sure to depress the brake pedal.***

NOTE

When the vehicle has been parked with the gear engaged, start the engine and make sure that the shift indicator shows "N" before operating the change lever to either "D" or "R".



How to start the vehicle

[Normal start]

1. Make sure the change lever is in "N" position and the parking brake fully applied, and then turn the starter switch to "ON" position.
2. Start the engine with the brake pedal fully depressed with your right foot, and move the change lever to "D" or "R". In conjunction with this, the clutch is automatically disengaged, the gear is engaged, and then the clutch is automatically engaged. At this time, the gearshift is in Auto shift mode.

3. Make sure that the shift indicator shows "A" or "R", release the parking brake, and slowly depress the accelerator pedal. The vehicle will start according to the amount of accelerator pedal depressed.

[On a steep hill]

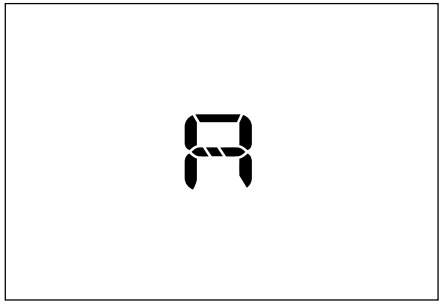
1. Make sure the parking brake is fully applied.
2. With the brake pedal fully depressed with your right foot, move the change lever to "D" or "R". (If you need strong driving force to start the vehicle, select the 1st start mode.)
3. Make sure that the shift indicator shows "A" or "R", and check around the vehicle for safety. Then release your right foot from the brake pedal, and slowly depress the accelerator pedal.
4. When you feel the motion of the vehicle, gradually release the parking brake lever to start the vehicle.

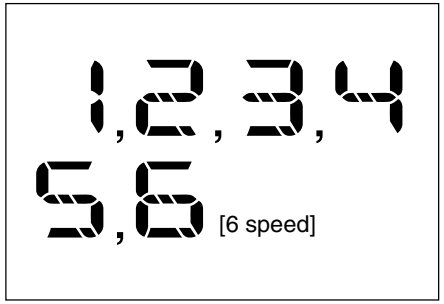
WARNING

- ***If you move the change lever to "D" or "R", the vehicle creeps. Be sure to operate the change lever with the brake pedal depressed when you start the vehicle.***
- ***On a Smoother vehicle, only the accelerator pedal is used to adjust the speed when starting vehicle. Operate the accelerator pedal carefully.***
- ***Do not operate the change lever with the accelerator pedal depressed. It will cause the vehicle to sudden start resulting in unexpected accident.***
- ***When the shift indicator is blinking, the gearshift is still in process. At this time, driving force is not transmitted to the tires. Be sure to keep the brake pedal depressed until you confirm that the shift indicator lights up.***

NOTE

- ***Do not keep depressing the accelerator pedal with the brake applied and the change lever to "D" or "R" when the vehicle is stopped. It will cause trouble.***
- ***Be sure to apply the brake when stopping the vehicle on a grade. If you depress the accelerator pedal to make creep phenomenon stronger to keep the vehicle stopped, it will cause trouble.***
- ***Normally the vehicle starts with the 2nd gear. If you need strong driving force such as due to heavy load, press the 1st start switch to start with 1st gear.***
- ***You can also change to the 1st gear by operating the change lever to "-" (downshift) while depressing the brake pedal when the vehicle is stopped.***
- ***It is advisable to move the change lever to "N" position when you stop the vehicle to wait at stoplights etc. for fuel efficiency.***





How to shift the gears

[Auto shift mode]
When you move the change lever from "N" to "D" position, the vehicle runs with auto gearshift. At this time, make sure that the shift indicator shows "A".

NOTE

In a continuous steep uphill, it may be easier to drive with the Manual shift mode, which allows the vehicle to drive in a constant gear position, than the Auto shift mode. It is advisable to select the Manual shift mode in such situations.

[Manual shift mode]

- To shift gears with the Manual shift mode, move the change lever from "D" position to the desired gear position by "+" (upshift) or "-" (downshift). At this time, make sure that the shift indicator shows the desired gear position.
- In conjunction with this, the clutch is automatically disengaged, the gear is engaged, and then the clutch is automatically engaged upon completion of the gearshift operation. This step applies both for shift-up and shift-down.
- With the Manual shift mode, gears are not shifted automatically. To return to the Auto shift mode, operate the change lever to "A" side, and make sure that the shift indicator shows "A".

CAUTION

Never leave the driver's seat with the engine running and the change lever in "D" or "R". The vehicle may move. Before you leave the driver's seat, be sure to move the change lever to "N" and apply the parking brake fully.

NOTE

- ***Shift gears to appropriate positions. When you attempt to shift to an inappropriate position, the warning buzzer beeps to indicate that the gear will not be shifted.***

NOTE (Continued)

NOTE (Continued)

- ***Running the vehicle with an inappropriate gear position will sound the warning buzzer. Shift-down to an appropriate gear position, since it causes trouble if you continue to run the vehicle with this condition. Shifting down to an appropriate gear position will stop the warning buzzer.***
- ***Abrupt operation of the accelerator pedal immediately after shift operation will cause rough motion of the vehicle as well as cause trouble. Operate the accelerator pedal slowly taking plenty of time.***
- ***Running with ECONO mode will improve fuel efficiency.***
- ***If you need a delicate speed adjustment such as driving in reverse to dock to the platform, adjust the vehicle speed only with brake pedal operation (without accelerator pedal operation) utilizing creep phenomenon for smooth movement of the vehicle.***

How to stop the vehicle

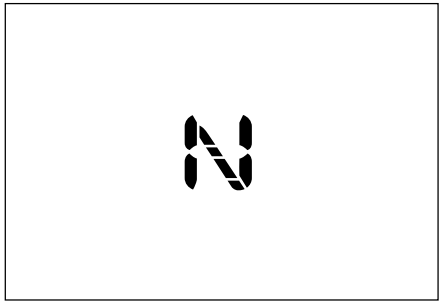
1. Depress the brake pedal with your right foot to slow down the speed till the vehicle stops. Specific shift operation is not necessary. After the vehicle stops, the gear is shifted to a starting gear position automatically.
2. Move the change lever to "N" position while the vehicle is stopped. If the vehicle is to be stopped for a long period, apply the parking brake.

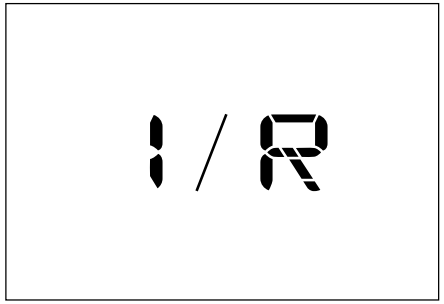
CAUTION

- ***If you leave the driver's seat, be sure to move the change lever to "N" and make sure the shift indicator shows "N", and then apply the parking brake fully.***
- ***Do not keep depressing the accelerator pedal with the brake applied and the change lever in "D" or "R" position when the vehicle is stopped. It will cause trouble.***
- ***Be sure to apply the brake when stopping the vehicle on a grade. If you depress the accelerator pedal to make creep phenomenon stronger to keep the vehicle stopped, it will cause trouble.***

NOTE

It is advisable to move the change lever to "N" position when you stop the vehicle to wait at stoplights etc. for fuel efficiency.





How to park the vehicle

[Normal parking]

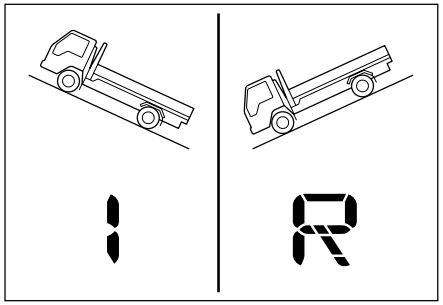
1. Apply the parking brake while depressing the brake pedal with your right foot.
2. Move the change lever to "N" position. Make sure the shift indicator shows "N", and then slowly release your right foot from the brake pedal.
3. Stop the engine.

[Parking in cold weather]

1. Move the change lever from "D" to "-" (downshift) or to "R" (reverse) while depressing the brake pedal with your right foot securely, and make sure that the shift indicator shows "1" or "R".
2. Stop the engine, and slowly release your right foot from the brake pedal.
3. Make sure that the vehicle does not move, and securely lock the wheels using chocks.

CAUTION

In a cold weather, be sure not to park the vehicle with the parking brake applied. If the parking brake has kept applied, the wire or pad will be frozen up and it cannot be released.



[Parking on a steep hill]

1. Apply the parking brake while depressing the brake pedal with your right foot.
2. On an uphill, move the change lever from "D" to "-" (downshift). On a downhill, move it from "D" to "R" (reverse). After shifting, make sure that the shift indicator shows "1" or "R".
3. Stop the engine, and slowly release your right foot from the brake pedal.

CAUTION

When the vehicle is parked on a steep uphill/downhill, be sure to engage the gear before stopping the engine. Otherwise the vehicle may slip down and it can lead to an accident.

NOTE

When the vehicle has been parked with gear engaged, start the vehicle by moving the change lever to "N" position and depressing the brake pedal. At this time, the shift indication remains "1" or "R" but it will change to "N" after the engine starts. Also, when the vehicle has been parked with gear in "R" position, the warning buzzer beeps when your turn the starter switch to "ON". Please note that this does not show defects.

Smoother warning light and warning buzzer pattern

The Smoother warning light comes on/blinks, and the warning buzzer beeps in the following conditions.

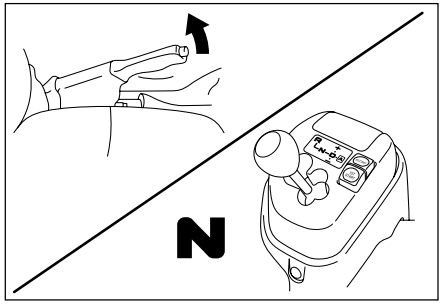
Description	Smoother warning light	Warning buzzer	Remedy
Keep depressing the accelerator pedal with brake applied.	-	Consecutive short beeps	Release the accelerator pedal or move the gear back to "N".
Vehicle is stopped with accelerator pedal depressed in a grade road.	-	Consecutive short beeps	Release the accelerator pedal and apply brake.
Vehicle keeps running with an inappropriate gear position.	-	Consecutive short beeps	Shift-down to an appropriate gear position.
Vehicle ran with parking brake applied, or vehicle has been stopped with gear engaged and parking brake applied for long period.	-	Consecutive short beeps	Release the parking brake, or move the gear back to "N".
P.T.O. is in use	-	Short beep with interval	-
Smoother system is in trouble.	ON	Continuous beep	Stop the vehicle in a safe place, and immediately contact your Isuzu dealer for inspection.
		Consecutive short beeps	
		-	
Oil temperature of Smoother system is abnormally high.	Blink	-	Stop the vehicle in a safe place and cool down with the change lever in "N".
Smoother emergency switch is pressed "ON".	Blink	-	Return the Smoother emergency switch to "OFF".

Description	Smoother warning light	Warning buzzer	Remedy
Smoother adjust switch is operated.	-	Short beep, once	-
Attempt to shift the gear to the gear position which cause overrun.	-	Continuous beep	Slow down the vehicle speed, and make gearshift again.
Attempt to shift the gear to the gear position which cause under run.	-	Consecutive short beeps	Speed up the vehicle speed, and make gearshift again.
When the vehicle is stopped, the change lever is moved from "N" to "D" or "R" without depressing the brake pedal.	-	Consecutive short beeps	Move the change lever back to "N" once, and then operate again while depressing the brake pedal.

How to adjust the half-clutch position

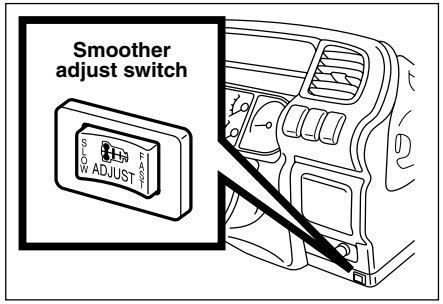
You can adjust the half-clutch position for Smoother by ± 4 steps from the initial (standard) position according to your preference. Perform this adjustment in the following cases:

- Clutch engages too fast/slow when starting vehicle.
- The timing of clutch engagement does not match with your preference when starting vehicle.

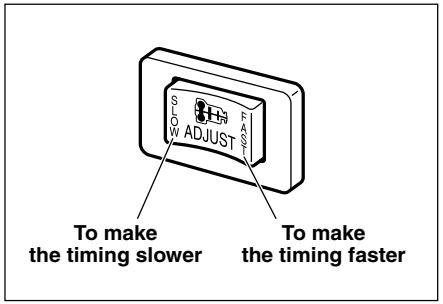


Adjustment procedure:

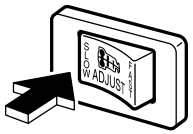
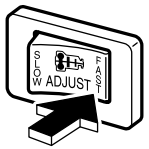
1. With the engine running, apply the parking brake, and move the change lever to "N" position.



2. Press either "FAST" side or "SLOW" side of the Smoother adjust switch. If the clutch slips, press the "FAST" side. If the clutch is tight, press the "SLOW" side. You can select from the 9 steps in total (standard ± 4 steps) according to your preference.



3. If you hold the adjust switch pressed, the buzzer beeps (short beep, once) to indicate that the adjustment is done for 1 step. If you want to adjust further, put your finger off from the switch once and then press again. The buzzer beeps (short beep, once) to indicate that the adjustment is done for another 1 step.

Condition	Switch operation location and number	
	SLOW side	FAST side
		
Precise adjustment is required.	1 time	1 time
Clutch slip is felt.	-	2 – 3 times
Clutch drag is felt.	2 – 3 times	-

CAUTION

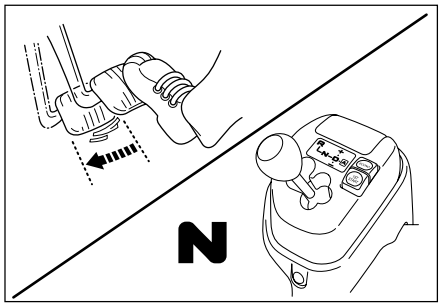
- ***If you cannot make the clutch adjustment within the available range (± 4 steps), please contact your Isuzu dealer for inspection of initial adjustment position.***
- ***Perform the half-clutch adjustment with the engine idle.***
- ***Smoother reset switch is used for Smoother initial adjustment. Never press this switch. Smoother initial adjustment must be performed by your Isuzu dealer.***

In case of Smoother failure

When the Smoother warning light comes on while the vehicle is running, immediately stop the vehicle in a safe place. Immediately contact your Isuzu dealer for an inspection if the warning light does not go off.

CAUTION

- ***Smoother emergency switch is used to evacuate in an emergency. Keep this switch "OFF" normally. Do not operate this switch especially when the vehicle is running.***
- ***With the Smoother emergency switch "ON", the Smoother warning light blinks and the buzzer stops.***
- ***You cannot make gearshifts with the Smoother emergency switch "ON". If you wish to change the gear to a starting position, use the emergency shift switch.***
- ***You cannot move the Smoother vehicle by push-start or with the starter. If the engine stalls and restart is impossible, move the change lever to "N" position. And push the vehicle to a safe place to evacuate if the shift indicator shows "N". If it shows other than "N", use the emergency switch to change to "N" and then push the vehicle to a safe place to evacuate.***
- ***Keep the emergency switch covered normally.***

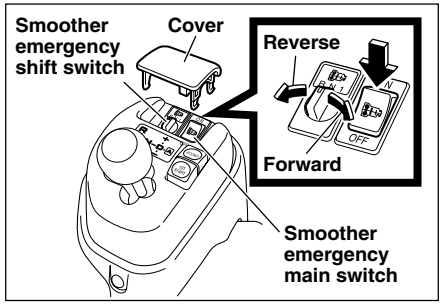


How to use the Smoother emergency switch

This switch is used to move the vehicle to a safe place when a trouble occurs in the electrical system of the Smoother system. Keep this switch "OFF" and the emergency shift switch in "N" normally, and do not operate this switch while the vehicle is running.

Follow the steps below to evacuate from the situation when a trouble occurs in the electrical system of the Smoother system.

1. Keep the brake pedal securely depressed with your right foot, and make sure the change lever is in "N" position.



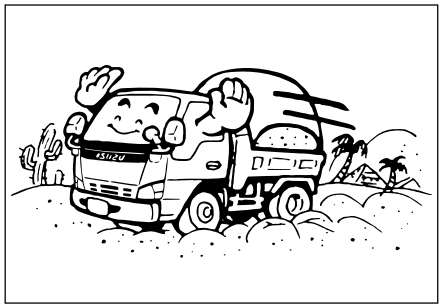
2. Uncover the Smoother emergency switch, and press the emergency main switch to "ON". Make sure that the Smoother warning light blinks. At this time, make sure that the emergency shift switch is in "N" position.
3. Securely apply the parking brake, holding the brake pedal securely with your right foot, and turn the starter switch to "START" position to start the engine.
4. With the brake pedal securely depressed, turn the emergency shift switch to "1" or "R". At this time, make sure that the shift indicator shows "1" or "R".
5. Release the parking brake, release the brake pedal, and slowly depress the accelerator pedal to start the vehicle.

CAUTION

After moving the vehicle to a safe place, immediately turn the emergency main switch to "OFF", turn the emergency shift switch back to "N", and cover the switch.

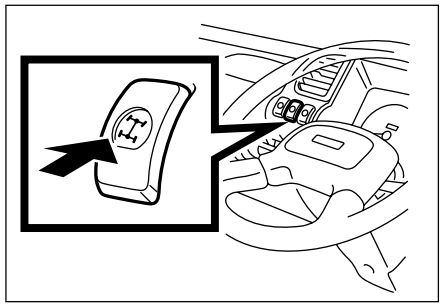
NOTE

You cannot make gearshifts to other than the selectable gear position (1st or reverse) of the shift switch.



PART TIME FOUR WHEEL DRIVE (4WD) SYSTEM OPERATION 4WD

You may switch between the 2WD (rear wheel drive) and 4WD (four wheel drive) depending on the road surface conditions. 4WD system operation is effective when you drive on sandy, muddy, or uphill roads requiring extra torque.
Driving in the 2WD mode is recommended when you drive on dry and normal roads. The 4WD type vehicle, which has excellent off-road running performance, is not a specific for off-road driving use after all. It should be used in the same way as other ordinary-purpose vehicles.



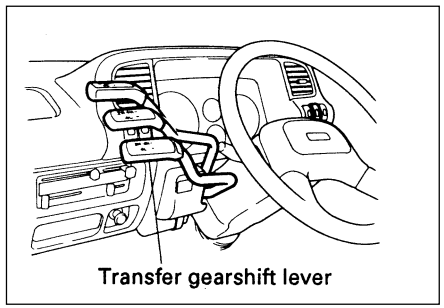
Four wheel drive (4WD) switch

Switching between 2WD and 4WD is done by pushing the 4WD switch on the instrument panel, be sure to bring the vehicle to a complete stop before operating the 4WD switch.

NOTE

When you drive in the 4WD mode, make sure that the free wheel hubs are in the "LOCK" position.

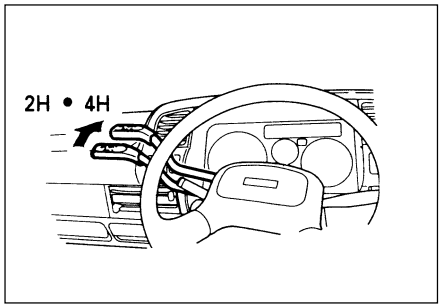
Drive System	4WD Light	Drive Conditions
2WD	OFF	Normal driving on ordinary roads and highway.
4WD	ON	Special driving in case that road surface conditions are beyond 2WD capacity, such as snow-covered, frozen or uphill roads.



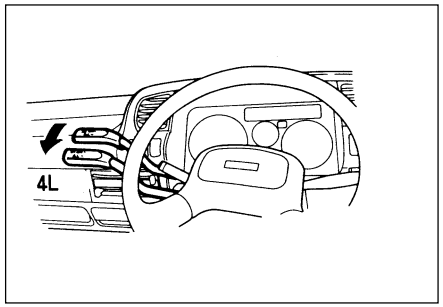
Transfer gearshift lever

When you drive in the 4WD mode, you can do switching between 4H and 4L depending on driving conditions.

- How to operate the shiftgear:
  Switching between 2H, 4H and 4L can be done by the 2H, 4H-4L transfer gearshift lever.
  Bring the vehicle to a complete stop and operate the lever while stepping on the clutch pedal.



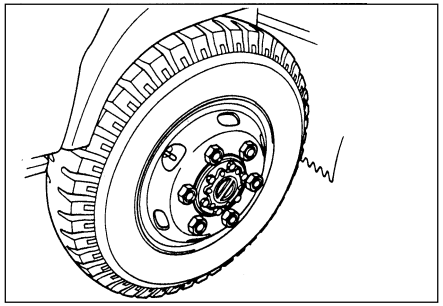
When you drive in the 2WD mode, this range should be used. If you find it no easy to drive in the 2WD on snow-covered, frozen, muddy, or sandy road surfaces, operate the 4WD switch to select the 4WD mode with the gearshift lever remaining in this range.



When you drive in the 4WD mode, set the lever to this position to get over steep uphill or muddy roads requiring extra torque.

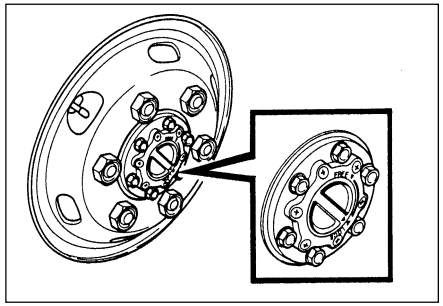
CAUTION

- ***Driving in the 4WD mode on dry paved roads will wear the front tires faster, cause noise, and consume more fuel. Select the 2WD mode for such normal driving.***
- ***The transfer gearshift lever cannot be switched from the 4H to the 4L position during driving in the 2WD mode. To do this changeover, be sure to operate the 4WD switch to select the 4WD mode beforehand.***
- ***Switching from the 4WD to the 2WD mode cannot be done by the 4WD switch without putting the 2H, 4H-4L lever in the high speed range. When switching to the 2WD mode, therefore, bring the vehicle to a complete stop and set the gearshift lever to the high speed range in advance.***



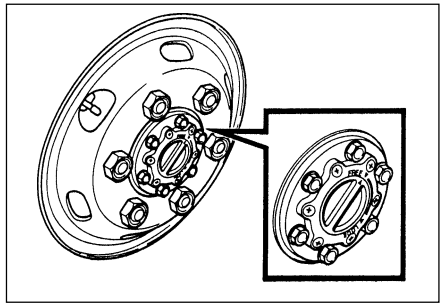
Free wheel hub

The free wheel hub is a device for freeing the front wheels from the front wheel drivetrain.
When driving in the 2WD mode, setting the free wheel hub in the "FREE" position will help reduce noise and friction and thus maintain good fuel efficiency.



To lock the free wheel hubs:

1. Stop the vehicle.
2. Set the 4WD switch to the "ON" position.
3. Set the free wheel hub to the "LOCK" position.



To free the free wheel hubs:

1. Stop the vehicle.
2. Shift the transfer gearshift lever to the "2H-4H" position.
3. Set the 4WD switch to the "OFF" position.
4. Set the free wheel hub to the "FREE" position.

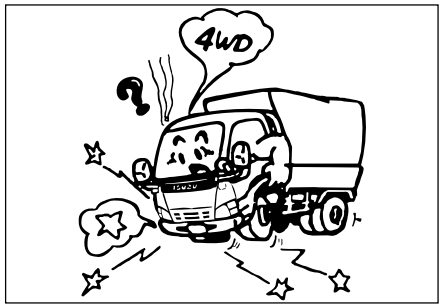
CAUTION

- ***Be sure that the free wheel hubs on the both wheels are set to the identical position.***
  Never drive with one in the "FREE" and the other in the "LOCK" position.

CAUTION (Continued)

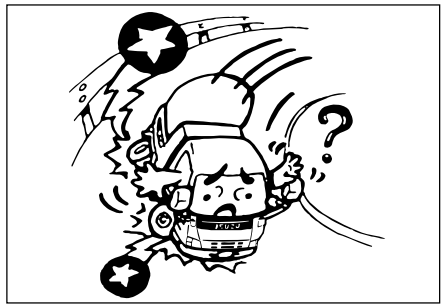
CAUTION (Continued)

- ***Set them in one of the two positions accurately. Never drive with the free wheel hubs between the "FREE" and "LOCK" positions.***
- ***Never drive in the 4WD mode when the free wheel hubs are in the "FREE" position.***
- ***Drive with the free wheel hubs in the "LOCK" position at least once a month in order to lubricate the front wheel drivetrain.***



Driving tips; Four wheel drive (4WD)

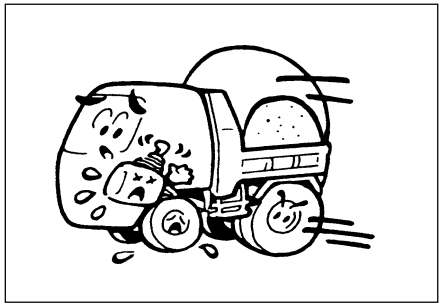
Driving in the 4WD mode on normal roads will wear the front tire faster, cause noise, and consume more fuel. Select the 2WD mode for normal driving.



When you turn the steering wheel all the way to either direction when driving in the 4WD mode on normal roads, you might feel as if the brakes are applied. This is a phenomenon, often associated with the 4WD type vehicles, caused by the speed difference between the front and rear wheels when turning a curve, etc.

NOTE

This phenomenon will disappear as soon as you turn the steering wheel to the other direction or select the 2WD mode.



Use tires of the same size on both the front and rear wheels. Using tires of different sizes will create a speed difference in the front and rear and apply undue force to the drivetrain. This may lead to a gear slip-out or cause other bad effects on the transmission.

Driving on snow-covered or frozen roads

When you drive on such slippery road surfaces as snow-covered and frozen roads, switch to the 4WD mode, slowly start the vehicle with the transfer gearshift and go on at a constant vehicle speed.

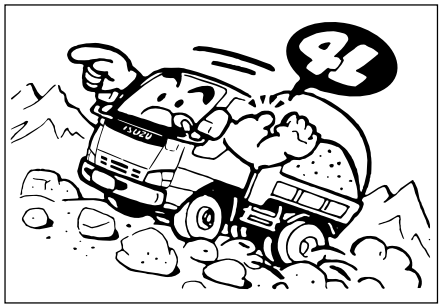
When you turn the vehicle or go downhill roads, drive steadily and carefully.

Use tire chains or snow tires depending on road surface conditions.

CAUTION

Be sure to lightly brake the vehicle little by little several times while driving on snow-covered or frozen roads. Full braking at one stroke may cause a vehicle slip and loss of vehicle control.

Never drive on dry roads at a high speed with snow tires installed.



Going up steep uphill roads

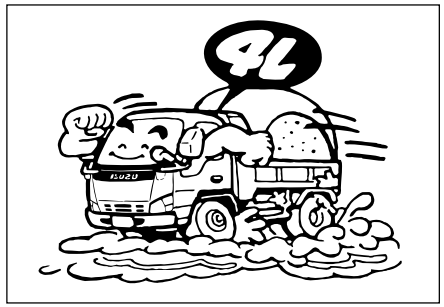
When you go up steep uphill roads, shift the transfer gearshift lever to the 4L range to make good use of engine torque.

Going down steep downhill roads

When you go down steep downhill roads, shift the transfer gearshift lever to the 4L range, drive at a low speed selecting the most suitable gear and using "engine brake" together with foot brake.

CAUTION

Use "engine brake" taking caution against engine overrunning.



Driving on sandy or muddy roads

Seeing the conditions of the sandy place or mire ahead, shift the transfer gearshift lever to the 4L range and start the vehicle slowly. Drive at a constant speed then.

NOTE

When you drive on muddy roads, the vehicle may sometimes get into the mire, since it is difficult to check and see the conditions of the road surfaces correctly. To avoid this, drive at the lowest possible speed and get off the vehicle, if required, for a study of the surface conditions.

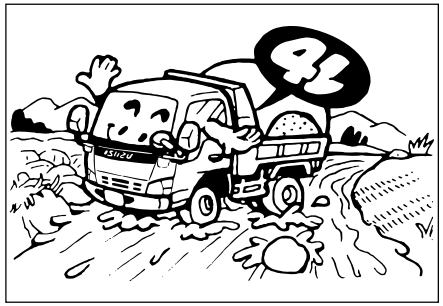
NOTE (Continued)

NOTE (Continued)

Sudden braking, sudden acceleration, or sudden steering may sometimes make the vehicle unable to get out of the mire or sandy place. Never try such operations.

When you must go through a terrible mire, it would be better to use tire chains.

If driving on sandy or muddy roads, the brake system or the ABS sensors may not function properly. After driving, be sure to wash the vehicle and flush the sand or mud away.



Driving through water

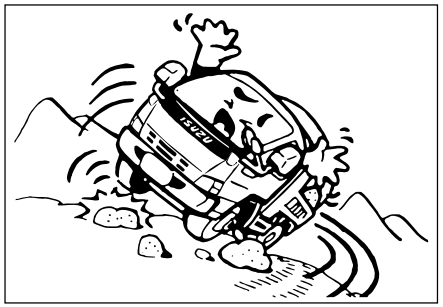
Even the 4WD type vehicle is not completely prepared for driving through water. Driving through water should be avoided. When you have to go through water, shift the transfer gearshift lever to the 4L range and drive at a low speed taking care not to make waves.

CAUTION

After driving through water, check the effectiveness of brakes.

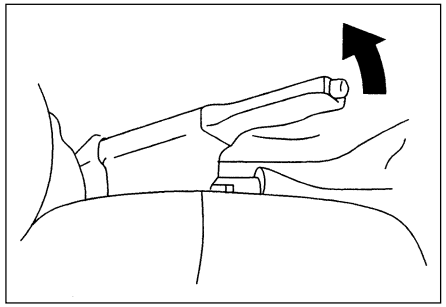
After driving through water, contact your Isuzu dealer for checks on the entry of water into the engine, transmission, differential, and transfer as well as for relubrication/regreasing where necessary.

After driving on the beach, etc., never fail to wash the vehicle.



U-turn on sharp slopes

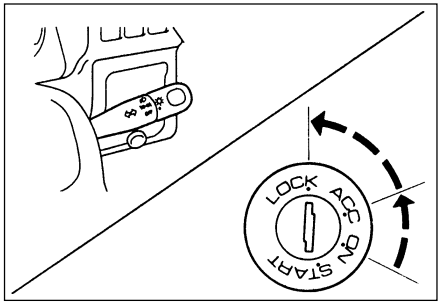
When making a U-turn on a sharp slope, the vehicle is in danger of turning over the moment it crosses the slope. Drive carefully selecting the road surfaces so that the tires on the higher side of the slope may not run on any convex part of the slope surface.



PARKING

When leaving your vehicle unattended:

1. Set the parking brake.
2. When parking a vehicle on an upward slope, place the shift lever in the "1st" position.
   When parking a vehicle on a downward slope, place the shift lever in the "Reverse" position.
3. Turn the key to the "LOCK" position.
4. Remove the key.
5. Close all windows and lock all doors.
6. Check to make certain the lights are turned off.
7. Use wheel stoppers when leaving the vehicle unattended on a gradient.



WARNING

- ***Never turn the steering wheel while the vehicle is stationary and never keep the steering wheel turned fully for a long period. The temperature of oil in the power steering oil pump will rise abnormally high and cause the insufficient lubrication, damage to the hose or deterioration of the seal. This may lead to the damage to the power steering oil pump and power steering unit etc. and as a result, the steering wheel operation may get heavy suddenly.***

WARNING (Continued)

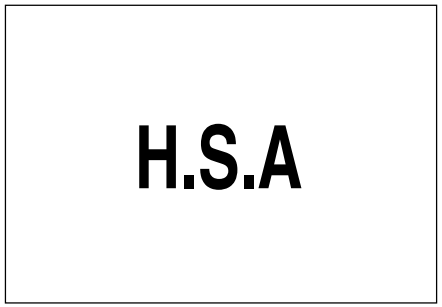
WARNING (Continued)

- ***Never leave a child alone and unattended inside the vehicle. The child could activate the vehicle controls, resulting in an accident.***
- ***Do not drive through, idle or park your vehicle over combustible materials, such as grass or leaves. They could touch the hot exhaust system and ignite.***
- ***Do not leave your vehicle unattended with the engine running. If the engine should overheat, you would not be there to react to the temperature warning light or gauge. This could result in costly damage to your vehicle and its contents.***

HSA (HILL-START-AID) V

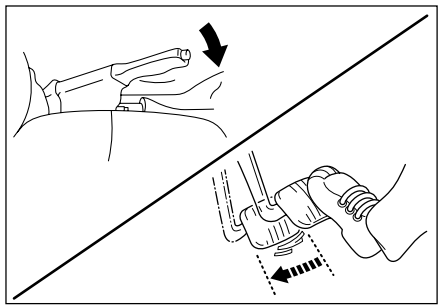
Under ordinary conditions, pressing the brake pedal applies braking force to the vehicle wheels. The HSA momentarily maintains the braking force during the brief interval when the driver's foot is moved from the brake pedal.

The HSA cannot be engaged when the engine is not running.



Before driving

1. Turn the ignition key switch to "ON" position. Make sure the HSA indicator light on the instrument panel comes on for approximately 3 seconds.



2. Start the engine. Release the parking brake and depress the brake pedal for more than 1 second. Make sure the HSA is engaged and the HSA indicator light on the instrument panel comes on. The HSA indicator light will not come on when the HSA OFF switch is ON.
3. Apply the parking brake. Make sure the HSA is canceled and the HSA indicator light on the instrument panel goes off.

CAUTION

A blinking or unlit HSA indicator light and/or warning buzzer indicate a problem with the HSA. Press the HSA OFF switch to cancel it and have the HSA system checked at your nearest Isuzu dealer immediately.

How to engage the HSA

1. Stop the vehicle.

NOTE

The HSA can be engaged wherever the gearshift lever is set.

2. Depress the brake pedal securely for more than 1 second. The HSA indicator light on the instrument panel comes on to indicate the HSA is engaged.

CAUTION

- ***The HSA is a device that momentarily maintains braking force. It should never be used as a substitute for the parking brake. Always apply the parking brake before leaving the seat. If the door is opened while the HSA is engaged, the warning buzzer sounds.***

CAUTION (Continued)

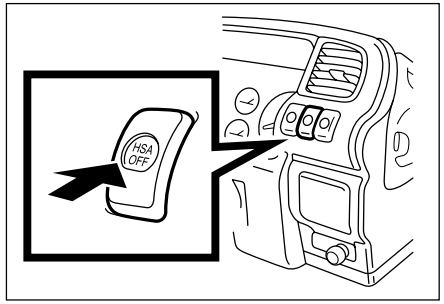
CAUTION (Continued)

- ***On a steep uphill road, the vehicle may be move backward if the depressing force of the brake pedal is weak. Depress the brake pedal more strongly.***
- ***The HSA begins to be engaged after approximately 1 second from the brake pedal is depressed. Until the HSA is engaged, keep the brake pedal depressed securely.***
- ***If there is a problem with the HSA, press the HSA OFF switch to cancel it and have the HSA system checked at your nearest Isuzu dealer immediately.***

How to cancel the HSA

The HSA is canceled and the braking force is released whenever the following conditions are present.

- Move the gearshift lever to any position except neutral and engage the clutch.
- Apply the parking brake.
- Press the HSA OFF switch to ON.
- Turn the ignition key switch to "ACC" or "LOCK" position.



HSA OFF switch

Press the switch to cancel the HSA. Press once more to activate the HSA again.

CAUTION

Do not use the HSA on snowy or icy road surface. On these road condition, if the tires are locked, the HSA would be engaged and the tires would be kept locking.

NOTE

When the HSA is canceled, the brake will return to the ordinary braking condition. The braking force will not be kept when the driver's foot is moved from the brake pedal.

HSA indicator light and warning buzzer pattern

The HSA indicator light comes on/blinks, and the warning buzzer beeps in the following conditions.

CAUTION

The failure alert indicates the problem with the HSA system. Have the HSA system checked at your Isuzu dealer immediately.

NOTE

If the door is opened while the HSA is engaged without applying the parking brake, a warning buzzer sounds.

Description	HSA indicator light	Warning buzzer	Remedy
While the HSA is engaged, the door is opened without applying the parking brake.	Blink	Beep, Beep	Apply the parking brake before opening the door.
Long Time Alert The HSA applies braking force for a long time.	Blink	Beep, Beep	Apply the parking brake to stop the vehicle or depress the brake pedal more strongly.
Moving Alert The vehicle begins to move while being stopped with the HSA engaged.	Blink	Beep, Beep or Beep	
Failure Alert The problem is indicated by the indicator light or buzzer.	Blink	Beep, Beep	Stop the vehicle in a safe place and press the HSA OFF switch to cancel the HSA.
	Blink	-	
	ON	Beep (Continuously)	
Ignition Key Switch "OFF" Alert The ignition key switch is turned to "OFF" without applying the parking brake.	OFF	Beep, Beep (Continuously for 30 seconds)	Apply the parking brake.

CAUTION

- ***Always apply the parking brake before leaving the driver's seat.***
- ***In the following conditions (while the HSA is engaged), the braking force will be released and the vehicle may be move backward on an uphill road.***

  -The ignition key switch is turned to "ACC" or "LOCK" position.

  -The HSA OFF switch is pressed.

  -The HSA fuse is removed.
- ***If the vehicle moves backward while the HSA is engaged, depress the brake pedal more strongly or apply the parking brake.***
- ***When stopped on the grade exceeds 10%, apply the parking brake to hold the vehicle in place.***
- ***If the vehicle is going to be stopped in place for an extended period of time, apply the parking brake.***

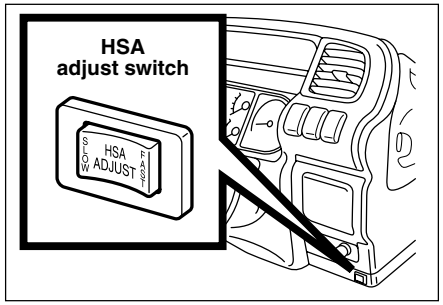
CAUTION (Continued)

CAUTION (Continued)

- ***If a trouble is indicated with the HSA, press the HSA OFF switch to cancel the HSA. The brake returns to the ordinary braking condition.***
- ***Applying the parking brake while the HSA is engaged will automatically cancel the HSA operation.***
- ***The stoplights do not come on while the HSA is engaged unless the brake pedal is depressed.***
- ***The HSA cannot be engaged when the engine is not running.***
- ***Sudden braking or stopping that locks the wheels may cancel the HSA operation. Apply the parking brake or depress the brake pedal to hold the vehicle stationary.***

NOTE

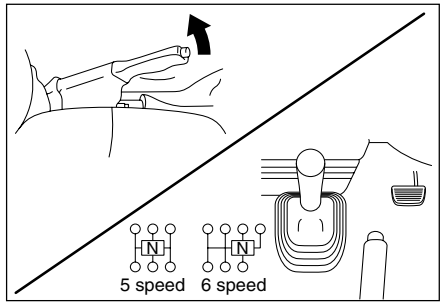
When the vehicle is parked with the gear engaged in a cold weather, the warning buzzer will sound for approximately 30 seconds if the door is opened without applying the parking brake. This does not show defects.



HSA precise adjustment

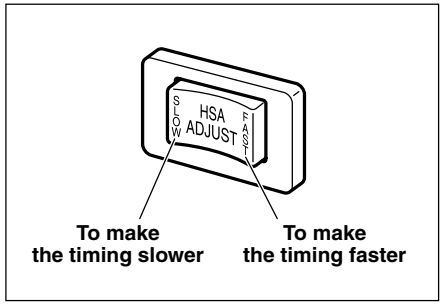
Precise adjustment is required whenever the following conditions are present.

- Brake drag when starting vehicle.
- Vehicle moves backward when starting on an uphill road.
- Brake release timing does not match with your preference.

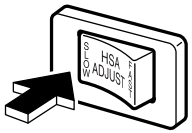
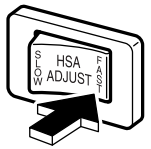


Adjustment procedure:

1. Apply the parking brake. Make sure that the gearshift lever is in the neutral position and start the engine. Also check that the HSA OFF switch is OFF.
2. Depress the brake pedal securely and release the parking brake. After checking that the HSA indicator light comes on, depress the clutch pedal and move the gearshift lever to any position except neutral.



3. If the brake release timing is slow (brake drag is felt), press the HSA adjust switch toward the "FAST" side. If the brake release timing is fast (vehicle moves backward when stopped on an uphill road), press the HSA adjust switch toward the "SLOW" side. The warning buzzer sounds each time the switch is pressed.
4. Depress the clutch pedal. Move the gearshift lever to any position except neutral and start the vehicle. Repeat step 3 until the brake release timing matches with your preference.

Condition	Switch operation location and number	
	SLOW side	FAST side
		
Precise adjustment is required.	1 - 2 times	1 - 2 times
Some brake drag is felt.	-	2 - 3 times
Vehicle moves backward slightly when stopped on an uphill road.	2 - 3 times	-
Significant brake drag is felt.	-	3 - 5 times
Vehicle moves backward significantly when stopped on an uphill road.	3 - 5 times	-

CAUTION

If the brake timing is not adjusted by the HSA adjust switch, have it adjusted at your nearest Isuzu dealer.

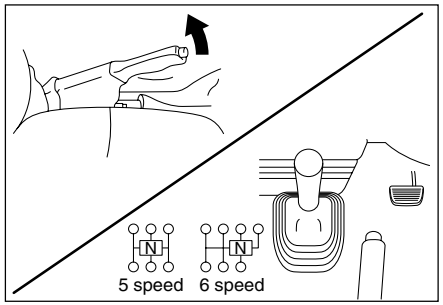
HSA initial adjustment

CAUTION

The failure alert indicates the problem with the HSA system. Have the HSA system checked at your nearest Isuzu dealer immediately.

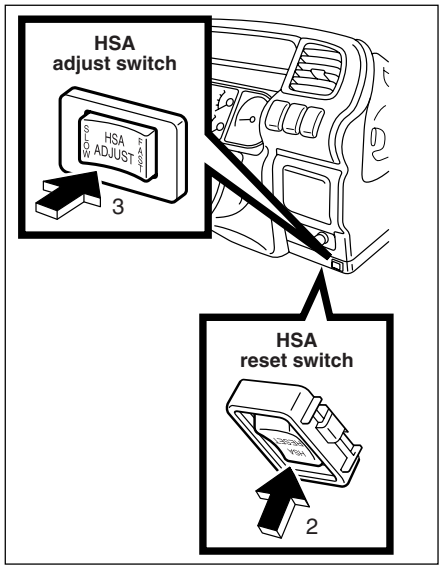
Initial adjustment is required whenever the following conditions are present.

- After the clutch replacement or clutch pedal play adjustment.
- Extremely poor brake release timing when starting vehicle.



Adjustment procedure:

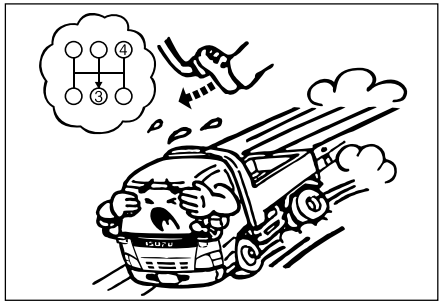
1. Apply the parking brake. Make sure that the gearshift lever is in the neutral position and start the engine.
2. Depress the clutch pedal. Move the gearshift lever to the "2" (Second) position and press the HSA reset switch. The buzzer sounds and the HSA indicator light blinks.



3. Slowly release the clutch pedal. When the engine speed falls approximately 30 to 50 rpm from idling speed, press the HSA adjust switch toward either "FAST" or "SLOW" side. Then, the buzzer stops.
4. Depress the clutch pedal. Move the gearshift lever to the neutral position and slowly release the clutch pedal.
5. Depress the clutch pedal. Move the gearshift lever to any position except neutral and start the vehicle. Repeat the precise adjustment by the HSA adjust switch until the timing matches with your preference.

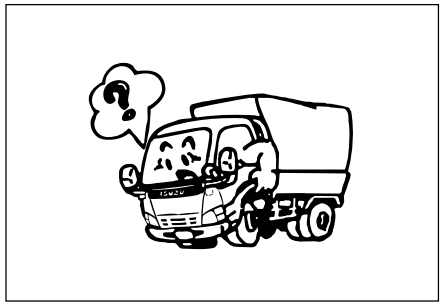
NOTE

- ***Apply the parking brake securely during the initial adjustment.***
- ***After moving the gearshift lever to the neutral position, be sure to release the clutch pedal slowly.***
- ***Be sure to perform the initial adjustment whenever the clutch pedal play is adjusted.***



DRIVING PRECAUTIONS

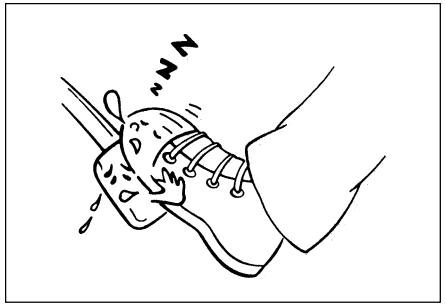
1. Avoid over-running the engine. When descending a slope pay close attention to prevent engine over-running. Particularly when downshifting as the engine may over-run. Over-running the engine is running it faster than its maximum allowed revolutions (rpm/s).



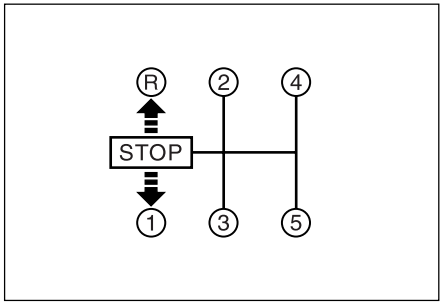
2. If an abnormal noise or smell becomes noticeable while driving, stop the engine and check to locate the cause of the trouble.

3. If the indicator lights or instruments give an indication of an abnormal condition while driving, stop the engine and check to locate the cause of the trouble.

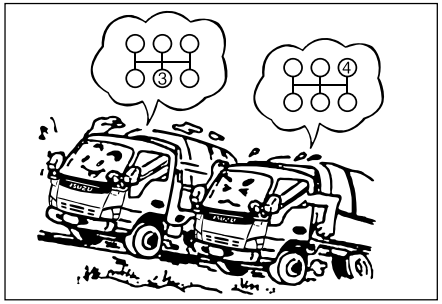
4. Avoid needless hard acceleration and hard stops.



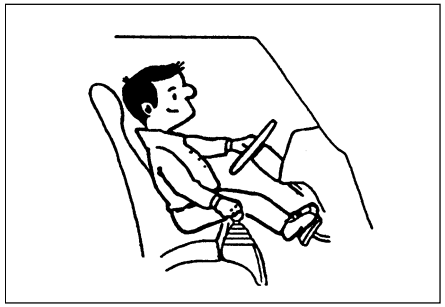
5. Do not drive with your foot resting on the clutch pedal as it produces a partly disengaged condition, causing premature wear of the clutch facing.



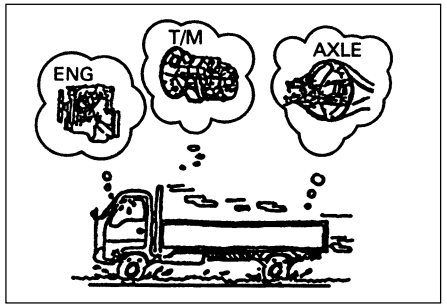
6. Allow vehicle to stop completely before shifting to reverse or any forwarding gear.



7. When climbing a slope, shift to a lower gear to relieve the engine of overload before the engine begins to lug.

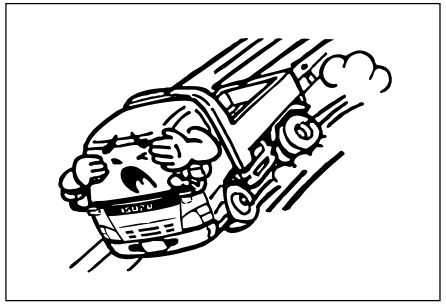


8. When descending a slope, shift into a lower gear to gain a retardation effect of the engine.
   Use the exhaust brake when descending a slope or when it is raining.

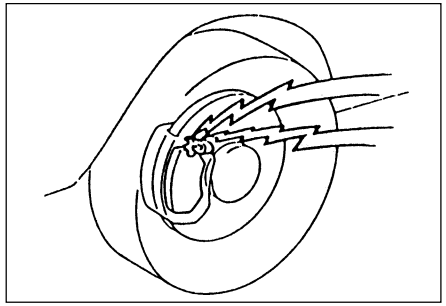


9. When driving across a shallow river or a deep puddle, extreme care must be exercised or water may be drawn into the air duct causing serious engine damage. After driving across water, check the gear oil in the rear axle and transmission case for the presence of water.
   If any water is present, drain and refill it with the specified gear oil.

10. Drive carefully after running in heavy rain or driving across a shallow river as wet brakes cause temporary reduction in brake force.



11. Never turn off the ignition key switch while driving the vehicle. The brake booster does not operate, and the brake efficiency is reduced. It is very dangerous to turn the switch to the "LOCK" position while driving because the steering will be locked.



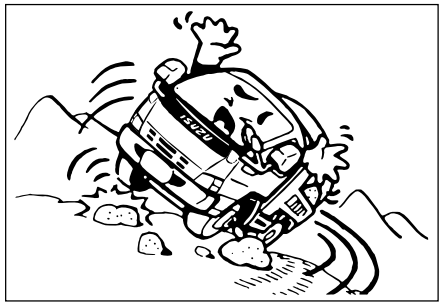
12. While driving or braking, if a metallic frictional sound (squeal) is produced from the disc brake, the following two reasons are considered.

    (1) Excessive wear of brake pads

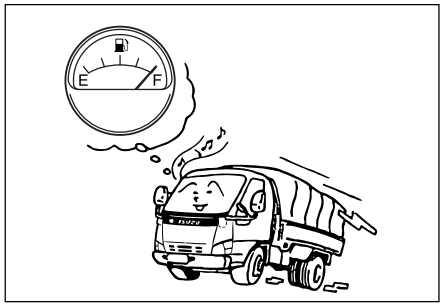
    The sound warns that the brake pads have worn down near to the serviceable limit. Have the brake pads inspected at your nearest Isuzu dealer.

    (2) Adhesion of sand, gravel or mud

    If sand, gravel or mud etc. adheres to the brake pads, it may be rubbed with rotating part and produce a squealing sound. Wash the vehicle and flush it away. If the sound does not stop, have the brake pads inspected at your nearest Isuzu dealer.

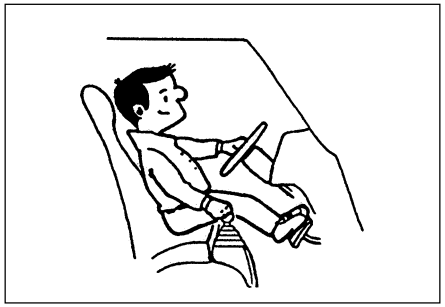


13. When making a U-turn on a sharp slope, the vehicle is in danger of turning over the moment it crosses the slope. Drive carefully selecting the road surfaces so that the tires on the higher side of the slope may not run on any convex part of the slope surface.

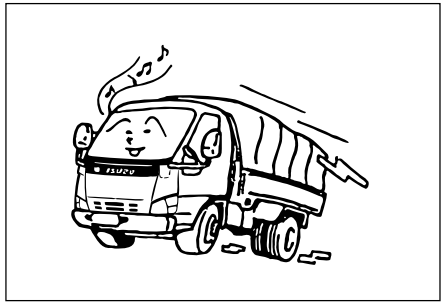


DRIVING FOR ECONOMY

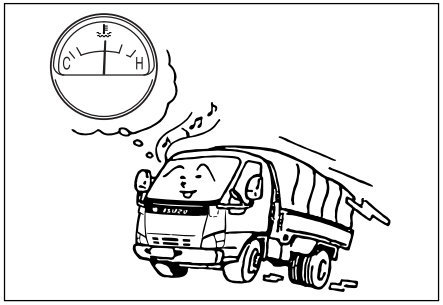
1. Needless high-speed driving and slow driving in a high gear will result in excessive fuel consumption.



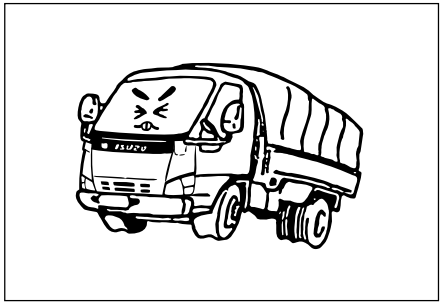
2. After acceleration, shift to a higher gear and engage the clutch smoothly.



3. It is strongly advisable to keep your speed as constant as possible after shifting into top gear.



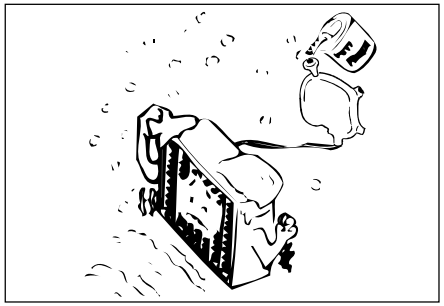
4. Always make sure the coolant temperature is kept within the normal range.



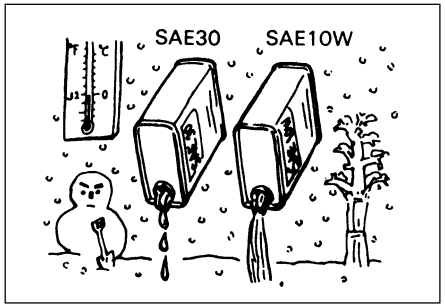
5. Under-inflated tires cause deterioration in fuel economy.

OPERATION AND CARE IN WINTER

Use of specified coolant

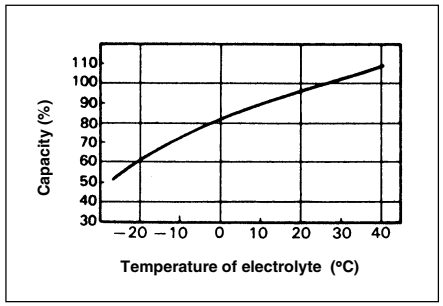


Be sure to use specified engine coolant (mixing ratio: 50%). Refer to "RECOMMENDED FLUIDS, LUBRICANTS AND DIESEL FUELS". Refer to "MAINTENANCE SCHEDULE" for service interval.



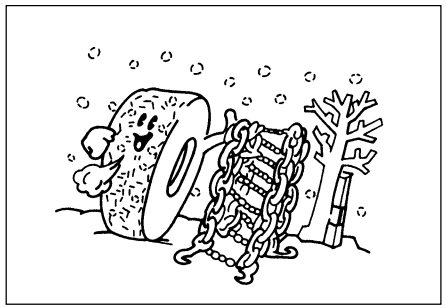
Engine oil

The engine oil tends to harden with lowering temperatures. Use engine oil with a viscosity suited to ambient temperature.



Batteries

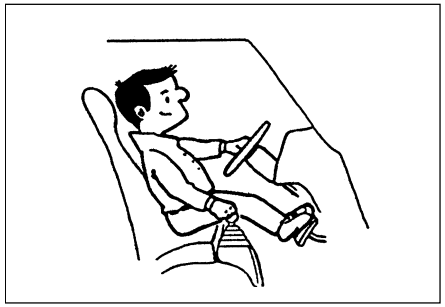
The capacity of the battery tends to decline with lowering temperatures and specific gravity of the electrolyte lowers with the rate of discharge. Therefore, batteries should be protected against freezing.



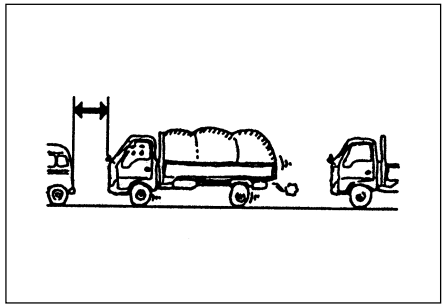
DRIVING ON ICE OR SNOW

1. Use of tire chains or snow tires is recommended.

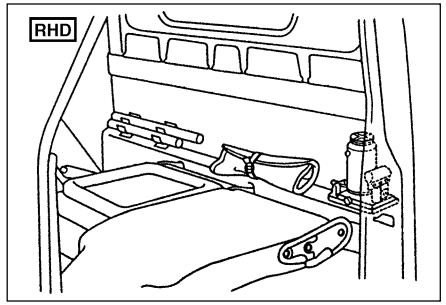
2. Avoid high speed, hard acceleration, hard stops and sharp steering.



3. Use lower gears to overcome the retardation effect of the engine. Apply the foot brakes lightly.



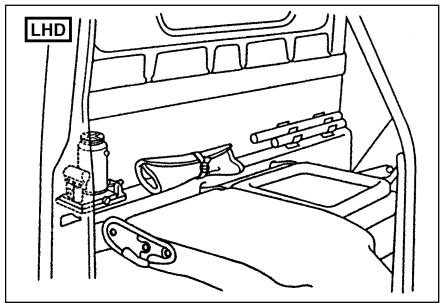
4. Drive with a sufficient distance between you and the vehicle ahead.

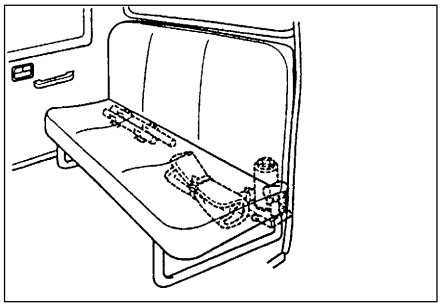


IN CASE OF EMERGENCY

Stowage of jack and tools

The tools and jack are stowed away behind the driver's seat. After use, be sure to put them back where they were so that they do not rattle during driving.





Crew cab model

The tools and jack are stowed away under the right side of the rear seat. To take them out, lift and remove the rear seat short cushion. After use, be sure to put them back where they were so that they do not rattle during driving.

Engine overheating

If the engine overheats...

- the engine coolant temperature gauge pointer will move up to the line of "H" or higher.
- engine "ping noise" will become excessive.
- loss of engine power will be noticed.
- either steam or boiling water will squirt out of the radiator.

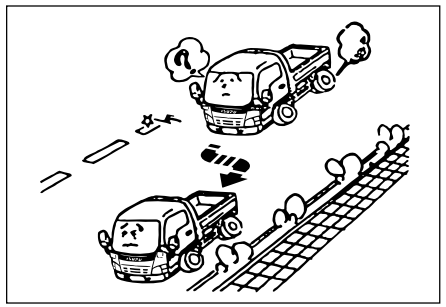
If you find that the engine is overheating…

- stop the vehicle, but do not open the engine inspection cover if you see or hear steam escaping from the engine compartment. Wait until no steam can be seen or heard before opening the engine inspection cover. Then open the engine inspection cover to provide good ventilation.
- run the engine at a speed slightly higher than idle speed (about 1,500 revolutions per minute) for 5-10 minutes. If engine coolant is leaking, stop the engine at once.
- stop the engine and allow the engine and radiator to cool down.
- (carefully) remove the radiator cap.

- check the engine coolant level in the radiator when the engine is cold. If needed, add water to the radiator to bring the level up to the filler neck, and the reservoir up to the level indicated on the reservoir tank.

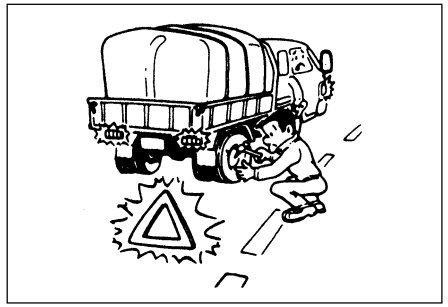
WARNING

- ***To avoid being burned, DO NOT remove the radiator cap while the engine and radiator are still hot. Scalding fluid and steam can be blown out under pressure if the cap is taken off too soon.***
- ***Under some conditions the ethylene glycol in the engine coolant is combustible. When adding engine coolant, do not spill it on the exhaust system or engine parts.***

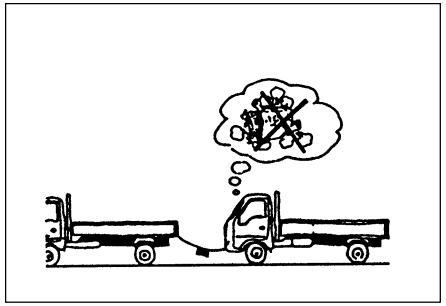


Emergency stop

1. If you must stop your vehicle on the road for some reason, pull your vehicle over to the left (right) side of the road as far as possible and try not to park on the driving lane.



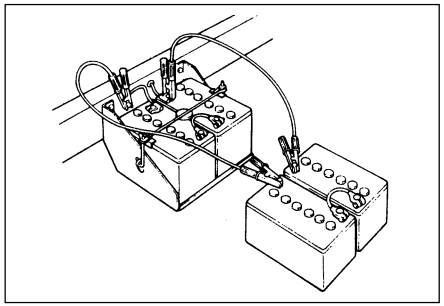
2. Make certain to apply the parking brake and turn on hazard warning lights, day or night.



Emergency starting

WARNING

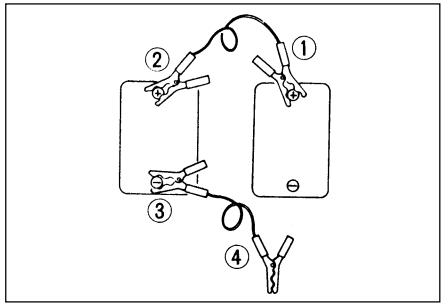
Never tow the vehicle to start it because the surge forward when the engine starts could cause a collision with the tow vehicle.



To start the vehicle when the battery is discharged, use an auxiliary battery of the same nominal voltage i.e. 24 volts (12 volts), as the discharged battery.

WARNING

Exercise extreme care when handling the battery to avoid serious personal injury and damage to your vehicle which might result from a battery explosion, acid burns, electrical burns, or damaged electric components.



Connecting procedures:

The engine can be started with another vehicle battery using jumper cables:

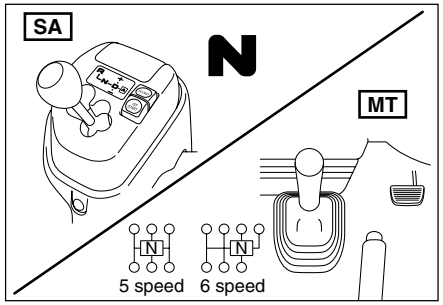
1. Use a vehicle which has a battery of the same voltage (12 V or 24 V).
2. Connect the jumper cables in the following sequence.
   1 Positive terminal of the dead battery
   2 Positive terminal of the booster battery
   3 Negative terminal of the booster battery
   4 Chassis ground of the dead battery's vehicle, which is as far as possible from the dead battery

3. After connecting the cables, start the engine of the booster battery's vehicle.
4. Raise the engine speed of the booster battery's vehicle slightly, then start the engine of the dead battery's vehicle.
5. After the engine is started, disconnect the cables in the reverse sequence of connection.

CAUTION

Never connect the cable between the positive and negative terminals.

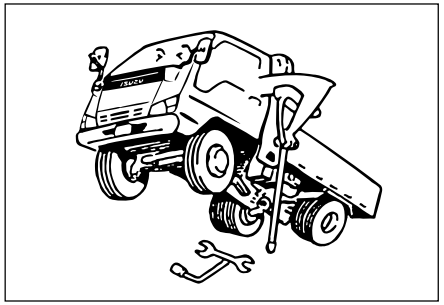
Do not remove the battery cables from the terminals while the engine is running. It may result in troubles in the electrical system.



Towing

The following points should be noted when towing a disabled vehicle.

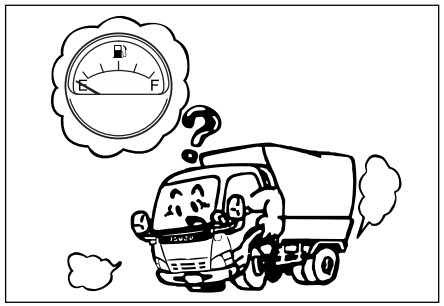
1. If the transmission is in normal working condition, shift into a neutral position.



2. If the transmission is found to be out of order, disconnect the propeller shaft at the rear axle flange and fasten the end to the chassis frame.

CAUTION

Then, fit the towing rope (safety chains or cables) between the hooks equipped on the tow truck and the disabled vehicle.
Drive at the speed of 40 km/h (25 mph) or less and up to a distance less than 80 km (50 miles).



Bleeding of the fuel system

If the fuel tank has gone empty, there is a chance that air has been allowed into the fuel system. With air in the fuel system, smooth flow of fuel into the engine is interrupted. To prevent this, bleeding of the fuel system should be performed.

CAUTION

BLEEDING OF FUEL SYSTEM

If the fuel tank has been emptied, the chance is that air might have been allowed into the fuel system.

With air in fuel system, smooth flow of fuel into the engine is interrupted and to prevent this bleeding of the fuel system should be performed.

(1) Operate hand pump until it becomes hard to push (about 15 pushes).

(2) Wait for 1 min.

(3) Operate hand pump until it becomes hard to push (about 10 pushes).

(4) Wait for 1 min.

(5) Operate hand pump until it becomes hard to push (about 5 pushes).

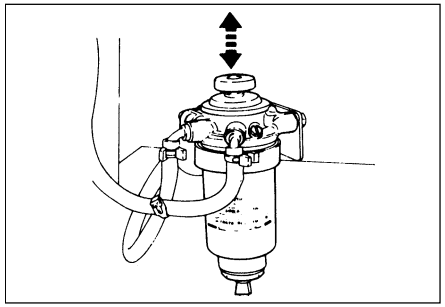
(6) When the key switch is turned to "ON" position, the glow plug indicator light comes on and goes off after approx. 4.0 to 7.0 seconds (with cold engine). Please notice the glow plug indicator light does not turn on when the engine already warm (coolant temperature above 25 °C).

(7) Depress the clutch pedal fully and turn the key switch to "START" position to start the engine at the same time the glow plug indicator light goes off.

If the engine does not start, repeat the steps (4), (5), (6) and (7).

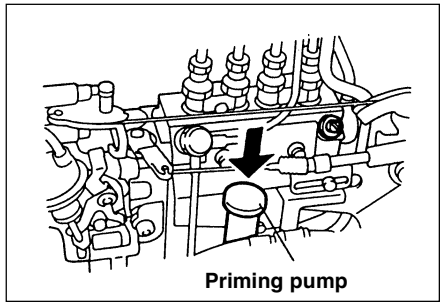
(8) Immediately after rev-up, put your hand off key and your foot off accelerator pedal.

(9) Allow the engine to idle for 5 min.



4J 4HF1-2 4HG1-T

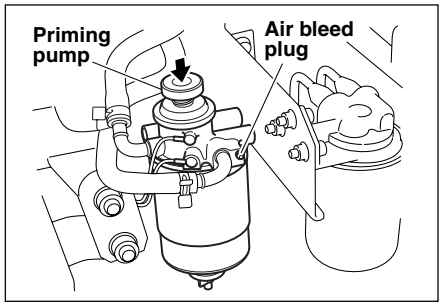
1. Operate the priming pump on the water separator to bleed the fuel system air into the injection pump.
2. When you have finished the bleeding, start the engine with the ignition key switch.
3. If the engine does not start within ten seconds, repeat the bleeding operation.



4H

(Except 4HF1-2 4HG1-T 4HK1-TC **)**

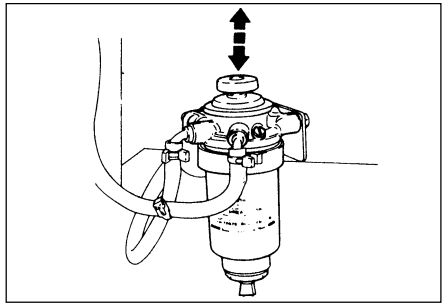
1. Loosen the priming pump cap and pump the fuel into the injection pump by manually operating the pump.
2. With a screwdriver or a wrench, loosen the bleeder screw on the injection pump and continue to pump the priming pump until air bubbles disappear from the fuel pumped out through the bleeder screw.
3. Securely tighten the bleeder screw when air bubbles disappear and the fuel comes out in a solid stream.



4HK1-TC

1. Loosen the plug and operate the priming pump more than 20 times until the fuel near the plug overflows.
2. Tighten the plug and operate the priming pump more than 10 times until it is filled with fuel. After waiting for a minute, loosen the plug and bleed out the air in the fuel filter. Repeat this operation at least 3 times until no more air comes out from the plug.
3. Tighten the plug firmly and wipe the fuel in the surrounding area. Operate the priming pump 10 to 15 times until it is filled with the fuel and then send fuel to the engine.

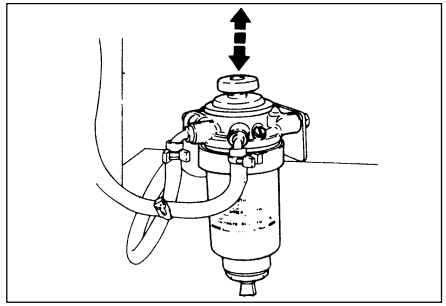
4. Start the engine without depressing the accelerator pedal. After starting, maintain the idling rotation for 5 seconds.
5. Slowly rotate the idling control knob fully clockwise and maintain it for 3 minutes.
6. Fully depress the accelerator pedal and increase the rotations to maximum. Repeat this operation several times.
7. Rotate the idling control knob counterclockwise and return to idling rotation.



Draining of the water separator 4J 4HF1-2 4HG1-T

When the water separator indicator light comes on, water should be drained immediately in the following manner:

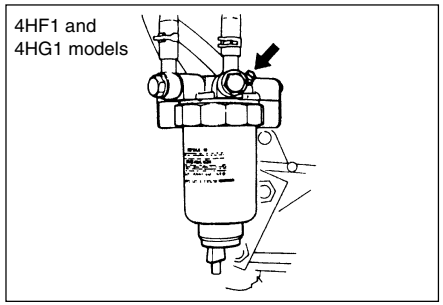
1. Find a safe place to park the vehicle.
2. Open the engine inspection cover and place a container (approximately 0.2 liters capacity) beneath the drain plug on the separator.
3. Loosen the drain plug by turning it counterclockwise and push the priming pump down about ten times until the water is drained.

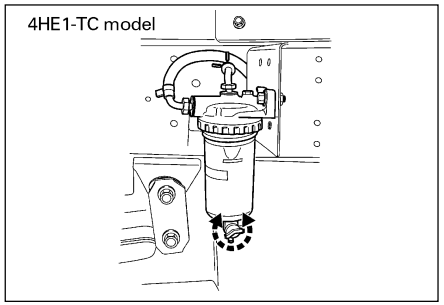


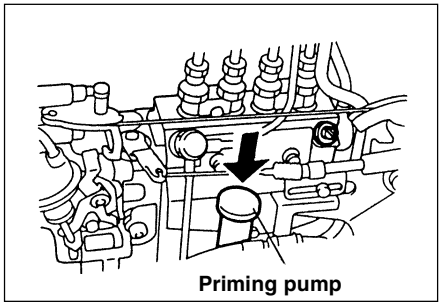
4. After draining, securely tighten the drain plug by turning it clockwise and push the priming pump up and down several times.
5. After starting the engine, check to see that there are no fuel leaks from the drain plug. Also check that the water separator indicator has turned off.

CAUTION

If the water separator requires frequent draining, have the fuel tank drained at your nearest Isuzu dealer.






Priming pump

Draining of the water separator

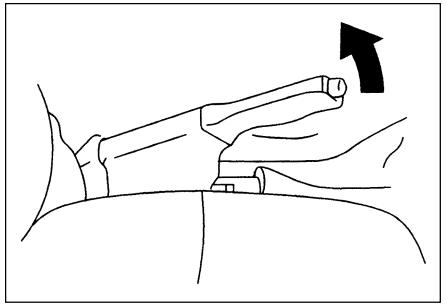
4HF1 and 4HG1 models:
When the water separator indicator light comes on water should be drained immediately.

4HE1-TC model:
When the condensed water in the pre-fuel filter (water separator) comes to the warning level indicated on its plastic body, drain the fluid immediately.

1. Find a safe place to park the vehicle.
2. Place a container (Approximately 0.2 liters capacity) beneath the drain plug on the separator.
3. Loosen the air bleeding plug and drain plug by turning it counterclockwise, then drain water.
4. After draining, securely tighten the drain plug and air bleeding plug by turning it clockwise.
5. Operate the priming pump on the injection pump to bleed the fuel system.
6. 4HF1 and 4HG1 models:
   After starting the engine, check to see that no fuel leaks from the drain plug. Also check that the water separator indicator has turned off.
   4HE1-TC model:
   After starting the engine, check to see that no fuel leaks from the drain plug.

CAUTION

If the water separator requires frequent draining, have the fuel tank drained at your nearest Isuzu dealer. It would be better not to use the water separator, since it may possibly exert a bad effect on the fuel system.



Jacking instruction and changing a flat tire

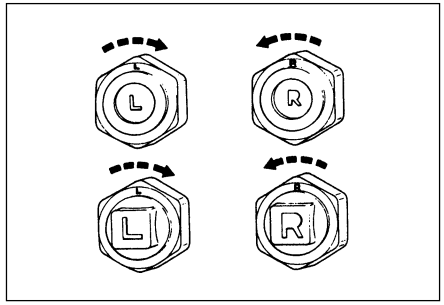
WARNING

To help avoid personal injury:

- ***Follow all lifting and stowage instructions.***
- ***Use the jack only for lifting this vehicle during a wheel change.***
- ***Never get beneath the vehicle when using the jack.***
- ***Always securely stow again the spare tire (or a flat tire), and all jacking equipment.***
- ***Do not start or run the engine while the vehicle is on the jack.***
- ***Make sure the jack is positioned on a level and soiled surface.***

Preparations:

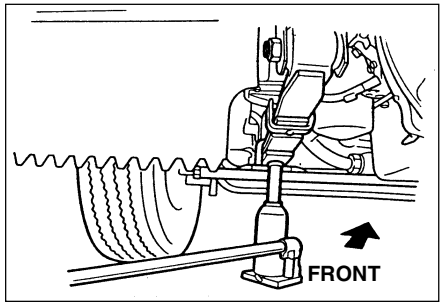
1. Park on a level surface and set the parking brake firmly.
2. Set the transmission in "REVERSE".
3. Activate the hazard warning.
4. Block the wheel diagonally opposite the jacking position.

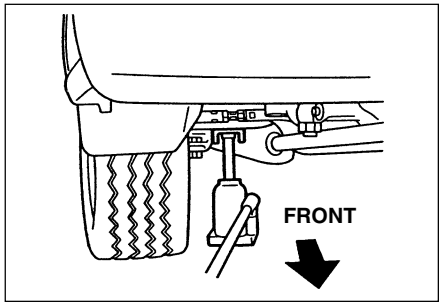


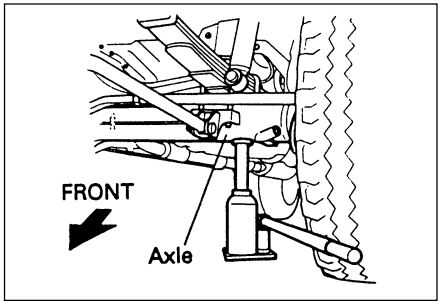
5. Slightly loosen but do not remove the wheel nuts.

NOTE

The wheel nuts on the right side wheels have right-hand threads and the wheel nuts on the left side wheels have left-hand threads.







6. Place the jack at the recommended jacking point.

Independent suspension model

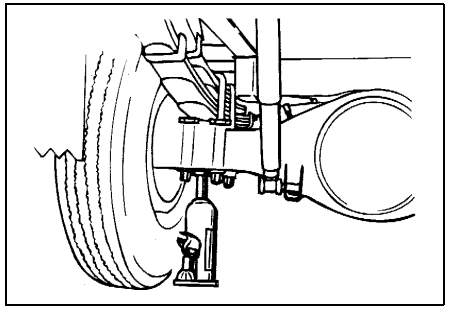
Four wheel drive model only

CAUTION

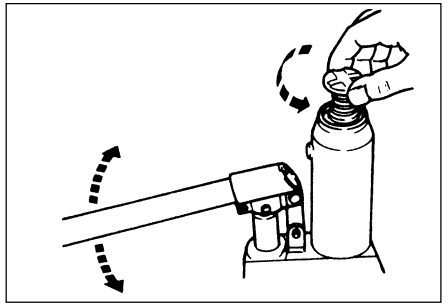
- ***Never position the jack at points other than those specified.***

Front wheel:
Leaf spring suspension models

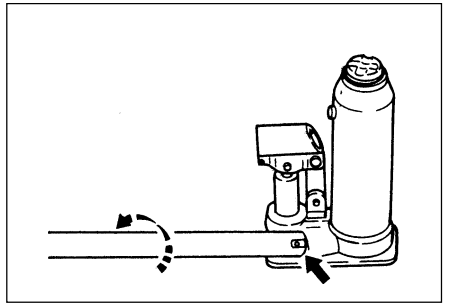
Place the jack under the leaf spring.



Rear wheel:

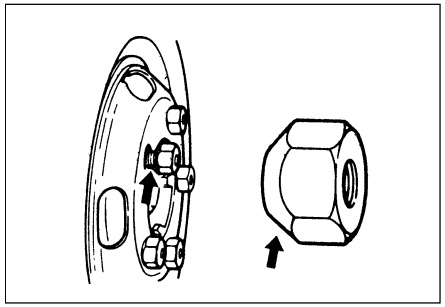


Usage of the jack
To jack up:
If the jack up point is high, extend the jack head by turning it counterclockwise.
Insert the jack bar as shown in the figure and move it up and down.



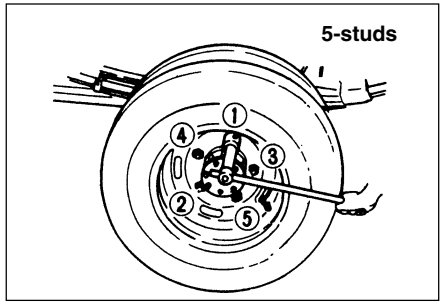
To lower:

Slowly turn the bleeder screw counterclockwise with the jack bar as shown in the figure.

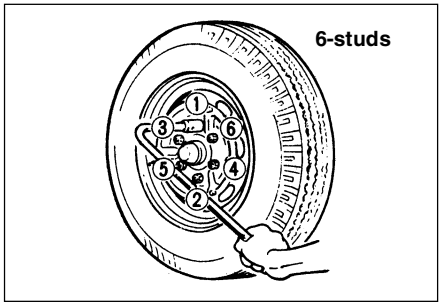


Wheel replacement

1. Jack up the vehicle so the tire just clears the surface, remove the wheel nuts and wheel, then install the spare wheel.
2. Install the wheel nuts with the cone shaped end toward the wheel, then semi-tighten each nut with the wheel wrench.
   The wheel nut must be seated on the hub.
   Lower the vehicle by turning the bleeder screw counterclockwise to the ground.



3. With the wheel wrench, tighten the wheel nuts in sequence as shown in the figure. The wheel nuts can be securely tightened at the specified torque as listed on the chart.

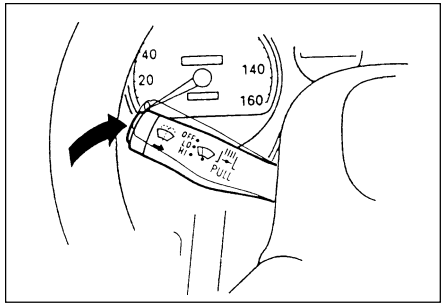


Front Wheel Nut Torque	N•m (kg•m/lb•ft)
NHR, NKR Single Tire, NKR Flat Low	167 (17/123)
except above models	490 (50/362)

Rear Wheel Nut Torque	N•m (kg•m/lb•ft)
NHR, NKR Single Tire	167 (17/123)
NHR Dual Tire, NKR Flat Low	343 (35/253)
except above models	490 (50/362)

- NOTE -

SAFETY ASSIST DEVICES



EXHAUST BRAKE SWITCH

Pull the exhaust brake switch upward to engage the exhaust brake and the indicator light on the instrument panel will light up.
The exhaust brake will disengage when the acceleration or clutch pedal is depressed or the transmission is shifted into neutral, but the indicator light will remain on until it is switched off on the column.

NOTE

- ***It is advisable to operate the exhaust brake when descending a slope or when stop-and-go driving is involved.***
- ***During ABS operation, the exhaust brake may be inactive even if the exhaust brake switch is in the "ON" position and the indicator light is lit. When traveling over an uneven road surface, the exhaust brake may be disengaged for short intervals even if the brake pedal is not depressed.***
- ***When the warm-up system is "ON", the exhaust brake will not be released until the engine is thoroughly warmed up, even if the transmission lever is in the neutral position.***
- ***If a buzzer is actuated while the exhaust brake is engaged, immediately stop the vehicle in a safe place and call for inspection.***

ABS (ANTI-LOCK BRAKE SYSTEM) [V]

The ABS is designed to prevent lock-up of the wheels during braking by automatically changing the brake pressure. This occurs only during braking which would have caused one or more wheels to lock.

WARNING

- ***Do not pump the brake pedal repeatedly. This will result in reduced braking performances.***
- ***Whether or not your vehicle has the ABS, be careful not to get too close to vehicles in front of you. Keep a safe following distances.***
- ***The anti-lock feature is designed to help you maintain the steering control during braking, but there could still be some loss of steering control under certain conditions.***
- ***Driving too fast around curves or turns (especially on slippery pavement) might result in loss of control and cause an accident. Drive only as fast as conditions permit.***
- ***Even with the ABS, driving, steering and braking traction are reduced on slippery surfaces. The operation of the ABS on gravel, deep snow or bumpy roads, or the use of tire chains may result in a longer stopping distance than for vehicles without ABS. Slow down and adjust your driving to such conditions.***
- ***Be sure to use the specified tires. Never mix tires or wheels of different sizes. The proper use of tires and wheels only allows you to operate the ABS at full effectiveness.***

NOTE

These symptoms are not abnormalities.

- ***When vehicle speed has reached 5 km/h since engine startup, motor sound may be heard from the vehicle rear. It is a sound checking the operation of ABS. If you happen to step on the pedal on this occasion, you may sometimes feel vibration as well.***
- ***When ABS is at work, you may possibly feel vibrations of the brake pedal and steering wheel and/or hear working of ABS.***
- ***If the ABS is actuated while the exhaust brake is engaged, the exhaust brake may be released.***
- ***If braked during turning or when hit a bump, ABS is apt to be actuated. The reason is that the inside wheels or the wheels hit a bump is easy to be locked.***
- ***ABS is not actuated until vehicle speed increases to 10 km/h, and it stops when vehicle speed has dropped to 5 km/h.***

If driving on sandy or muddy roads, the brake system or the ABS sensors may not function properly. After driving, be sure to wash the vehicle and flush the sand or mud away.

ASR (ANTI-SLIP REGULATOR)

V

This equipment is used to prevent the drive wheels from spinning to secure vehicle stability, when running on a slippery surface such snowy road. The ASR equipment is automatically in active condition once the engine starts. You can also turn the ASR equipment off using ASR OFF switch.

CAUTION

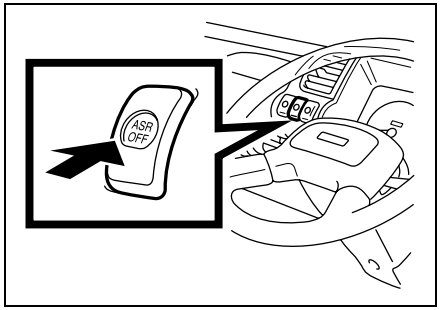
- ***The ASR indicator blinks while the ASR operates. At this time, the road is very slippery. Avoid abrupt vehicle operation and drive the vehicle with extreme caution by slow down before entering such as the curve.***
- ***Even on an ASR-equipped vehicle, wear tire chains and winter tires and carefully drive on the snowy and icy roads.***
- ***The ASR is not designed to improve start performance significantly. When you make a hill-start on an icy road etc., operate the accelerator pedal carefully.***
- ***If the vehicle wears tire chains, it may be easier to start the vehicle with the ASR inactive condition such as on an icy graded road. Note that the vehicle stability deteriorates with the ASR off.***

NOTE

The following conditions may develop but these are not defects.

- ***You may notice minimal vibrations or operating sound when starting and accelerating the vehicle on a slippery road. This sound is generated when ASR operation is being checked.***
- ***Engine speed may be lowered in sudden, but it is because the ASR equipment is operating.***

During the car inspection using speed tester and brake tester, the ASR may operate and disrupt the inspection. Press the ASR OFF switch to deactivate the ASR equipment.



ASR OFF switch

This switch is used when you wish to deactivate the ASR equipment. After engine starts when the ASR equipment is in active condition, press the switch. This will deactivate the ASR equipment and the indicator light on the instrument panel comes on. Press once more to activate the ASR again.

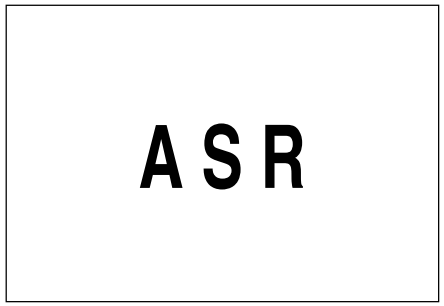
NOTE

- ***Note that the ASR equipment will not work once you deactivate the ASR equipment. Be careful when driving on a slippery road.***

NOTE (Continued)

NOTE (Continued)

- ***After stopping the engine with the ASR inactive condition, the ASR equipment will automatically be active when you start the engine again.***



ASR indicator light

The indicator light functions normal if it comes on with the starter switch "ON", and goes off in about 2 seconds.
It blinks while the ASR operates. It comes on when the ASR equipment is faulty, or when the ASR equipment is deactivated with the ASR OFF switch operated.

NOTE

When the indicator light comes on while the vehicle is running (ASR OFF switch not pressed), immediately stop the vehicle in a place which does not obstruct the traffic, and do the followings:

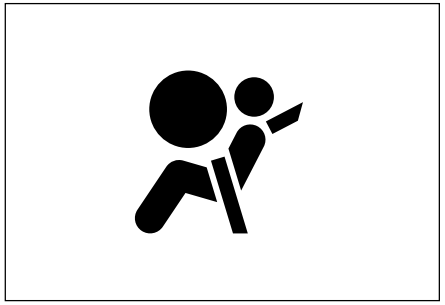
(1) Stop the engine.

(2) Turn the starter switch to "ON" position. At this time, the ASR equipment functions normal if the indicator light comes on once and then goes off in 2 seconds. The system is in good condition.

When the indicator light does not go off, or when it comes on intermittently, immediately contact your Isuzu dealer for an inspection and repair.

SRS AIRBAG (SUPPLEMENTAL RESTRAINT SYSTEM) V

If the seatbelt is worn correctly in an appropriate posture and an impact above certain level is received in a front side collision, the seatbelt and SRS airbag will be activated to hold the driver's body firmly onto the seat while easing the shock to his/her head.



Checking for proper function

Turn the key to the "ON" position. The SRS airbag warning light flashes 7 times while checking the SRS airbag and goes out when no errors are found. Drive after the light is turned off.

WARNING

- ***The SRS airbag may not function properly if an inappropriate modification or attachment has been made.***

- ***Make sure that you contact an Isuzu dealer before you carry out the following works, as a special arrangement may be needed. You may injure yourself as the SRS airbag may be unintentionally inflates. The system may also be affected and cause functional failure or damage.***

WARNING (Continued)

WARNING (Continued)

- When having the steering wheel, instrument panel, center console or around the clutch pedal and brake pedal repaired or replaced.

- When having the SRS airbag repaired, changed or disposed or when having a vehicle equipped with a SRS airbag disposed.

- When installing an audio device or other attachments or modifying with accessories.

- When painting the metal plates of the front part of the vehicle or caps.

CAUTION

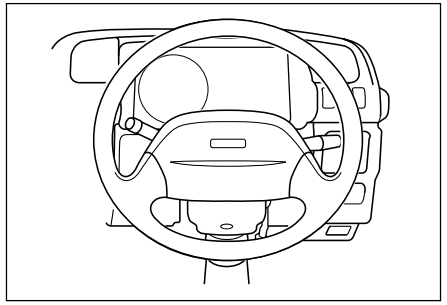
- ***Have an inspection at an Isuzu dealer immediately in any of the cases described below.***

  - When the SRS airbag warning light shows an error.

  - When the SRS airbag is activated. (the SRS airbag warning light would light up.)

  - When a certain level of impact has been received to the front part of the vehicle even if it has not activated the SRS airbag.

  - When the surface of the steering pad has a cut or crack or the pad has received a significant level of impact.



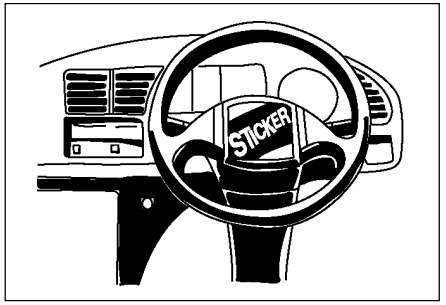
SRS airbag

When there is a front side collision onto the vehicle, even if the driver takes a correct driving posture with the seatbelt properly buckled up, the driver's body may still be bumped onto the steering wheel.
SRS airbag is a supplemental device to the seatbelt, which is activated with an impact above a certain level. Then the airbag is inflated and together with the seatbelt, disperses and eases the shock to the driver's body.

WARNING

- ***The SRS airbag is a supplemental device activated together with the seatbelt that is designed to reduce a serious danger to the driver in an event that an impact above a certain level hits from the front side. It can be most effective when the correct driving posture is taken and the seatbelt is worn in a proper manner.***
- ***The SRS airbag is not a substitute for a seatbelt. Always buckle up your seatbelt.***
- ***The SRS airbag inflates instantly to reduce serious danger. It may, however, cause a scrape, minor burn or bruise if the bag is rubbed against your body.***
- ***SRS stands for Supplemental Restraint System.***
- ***Immediately after the SRS airbag inflates, do not touch the metal part that makes the inflation, as it would be very hot.***

- ***Do not detach or disassemble the SRS airbag. Some parts may scatter around with faulty activation and cause injury or functional failure.***
- ***Drive with an appropriate posture and wear the seatbelt in a proper manner. Staying too close to the steering wheel is dangerous as you may injure yourself when the SRS airbag is activated.***



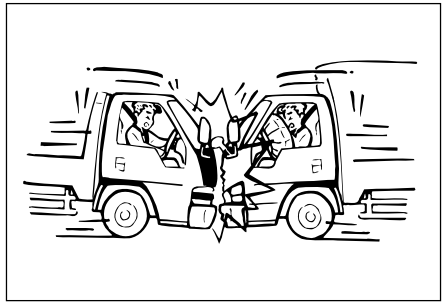
- ***If the steering wheel is replaced with an unofficial one or a cover or sticker is placed on the pad, the airbag will be dysfunctional.***
- ***Do not place an object near the SRS airbag. The object may be thrown out with the airbag inflation, which may cause injury.***
- ***Do not rest your head, hands or feet on the steering wheel. If the key is "ON" and an impact above a certain level hits the front part of the vehicle can activate the SRS airbag. The impact may be strong enough to cause injury.***

NOTE

- ***SRS airbag deflates immediately after the inflation, so it would not block your view.***
- ***The SRS airbag warning light blinks when the SRS airbag is activated.***
- ***Although the SRS airbag makes a sound and releases some white smoke when it inflates, it is not a fire. This white smoke will not harm human body.***
- ***Once the SRS airbag has inflated, it cannot be reused. Please have it replaced by Isuzu dealer immediately.***

Activation of SRS airbag

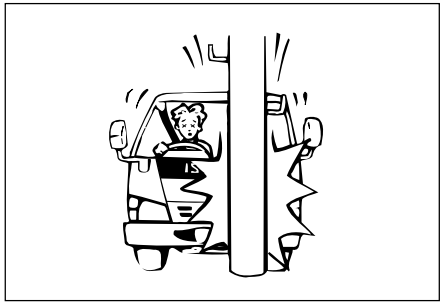
The SRS airbag is activated when an impact above certain level is received in a front side collision. It may not, however, be activated if the vehicle is equipped with a shock absorbing function to ease the impact or with a certain level or direction of the impact.



Cases in which the SRS airbag will be activated:

- When the front part of the vehicle collides with another vehicle, which is stopped, parked or running, with an impact above a certain level.

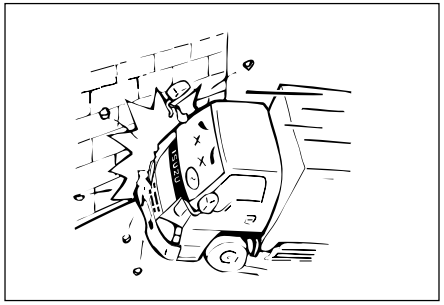
- When the front part of the vehicle has collided into a hard wall with an impact above a certain level.



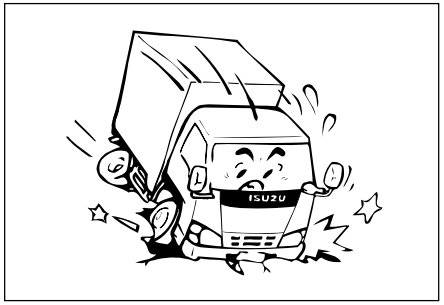
Cases in which the SRS airbag may not be activated:

Even if the SRS airbag is under normal conditions, it may be difficult to be activated in cases such as below.

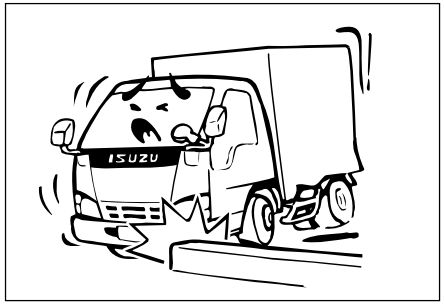
- When the vehicle has collided into an electric pole or tree.



- When the vehicle has collided from the side front.



- When the vehicle has fallen into a hole on the road.

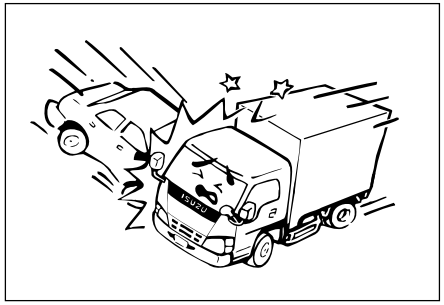


- When the vehicle has hit something below the bumper height or an obstacle such as a bump on the road.

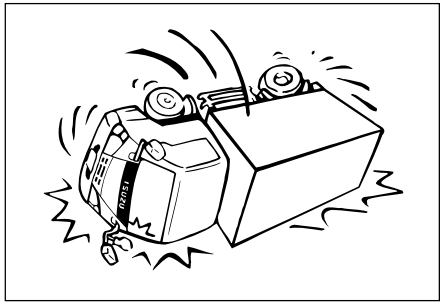
Cases in which the SRS airbag will not be activated:

Even if the SRS airbag is under normal conditions, it will not be activated in cases such as below.

- When the vehicle has been collided with something from behind.



- When the vehicle has been collided with something from the side.



- When the vehicle has fallen on its side or overturned.

- NOTE -

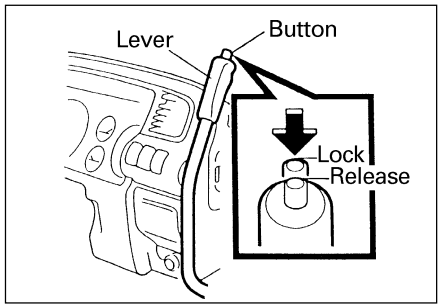
HANDLING OF SPECIAL EQUIPMENT

DUMP CONTROL LEVER

The dump control lever is used to raise (UP) and lower (DOWN) the bed. This section explains the method of operating the dump control lever of a dump truck. For details on dumping device operation and handling, read the instruction manual provided by its maker.

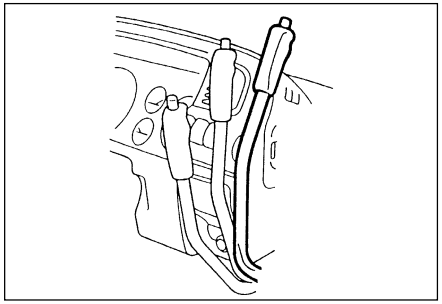
WARNING

- ***Before driving or servicing the vehicle, ensure that the dump control lever is set to the DOWN position and locked by a lock button to prevent unintended lever operation.***
- ***Never grab the dump control lever when entering or leaving the driver's seat. It can trigger the dump control lever and lead to a serious accident.***



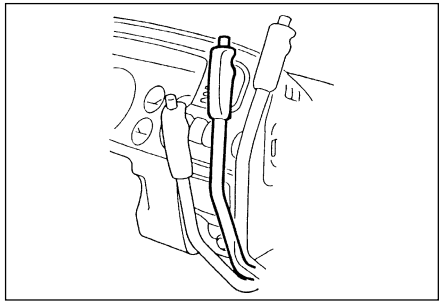
Lock button

The dump control lever can be locked in the UP or DOWN position using the lock button. Always push the lock button before operating the dump control lever.

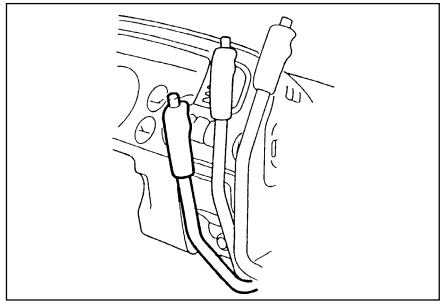


Lever lock positions

DOWN position:
Select the DOWN position to lower the bed. Lock the dump control lever in this position when the bed operation is not needed or while driving the vehicle.



NEUTRAL position:
Select the NEUTRAL position to instantly stop the bed during UP or DOWN movement. (The lock button is not available in this position.)



UP position:
Select the UP position to raise the bed. To keep the bed in the raised position, lock the dump control lever in the UP position and set a safety bar under the bed.

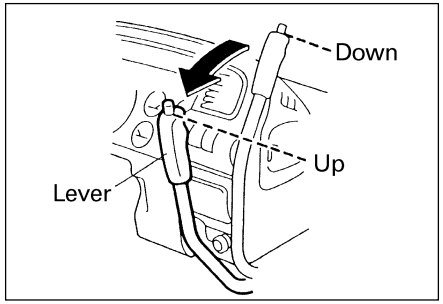
WARNING

Never leave the dump control lever in the NEUTRAL position. A raised bed might accidentally come down and cause a serious accident.
Never stop the bed in midair. When it must be kept in a raised position, raise it, stop the engine, and lock the dump control lever in the UP position. Then, set a safety bar for added safety.

OPERATION OF THE CARGO BED

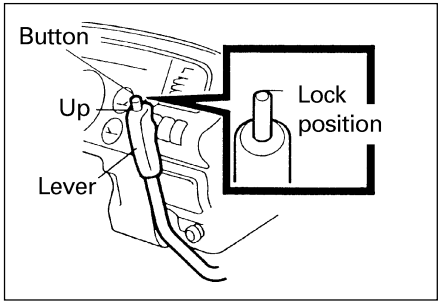
WARNING

- ***When raising or lowering the bed, ensure that the area is clear of people or obstacles around or above the vehicle before operating the dump control lever.***
- ***Always park the vehicle on a flat ground to raise or lower the bed. Never operate the bed while parked on a slope as it may cause the vehicle to roll.***
- ***Before operating the dump control lever, bring the vehicle to a complete stop, apply the parking brake fully and keep the brake pedal depressed to the floor with the right foot.***
- ***Never operate the dump control lever while the vehicle is in motion.***



Raising the bed

1. Fully apply the parking brake, put the transmission shift lever in the neutral position, and start the engine.



2. Depress the clutch pedal, and put the dump control lever in the UP position.
3. Slowly release the clutch pedal. This causes the bed to go up. Pulling the dump control lever towards the UP position increases the rising speed. The bed stops automatically when it reaches the uppermost position.

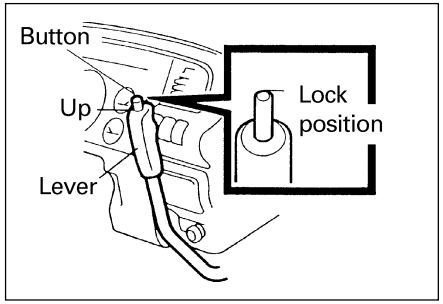
WARNING

Before operating the dump control lever, bring the vehicle to a complete stop, apply the parking brake fully and keep the brake pedal depressed to the floor with the right foot.

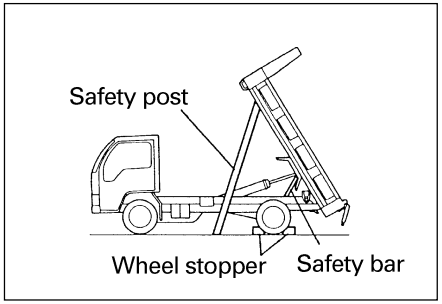
Keeping the bed in a raised position

WARNING

When the vehicle must be kept in a raised position for washing, inspection or servicing, always park the vehicle on a flat ground, apply the parking brake fully, apply a wheel stopper, empty the bed, and set a safety bar or a safety post to prevent the bed from coming down.



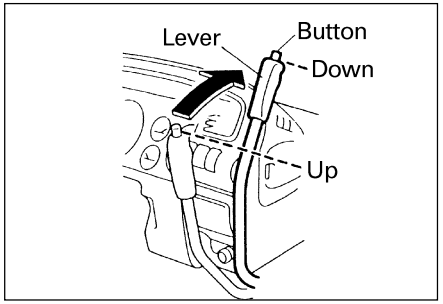
1. Lock the dump control lever in the UP position.
2. Allow the bed to rise to the uppermost position, and stop the engine.



3. Set a safety bar to lock the bed. When working under the bed, always set a safety post and a wheel stopper to lock the bed and the vehicle.

WARNING

- ***Always use both a safety post and a wheel stopper before starting inspection or servicing.***
- ***Never allow other persons to come under the bed.***



Lowering the bed

Push the dump control lever lock button, and move the dump control lever from the UP position to the DOWN position. This causes the bed to come down automatically.

WARNING

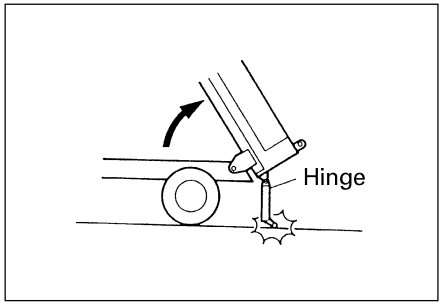
Check the following before starting the vehicle:

1. ***The bed has reached the lowered position.***
2. ***The dump control lever is locked in the DOWN position and prevented from operating.***
3. ***All gates are securely locked.***

WARNING

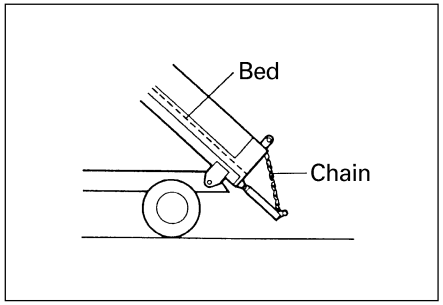
When lowering the bed, operate the dump control lever slowly to protect the dumping mechanism from a large force.
Obey the following instructions when the vehicle has a bottom-hinged (top-opening type) rear gate:

1. ***Never release the rear gate while the bed is in a raised position. It might fall and cause a serious accident. Allow the bed to reach the lowered position and then open the gate.***



2. ***Never dump the bed while the gate is open. It might hit the ground, damage the hinge or release the bottom hinge, and cause the gate to fall down.***

WARNING (Continued)



WARNING (Continued)

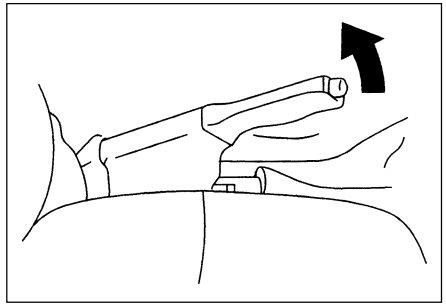
3. The bed may be dumped with the gate opened if the gate is kept level with the bed using a restriction chain, etc. Ensure, however, that sufficient space is left between the rear gate and the ground when the bed is raised for dumping.

OPERATION OF THE P.T.O. OPT

This section explains the method of operating the P.T.O. lever and the P.T.O. switch.
For details about the operation of controls other than the lever and switch, refer to the separate instruction manual provided by its maker.

WARNING

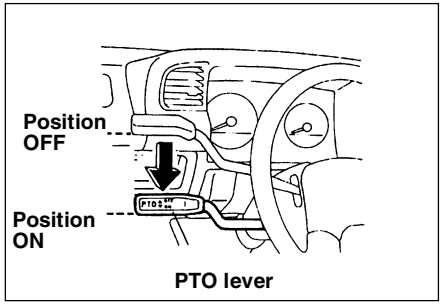
- ***When operating the P.T.O. lever or switch, ensure that the area is clear of people or obstacles around or above the vehicle before operating the lever or switch.***
- ***Always park the vehicle on flat ground for P.T.O. operation.***
- ***Before operating the P.T.O. lever or switch, bring the vehicle to a complete stop, apply the parking brake fully and keep the brake pedal depressed to the floor with the right foot.***
- ***Never operate the P.T.O. lever or switch while the vehicle is in motion.***



CABLE CONTROL TYPE (EXCEPT Smoother VEHICLE)

Connecting the P.T.O.

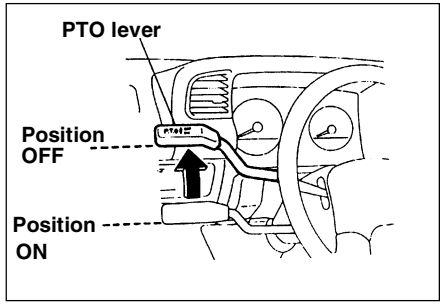
1. Fully apply the parking brake, put the transmission shift lever in the neutral position, and start the engine.



2. While depressing the clutch pedal, put the P.T.O. lever in the ON position.
3. Slowly release the clutch pedal.
4. Operate the control switches of the special equipment as necessary.

WARNING

Before operating the P.T.O. lever and special equipment, put the shift lever in the neutral position and apply the parking brake fully and keep the vehicle from moving.

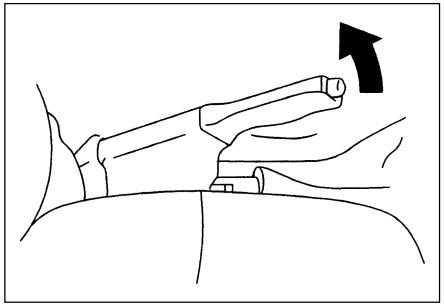


Releasing the P.T.O.

1. While depressing the clutch pedal, put the P.T.O. lever in the OFF position.
2. Slowly release the clutch pedal.

WARNING

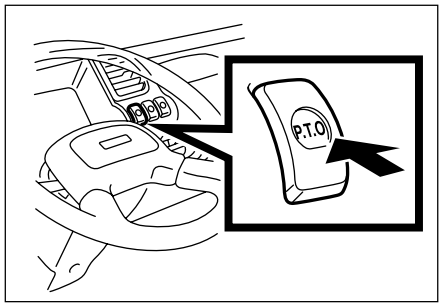
Before operating the P.T.O. lever and special equipment, put the shift lever in the neutral position and apply the parking brake fully to keep the vehicle from moving. Before starting the vehicle, ensure that the P.T.O. lever is in the OFF position.



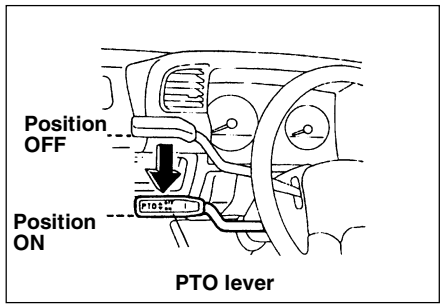
CABLE CONTROL TYPE (Smoother VEHICLE)

Connecting the P.T.O.

1. Fully apply the parking brake, put the transmission shift lever in the neutral position, and start the engine.

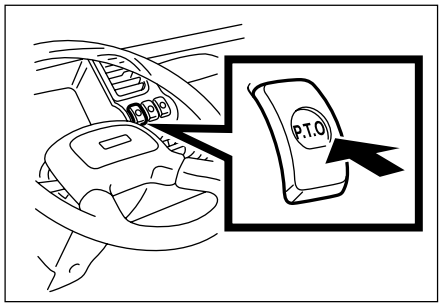


2. Push the P.T.O. switch. While the buzzer is sounding long beeps, put the P.T.O. lever to ON position. At this time, the P.T.O. indicator light on the instrument panel will turn on.



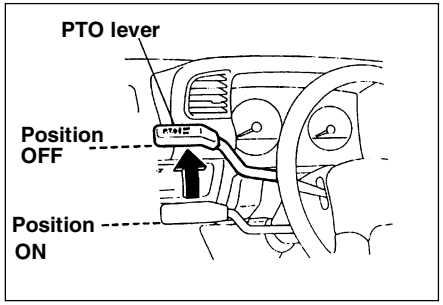
PTO lever

3. The buzzer changes its sound to short beeps and the clutch is automatically engaged.
4. Operate the control switches of the special equipment as necessary.



Releasing the P.T.O.

1. Push the P.T.O. switch. While the buzzer is sounding long beeps, put the P.T.O. lever to OFF position. At this time, the P.T.O. indicator light on the instrument panel will turn off.



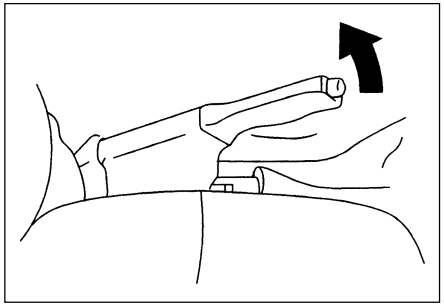
WARNING

Check the following before starting the vehicle:

1. ***The cargo bed has completely reached the lowered position and the rear gate is closed. (Except dump truck)***
2. ***The P.T.O. lever or switch is in the OFF position.***

NOTE

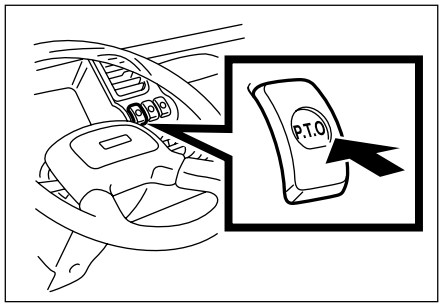
- ***Operate the P.T.O. lever in approximately 10 seconds after the P.T.O. switch is pushed. If the lever is not operated in 10 seconds, push the P.T.O. switch again to cancel it. And then, push the P.T.O. switch again and operate the lever.***
- ***The P.T.O. indicator light on the instrument panel lights up with the operation of the P.T.O. lever. It is not related with the P.T.O. switch or buzzer.***



ELECTRICAL CONTROL TYPE

Connecting the P.T.O.

1. Fully apply the parking brake, put the transmission shift lever in the neutral position, and start the engine.



2. Fully depress the clutch pedal, pause for a moment, and push the P.T.O. switch. At this time, the P.T.O. indicator light on the instrument panel will turn on.

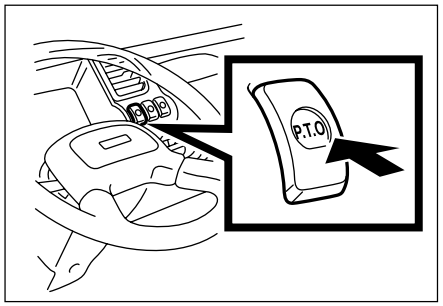
WARNING

Never turn on the P.T.O. switch soon after the clutch pedal is depressed or before bringing the vehicle to a complete stop. It may cause the gear squeaking or P.T.O. inoperative.

3. Slowly release the clutch pedal.
4. Operate the control switches of the special equipment as necessary.

WARNING

Before operating the P.T.O. switch and special equipment, put the shift lever in the neutral position and apply the parking brake fully and keep the vehicle from moving.



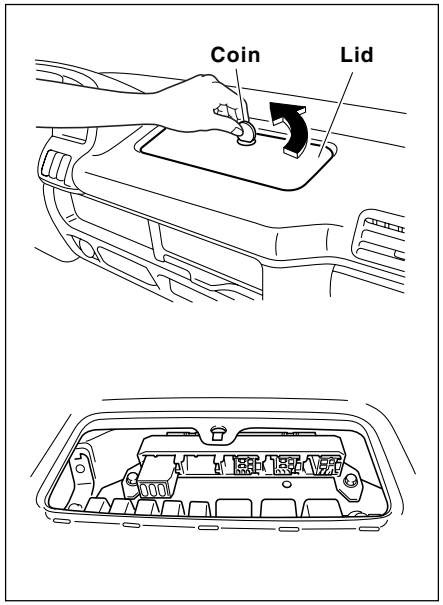
Releasing the P.T.O.

1. While depressing the clutch pedal, push the P.T.O. switch. At this time, the P.T.O. indicator light on the instrument panel will turn off.
2. Slowly release the clutch pedal.

WARNING

Check the following before starting the vehicle:

1. ***The cargo bed has completely reached the lowered position and the rear gate is closed. (Except dump truck)***
2. ***The P.T.O. lever or switch is in the OFF position.***



NOTE

The fuses for control circuit of P.T.O. (electrical control type) are located in the fuse box in the dashboard.

- NOTE -

SERVICE AND MAINTENANCE

In order to maintain safety and operating economy, it is suggested that periodic inspection and maintenance should be performed regularly according to the recommendations outlined in this section.

MAINTENANCE SCHEDULE

To ensure driving safety and maximum operating economy, periodic inspection and maintenance should be performed at your Isuzu dealer according to the maintenance schedule.
For service operations which call for disassembly or specialized instruments, contact your Isuzu dealer.

Maintenance operations

I : Inspect, clean and correct or replace as necessary
A: Adjust
R: Replace or change
T: Tighten to specified torque
L: Lubricate

When performing checks on the following items, regular inspection items should also be checked.

*Marks: Under severe driving conditions, more frequent maintenance is required. Refer to "Maintenance schedule under severe driving conditions".

	Interval (Kilometers) x1000 Interval (Miles) x100	1 6	5 30	10 60	15 90	20 120	25 150	30 180	35 210	40 240	45 270	50 300	55 330	60 360	65 390	70 420	75 450	80 480	85 510	90 540	95 570	100 600	Service Intervals Months or Miles (Kilometers) whichever comes first
No.	Item																						
	4J ENGINE																						
1	*Engine oil	-	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	or every 3 months
2	4JH *Engine oil	-	-	-	R	-	-	R	-	-	R	-	-	R	-	-	R	-	-	R	-	-	or every 9 months
3	*Oil filter	-	-	R	-	R	-	R	-	R	-	R	-	R	-	R	-	R	-	R	-	R	or every 6 months
4	4JH *Engine oil filter	-	-	-	R	-	-	R	-	-	R	-	-	R	-	-	R	-	-	R	-	-	or every 9 months
5	Fuel filter	-	-	-	-	R	-	-	-	R	-	-	-	R	-	-	-	R	-	-	-	R	or every 12 months
6	4JH Fuel filter	-	-	-	-	-	-	-	-	R	-	-	-	-	-	-	-	R	-	-	-	-	or every 24 months
7	*Air cleaner element	-	-	I	-	I	-	I	-	R	-	I	-	I	-	I	-	R	-	I	-	I	or every 24 months
8	4JH *Air cleaner element	-	-	-	-	-	-	-	-	R	-	-	-	-	-	-	-	R	-	-	-	-	or every 24 months
9	Idling speed and acceleration	-	-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I	or every 12 months
10	Valve clearances	I	-	-	-	-	-	-	-	A	-	-	-	-	-	-	-	A	-	-	-	-	or every 24 months
11	Fuel tank cap & fuel pipes for loose connections or damage	-	-	-	-	-	-	-	-	I	-	-	-	-	-	-	-	I	-	-	-	I	or every 24 months
12	V 4JG Timing belt	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	R	or every 60 months
13	Drive belt tension and damage	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	or every 6 months
14	4JH Drive belt tension and damage	Every 7,500 km (4,500 miles) Inspect																					or every 4.5 months
15	Radiator coolant	-	-	-	-	-	-	-	-	R	-	-	-	-	-	-	-	R	-	-	-	-	or every 24 months

(I) Inspect, clean and correct or replace as necessary (A): Adjust (R): Replace or change (T): Tighten to specified torque (L): Lubricate

	Interval (Kilometers) x1000 Interval (Miles) x100	1 6	5 30	10 60	15 90	20 120	25 150	30 180	35 210	40 240	45 270	50 300	55 330	60 360	65 390	70 420	75 450	80 480	85 510	90 540	95 570	100 600	Service Intervals Months or Miles (Kilometers) whichever comes first
No.	Item																						
16	*Exhaust pipes and mounting damage or looseness	-	-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I	or every 12 months
17	Cooling system	-	-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I	or every 12 months
18	Engine operation condition	-	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	or every 6 months
	4H ENGINE																						
1	*Engine oil	-	-	R	-	R	-	R	-	R	-	R	-	R	-	R	-	R	-	R	-	R	or every 6 months
2	4HK1-TC * Engine oil	-	-	-	-	R	-	-	-	R	-	-	-	R	-	-	-	R	-	-	-	R	or every 12 months
3	*Oil filter	-	-	R	-	R	-	R	-	R	-	R	-	R	-	R	-	R	-	R	-	R	or every 6 months
4	4HK1-TC * Oil filter	-	-	-	-	R	-	-	-	R	-	-	-	R	-	-	-	R	-	-	-	R	or every 12 months
5	Fuel filter: Main fuel filter	-	-	-	-	R	-	-	-	R	-	-	-	R	-	-	-	R	-	-	-	R	or every 12 months
6	OPT Main fuel filter and Sub fuel filter: With sub fuel filter	-	-	-	-	-	-	-	-	R	-	-	-	-	-	-	-	R	-	-	-	-	or every 24 months
7	*Air cleaner element	-	-	I	-	I	-	I	-	R	-	I	-	I	-	I	-	R	-	I	-	I	or every 24 months
8	Idling speed and acceleration	-	-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I	or every 12 months
9	Valve clearances	I	-	-	-	-	-	-	-	A	-	-	-	-	-	-	-	A	-	-	-	-	or every 24 months
10	Feed pump strainer (except 4HF1-2)	-	-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I	or every 12 months
11	Fuel tank cap & fuel pipes for loose connections or damage	-	-	-	-	-	-	-	-	I	-	-	-	-	-	-	-	I	-	-	-	-	or every 24 months

(I) Inspect, clean and correct or replace as necessary (A): Adjust (R): Replace or change (T): Tighten to specified torque (L): Lubricate

	Interval (Kilometers) x1000 Interval (Miles) x100	1 6	5 30	10 60	15 90	20 120	25 150	30 180	35 210	40 240	45 270	50 300	55 330	60 360	65 390	70 420	75 450	80 480	85 510	90 540	95 570	100 600	Service Intervals Months or Miles (Kilometers) whichever comes first
No.	Item																						
12	Drive belt tension and damage	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	or every 6 months
13	Radiator coolant	-	-	-	-	-	-	-	-	R	-	-	-	-	-	-	-	R	-	-	-	-	or every 24 months
14	*Exhaust pipes and mounting damage or looseness	-	-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I	or every 12 months
15	Cooling system	-	-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I	or every 12 months
16	Engine operation condition	-	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	or every 6 months
	MT CLUTCH																						
1	Clutch fluid	-	-	I	-	I	-	I	-	R	-	I	-	I	-	I	-	R	-	I	-	I	or every 24 months
2	Clutch pedal travel and free play	-	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	or every 3 months
	TRANSMISSION																						
1	*Manual transmission oil	-	-	I	-	I	-	I	-	I	R	I	-	I	-	-	I	R	-	R	-	I	or every 24 months
2	SA Smoother clutch fluid	-	-	I	-	I	-	I	-	R	-	I	-	I	-	I	-	R	-	I	-	I	or every 24 months
3	Gear control mechanism for looseness	-	-	-	-	-	-	-	-	I	-	-	-	-	-	-	-	I	-	-	-	-	or every 24 months
4	Gear control cable	-	-	-	-	A	-	-	-	A	-	-	-	A	-	-	-	A	-	-	-	A	or every 12 months

(I) Inspect, clean and correct or replace as necessary (A): Adjust (R): Replace or change (T): Tighten to specified torque (L): Lubricate

No.	Item	Interval (Kilometers) x1000 Interval (Miles) x100	1 6	5 30	10 60	15 90	20 120	25 150	30 180	35 210	40 240	45 270	50 300	55 330	60 360	65 390	70 420	75 450	80 480	85 510	90 540	95 570	100 600	Service Intervals Months or Miles (Kilometers) whichever comes first
	TRANSMISSION WITH TRANSFER CASE (NPS model only)																							
1	*Transmission with transfer case oil		-	-	I	-	I	-	I	-	I	R	I	-	I	-	-	I	R	-	R	-	I	or every 24 months
2	Gear control mechanism for looseness		-	-	-	-	-	-	-	-	I	-	-	-	-	-	-	-	I	-	-	-	-	or every 24 months
3	Gear control cable		-	-	-	-	A	-	-	-	A	-	-	-	A	-	-	-	A	-	-	-	A	or every 12 months
	REAR PROPELLER SHAFT																							
1	*Universal joints and sliding sleeve		-	-	-	L	-	-	-	-	-	L	-	-	-	-	-	L	-	-	-	-	-	or every 12 months
2	Loose connections		-	-	-	I	-	-	I	-	-	I	-	-	I	-	-	I	-	-	I	-	-	or every 6 months
3	Splines for excessive wear		-	-	-	-	-	-	-	-	I	-	-	-	-	-	-	-	I	-	-	-	-	or every 24 months
4	Bearings and related parts for looseness		-	-	-	-	-	-	-	-	I	-	-	-	-	-	-	-	I	-	-	-	-	or every 24 months
5	Center bearing		-	-	-	-	L	-	-	-	L	-	-	-	L	-	-	-	L	-	-	-	L	or every 12 months
	FRONT PROPELLER SHAFT (NPS model only)																							
1	*Universal joints, double cardan joint and sliding sleeve		-	-	-	L	-	-	L	-	-	L	-	-	L	-	-	L	-	-	L	-	-	or every 6 months
2	Loose connections		-	-	-	I	-	-	I	-	-	I	-	-	I	-	-	I	-	-	I	-	-	or every 6 months

(I) Inspect, clean and correct or replace as necessary (A): Adjust (R): Replace or change (T): Tighten to specified torque (L): Lubricate

	Interval (Kilometers) x1000 Interval (Miles) x100	1 6	5 30	10 60	15 90	20 120	25 150	30 180	35 210	40 240	45 270	50 300	55 330	60 360	65 390	70 420	75 450	80 480	85 510	90 540	95 570	100 600	Service Intervals Months or Miles (Kilometers) whichever comes first
No.	Item																						
3	Splines for excessive wear	-	-	-	-	-	-	-	-	I	-	-	-	-	-	-	-	I	-	-	-	-	or every 24 months
	REAR AXLE																						
1	*Differential gear oil	-	-	-	I	-	-	I	-	-	I/R	-	-	I	-	-	I	-	-	I/R	-	-	or every 24 months
	FRONT AXLE																						
1	*King pin	-	-	L	-	L	-	L	-	L	-	L	-	L	-	L	-	L	-	L	-	L	or every 6 months
2	Differential gear oil (NPS model only)	-	-	-	I	-	-	I	-	-	I/R	-	-	I	-	-	I	-	-	I/R	-	-	or every 24 months
	STEERING																						
1	Manual steering gear oil	-	-	-	-	-	-	I	-	-	-	-	-	I	-	-	-	-	-	I	-	-	or every 18 months
2	OPT Power steering system oil leakage	-	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	or every 6 months
3	OPT Power steering fluid	-	-	-	-	-	-	-	-	R	-	-	-	-	-	-	-	R	-	-	-	-	or every 24 months
4	* OPT Power steering system for looseness or damage	-	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	or every 6 months
5	Fitting of knuckles and front axle for looseness	-	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	or every 6 months
6	Steering mechanism for looseness or damage	-	-	-	-	-	-	-	-	I	-	-	-	-	-	-	-	I	-	-	-	-	or every 24 months
7	Steering wheel play	-	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	or every 3 months

(I) Inspect, clean and correct or replace as necessary (A): Adjust (R): Replace or change (T): Tighten to specified torque (L): Lubricate

	Interval (Kilometers) x1000 Interval (Miles) x100	1 6	5 30	10 60	15 90	20 120	25 150	30 180	35 210	40 240	45 270	50 300	55 330	60 360	65 390	70 420	75 450	80 480	85 510	90 540	95 570	100 600	Service Intervals Months or Miles (Kilometers) whichever comes first
No.	Item																						
8	Steering function	-	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	or every 3 months
9	Wheel alignment	-	-	-	-	-	-	-	-	I	-	-	-	-	-	-	-	I	-	-	-	-	or every 24 months
10	[OPT] Power steering hose	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	R	-	-	-	-	or every 48 months
	SERVICE BRAKES																						
1	Brake fluid	-	-	I	-	I	-	I	-	R	-	I	-	I	-	I	-	R	-	I	-	I	or every 24 months
2	[V] Hydro booster fluid (ATF)	-	-	I	-	I	-	I	-	R	-	I	-	I	-	I	-	R	-	I	-	I	or every 24 months
3	Brake system for fluid leakage	-	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	or every 6 months
4	*Brake lining and drum for wear	-	-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I	or every 12 months
5	*Disc brake pads and discs for wear	-	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	or every 6 months
6	Brake pedal travel and free play	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	or every 3 months
7	Pipes and hoses for loose connections or damage	-	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	or every 6 months
	PARKING BRAKE																						
1	Parking brake cables	-	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	or every 6 months
2	Parking brake function	-	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	or every 6 months
3	Parking brake lever travel	-	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	or every 6 months

(I) Inspect, clean and correct or replace as necessary (A): Adjust (R): Replace or change (T): Tighten to specified torque (L): Lubricate

	Interval (Kilometers) x1000 Interval (Miles) x100	1 6	5 30	10 60	15 90	20 120	25 150	30 180	35 210	40 240	45 270	50 300	55 330	60 360	65 390	70 420	75 450	80 480	85 510	90 540	95 570	100 600	Service Intervals Months or Miles (Kilometers) whichever comes first
No.	Item																						
4	Lining for wear	-	-	-	-	-	-	-	-	I	-	-	-	-	-	-	-	I	-	-	-	-	or every 24 months
5	Drum for wear or damage	-	-	-	-	-	-	-	-	I	-	-	-	-	-	-	-	I	-	-	-	-	or every 24 months
6	Ratchet for wear or damage	-	-	-	-	-	-	-	-	I	-	-	-	-	-	-	-	I	-	-	-	-	or every 24 months
	SUSPENSION																						
1	Spring leaves for damage	-	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	or every 6 months
2	Mount for looseness or damage	-	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	or every 6 months
3	Rear spring pin and shackle pin (NPS model only)	-	-	L	-	L	-	L	-	L	-	L	-	L	-	L	-	L	-	L	-	L	or every 6 months
4	Shock absorbers for oil leakage	-	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	or every 6 months
5	Shock absorbers mount for looseness	-	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	or every 6 months
	WHEELS																						
1	Wheel pins and nuts	T	-	-	-	T	-	-	-	T	-	-	-	T	-	-	-	T	-	-	-	T	or every 12 months
2	Wheel disc for damage	-	-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I	or every 12 months
3	Hub bearing grease	-	-	-	-	-	-	-	-	R	-	-	-	-	-	-	-	R	-	-	-	-	or every 24 months
4	Tire pressure and damage	-	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	or every 6 months

(I) Inspect, clean and correct or replace as necessary (A): Adjust (R): Replace or change (T): Tighten to specified torque (L): Lubricate

	Interval (Kilometers) x1000 Interval (Miles) x100	1 6	5 30	10 60	15 90	20 120	25 150	30 180	35 210	40 240	45 270	50 300	55 330	60 360	65 390	70 420	75 450	80 480	85 510	90 540	95 570	100 600	Service Intervals Months or Miles (Kilometers) whichever comes first
No.	Item																						
	ELECTRICAL EQUIPMENT																						
1	Specific gravity of battery electrolyte	-	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	or every 6 months
	OTHERS																						
1	Lights, horn, windshield, wiper and washer	-	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	or every 6 months
2	Drive shaft dust boots for damage (NPS model only)	-	-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I	or every 12 months
3	Bolts and nuts on chassis and body	I	-	-	-	-	-	-	-	I	-	-	-	-	-	-	-	I	-	-	-	-	or every 24 months

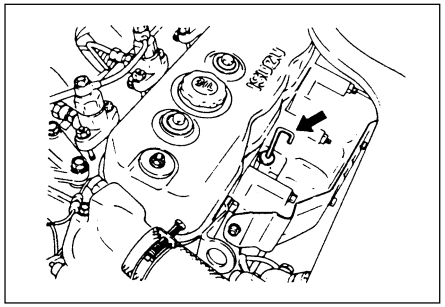
(I) Inspect, clean and correct or replace as necessary (A): Adjust (R): Replace or change (T): Tighten to specified torque (L): Lubricate

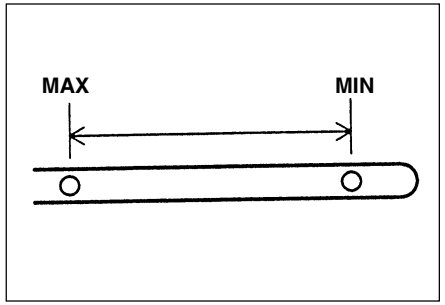
Maintenance schedule under severe driving conditions

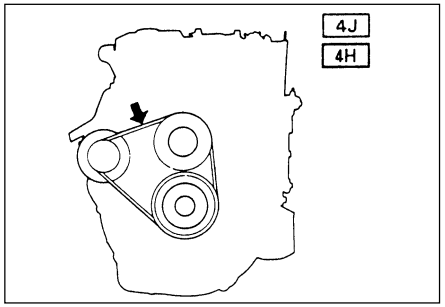
Severe driving conditions

A: Repeated short trips
B: Driving on rough roads
C: Driving on dusty roads
D: Driving in extremely cold weather and/or on salted roads

Item	Interval	Condition				
		A	B	C	D	A+D
[4JB] [4JG] Engine oil	Change every 2,500 km (1,500 miles)			•		•
[4H] Engine oil	Change every 5,000 km (3,000 miles)			•		•
[4JB] [4JG] [4H] Engine oil filter	Replace every 5,000 km (3,000 miles)			•		•
Exhaust pipes and mounting	Inspect every 10,000 km (6,000 miles)	•	•		•	
Air cleaner element	Replace every 20,000 km (12,000 miles)			•		
Steering system for looseness or damage	Inspect every 5,000 km (3,000 miles)		•			
Universal joints and sliding sleeve grease	Lubricate every 10,000 km (6,000 miles)		•			
Manual transmission and differential gear oil	Change every 20,000 km (12,000 miles)		•			
[SA] Smoother clutch fluid	Change every 20,000 km (12,000 miles)		•			
Brake lining and drum for wear	Inspect every 10,000 km (6,000 miles)	•	•	•		
Disc brake pads and discs for wear	Inspect every 5,000 km (3,000 miles)	•	•	•		
[4JH] Engine oil	Change every 7,500 km (4,500 miles)			•		•
[4JH] Engine oil filter	Replace every 7,500 km (4,500 miles)			•		•
[4JH] Air cleaner element	Replace every 10,000 km (6,000 miles)			•		







MAINTENANCE GUIDE

REGULAR INSPECTION

Engine oil level

Pull out the oil level gauge rod (oil dipstick), wipe clean it and reinsert. Again pull it out and check that oil level is within MAX and MIN level marks. Also check the oil on the gauge rod for contamination.

NOTE

Engine oil level should be checked with the vehicle parked on level ground (before the operation of engine).

NOTE

If the engine in running, stop the engine and allow 5 minutes for the oil to settle down before checking the oil level.

Fan belt

Check that the fan belt gives a deflection of approximately **8 to 12 mm (0.32 to 0.47 in)** when the intermediate part of the belt is depressed with your finger (when pushed with a force of **10 kg (22 lbs)**). Also check the belt for cracks and damage.

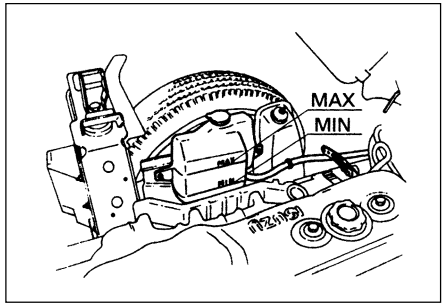
CAUTION

Insufficient tension will result in battery discharge or engine overheating, whereas excessive tension could cause damage to the alternator or V belt.

CAUTION (Continued)

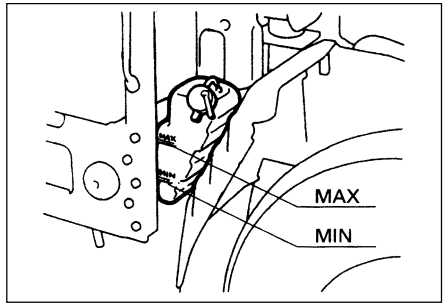
CAUTION (Continued)

Check the fan belt without fail. If the fan belt breaks, the brake booster will not operate.



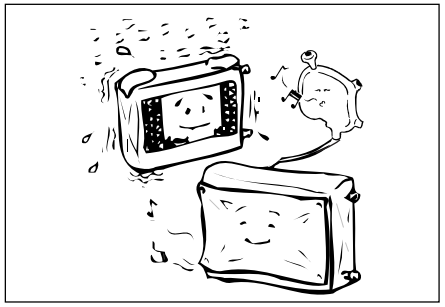
Coolant level

Overheating may result in engine damage or breakdown. To avoid this, be sure to check the amount of coolant periodically. Check the level of coolant when the engine is cold and replenish as necessary at the radiator surge tank. When the level of coolant within the surge tank is found to be lower than the "MIN" line of its capacity, check the cooling system for leaks, then replenish it to bring the level up to the "MAX" line.



CAUTION

- ***Do not overfill the surge tank.***
- ***The radiator cap must not be removed unless absolutely necessary.***
- ***The coolant level should be checked when the engine is cold.***
- ***Supplement inhibitors or additives claiming to provide increases in cooling capability that have not been specifically approved by Isuzu are not recommended in the cooling system.***



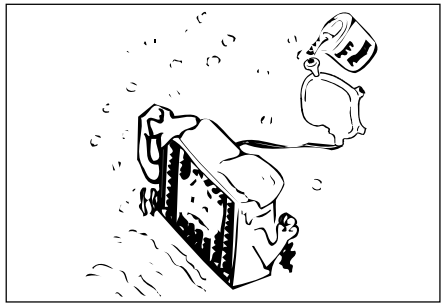
OPERATION AND CARE IN WINTER

Protection of engine against over-cooling

Over-cooling of the engine not only accelerates wear of the vital engine parts but also deteriorates fuel economy.

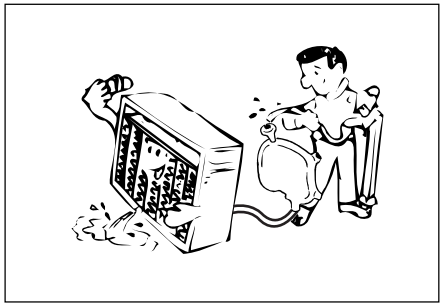
OPT

Use radiator curtain as necessary. When the radiator curtain is used, scan the temperature gauge frequently to prevent engine over-heating.

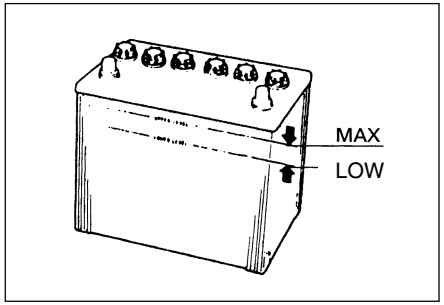


Use of specified coolant

Be sure to use specified engine coolant (mixing ratio: 50%). Refer to "RECOMMENDED FLUIDS, LUBRICANTS AND DIESEL FUELS". Refer to "MAINTENANCE SCHEDULE" for service interval.



1. ***It is advisable to wash the interior of the cooling system including the radiator before using the engine coolant solution.***
2. ***Replace damaged rubber hoses as the engine coolant becomes liable to leak even past minor cracks when the engine coolant solution is used.***

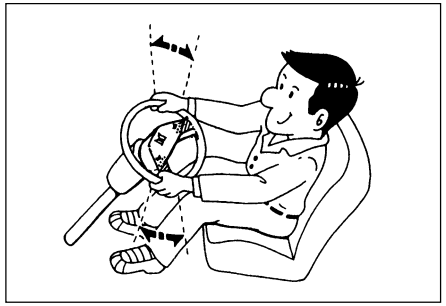


Level of battery electrolyte

The levels of battery electrolyte are normal if they are flush with the ellipse hole in the filler port. If the level is too low, replenish with distilled water. The battery is located in the battery compartment in the center portion of the left side of the chassis frame.

WARNING

The fluid in the battery is sulfuric acid. It is dangerous. Do not spill it on your skin or clothing. Be especially careful not to get it in your eyes. If battery acid should get into your eyes, flush them with clean fresh water and immediately seek proper medical treatment.



Steering wheel

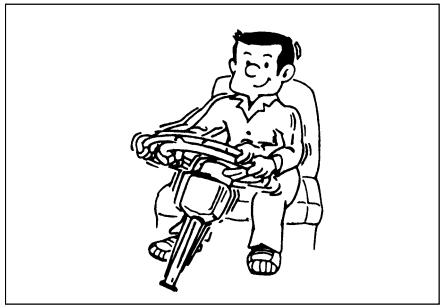
Check the amount of the steering wheel play by turning the wheel in both directions until the tires begin to move. The standard free play is within the range of

manual steering: 10 to 30 mm (0.39 to 1.18 in)
power steering: 10 to 50 mm (0.39 to 1.97 in)
OPT V

at the periphery of the steering wheel when checked with the front wheels properly in the straight-ahead position.

NOTE

If the vehicle is equipped with a power steering unit, the wheel free play should be checked with the engine running.

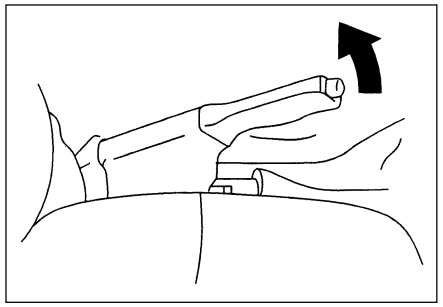


Also check the steering wheel for play and looseness in its mount by moving it back and forth and sideways.

While driving check for hard steering, steering shimmy and a tendency of the steering to pull to one side.

CAUTION

If the steering parts have excess play or looseness or if any abnormal condition is noted, have the steering system checked at your Isuzu dealer immediately.

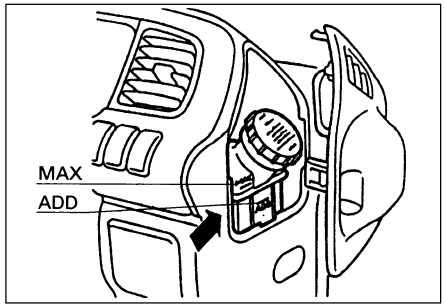


Parking brake lever travel

Normal parking brake travels: 6 to 8 notches

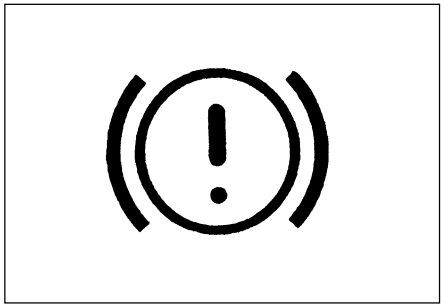
When pulled with a force of **15 kg** (**33 lb, 147 N**).

When parking brake lever travel is in excess of 16 notches, the braking is insufficient and brake adjustment should be performed.



Brake and clutch fluid level

Check that the brake and clutch fluid level is between the "MAX" and "ADD" mark on the reservoir.
The level should be between the MAX and ADD level line. If the level is lower than the ADD level line, fill the MAX level line with the recommended hydraulic brake fluid.



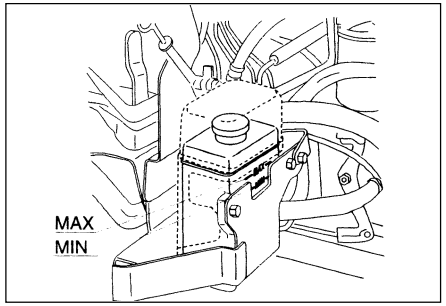
If the brake fluid reservoir is equipped with a level indicator, periodic fluid level checking is not necessary.

WARNING

The brake indicator light does not indicate the parking brake function or non-function. When applying the parking brake, pull the parking brake lever as far up as possible.

WARNING (Continued)

WARNING (Continued)
Do not continue to operate the vehicle when the brake indicator light is on. There may be serious trouble in the brake system. Vehicle operation under this condition is extremely dangerous and can lead to an accident.



Hydro booster fluid level V

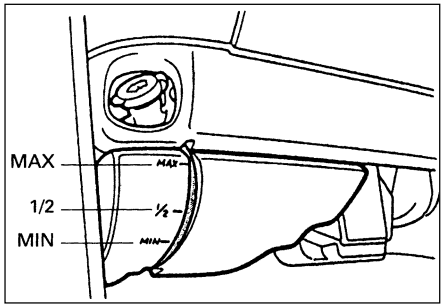
Check that the hydro booster fluid level is between the "MAX" and "MIN" mark on the reservoir.
The level should be between the MAX and MIN level line. If the level is lower than the MIN level line, fill to the MAX level line with the recommended ATF.

BRAKE BOOSTER

If the hydro booster fluid reservoir is equipped with a level indicator, periodic fluid level checking is not necessary.

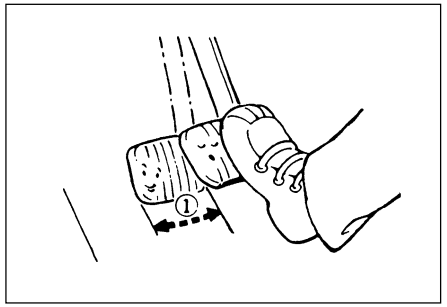
WARNING

Do not continue to operate the vehicle when the brake booster indicator light is on. There may be serious trouble in the hydro booster system. Vehicle operation under this condition is extremely dangerous and can lead to an accident.



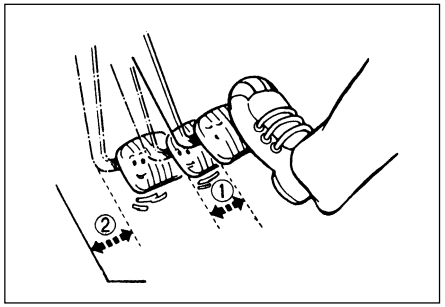
Windshield washer solution level

Check that the washer tank is filled sufficiently with solution. Also check the operating condition of the windshield washer.



Clutch pedal free play

Free play:
15 to 25 mm (0.59 to 0.98 in)



Brake pedal free play and allowance

Standard model:
1 Free play: **4 to 7 mm (0.16 to 0.28 in)**

NOTE

Stop the engine and depress the brake pedal strongly about 10 times to set the vacuum to 0 before measuring.

2 Allowance:

NHR		mm(in)
Drum Brake		50(1.97)
NKR		mm(in)
Front Disc Brake Model		40(1.75)
Front Drum Brake Model	GVM 6.5 ton	40(1.75)
	Except GVM 6.5 ton	60(2.36)
NPR and NQR (Vacuum boost type)		mm(in)
Front Disc Brake Model		40(1.75)
Front Drum Brake Model	Less than GVM 6.5 ton	60(2.36)
	GVM 6.5 ton or more	40(1.75)
NPS		mm(in)
Drum Brake		40(1.75)

Note:
When depressed with force of 50 kg (110 lbs).

NOTE

Let the engine run for at least 1 minute before taking measurement with the engine running.

Hydro booster model: V

1 Free play: **24 to 29 mm (0.95 to 1.14 in)**

NOTE

Stop the engine and depress the brake pedal strongly about 10 times to decrease the accumulator pressure level to 0 before measuring.

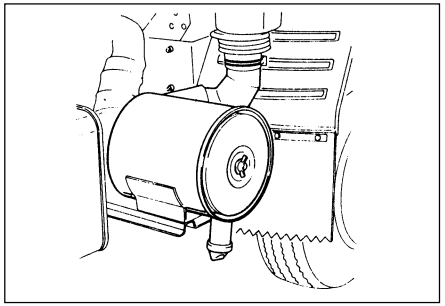
2 Allowance:

NQR (HBB type)	mm(in)
Front Disc Brake Model	35(1.38)
Front Drum Brake Model	45(1.77)

Note:
When depressed with force of 30 kg (66 lbs).

NOTE

Let the engine run for at least 1 minute before taking measurement with the engine running.



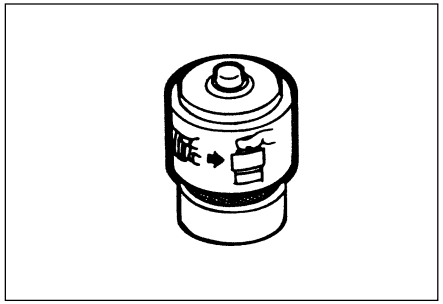
PERIODIC MAINTENANCE

Air cleaner

Use of clogged air cleaner element not only causes a deterioration in the engine output but also increased fuel consumption and dark exhaust smoke. The air cleaner element should be serviced in the following manner.

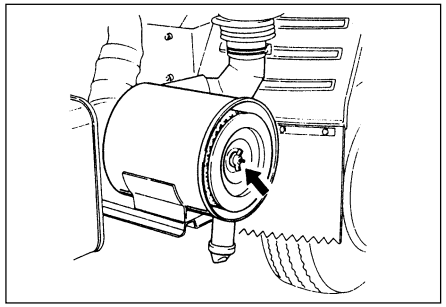
NOTE

It is strongly advisable to use Isuzu genuine air cleaner elements for replacement.



Inspection and service interval V

The element should be cleaned regularly and also when red-colored signal appears on the indicator. The indicator is located behind the air cleaner body.

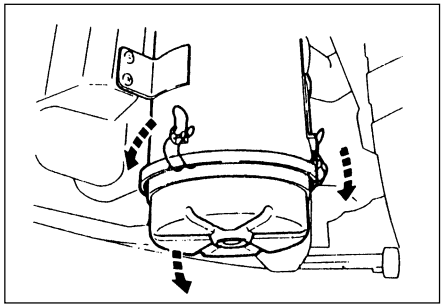


Element removal (Located behind the cab)

1. Loosen the wing nut and remove the outside cover.
2. Remove the wing nut retaining the element and take out the element.

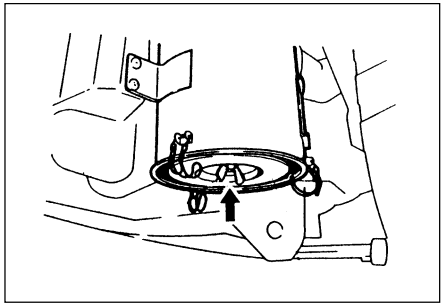
CAUTION

Handle the element carefully so as not to damage it.



Element removal (Located in the front under the cab floor)

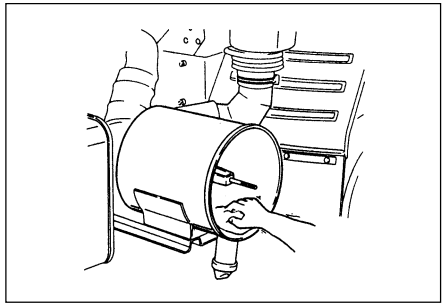
1. Loosen the hooks and remove the dust-pan.



2. Remove the wing nut retaining the element and take out the element.

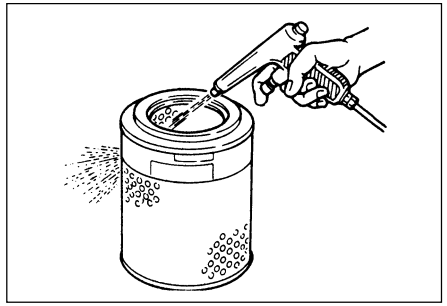
CAUTION

Handle the element carefully so as not to damage it.



Cleaning of air cleaner body and cover

Wipe the inside of the air cleaner body, outside cover evacuator and the gasket fitting surface to free it from dust.



Cleaning the air cleaner element

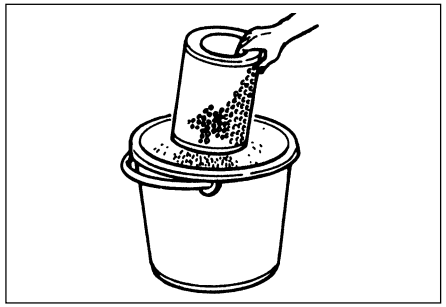
To clean the element, apply one of the following methods according to the condition of the element.

When the air cleaner element is clogged with dust but dry:

Apply compressed air to the element from inside while turning the element by hand. The pressure of compressed air should not exceed **686 kPa (7 kg/cm^2, 99.6 psi)**.

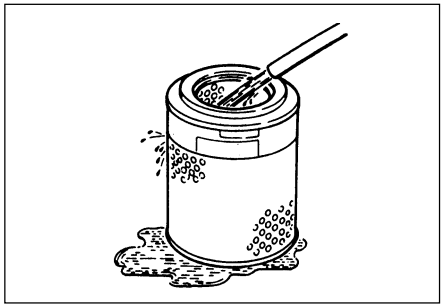
CAUTION

Do not apply compressed air to the outer face of the element as it causes the dust to lodge in the inner face.

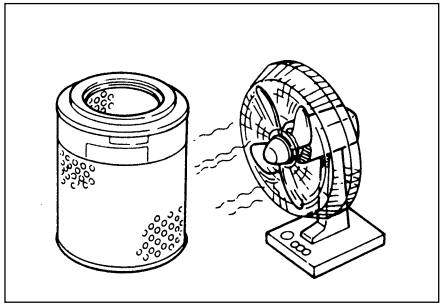


When the air cleaner element is clogged with carbon and oil:

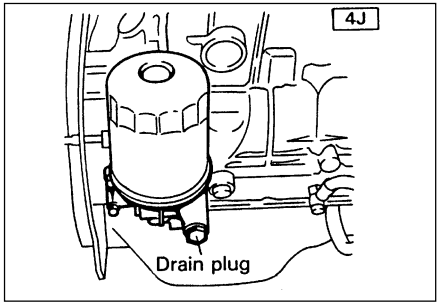
1. Prepare a cleaning solution (laundry detergent dissolved in warm water).
2. Submerge the element in the cleaning solution for approximately 30 minutes. Occasionally shake the element inside the solution.



3. Take out the element and rinse it well with running water.
   The pressure of water should not exceed **274 kPa (2.8 kg/cm^2, 39.8 psi)**.

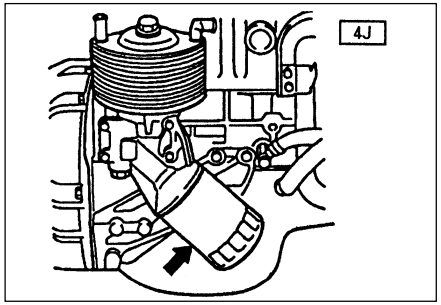


4. Allow the element to dry in a well ventilated place. To dry the element quickly, use an electric fan. Avoid use of compressed air or open flames for quick drying. It is recommended that a spare element be used as it normally takes 2 to 3 days for natural element drying.



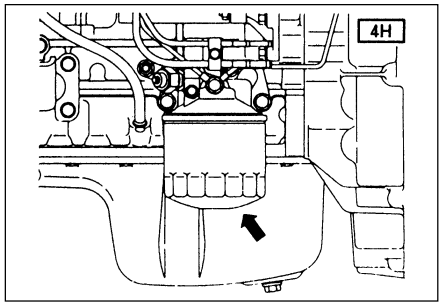
Main oil filter (on models with partial-flow oil filters)

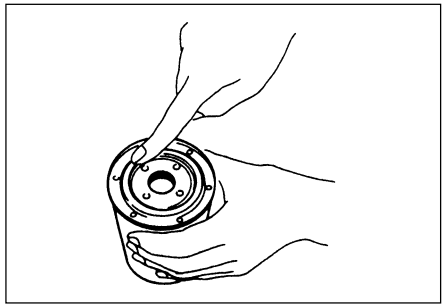
1. Drain the engine oil by loosening the drain plug on the filter cover. 4J
2. Loosen the oil filter by turning it counterclockwise with a filter wrench.
3. With a rag wipe clean the fitting face of the oil filter so that the new oil filter can be seated properly.

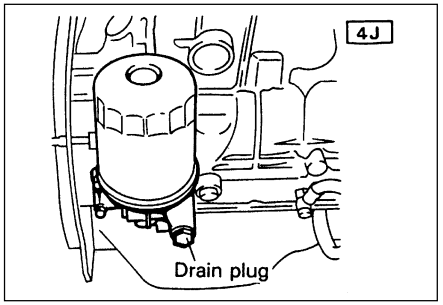


Oil filter

1. Loosen the oil filter by turning it counterclockwise with a filter wrench.
2. With a rag wipe clean the fitting face of the oil filter so that the new oil filter can be seated properly.







3. Lightly oil the O-ring and screw in the oil filter until the sealing face is fitted against the O-ring. Using the filter wrench, tighten the filter:
   - [4J] 1. 1/8 turns
   - [4H] 5/6 turns

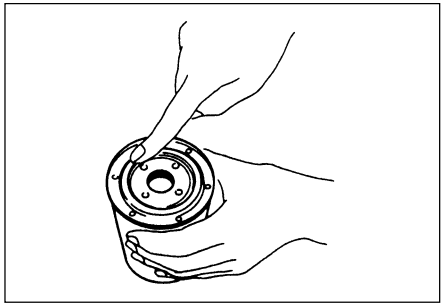
CAUTION

Check the level of the oil in the engine and replenish it to the specified level as necessary. Start the engine and check for leaks at the oil filter.
It is strongly advisable to use an Isuzu genuine oil filter assembly for replacement.

Partial-flow oil filter [OPT]

The oil filter body should also be drained when changing engine oil. Discard the filter element and install a new one regularly.

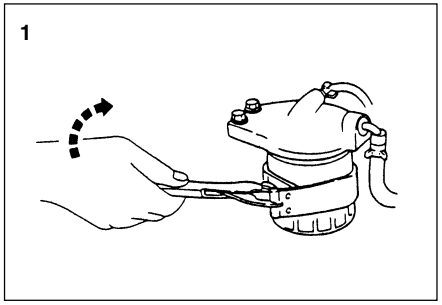
1. Drain engine oil by loosening the drain plug on the filter cover. [4J]
2. Loosen the oil filter by turning at counterclockwise with a filter wrench.
3. With a rag wipe clean the fitting face of the oil filter, so that the new oil filter can be seated properly.



4. Lightly oil the O-ring and screw in the oil filter until the sealing face is fitted against the O-ring. Turn 1-1/4 turns further with a filter wrench.

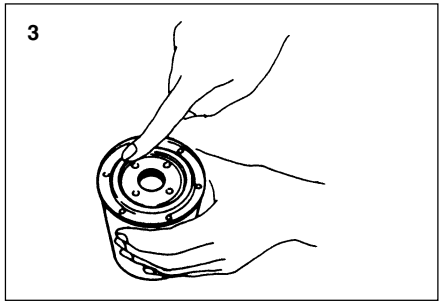
CAUTION

Check the level of the oil in the engine and replenish it to the specified level as necessary. Start the engine and check for leaks at the oil filter.
It is strongly advisable to use an Isuzu genuine oil filter assembly for replacement.



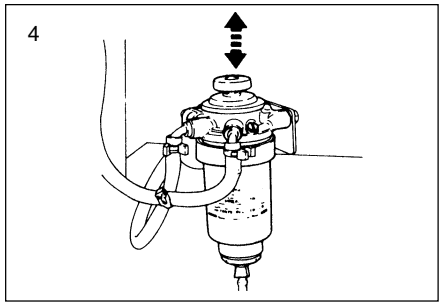
Fuel filter 4J

1. Loosen the fuel filter by turning it counterclockwise with a filter wrench.
2. With a rag wipe clean the fitting face on the upper cover, so that the new fuel filter can be seated properly.

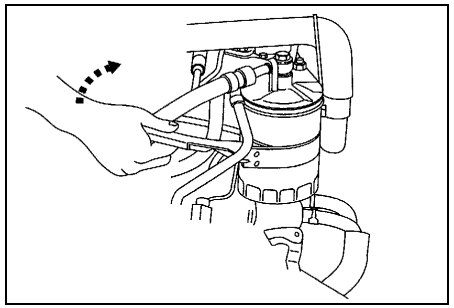


3. Lightly oil the O-ring. Reinstall and turn the filter assembly clockwise carefully to prevent the fuel from spilling. Turn it until the O-ring is fitted against the sealing face of the filter cover.

   Further turn the filter assembly **1/3** to **2/3** of a turn with a filter wrench.

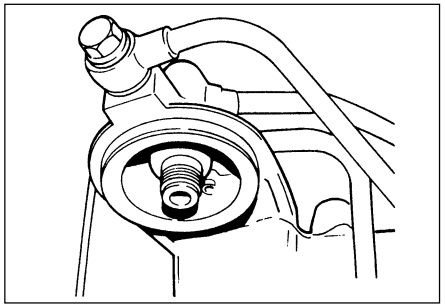


4. Push the priming pump on the water separator several times to bleed fuel system of air.
5. Start the engine with the ignition key switch, when the bleeding has been finished.
6. If the engine does not start within ten seconds, repeat the bleeding operation.

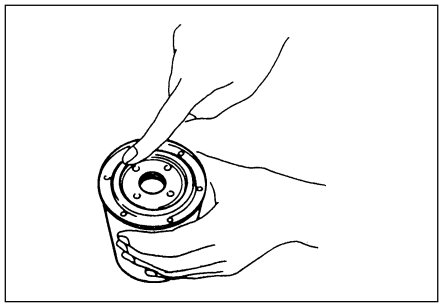


Fuel filter 4H

1. Loosen the fuel filter by turning it counterclockwise with a filter wrench.



2. With a rag wipe clean the fitting face on the upper cover, so that the new fuel filter can be seated properly.



3. Lightly oil the O-ring. Install and screw in the filter assembly clockwise carefully to prevent fuel spillage. Turn it until the O-ring is fiitted against the sealing face of the filter cover. Further turn the filter assembly **1/3** to **2/3** of a turn with a filter wrench**.**

CAUTION

BLEEDING OF FUEL SYSTEM

If the fuel tank has been emptied, the chance is that air might have been allowed into the fuel system.

With air in fuel system, smooth flow of fuel into the engine is interrupted and to prevent this bleeding of the fuel system should be performed.

(1) Operate hand pump until it becomes hard to push (about 15 pushes).

(2) Wait for 1 min.

(3) Operate hand pump until it becomes hard to push (about 10 pushes).

(4) Wait for 1 min.

(5) Operate hand pump until it becomes hard to push (about 5 pushes).

(6) When the key switch is turned to "ON" position, the glow plug indicator light comes on and goes off after approx. 4.0 to 7.0 seconds (with cold engine). Please notice the glow plug indicator light does not turn on when the engine already warm (coolant temperature above 25 °C).

(7) Depress the clutch pedal fully and turn the key switch to "START" position to start the engine at the same time the glow plug indicator light goes off.

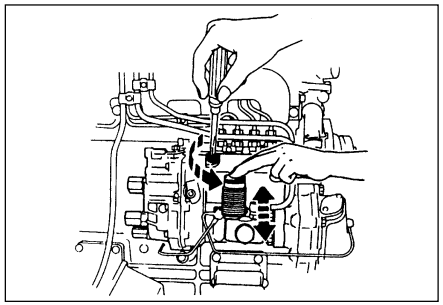
If the engine does not start, repeat the steps (4), (5), (6) and (7).

(8) Immediately after rev-up, put your hand off key and your foot off accelerator pedal.

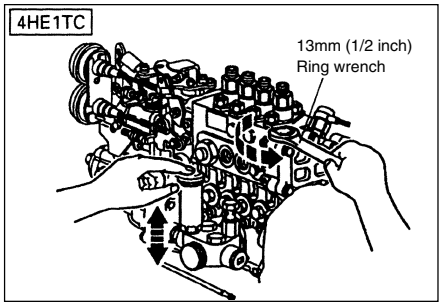
(9) Allow the engine to idle for 5 min.

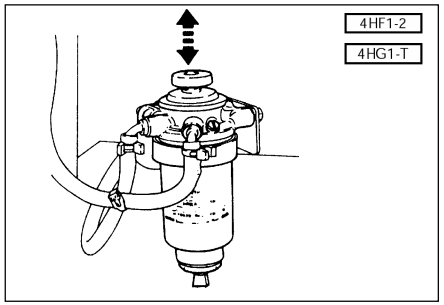
CAUTION

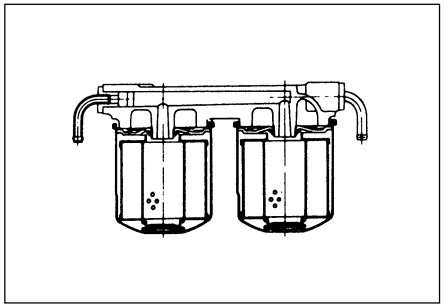
It is strongly advisable to use an Isuzu genuine fuel filter assembly for replacement.



4. Operate the priming pump on the injection pump to bleed the fuel system.



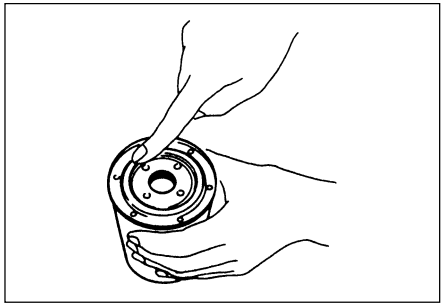




Sub fuel filter OPT 4H

Dual type fuel filter OPT 4J

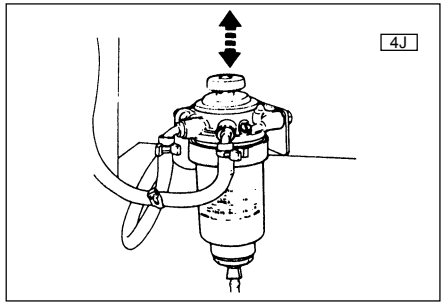
1. Loosen each fuel filter by turning them counterclockwise with a filter wrench.
2. With a rag wipe clean the fitting face on the upper cover, so that the new fuel filter can be seated properly.



3. Lightly oil the O-ring. Install and turn in the filter assembly clockwise carefully to prevent fuel spillage. Turn it until the O-ring is fitted against the sealing face of the filter cover. Further turn the filter assembly **1/3** to **2/3** of a turn with the filter wrench.

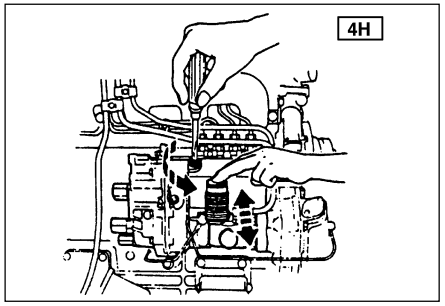
CAUTION

It is strongly advisable to use an Isuzu genuine fuel filter assembly for replacement.

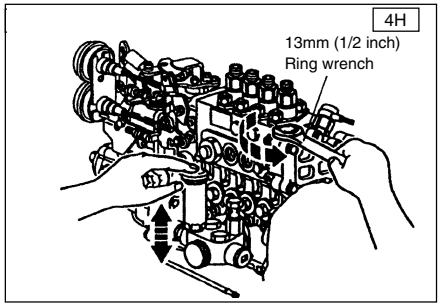


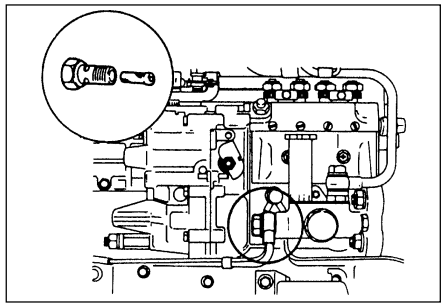
4. Push the priming pump on the water separator to bleed the fuel system. 4J

   Push the priming pump on the injection pump to bleed the fuel system. 4H



(Except 4HF1-2 4HG1-T **)**

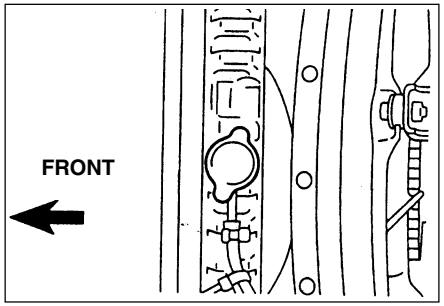




Feed pump strainer

(Except 4J 4HF1-2 **)**

Remove the joint bolt on the intake side of the feed pump, then screw out the strainer counterclockwise and clean it. Then, push the priming pump on the injection pump to bleed the fuel system.



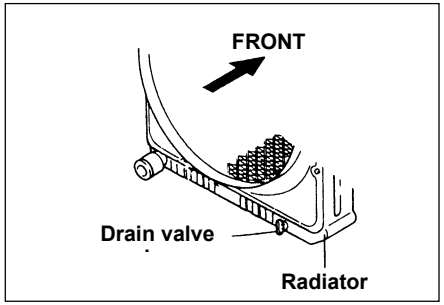
Engine coolant

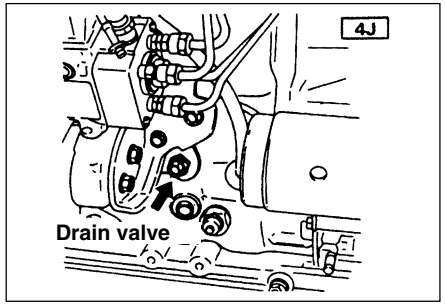
1. To change engine coolant, make sure that the engine is cool.

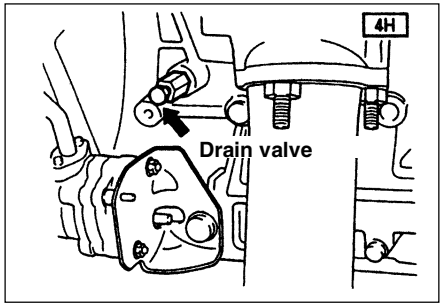
WARNING

When the coolant is heated to a high temperature, be sure not to loosen or remove the radiator cap. Otherwise you might get scalded by hot vapor or boiling water. To open the radiator cap, put a piece of thick cloth on the cap and loosen the cap slowly to reduce the pressure when the coolant has become cooler.

2. Open radiator cap and drain the cooling system by loosening the drain valve on the radiator and on the cylinder body.





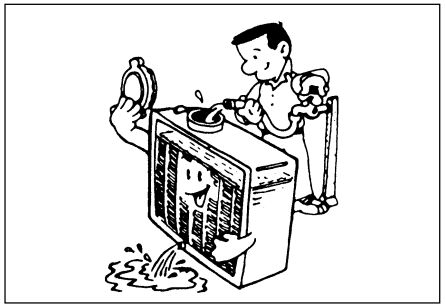


NOTE

For best results it is suggested that the engine cooling system should be flushed when the engine coolant is replaced. It is advisable to flush the interior of the cooling system including the radiator before using the engine coolant solution.

Replace damaged rubber hoses as the engine coolant solution is liable to leak out of even minor cracks.

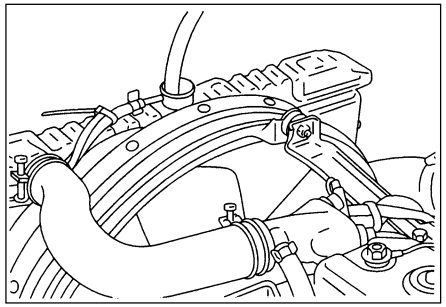
Isuzu recommends using Isuzu genuine engine coolant solution or equivalent, for the cooling system and not to add any inhibitors or additives.



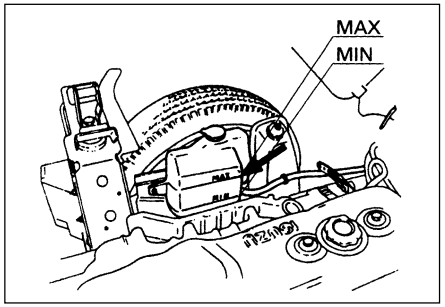
CAUTION

A failure to correctly fill the engine cooling system in changing or topping up coolant may sometimes cause the coolant to overflow from the filler neck even before the engine and radiator are completely full.

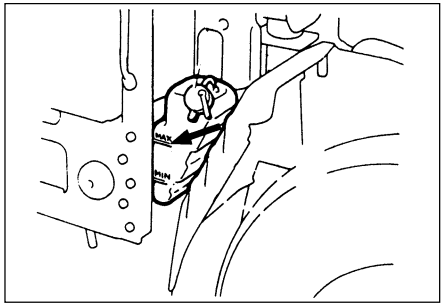
If the engine runs under this condition, the shortage of coolant may possibly result in engine overheating. To avoid such trouble, the following precautions should be taken in filling the system.



3. To refill engine coolant, pour coolant up to filler neck using a filling hose which is smaller in outside diameter of the filler neck. Otherwise air between the filler neck and the filling hose will block entry, preventing the system from completely filling up.
4. Keep a filling rate of 9 liters/min. or less. Filling over this maximum rate may force air inside the engine and radiator.
   And also, the coolant overflow will increase, making it difficult to determine whether or not the system is completely full.



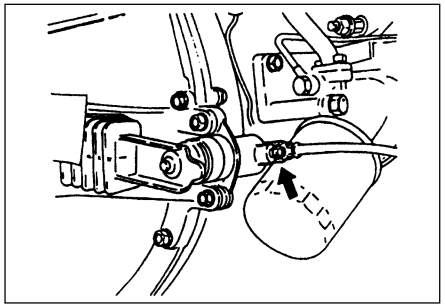
5. After filling the system to the full, pull out the filling hose and check to see if air trapped in the system is dislodged and the coolant level goes down. Should the coolant level go down, repeat topping-up until there is no more drop in the coolant level.
6. After directly filling the radiator, fill the reservoir to the maximum level.
7. Install and tighten radiator cap and start the engine. After idling for 2 to 3 minutes, stop the engine and reopen radiator cap. If the water level is lower, replenish.



WARNING

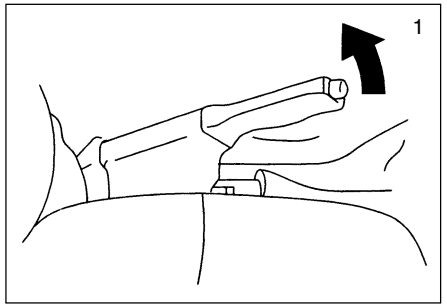
When the coolant is heated to a high temperature, be sure not to loosen or remove the radiator cap. Otherwise you might get scalded by hot vapor or boiling water. To open the radiator cap, put a piece of thick cloth on the cap and loosen the cap slowly to reduce the pressure when the coolant has become cooler.

8. After tightening the radiator cap, warm up the engine at about 2,000 rpm. Set heater adjustment to the highest temperature position, and let the coolant circulate also into the heater water system.
9. Check to see that the thermostat has opened through the needle position of the water, conduct a 5-minute idling again and stop the engine.
10. When the engine has been cooled, check filler neck for water level and replenish if required. Should extreme shortage of coolant be found, check the coolant system and reservoir tank hose for leakage.
11. Fill the coolant in the reservoir tank up to "MAX" line.



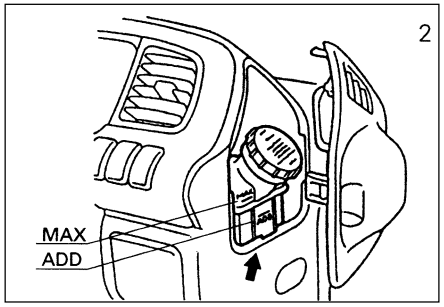
Bleeding of clutch hydraulic circuits

If air enters the clutch circuit, it will cause clutch dragging. Therefore, bleeding operation should be performed if the clutch fluid reservoir has been emptied due to failure or if the hydraulic circuit has been disassembled. Bleeding operation calls for the cooperative action of the two men.

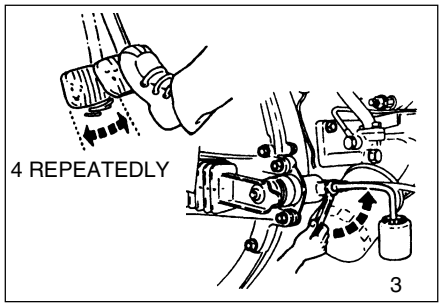


To bleed, proceed as follows:

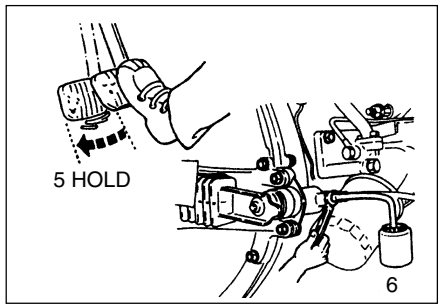
1. Set the parking brake.



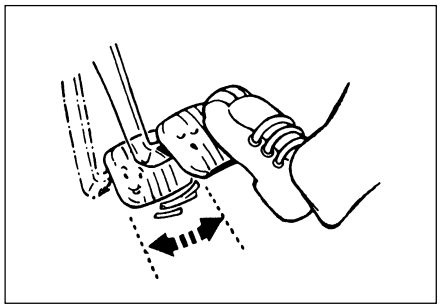
2. Check the level of the clutch fluid in the reservoir and replenish it if necessary.



3. Remove the rubber cap from the bleeder screw and wipe clean the bleeder screw. Connect a vinyl tube to the bleeder screw and insert the other end of the vinyl tube into a transparent container.
4. Depress the clutch pedal repeatedly and hold it depressed.

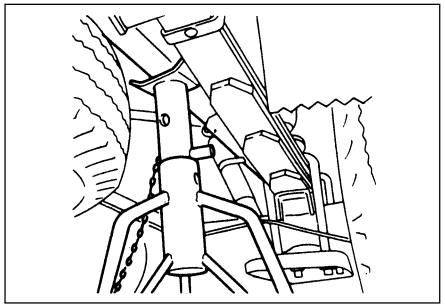


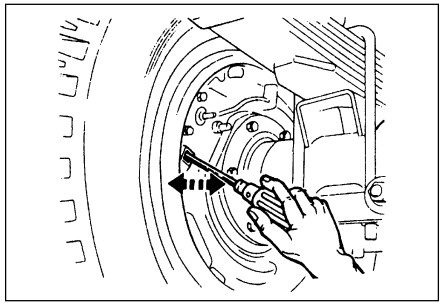
5. Hold it to depress.
6. Loosen the bleeder screw on the clutch slave cylinder to release clutch fluid with air bubbles into the container and tighten the bleeder screw immediately.
7. Release the clutch pedal carefully. Repeat the above operation until air bubbles disappear from the clutch fluid being pumped out into the container. During the bleeding operation, keep the clutch fluid reservoir filled to the specified level.
   Reinstall the rubber cap.



Service brake adjustment

The use of a brake system with excessive brake lining clearances is unsafe as the brake performance deteriorates with an increase in lining clearance. The brake lining clearance should be checked and adjusted at specified intervals.





To adjust front and rear brakes, proceed as follows:

Without auto-adjuster type

1. Jack up a wheel clear of the ground.
2. Then set a supporter for safety.
3. Remove the rubber plugs from the brake adjuster holes in the front and rear faces of the brake back plate.
4. Insert a screwdriver into adjuster hole and turn the adjuster in the direction of the arrow until the wheel can not turn.
5. Back off the adjusters 5 to 6 notches.
6. Replace the rubber plugs in position.
7. Repeat the above adjustment procedures for adjusting the brakes on the remaining wheels.

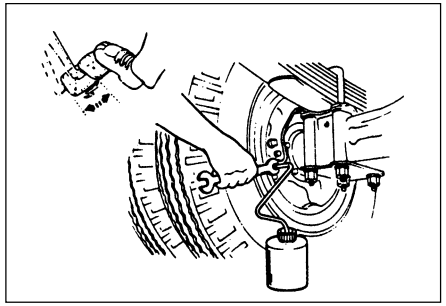
With auto-adjuster type

1. Depress the brake pedal as far as possible.
2. Repeat above Step 1 five times to automatically adjust the brake drum clearance.

NOTE

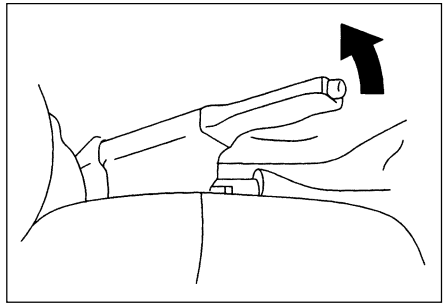
Brake lining clearance can also be automatically adjusted by depressing the brake pedal as far as possible with the vehicle in motion.

Do this several times to ensure accurate adjustment.



Bleeding of the brake hydraulic circuit

If air enters the brake lines, it will cause poor braking. Therefore, the bleeding operation should be performed if the brakes have been used with an excessive level of brake fluid in the reservoir or if the brake pipes have been disconnected in the course of brake servicing. Bleeding operation calls for the cooperative action of two men.



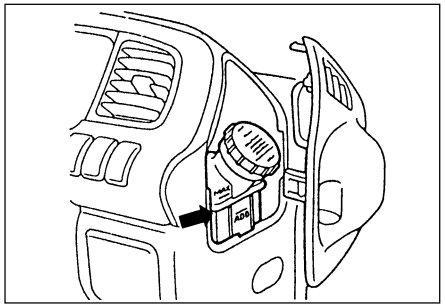
To bleed, proceed as follows:

1. Set the parking brake firmly.

CAUTION

If the vehicle is equipped with ABS, remove the ABS fuse (60A) from the fuse box before beginning the air bleeding procedure. If the bleeding is performed without removing the ABS fuse, the air cannot be bled completely and the ABS EHCU may be damaged. After bleeding, be sure to install the fuse in place.

2. Start and keep the engine running until the vacuum accumulates sufficiently.

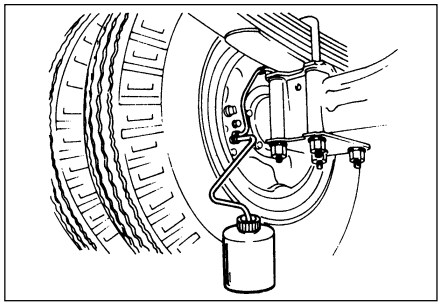


CAUTION

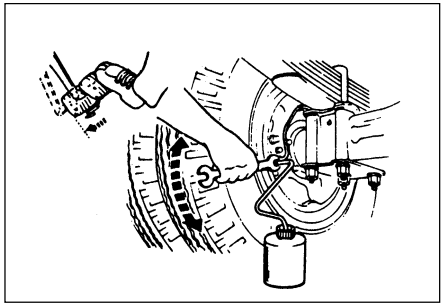
Brake booster (master-vac) will be adversely affected if the bleeding operation is performed without running the engine.

(Vehicles with the hydro booster) Bleed air first from the hydro booster working fluid. Then, with the engine running, bleed air from the brake hydraulic circuit. Air cannot be bled completely if the engine is turned off.

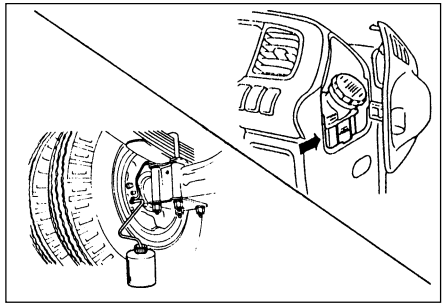
3. Check the level of brake fluid in the reservoir and replenish it as necessary.
4. Bleeding of the brake hydraulic circuit should be performed in the following sequence:
   Left-hand rear wheel (model with ABS only) –> Right-hand rear wheel –> LSPV or DSPV (if equipped) –> Right-hand front wheel –> Left-hand front wheel. LHD
   Left-hand rear wheel (model with ABS only) –> Right-hand rear wheel –> LSPV or DSPV (if equipped) –> Left-hand front wheel –> Right-hand front wheel. RHD



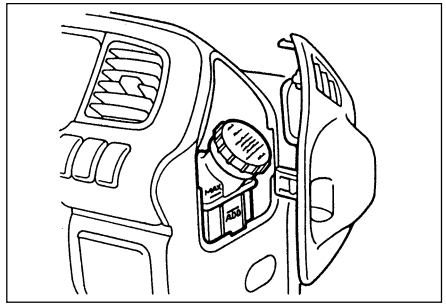
5. Remove the rubber cap from the bleeder screw and wipe and clean the bleeder screw. Connect a vinyl tube to the bleeder screw and insert the other end of the vinyl tube into a transparent container.



6. Pump the brake pedal slowly 3 times and hold it depressed.
   Loosen the bleeder screw to release brake fluid with air bubbles into the container and tighten the bleeder screw immediately.



7. Release the brake pedal carefully. Repeat the above operation until air bubbles disappear from the brake fluid being pumped out into the container. During the bleeding operation, keep the brake fluid reservoir filled to the specified level. Install the rubber cap.



8. When the bleeding operation is completed on each wheel, check the level of brake fluid in the reservoiir and replenish it as necessary.

Bleeding of the hydro booster working fluid

V

WARNING

The hydro booster is designed for use with working fluid BESCO ATFIII. Use of other working fluids may affect rubber parts and lead to malfunction or oil leakage.
Remember that the brake fluid used in the master cylinder is entirely different in properties from the working fluid used in the hydro booster.
Use every caution to keep the master cylinder brake fluid away from the hydro booster components, and, similarly, the hydro booster working fluid away from the master cylinder components.
In the event the hydro booster working fluid and the master cylinder brake fluid are mixed by mistake, rubber parts will deteriorate due to poor lubrication. This may cause brake troubles due to oil leakage or malfunction, or to vehicle fire or other serious accidents due to the dragging brake.

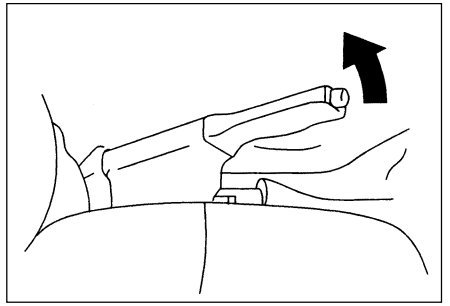
The hydro booster working fluid becomes hot when the pump is activated with the engine running. The temperature inside piping or the hydro booster assembly can rise above 100°C during frequent brake operation. Use every caution when handling the hydro booster components. When removing the hydro booster assembly from the vehicle, stop the engine and let it cool down for at least 30 minutes before starting work.
The hydro booster accumulator maintains high pressure long after the engine is turned off. Before disconnecting the hydro booster assembly or piping from the vehicle, stop the engine and depress the brake pedal at least 10 times until the accumulator pressure drops to the atmospheric pressure. This is important, especially when removing the replaceable accumulator and pressure switch from the hydro booster assembly. The working fluid will splash if the pressure is still high.

1. Add working fluid in the hydro booster reservoir tank to a level between the MIN and MAX marks.
2. Run the engine for about 5 seconds.
3. Stop the engine and read the fluid level in the reservoir tank.
4. If the level is below the MIN mark, add more fluid to a level between the MIN and MAX marks.
5. Repeat steps (2) to (4) the necessary number of times until the fluid level is stabilized and no air bubbles are found in the fluid. If bubbles are found, wait until they disappear before resuming work.
6. With the engine running, depress the brake pedal slowly about 5 times.
7. Stop the engine and read the fluid level in the reservoir tank. If the level is below the MIN mark, add more fluid to a level between the MIN and MAX marks.
8. With the engine turnred off, depress the brake pedal at least 10 times.

9. Repeat steps (6) to (8) the necessary number of times until the fluid level is stabilized and no air bubbles are found in the fluid. If bubbles are found, wait until they disappear before resuming work.
10. Air bleeding from the brake fluid line (in the master cylinder, wheel cylinder, etc.) may be performed at this stage with the engine running as instructed below.
11. Depress the brake pedal slowly but firmly about 30 times (at the interval of 1 to 3 seconds) to the booster full-load range while the engine is running. Do not keep the pedal depressed at the full-load position longer than 1 second.
12. Stop the engine and depress the brake pedal repeatedly at least 10 times.
13. Check the condition of the working fluid in the reservoir tank. Air bleeding is completed double if the fluid level is stabilized and no air bubbles are found. If bubbles are found, wait until they disappear and repeat steps (11) and (12).

CAUTION

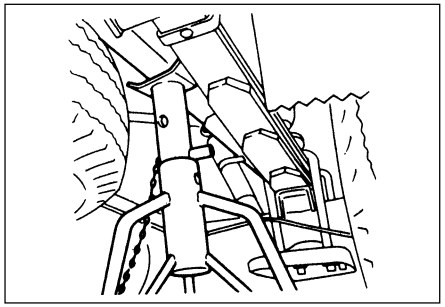
Air bleeding from the brake fluid line (in the master cylinder, wheel cylinder etc.) may be performed only after air is bled from the hydro booster and with the engine running. Air cannot be bled from the brake fluid line if the engine is not running. When bleeding air from both the hydro booster and the brake fluid line, always bleed air from the hydro booster first per steps (1) through (9) above.



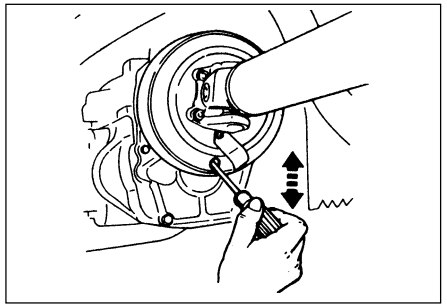
Parking brake adjustment

The parking brake lever stroke is normal when the lever comes within 6 to 8 notches when pulled with a force of **15 kg (33 lb, 147N)**. The parking brake can be adjusted in the following manner:

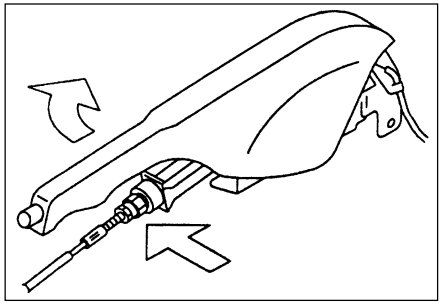
1. Chock the front wheels and release the parking brake.



2. Jack up the rear wheels clear of the ground. Set a supporter for safety, move the gearshift lever into the neutral position and bring the adjuster hole in the brake drum into alignment with the adjuster by turning the propeller shaft. The adjuster is positioned below the center line of the propeller shaft.



3. Fit a screwdriver into the adjust hole in the brake drum and turn the adjuster upward (downward; 4HE1-TCS and 4HK1-TCS engine models) all the way until it stops.



4. Back off the adjuster 8 or 30 notches and check the stroke of the brake lever.

Adjuster screw notches and clearance

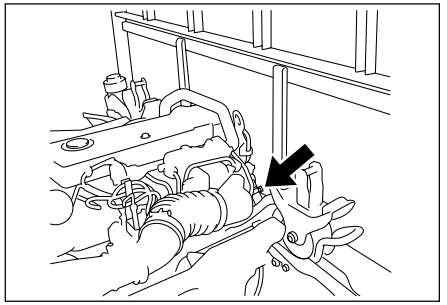
Model	Notches	Clearance mm (in)
UPWARD 4HE1-TCS and 4HK1-TCS	8	**0.23** (0.009)
DOWNWARD Except 4HE1-TCS and 4HK1-TCS	30	**0.75** (0.029)

If the parking brake lever travel deviates from the standard range, adjust the setting of the parking brake cable with the adjust nut as follows:
(1) Loosen the lock nut.
(2) Adjust the length of the cable with the adjust nut.
(3) Tighten and lock the adjust nut with the lock nut.

Smoother clutch fluid level SA

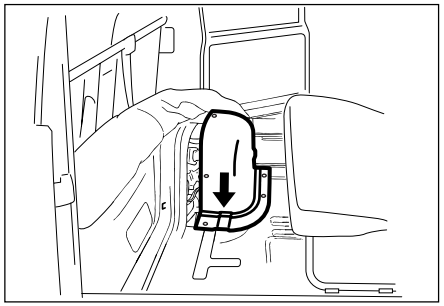
CAUTION

- ***The quality and quantity of fluid greatly affect the function and durability of Smoother. Be sure to use the specified fluid in just proportion. Too much fluid may cause the leakage and too little fluid may cause the malfunction.***
- ***When you clean the level gauge or around it, clear the foreign substances away. They may cause malfunctions of transmission.***
- ***Be sure not to let in fluids or oils except the specified fluid. They may cause deterioration of function or malfunction.***

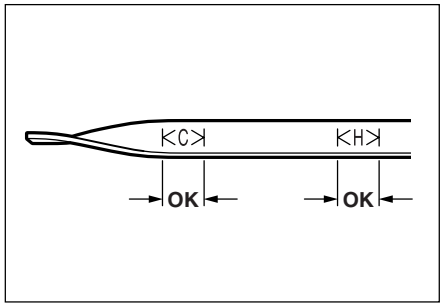


Location of level gauge:

Except for crew cab models, the level gauge is on the left side of transmission.



For crew cab models, turn the floor mat over and loosen the 6 bolts to open the rear engine cover.



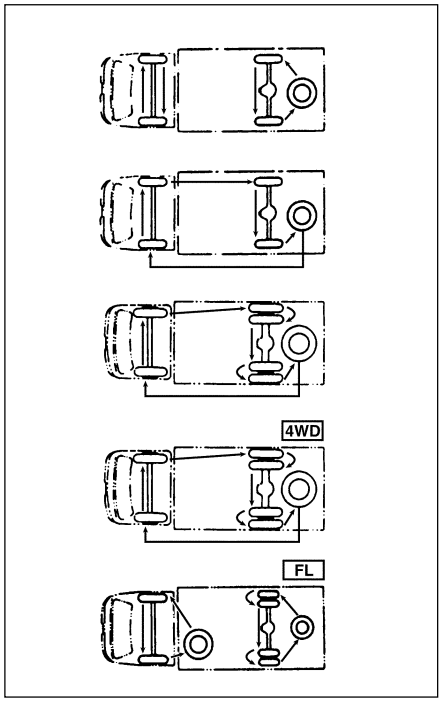
Inspection procedure:

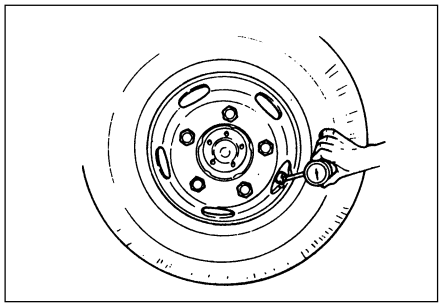
1. Park the vehicle on the level ground and apply the parking brake firmly.
2. With engine idling, pull out the level gauge (dipstick), wipe clean and reinsert it.
3. Park the vehicle on the level ground and apply the parking brake firmly.
4. With engine idling, pull out the level gauge (dipstick), wipe clean and reinsert it. Again pull it out and check that the fluid level is within <C> or <H> range. (See <C> range if the fluid temperature is low and see <H> range if it is high.)
5. If the fluid level is out of <C> or <H> range, add the specified fluid. Also check that there is no leakage of clutch fluid.

LEVEL GAUGE	FLUID TEMPERATURE
COLD (C)	APPROX 20°C to 30°C (68°F to 86°F)
HOT (T)	APPROX 70°C to 80°C (158°F to 176°F)

Tire rotation

To allow the tires to wear evenly and to prolong their life, exchange the front and rear tire locations as shown in the figure.



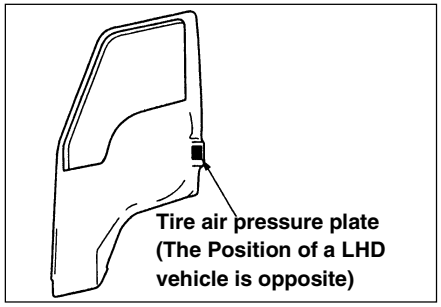


Tire inflation pressure

For standard inflation pressures, refer to "TIRE SIZE AND TIRE INFLATION PRESSURE".

NOTE

Check or maintain tire pressure when the tires are cold. (After the vehicle has been inoperative for more than 3 hours or driven less than 1.6 km (1 mile)).

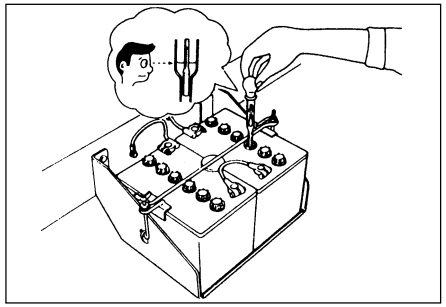


Tire air pressure plate

The recommended tire pressure is listed on each tire air pressure plate, pasted on the inner position of the driver's side door. (Partial Vehicle)

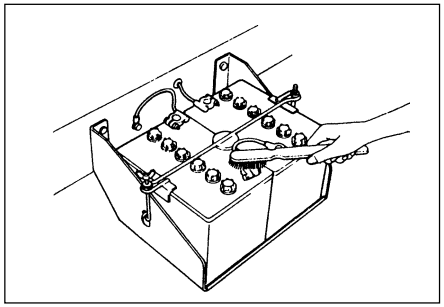
WARNING

- ***Never drive the vehicle unless the tires are properly inflated and in safe condition.***
- ***Over-inflation or under-inflation can affect vehicle handling and result in loss of control as well as excessive tire wear and tire damage.***



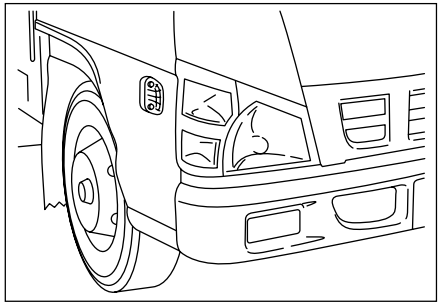
Specific gravity of battery electrolyte

The battery is in a fully-charged state if the hydrometer reading of the specific gravity is 1.26 at **20°C (68°F)**.
If the specific gravity is lower than 1.23, the battery is in need of recharging.



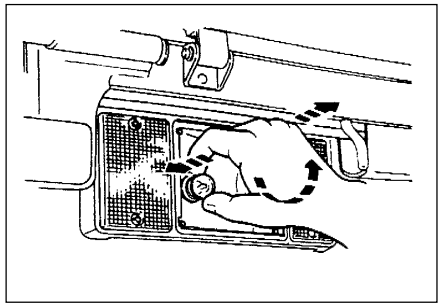
Cleaning of battery

If the external part of the battery is dirty, clean with tepid water. Apply a thin coat of vaseline or grease to the battery terminals to prevent corrosion.



Headlights

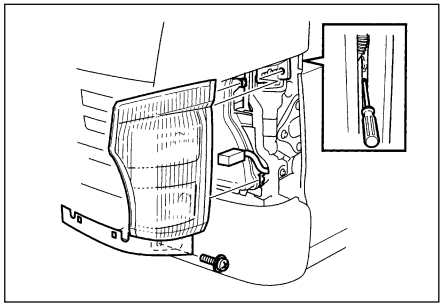
Proper aiming of the headlights is most important to ensure sufficient illumination of the highway without blinding other motorists. When light aiming is necessary it is advisable to contact an authorized dealer who has special equipment for this purpose.



Replacing light bulbs

The illustration shows how to gain access to the bulbs.
When replacing a bulb, make sure the light switch is "OFF". Use only bulbs with the same wattage rating. The standard bulb wattage ratings are shown on the chart.

Location		Wattage		
		12 volt system	24 volt system	No. of bulbs
Halogen headlights	-	60W/55W	75W/70W	2
Front combination lights	Turn signal	21W	21W	2
	Cornering/ Clearance	21W/5W	21W/5W	2
Rear combination lights	Stop/Tail	21W/5W	21W/5W	2
	Turn signal	21W	21W	2
	Back up	21W	21W	2
License plate light	-	5W	5W	1
Dome light	-	10W	10W	1
[V] Fog lights	-	55W	70W	2
[V] Rear fog light	-	21W	21W	1
[V] Roof mounted clearance lights	-	-	5W	2
[V] Side turn signal lights	-	-	21W	2



Front combination lights

[Removal procedure]

1. Remove the seal rubber under the headlight and loosen the side screw of front combination light assembly.
2. Pull out the front combination light assembly. At this time, open the front door and push the stud pin head by inserting a cross slot screwdriver through the clearance between the door and cab.

[Installation procedure]

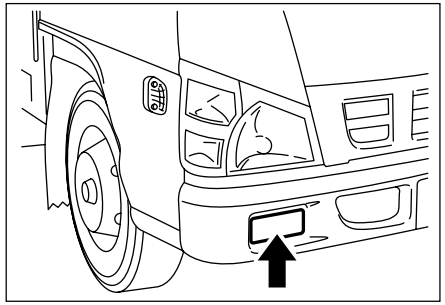
1. Connect the connector of front combination light assembly.
2. Position it by aligning two pawls with the groove of headlight.

3. Fit the iron pin in the upper side portion by aligning it with the center of corresponding grommet.

NOTE

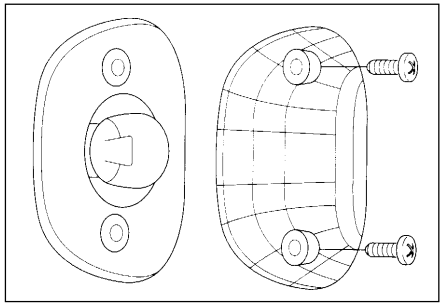
Push it in securely until a click is heard.

4. Pull the front combination light assembly lightly toward the front of vehicle to make sure that the pin and grommet are fitted securely.
5. Tighten the lower side screw of front combination light assembly. Then, hook the seal rubber on two projections under the headlight.



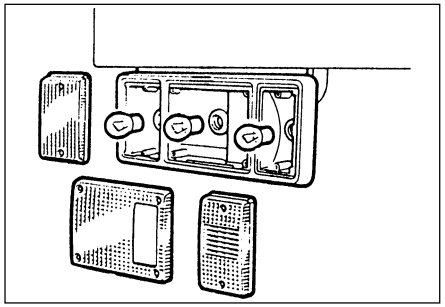
Fog lights V

Remove the screws retaining the lens and remove the lamp unit.



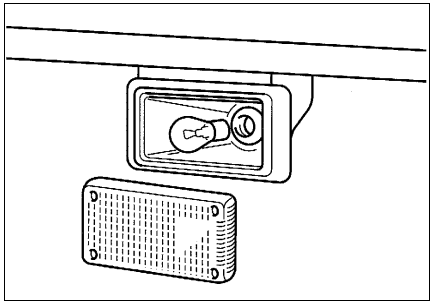
Side turn signal lights V

Remove the screws retaining the lens and remove the lens.



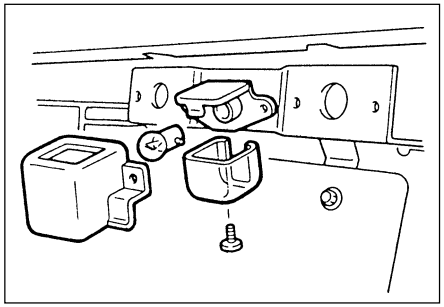
Rear combination lights

Remove the screws retaining the lens and remove the lens.



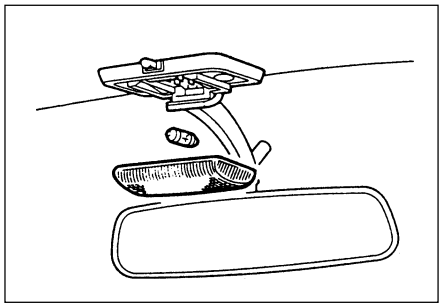
Rear fog light [V]

Remove the screws retaining the lens and remove the lens.



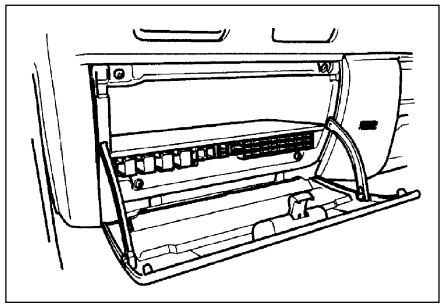
License plate light

The lens can be pulled out easily with screwdriver.



Dome light

The cover of the light can be removed very easily with a screwdriver.

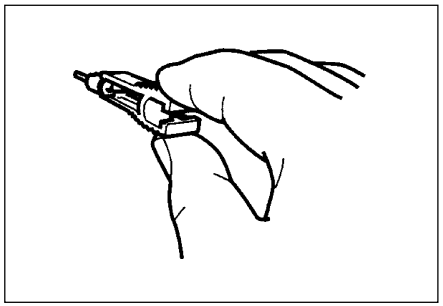


Fuse junction block

The fuse box is located in the glove box. Open the glove box cover to check and replace fuses.
The cover can be easily pulled out manually.
The specified amperages and circuit names of the fuses are described on the inside of the cover.
To replace a fuse, use the provided fuse puller.

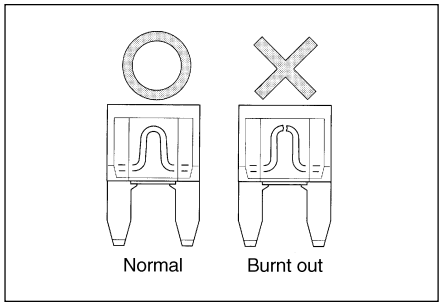
NOTE

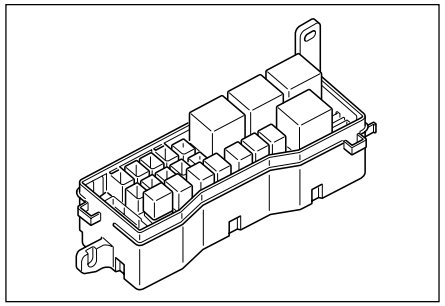
If a fuse has been burnt out, check to locate the cause of the trouble and give necessary service attention before replacing the fuse.



When replacing a fuse, turn the ignition key switch to the "LOCK" position and only use fuses of the same amperage.

Use specified fuses only. Unspecified fuses can cause fire and malfunction of equipment.





Fusible link

If the headlights or other electrical components do not work and the fuses are OK, check the fusible link.
If a fusible link is burnt out, it must be replaced with one of the same amperage.

WARNING

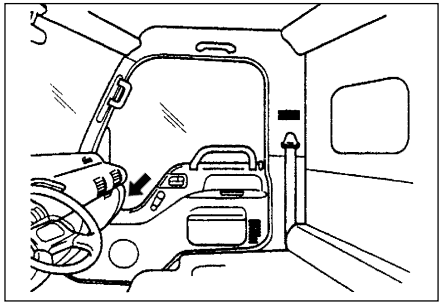
Always use Isuzu genuine fusible links for replacement.

Never install a wire, even if it is temporary. It may cause extensive damage and possibly a fire.

If there is an overload in the circuits from the battery, the fusible links are designed to burn out before the entire wiring harness is damaged.

WARNING

The cause of electrical overload should always be determined before replacing a fusible link.



Cleaning inside cab

CAUTION

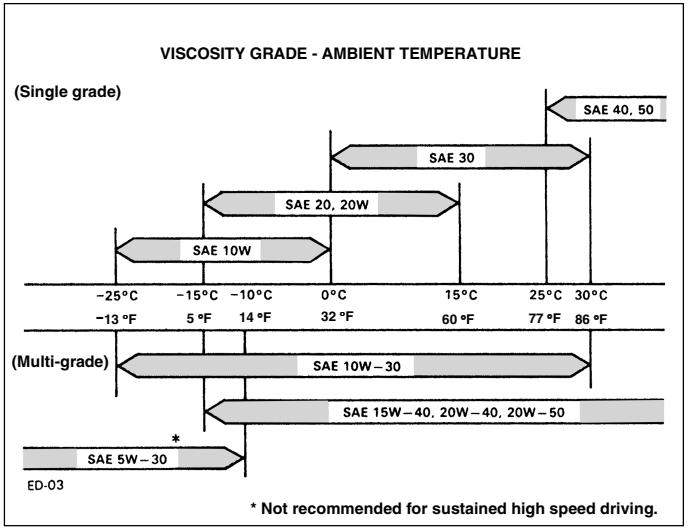
Do not wash by sousing water directly inside the cab. It causes a malfunction of electronic control devices installed on the back side of the glove box or rust on the floor.

LUBRICATION

Lubricants should be carefully selected according to the lubrication chart. It is also important to select viscosity of lubricants according to the ambient temperature by referring to the following table.

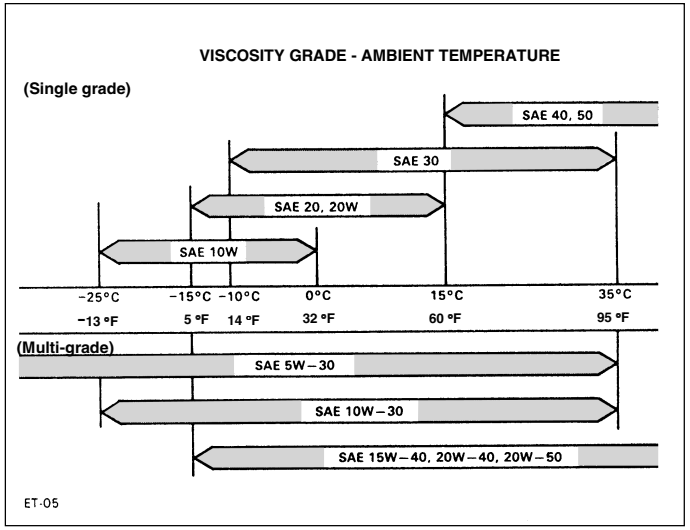
Oil viscosity chart for diesel engines

APPLY DIESEL ENGINE OIL



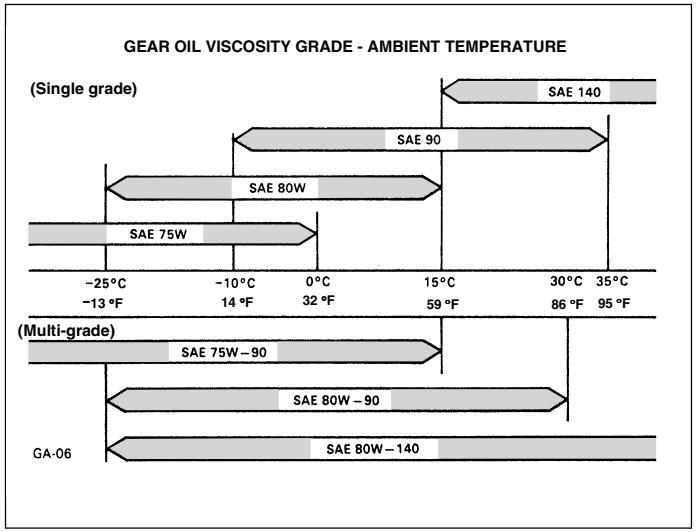
Oil viscosity chart for transmission cases

APPLY ENGINE OIL



Oil viscosity chart for front and rear axle

APPLY GEAR OIL



RECOMMENDED FLUIDS, LUBRICANTS AND DIESEL FUELS

In order to obtain maximum performance and longest service life from your ISUZU vehicles, it is very important to select and use correctly best lubricants and diesel fuels.
When lubricating, be sure to use ISUZU genuine lubricants or recommended lubricants listed below, according to the maintenance schedule for each vehicle model.
The lubrication intervals in the maintenance schedule and the coverage and period of new vehicle warranty are based on the use of ISUZU genuine lubricants or recommended lubricants as given in the chart which will serve as a guide for selecting lubricants of proper brand name.

LUBRICATION	MAKER	BRAND/TYPE	GRADE		
			API	ACEA	JASO
Diesel engine crankcase	**ISUZU GENUINE**	**BESCO MULTI-Z TYPE CF-4 (10W-30)**	**CF-4**		
	ISUZU GENUINE	**BESCO S-3 (10W, 20W, 30, 40)**	**CD**		
	Caltex/Chevron	Delo CXJ (15W-40/20W-50/40)	CD/CF		DH-1
		Delo 400 Multigrade (15W-40)	CD/CE/CF/CI-4	E3/E5	DH-1
	Shell	Rimula X (15W-40)	CH-4	E3	DH-1
		Rimula D (15W-40/30/40)	CD/CF		
	Elf	Perfo 3F (15W-40)	CF-4/CE	B2/E2	
	Total	Rubia XT (15W-40)	CF-4	E2	
	Castrol	RX Super Plus (15W-40)	CH-4	E3	
		Tection J Plus (15W-40)	CH-4	E3/B3	DH-1
	BP	BP Vanellus C6 (15W-40)	CH-4	E3	

LUBRICATION	MAKER	BRAND/TYPE	GRADE		
			API	ACEA	JASO
Differential	**ISUZU GENUINE**	**BESCO GEAR OIL SH (80W-90, 90, 140)**	**GL-5**		
	Caltex	Thuban GL-5 EP (80W-90/85W-140)	GL-5		
	Shell	Spirax A (140)	GL-5		
	Elf	Tranself Type B (80W-90/85W-140)	GL-5		
	Total	Transmission TM (80W-90/85W-140)	GL-5		
	Castrol	EPX 90 (90)	GL-5		
		Dynadrive (80W-90)	GL-5		
	BP	Energear Hypo (90)	GL-5		
		Energear EP (80W-90)	GL-5		
Differential (Limited slip differential)	**ISUZU GENUINE**	**BESCO GEAR OIL LSD (140)**	***GL-5**		
	Caltex	Gear Oil LSD (90)	GL-5		
	Shell	Spirax A LS 90 (90)	GL-5		
	Elf	Tranself Type BLS (90)	GL-5		
	Total	Transmission DA (85W-90)	GL-5		
	Castrol	Hypoy LSX (90)	GL-5		
	BP	Energear LS-M (90)	GL-5		
Manual transmission Transfer case	**ISUZU GENUINE**	**BESCO GEAR OIL TRANSAXLE (5W-30)**	**SG**		
	Caltex/Chevron	Delo 400 Multigrade (15W-40)	CD/CE/CF/CI-4	E3/E5	DH-1
	Shell	Helix Plus (15W-50)	SJ/CF	A3/B3	
	Elf	Super Sporti (15W-40)	SG/CD		
	Total	Quartz 5000 (15W-40/20W-50)	SJ/CF	A2/B2	
	Castrol	RX Super Plus (15W-40)	CD/CE/CF		
	BP	BP Vanellus C6 (15W-40)	CD/CE/CF		

LUBRICATION	MAKER	BRAND/TYPE	GRADE		
			API	ACEA	JASO
Power steering Hydro brake booster	**ISUZU GENUINE** Caltex/Texaco Shell Elf Total Castrol BP	**BESCO ATF II, ATF III** Texamatic 1888 (Dexron III) Donax TG (Dexron III) ELFMATIC G3 (Dexron III) Total Fluid AT 42 (Dexron III) TQ Dexron III (Dexron III) Autoran DX3 (Dexron III)			
Clutch (Smoother)	**ISUZU GENUINE**	**BESCO ATF III** or equivalent to BESCO ATF III			
Center bearing King pin Upper links (Multi purpose grease)	**ISUZU GENUINE** Caltex/Texaco Shell Total Castrol BP	**BESCO L-2 GREASE (No.2), L-3 GREASE (No.3)** Starplex-2 (No.2) Retinax LX2 (No.2) Multis EP2/EP3 (No.2/No.3) LM Grease (No.2/No.3) Energrease LS (No.2/No.3)			
Propeller shaft sliding yoke Universal joint (Multi purpose grease containing molybdenum disulfide)	**ISUZU GENUINE** Caltex Shell Total	**ONE LUBER MO GREASE** Molytex Grease EP2 (No.2) Retinax HDX2 (No.2) Total Multis MS2 (No.2/No.3)			

LUBRICATION	MAKER	BRAND/TYPE	GRADE		
			API	ACEA	JASO
Engine cooling system	**ISUZU GENUINE** Caltex/Texaco/Chevron	**BESCO LLC SUPER TYPE E** Extended Life Coolant Havoline XLC Delo XLC			

* If GL-5 Limited Slip Differential Lubricant is not available, use GL-5 Lubricant together with Limited Slip Differential Lubricant additive (Parts No. 8-01052-358-0) or equivalent.

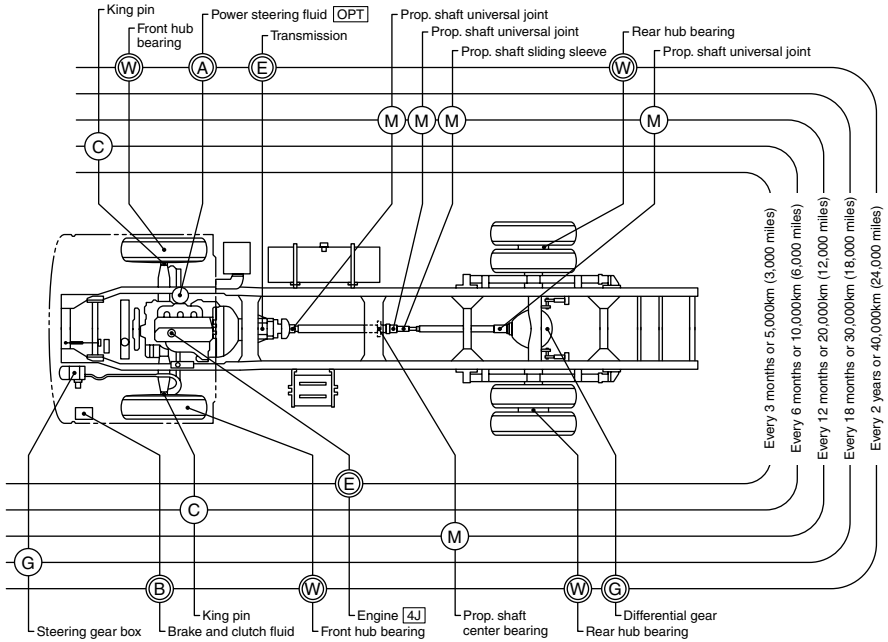
FLUID	TYPE
Clutch and brake fluid reservoir	**Besco brake fluid SUPER** Hydraulic brake fluid SAE J1703 FMVSS 116 DOT.3 grade

DIESEL FUEL/APPLICABLE STANDARD	
JIS (JAPANESE INDUSTRIAL STANDARD)	Based on K2204 GAS OIL
DIN (DEUTSCHE INDUSTRIE NORMEN)	Based on EN590: 1997
SAE (SOCIETY OF AUTOMOTIVE ENGINEERS)	Based on SAE J-313C
BS (BRITISH STANDARD)	Based on BS EN590-1997

NOTE:
Use the applicable standard or equivalent for diesel fuels.

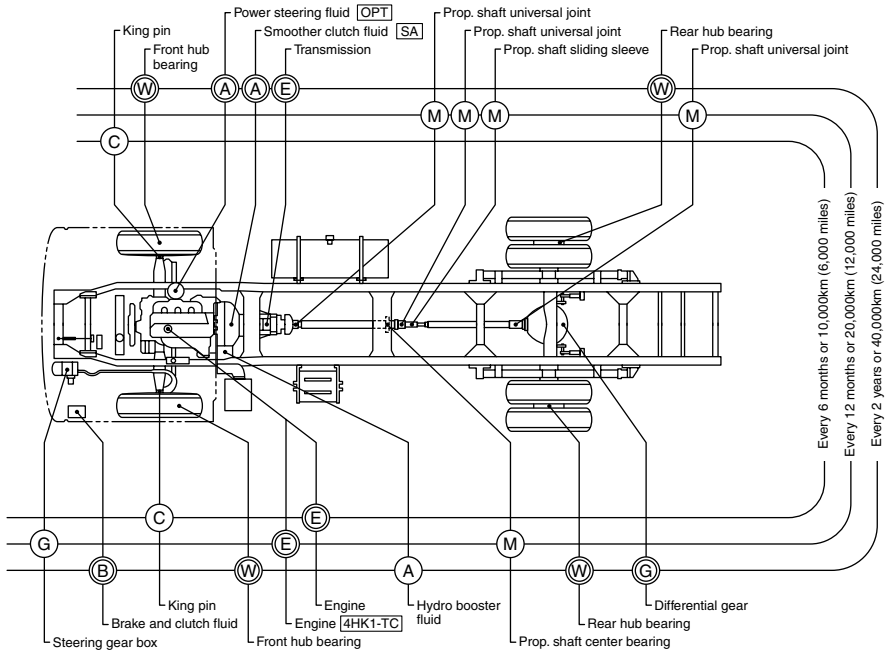
LUBRICATION CHART: NHR55 AND NHR69

◎ : Change
○ : Check and Replenish or Lubricate
E : Engine oil
G : Gear oil
W : Wheel bearing grease
C : Multipurpose type grease
M : MoS_2 contained type grease
B : Brake fluid
A : Automatic transmission fluid



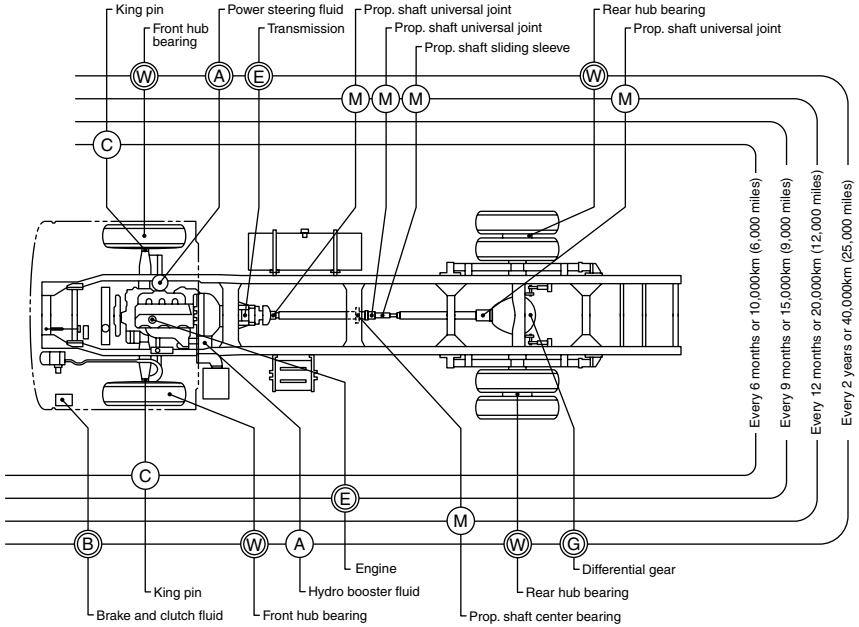
LUBRICATION CHART: NKR66, NKR71, NPR66, NPR70, NPR71, NPR75, NQR66, NQR70, NQR71 AND NQR75

◎ : Change
○ : Check and Replenish or Lubricate
E : Engine oil
G : Gear oil
W : Wheel bearing grease
C : Multipurpose type grease
M : MoS_2 contained type grease
B : Brake fluid
A : Automatic transmission fluid



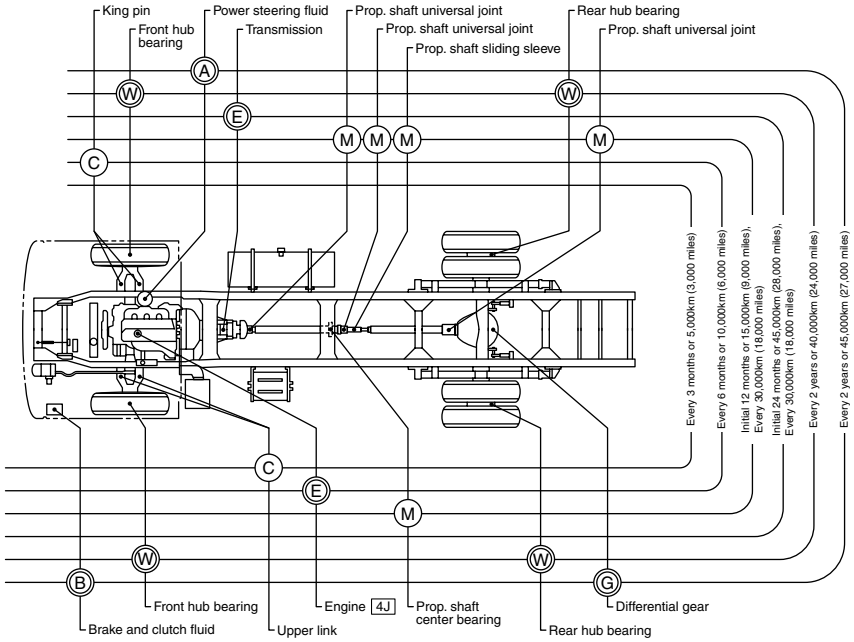
LUBRICATION CHART: NKR77 AND NPR77 (FRONT RIGID SUSPENSION)

◎ : Change
○ : Check and Replenish or Lubricate
E : Engine oil
G : Gear oil
W : Wheel bearing grease
C : Multipurpose type grease
M : MoS_2 contained type grease
B : Brake fluid
A : Automatic transmission fluid



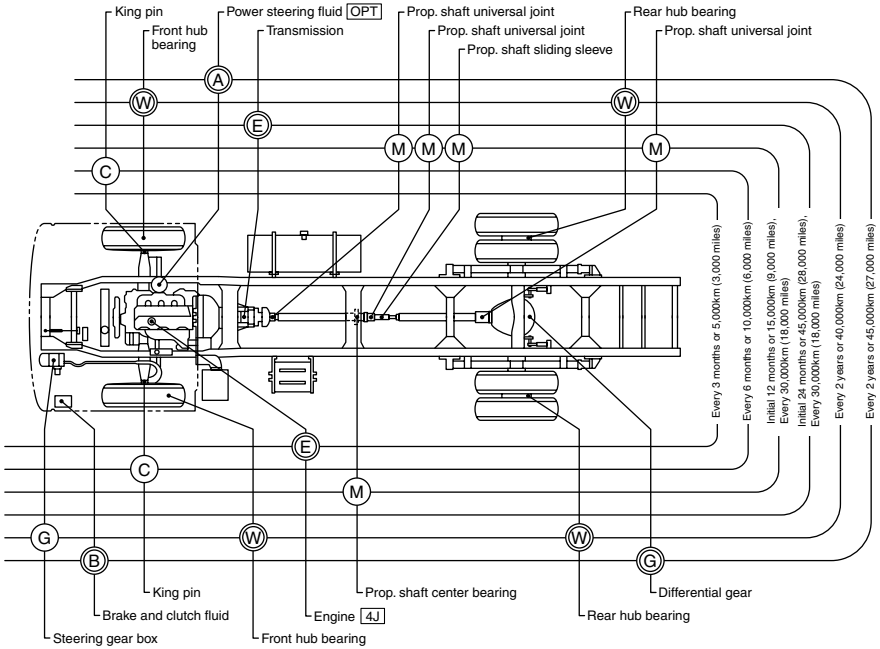
LUBRICATION CHART: NKR77 (FRONT INDEPENDENT SUSPENSION)

◎ : Change
○ : Check and Replenish or Lubricate
E : Engine oil
G : Gear oil
W : Wheel bearing grease
C : Multipurpose type grease
M : MoS_2 contained type grease
B : Brake fluid
A : Automatic transmission fluid



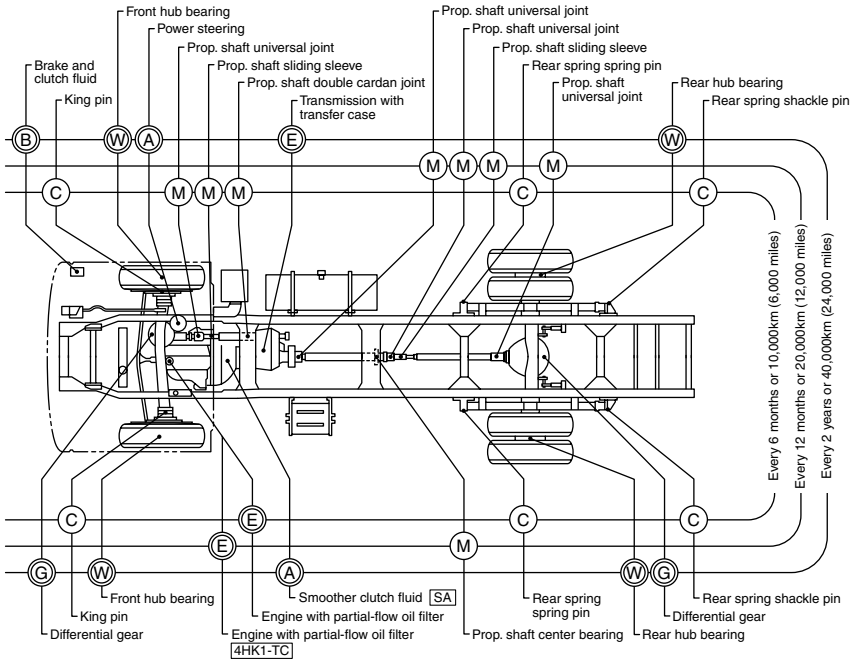
LUBRICATION CHART: NKR55

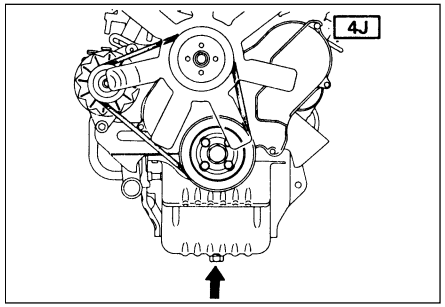
◎ : Change
○ : Check and Replenish or Lubricate
E : Engine oil
G : Gear oil
W : Wheel bearing grease
C : Multipurpose type grease
M : MoS_2 contained type grease
B : Brake fluid
A : Automatic transmission fluid

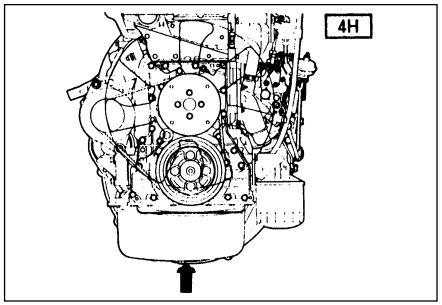


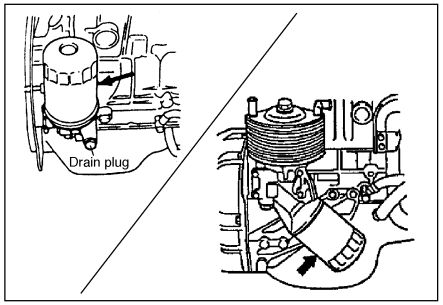
LUBRICATION CHART: NPS71 AND NPS75

◎ : Change
○ : Check and Replenish or Lubricate
E : Engine oil
G : Gear oil
W : Wheel bearing grease
C : Multipurpose type grease
M : MoS_2 contained type grease
B : Brake fluid
A : Automatic transmission fluid









LUBRICATION GUIDE

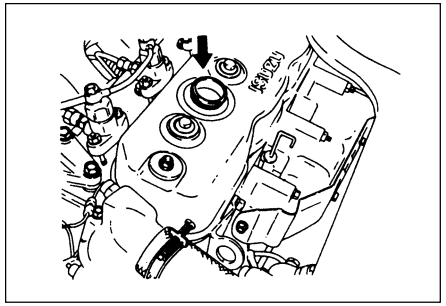
Changing engine oil

Drain the engine crankcase completely by removing the drain plug on the lower part of the oil pan, main oil filter and partial-flow oil filter.

WARNING

A hot engine oil can cause severe skin burns. Allow the engine to cool before draining the engine oil.

When the engine crankcase and oil filter are completely drained, reassemble the drain plug.

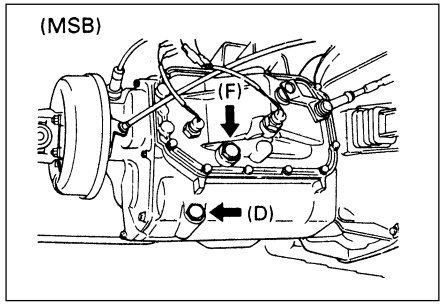


Then fill the engine crankcase from the filler port with new engine oil of the specified grade.

NOTE

Use CE or CD grade engine oil for diesel engine. (Refer to "RECOMMENDED LUBRICANTS AND DIESEL FUELS".)

When the engine crankcase is filled to the high level mark on the oil dipstick, start and let the engine idle for a few minutes. Stop the engine and recheck the oil level and replenish, if necessary.



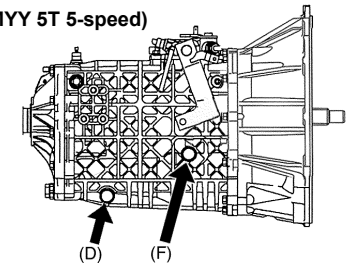
Changing transmission oil

Drain the transmission case by removing the drain plug (D) on the lower face of the transmission case. Fill the transmission case to the filler plug (F) with the specified engine oil through the filler plug hole.

WARNING

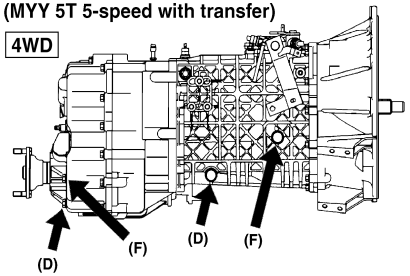
- ***Right after driving, the oil may be hot, so be careful.***

(MYY 5T 5-speed)

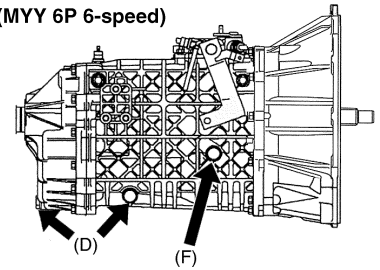


(MYY 5T 5-speed with transfer)

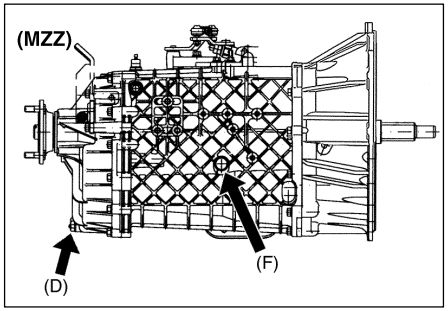
4WD

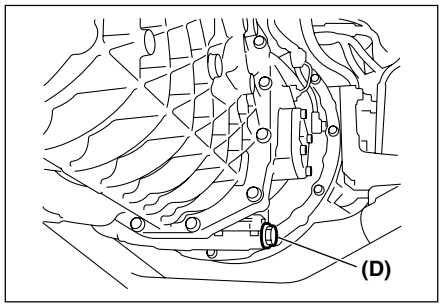


(MYY 6P 6-speed)



(MZZ)





Changing Smoother clutch fluid SA

1. Park the vehicle on the level ground.
2. Remove the drain plug (D) and O-ring of Smoother oil pan.
3. Drain the fluid. When draining, check that the amount of fluid is adequate and there is no metal pieces or foreign substances.

WARNING

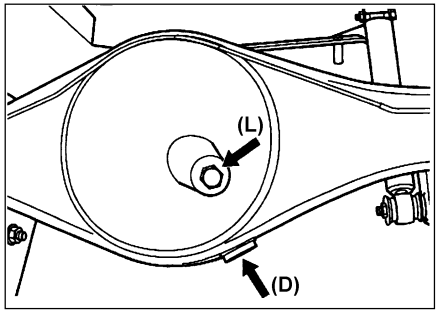
Hot fluid can cause severe skin burns. Allow the transmission to cool before draining the Smoother clutch fluid.

4. Replace the O-ring and install the drain plug (D) of Smoother oil pan.

CAUTION

Do not reuse old O-ring.

5. Pour the specified fluid from level gauge guide tube. Refer to "Smoother clutch fluid level".



Changing differential oil

Drain the rear axle case by removing the drain plug (D) on the lower part of the rear axle case. Fill the rear axle case to the level plug (L) with specified gear oil through the level plug hole.

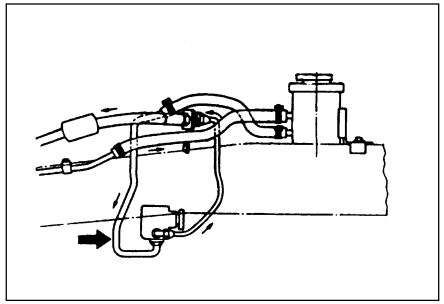
If your vehicle is equipped with standard differential, use GL-5 Gear Lubricant of the correct viscosity for the existing ambient temperatures.
If your vehicle is equipped with the optional limited slip differential (Rear AXLE), use GL-5 Limited Slip Differential Gear Lubricant together with Limited Slip Differential Lubricant Additive (Isuzu Part No. 8-01052-358-0, GM Part No.#1052358) or equivalent.

Use the correct viscosity for the existing ambient temperature.

	Quantity
Limited Slip Differential Lubricant Additive	4oz (112 g)

NOTE

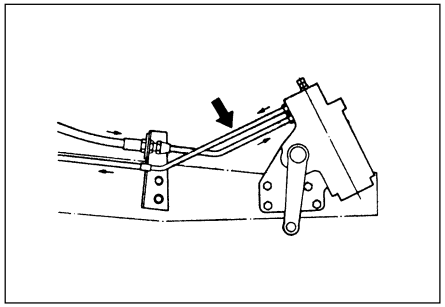
Be sure to use the Limited Slip Differential Lubricant Additive mentioned above, otherwise a chattering noise and/or excessive vibration may occur when turning.



Changing power steering fluid

Draining:

1. Jack up the front wheels until they are clear of the ground.
2. Remove the fluid pipe between the steering unit and the fluid reservoir, and the fluid hose between the pump and the fluid reservoir.
3. When draining is completed, remove the remaining fluid within the hydraulic system by turning the steering wheel until it stops in both directions several times.

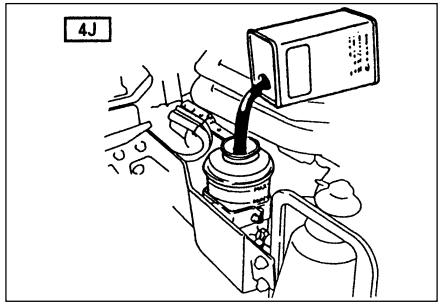


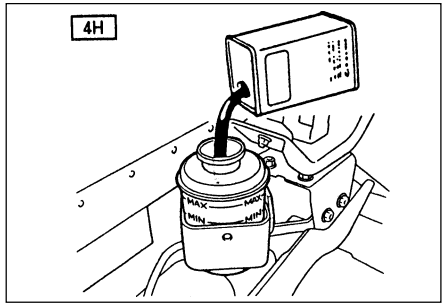
Refilling:

1. Install the fluid pipe and hose securely and fill the fluid reservoir with the specified automatic transmission fluid.
2. When the fluid reservoir is filled to the specified level, allow 2 or 3 minutes.

NOTE

After refilling regularly check and keep fluid reservoir replenished as necessary to prevent air from entering the hydraulic system.





3. Lower the front wheels to the ground. Start the engine and let it idle for a few minutes.
   Recheck the fluid level and replenish if necessary.

Changing hydro booster fluid V

WARNING

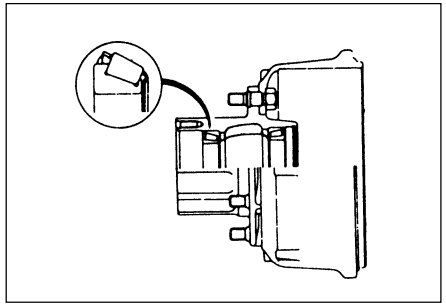
The hydro booster is designed for use with working fluid BESCO ATFIII. Use of other working fluids may affect rubber parts and lead to malfunction or oil leakage.
Remember that the brake fluid used in the master cylinder is entirely different in properties from the working fluid used in the hydro booster.
Use every caution to keep the master cylinder brake fluid away from the hydro booster components, and, similarly, the hydro booster working fluid away from the master cylinder components.
In the event the hydro booster working fluid and the master cylinder brake fluid are mixed by mistake, rubber parts will deteriorate due to poor lubrication. This may cause brake troubles due to oil leakage or malfunction, or to vehicle fire or other serious accidents due to the dragging brake.

The hydro booster working fluid becomes hot when the pump is activated with the engine running. The temperature inside piping or the hydro booster assembly can rise above 100°C during frequent brake operation. Use every caution when handling the hydro booster components. When removing the hydro booster assembly from the vehicle, stop the engine and let it cool down for at least 30 minutes before starting work.
The hydro booster accumulator maintains high pressure long after the engine is turned off. Before disconnecting the hydro booster assembly or piping from the vehicle, stop the engine and depress the brake pedal at least 10 times until the accumulator pressure drops to the atmospheric pressure. This is important especially when removing the replaceable accumulator and pressure switch from the hydro booster assembly. The working fluid will splash if the pressure is still high.

1. Add working fluid in the hydro booster reservoir tank to a level between the MIN and MAX marks.
2. Run the engine for about 5 seconds.
3. Stop the engine and read the fluid level in the reservoir tank.
4. If the level is below the MIN mark, add more fluid to a level between the MIN and MAX marks.
5. Repeat steps (2) to (4) the necessary number of times until the fluid level is stabilized and no air bubbles are found in the fluid. If bubbles are found, wait until they disappear before resuming work.
6. With the engine running, depress the brake pedal slowly about 5 times.
7. Stop the engine and read the fluid level in the reservoir tank. If the level is below the MIN mark, add more fluid to a level between the MIN and MAX marks.
8. With the engine turned off, depress the brake pedal at least 10 times.
9. Repeat steps (6) to (8) the necessary number of times until the fluid level is stabilized and no air bubbles are found in the fluid. If bubbles are found, wait until they disappear before resuming work.
10. Air bleeding from the brake fluid line (in the master cylinder, wheel cylinder, etc.) may be performed at this stage with the engine running as instructed below.
11. Depress the brake pedal slowly but firmly about 30 times (at the interval of 1 to 3 seconds) to the booster full-load range while the engine is running. Do not keep the pedal depressed at the full-load position longer than 1 second.
12. Stop the engine, and depress the brake pedal repeatedly at least 10 times.
13. Check the condition of the working fluid in the reservoir tank. Air bleeding is completed if the fluid level is stabilized and no air bubbles are found. If bubbles are found, wait until they disappear and repeat steps (11) and (12).

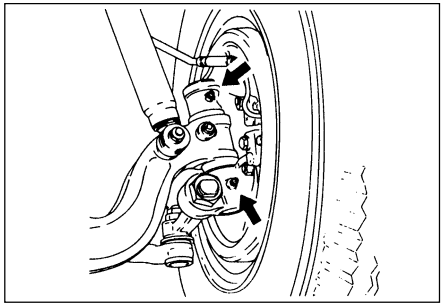
CAUTION

Air bleeding from the brake fluid line (in the master cylinder, wheel cylinder, etc.) may be performed only after air is bled from the hydro booster and with the engine running. Air cannot be bled from the brake fluid line if the engine is not running.
When bleeding air from both the hydro booster and the brake fluid line, always bleed air from the hydro booster first per steps (1) through (9) above.



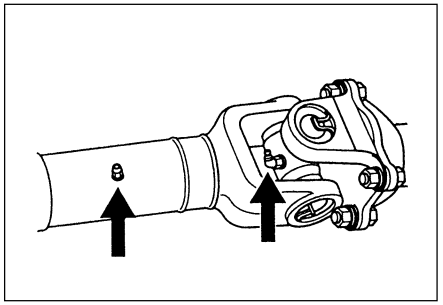
Repacking the front and rear hub bearing with grease

It is suggested that the vehicle be brought into an Isuzu dealer when the above operation becomes necessary as the operation calls for disassembly and reassembly operations.

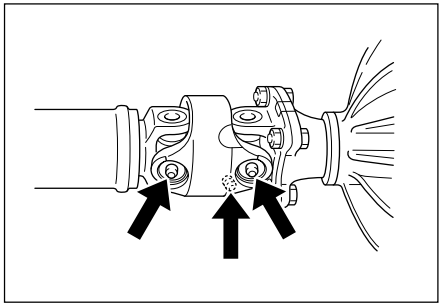


Greasing points

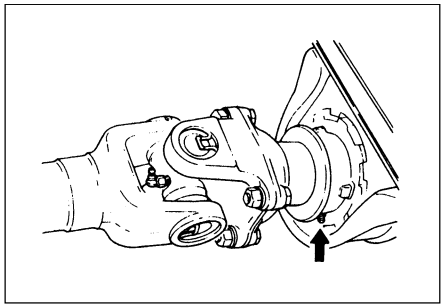
Lubricate the following points with multipurpose type grease.
King pins (4 points).



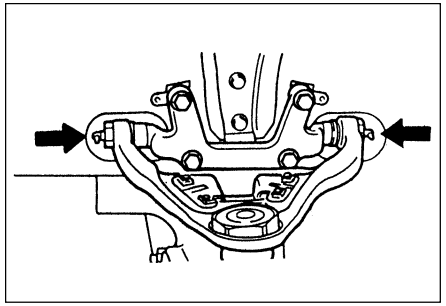
Lubricate the following points with MoS_2 type grease.
Universal joints and sliding sleeve.



Lubricate the following points with MoS_2 type grease. 4WD
Double cardan joint of front propeller shaft (3 points).



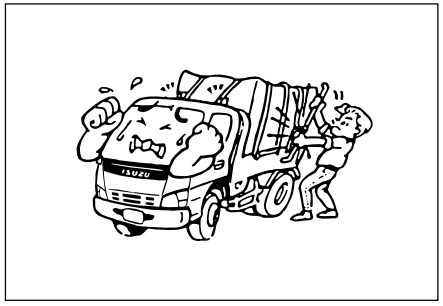
Lubricate the following points with wheel bearing grease.
Center bearing.



Lubricate the following points with multipurpose type grease.
Independent suspension upper links (4 points).

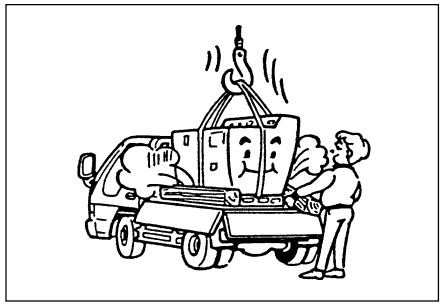
CORRECT CARGO LOADING

Overloading and uneven loading are very dangerous. Please use the correct loading based on the standard maximum load. Wrong loading may cause unstable operation and overload on one of the axles, damaging the cargo bed and frame.



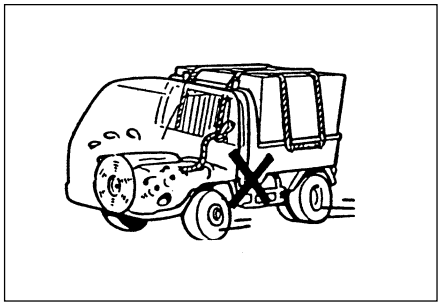
Never apply unnecessarily large force.

Fix the load securely using a load cover or rope to prevent it from falling, but do not apply unnecessarily large force as this could break or otherwise damage the side drop, tail gate and guard frame, etc.



When loading with a heavy cargo:

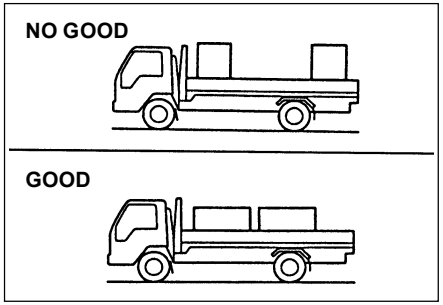
In case of heavyweight cargo, use pads under the cargo to prevent it from moving and fix it firmly with wire rope, etc. Do not fix cargo using excessive force.



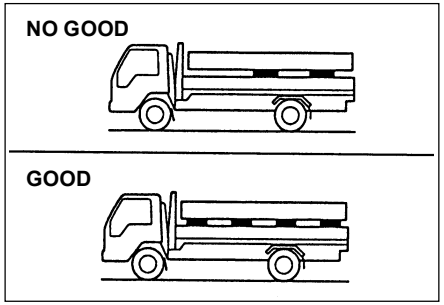
Keep flammable materials away from the gap between the cab and the guard frame.

Make certain the load cover or rope ends are tucked in tight and not hanging free in the gap behind the cab, as the engine heat may cause a fire while driving.

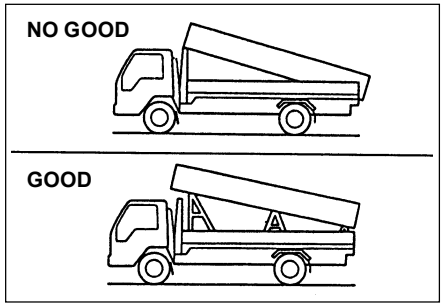
Loading methods



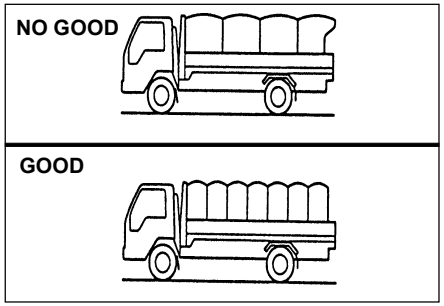
Do not leave a large space between loads.
Distribute the load evenly.



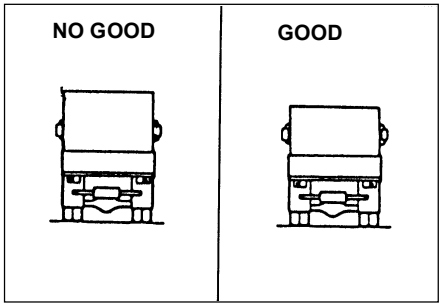
When using supports under a load, distribute them evenly.



Place supports underneath when carrying an extra-long item. Do not support it with the guard frame or the rear end of the bed.



Secure the load with a load cover and rope to prevent it from falling. Tuck the fixing material with rubber bands or other appropriate material.



Avoid high loading.
Minimize the height to prevent the vehicle from rolling due to crosswind or when turning.

- NOTE -

MAIN DATA AND SPECIFICATIONS OF ENGINE

Engine model	4JB1 MODEL ENGINE	4JB1-TC MODEL ENGINE	4JG2 MODEL ENGINE
Model and type	4JB1 diesel engine, four cycle, four cylinder, overhead valve, water cooled, direct injection	4JB1-TC diesel engine, four cycle, four cylinder, overhead valve, water cooled, direct injection, turbocharger with intercooler	4JG2 diesel engine, four cycle, four cylinder, overhead valve, water cooled, indirect injection
Compression ratio (to 1)	18.2 V 18.1	18.2	20.1
Piston displacement cc (cu.in.)	2,771 (169.1)	2,771 (169.1)	3,059 (186.7)
Firing order	1-3-4-2	1–3–4–2	1-3-4-2
Fan belt tension mm (in)	8 to 12 (0.32 to 0.47)	8 to 12 (0.32 to 0.47)	8 to 12 (0.32 to 0.47)
Idling speed r.p.m	775-825 V 725-775	775-825	720
Engine oil capacity liters (US/Imp gal.)	5.55 (1.47/1.22)	5.55 (1.47/1.22)	6.85 (1.81/1.51)
Coolant capacity liters (US/Imp gal.)	10.1 (2.67/2.22)	10.1 (2.67/2.22)	10.1 (2.67/2.22)
Oil pan drain plug tightening torque N•m (kg•m, ft.lbs)	83 (8.5, 61)	83 (8.5, 61)	83 (8.5, 61)

Engine model	4JH1-TC MODEL ENGINE	4HF1 MODEL ENGINE	4HF1-2 MODEL ENGINE
Model and type	4JH1-TC diesel engine, four cycle, four cylinder, overhead valve, water cooled, direct injection, turbocharger with intercooler	4HF1 diesel engine, four cycle, four cylinder, in line, overhead camshaft, water cooled, direct injection	4HF1-2 diesel engine, four cycle, four cylinder, overhead camshaft, water cooled, indirect injection
Compression ratio (to 1)	18.3	19.0	19.0
Piston displacement cc (cu.in.)	2,999 (183.3)	4,334 (264.5)	4,334 (264.5)
Firing order	1-3-4-2	1–3–4–2	1-3-4-2
Fan belt tension mm (in)	8 to 12 (0.32 to 0.47)	8 to 12 (0.32 to 0.47)	8 to 12 (0.32 to 0.47)
Idling speed r.p.m	675-725	550-600	575-625
Engine oil capacity liters (US/Imp gal.)	6 to 8 (1.59 to 2.11/1.32 to 1.76)	10.5 (2.77/2.31)	10.5 (2.77/2.31)
Coolant capacity liters (US/Imp gal.)	12.0 (3.17/2.64)	14.0 (3.70/3.08)	14.0 (3.70/3.08)
Oil pan drain plug tightening torque N•m (kg•m, ft.lbs)	44 (4.5, 33)	78 (8.0, 58)	83 (8.5, 62)

MAIN DATA AND SPECIFICATIONS

Engine model	4HE1-TC MODEL ENGINE	4HG1 MODEL ENGINE	4HG1-T MODEL ENGINE
Model and type	4HE1-TC diesel engine, four cycle, four cylinder, overhead camshaft, water cooled, direct injection, turbocharger with intercooler	4HG1 diesel engine, four cycle, four cylinder, in line, overhead camshaft, water cooled, direct injection	4HG1-T diesel engine, four cycle, four cylinder, in line, overhead camshaft, water cooled, direct injection, turbocharger
Compression ratio (to 1)	17.3	19.2	19.0
Piston displacement cc (cu.in.)	4,751 (289.9)	4,570 (278.9)	4,570 (278.9)
Firing order	1–3–4–2	1–3–4–2	1–3–4–2
Fan belt tension mm (in)	8 to 12 (0.32 to 0.47)	8 to 12 (0.32 to 0.47)	8 to 12 (0.32 to 0.47)
Idling speed r.p.m	800	550-600	550-600
Engine oil capacity liters (US/Imp gal.)	13.0 (3.44/2.86)	10.5 (2.77/2.31)	10.5 (2.77/2.31)
Coolant capacity liters (US/Imp gal.)	17.7 (4.68/3.89)	13.8 (3.63/3.04)	13.5 (3.57/2.97)
Oil pan drain plug tightening torque N•m (kg•m, ft.lbs)	83 (8.5, 62)	83 (8.5, 62)	83 (8.5, 62)

Engine model	4HK1-TC MODEL ENGINE
Model and type	4HK1-TC diesel engine, four cycle, four cylinder, in line, overhead camshaft, water cooled, direct injection, turbocharger with intercooler
Compression ratio (to 1)	17.5
Piston displacement cc (cu.in.)	5,193 (317)
Firing order	1–3–4–2
Fan belt tension mm (in)	8 to 12 (0.32 to 0.47)
Idling speed r.p.m	650
Engine oil capacity liters (US/Imp gal.)	13.0 (3.44/2.86)
Coolant capacity liters (US/Imp gal.)	17.6 (4.65/3.87)
Oil pan drain plug tightening torque N•m (kg•m, ft.lbs)	83 (8.5, 62)

MAIN DATA AND SPECIFICATIONS OF TRANSMISSION

Transmission type	MSB5S	MSB5M	MYY5T	MYY5T (with transfer)
TRANSMISSION				
Model and type	5-speed overdrive, synchromesh on all forward gear	5-speed overdrive, synchromesh on all forward gear	5-speed overdrive, synchromesh on all forward gear	5-speed overdrive, synchromesh on all forward gear
Oil capacity liters (US/Imp gal.)	2.7 (0.72/0.59)	2.7 (0.72/0.59)	2.8 (0.74/0.62)	3.5 (0.93/0.77)
TRANSFER CASE				
Type	-	-	-	2-speed, helical gear
Oil capacity liters (US/Imp gal.)	-	-	-	2.0 (0.53/0.44)
CLUTCH FLUID (Smoother)				
Oil capacity liters (US/Imp gal.)	-	-	6.5 to 6.7 (1.7 to 1.8/1.4 to 1.5)	-

Transmission type	MYY6P	MZZ6U	MZZ6F
TRANSMISSION			
Model and type	6-speed overdrive, synchromesh on all forward gear	6-speed overdrive, synchromesh on all forward gear	6-speed overdrive, synchromesh on all forward gear
Oil capacity liters (US/Imp gal.)	3.5 (0.93/0.77)	4.4 (1.17/0.97)	4.4 (1.17/0.97)
TRANSFER CASE			
Type	-	-	-
Oil capacity liters (US/Imp gal.)	-	-	-
CLUTCH FLUID (Smoother)			
Oil capacity liters (US/Imp gal.)	6.5 to 6.7 (1.7 to 1.8/1.4 to 1.5)	-	-

MAIN DATA AND SPECIFICATIONS ; NHR

Vehicle model	NHR55E	FL NHR55E	FL NHR69E
DIMENSIONS			
Wheelbase mm (in)	2,490 (98.0)	2,490 (98.0)	2,490 (98.0)
Tread: Front mm (in)	1,395 (54.9)	1,395 (54.9)	1,395 (54.9)
Rear mm (in)	1,375 (54.1)	1,265 (49.8)	1,265 (49.8)
Minimum ground clearance mm (in)	190 (7.5)	130 (5.1)	130 (5.1)
WEIGHTS			
Gross vehicle mass kg (lb)	3,300 (7,277) OPT 3,500 (7,718)	3,100 (6,836)	3,100 (6,836) OPT 3,550 (7,828)
Axle capacity: Front kg (lb)	1,800 (3,969)	1,800 (3,969)	1,800 (3,969)
Rear kg (lb)	2,475 (5,456) / 2,500 (5,513)	2,500 (5,512) / 1,900 (4,190)	2,500 (5,512) / 1,900 (4,190)
ENGINE			
Model	4JB1 TRB 4JB1-TC	4JB1	4JG2
Fuel tank capacity liters (US/Imp gal.)	75 (19.8/16.5) 63 (16.6/13.9) : Crew cab	63 (16.6/13.9)	63 (16.6/13.9)
CLUTCH			
Type	Hydraulic control, diaphragm spring, dry single plate	Hydraulic control, diaphragm spring, dry single plate	Hydraulic control, diaphragm spring, dry single plate
Pedal free play mm (in)	15 to 25 (0.59 to 0.98)	15 to 25 (0.59 to 0.98)	15 to 25 (0.59 to 0.98)
TRANSMISSION			
Manual transmission	MSB5S	MSB5S	MSB5S
Smoother	-	-	-
REAR AXLE			
Type	Spiral bevel pinion and hypoid gear	Spiral bevel pinion and hypoid gear	Spiral bevel pinion and hypoid gear
Oil capacity liters (US/Imp gal.)	∅244 2.7 (0.71/0.59)	∅244 2.7 (0.71/0.59)	∅244 2.7 (0.71/0.59)
STEERING			
Type	Recirculating ball OPT Recirculating ball with power assisted	Recirculating ball OPT Recirculating ball with power assisted	Recirculating ball OPT Recirculating ball with power assisted
Steering wheel free play mm (in)	10 to 30 (0.4 to 1.2) OPT 10 to 50 (0.4 to 2.0)	10 to 30 (0.4 to 1.2) OPT 10 to 50 (0.4 to 2.0)	10 to 30 (0.4 to 1.2) OPT 10 to 50 (0.4 to 2.0)
Oil capacity liters (US/Imp gal.)	0.54 (0.14/0.12) OPT 1.6 (0.42/0.35)	0.54 (0.14/0.12) OPT 1.6 (0.42/0.35)	0.54 (0.14/0.12) OPT 1.6 (0.42/0.35)

Vehicle model	NHR55E	FL NHR55E	FL NHR69E
SERVICE BRAKE			
Type	Hydraulic dual circuit with vacuum booster	Hydraulic dual circuit with vacuum booster	Hydraulic dual circuit with vacuum booster
Pedal free play mm (in)	4 to 7 (0.16 to 0.28)	4 to 7 (0.16 to 0.28)	4 to 7 (0.16 to 0.28)
PARKING BRAKE			
Type	Mechanical internal expanding at rear of transmission	Mechanical internal expanding at rear of transmission	Mechanical internal expanding at rear of transmission
Brake lever travel (when pulled with a 15 kg (33 lbs, 147 N)) notches	6 to 8	6 to 8	6 to 8
SUSPENSION			
Type: Front	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers
Rear	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers
ELECTRICAL			
Type	12 volt system with negative polarity ground	12 volt system with negative polarity ground	12 volt system with negative polarity ground
Battery volt/amp. hr.	95D31R (12/80) OPT 130E41R (12/110)	95D31R (12/80) OPT 130E41R (12/110)	95D31R (12/80) OPT 130E41R (12/110)
Starter volt/kw	12/2.0 OPT 12/2.2	12/2.0 OPT 12/2.2	12/2.0
AC generator volt/amp. hr.	12/50	12/50	12/50

MAIN DATA AND SPECIFICATIONS ; NKR

Vehicle model	NKR55E	FL NKR55E	NKR55E2	NKR55L
DIMENSIONS				
Wheelbase mm (in)	2,490 (98.0)	2,490 (98.0)	2,460 (96.9)	3,360 (132.3)
Tread: Front mm (in)	1,400 (55.1)	1,400 (55.1)	1,400 (55.1)	1,400 (55.1)
Rear mm (in)	1,395 (54.9)	1,265 (49.8)	1,425 (56.1)	1,425 (56.1)
Minimum ground clearance mm (in)	190 (7.5)	165 (6.5)	190 (7.5)	190 (7.5)
WEIGHTS				
Gross vehicle mass kg (lb)	3,500 (7,718) / 4,100 (9,041)	4,200 (9,261) OPT 4,400 (9,702)	5,200 (11,466)	5,200 (11,466)
Axle capacity: Front kg (lb)	2,500 (5,513)	2,500 (5,513)	2,500 (5,513)	2,500 (5,513)
Rear kg (lb)	3,000 (6,615)	4,000 (8,820)	4,000 (8,820)	4,000 (8,820)
ENGINE				
Model	4JB1 TRB 4JB1-TC	TRB 4JB1-TC	4JB1 TRB 4JB1-TC	4JB1 TRB 4JB1-TC
Fuel tank capacity liters (US/Imp gal.)	63 (16.6/13.9)	63 (16.6/13.9)	63 (16.6/13.9) : Crew cab 75 (19.8/16.5)	100 (26.4/22.0)
CLUTCH				
Type	Hydraulic control, diaphragm spring, dry single plate	Hydraulic control, diaphragm spring, dry single plate	Hydraulic control, diaphragm spring, dry single plate	Hydraulic control, diaphragm spring, dry single plate
Pedal free play mm (in)	15 to 25 (0.59 to 0.98)	15 to 25 (0.59 to 0.98)	15 to 25 (0.59 to 0.98)	15 to 25 (0.59 to 0.98)
TRANSMISSION				
Manual transmission	MSB5S	MSB5S	MSB5M	MSB5M
Smoother	-	-	-	-
REAR AXLE				
Type	Spiral bevel pinion and hypoid gear	Spiral bevel pinion and hypoid gear	Spiral bevel pinion and hypoid gear	Spiral bevel pinion and hypoid gear
Oil capacity liters (US/Imp gal.)	∅244 2.7 (0.71/0.59)	∅244 2.7 (0.71/0.59)	∅292 3.0 (0.79/0.66)	∅292 3.0 (0.79/0.66)

Vehicle model	NKR55E	FL NKR55E	NKR55E2	NKR55L
STEERING				
Type	Recirculating ball OPT Recirculating ball with power assisted	Recirculating ball OPT Recirculating ball with power assisted	Recirculating ball OPT Recirculating ball with power assisted	Recirculating ball OPT Recirculating ball with power assisted
Steering wheel free play mm (in)	10 to 30 (0.39 to 1.18) OPT 10 to 50 (0.39 to 1.97)	10 to 30 (0.39 to 1.18) OPT 10 to 50 (0.39 to 1.97)	10 to 30 (0.39 to 1.18) OPT 10 to 50 (0.39 to 1.97)	10 to 30 (0.39 to 1.18) OPT 10 to 50 (0.39 to 1.97)
Oil capacity liters (US/Imp gal.)	0.54 (0.14/0.12) OPT 1.6 (0.42/0.35)	0.54 (0.14/0.12) OPT 1.6 (0.42/0.35)	0.54 (0.14/0.12) OPT 1.6 (0.42/0.35)	0.54 (0.14/0.12) OPT 1.6 (0.42/0.35)
SERVICE BRAKE				
Type	Hydraulic dual circuit with vacuum booster	Hydraulic dual circuit with vacuum booster	Hydraulic dual circuit with vacuum booster	Hydraulic dual circuit with vacuum booster
Pedal free play mm (in)	4 to 7 (0.16 to 0.28)	4 to 7 (0.16 to 0.28)	4 to 7 (0.16 to 0.28)	4 to 7 (0.16 to 0.28)
PARKING BRAKE				
Type	Mechanical internal expanding at rear of transmission	Mechanical internal expanding at rear of transmission	Mechanical internal expanding at rear of transmission	Mechanical internal expanding at rear of transmission
Brake lever travel (when pulled with a 15 kg (33 lbs, 147 N)) notches	6 to 8	6 to 8	6 to 8	6 to 8
SUSPENSION				
Type: Front	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers or independent torsion bar spring, with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers or independent torsion bar spring, with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers or independent torsion bar spring, with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers or independent torsion bar spring, with hydraulic double acting telescopic shock absorbers
Rear	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers
ELECTRICAL				
Type	12 volt system with negative polarity ground	12 volt system with negative polarity ground	12 volt system with negative polarity ground	12 volt system with negative polarity ground
Battery volt/amp. hr.	95D31R (12/80) OPT 130E41R (12/110)	95D31R (12/80) OPT 130E41R (12/110)	95D31R (12/80) OPT 130E41R (12/110)	95D31R (12/80) OPT 130E41R (12/110)
Starter volt/kw	12/2.2	12/2.2	12/2.2	12/2.2
AC generator volt/amp. hr.	12/50	12/50	12/50	12/50

MAIN DATA AND SPECIFICATIONS

Vehicle model	NKR66E	NKR66E2	NKR66ED	NKR66L
DIMENSIONS				
Wheelbase mm (in)	2,490 (98.0)	2,460 (96.9)	2,490 (98.0)	3,360 (132.3)
Tread: Front mm (in)	1,400 (55.1)	1,400 (55.1)	1,400 (55.1)	1,400 (55.1)
Rear mm (in)	1,395 (54.9)	1,425 (56.1)	1,240 (48.8)	1,425 (56.1)
Minimum ground clearance mm (in)	190 (7.5)	190 (7.5)	190 (7.5)	190 (7.5)
WEIGHTS				
Gross vehicle mass kg (lb)	4,100 (9,041)	5,500 (12,128)	5,500 (12,128) OPT 4,800 (10,584)	5,500 (12,128)
Axle capacity: Front kg (lb)	2,500 (5,513)	2,500 (5,513)	2,500 (5,513)	2,500 (5,513)
Rear kg (lb)	4,000 (8,820)	4,000 (8,820)	4,500 (9,923)	5,000 (11,025)
ENGINE				
Model	4HF1-2	4HF1-2	4HF1-2	4HF1-2
Fuel tank capacity liters (US/Imp gal.)	75 (19.8/16.5)	75 (19.8/16.5)	100 (26.4/22.0)	100 (26.4/22.0)
CLUTCH				
Type	Hydraulic control, diaphragm spring, dry single plate OPT Hydraulic control, with vacuum booster, diaphragm spring dry single plate	Hydraulic control, diaphragm spring, dry single plate OPT Hydraulic control, with vacuum booster, diaphragm spring dry single plate	Hydraulic control, diaphragm spring, dry single plate OPT Hydraulic control, with vacuum booster, diaphragm spring dry single plate	Hydraulic control, diaphragm spring, dry single plate OPT Hydraulic control, with vacuum booster, diaphragm spring dry single plate
Pedal free play mm (in)	15 to 25 (0.59 to 0.98)	15 to 25 (0.59 to 0.98)	15 to 25 (0.59 to 0.98)	15 to 25 (0.59 to 0.98)
TRANSMISSION				
Manual transmission	MYY5T	MYY5T	MYY5T	MYY5T
Smoother	-	-	-	-
REAR AXLE				
Type	Spiral bevel pinion and hypoid gear	Spiral bevel pinion and hypoid gear	Spiral bevel pinion and hypoid gear	Spiral bevel pinion and hypoid gear
Oil capacity liters (US/Imp gal.)	∅292 3.0 (0.79/0.66)	∅292 3.0 (0.79/0.66)	∅292 3.0 (0.79/0.66)	∅292 3.0 (0.79/0.66)
STEERING				
Type	Recirculating ball OPT Recirculating ball with power assisted	Recirculating ball OPT Recirculating ball with power assisted	Recirculating ball OPT Recirculating ball with power assisted	Recirculating ball OPT Recirculating ball with power assisted
Steering wheel free play mm (in)	10 to 30 (0.39 to 1.18) OPT 10 to 50 (0.39 to 1.97)	10 to 30 (0.39 to 1.18) OPT 10 to 50 (0.39 to 1.97)	10 to 30 (0.39 to 1.18) OPT 10 to 50 (0.39 to 1.97)	10 to 30 (0.39 to 1.18) OPT 10 to 50 (0.39 to 1.97)
Oil capacity liters (US/Imp gal.)	0.54 (0.14/0.12) OPT 1.6 (0.42/0.35)	0.54 (0.14/0.12) OPT 1.6 (0.42/0.35)	0.54 (0.14/0.12) OPT 1.6 (0.42/0.35)	0.54 (0.14/0.12) OPT 1.6 (0.42/0.35)

Vehicle model	NKR66E	NKR66E2	NKR66ED	NKR66L
SERVICE BRAKE				
Type	Hydraulic dual circuit with vacuum booster	Hydraulic dual circuit with vacuum booster	Hydraulic dual circuit with vacuum booster	Hydraulic dual circuit with vacuum booster
Pedal free play mm (in)	4 to 7 (0.16 to 0.28)	4 to 7 (0.16 to 0.28)	4 to 7 (0.16 to 0.28)	4 to 7 (0.16 to 0.28)
PARKING BRAKE				
Type	Mechanical internal expanding at rear of transmission	Mechanical internal expanding at rear of transmission	Mechanical internal expanding at rear of transmission	Mechanical internal expanding at rear of transmission
Brake lever travel (when pulled with a 15 kg (33 lbs, 147 N)) notches	6 to 8	6 to 8	6 to 8	6 to 8
SUSPENSION				
Type: Front	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers or independent torsion bar spring, with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers or independent torsion bar spring, with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers or independent torsion bar spring, with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers or independent torsion bar spring, with hydraulic double acting telescopic shock absorbers
Rear	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers
ELECTRICAL				
Type	24 volt system with negative polarity ground	24 volt system with negative polarity ground	24 volt system with negative polarity ground	24 volt system with negative polarity ground
Battery volt/amp. hr.	75D23R (12/65) OPT 65D23R (12/65) OPT 80D26R (12/65)	75D23R (12/65) OPT 65D23R (12/65) OPT 80D26R (12/65)	75D23R (12/65) OPT 65D23R (12/65) OPT 80D26R (12/65)	75D23R (12/65) OPT 65D23R (12/65) OPT 80D26R (12/65)
Starter volt/kw	24/4.0 OPT 24/4.5	24/4.0 OPT 24/4.5	24/4.0 OPT 24/4.5	24/4.0 OPT 24/4.5
AC generator volt/amp. hr.	24/50	24/50	24/50	24/50

MAIN DATA AND SPECIFICATIONS

Vehicle model	NKR69E	NKR69L	NKR71L	NKR77E
DIMENSIONS				
Wheelbase mm (in)	2,490 (98.0)	3,360 (132.3)	3,360 (132.3)	2,490 (98.0)
Tread: Front mm (in)	1,400 (54.1)	1,400 (55.1)	1,400 (55.1)	1,400 (55.1)
Rear mm (in)	1,395 (54.9)	1,425 (56.1)	1,425 (56.1)	1,290 (50.8) / 1,395 (54.9)
Minimum ground clearance mm (in)	190 (7.5)	190 (7.5)	190 (7.5)	190 (7.5)
WEIGHTS				
Gross vehicle mass kg (lb)	4,100 (9,041) OPT 4,400 (9,702)	5,000 (11,025)	6,500 (14,333)	3,500 (7,718)
Axle capacity: Front kg (lb)	1,900 (4,190)	1,900 (4,190)	2,500 (5,513)	1,900 (4,190)
Rear kg (lb)	2,500 (5,512)	3,600 (7,938)	5,000 (11,025)	2,000 (4,410)
ENGINE				
Model	4JG2	4JG2	4HG1 TRB 4HG1-T	TRB 4JH1-TC
Fuel tank capacity liters (US/Imp gal.)	75 (19.8/16.5)	100 (26.4/22.0)	100 (26.4/22.0)	75 (19.8/16.5)
CLUTCH				
Type	Hydraulic control, diaphragm spring, dry single plate	Hydraulic control, diaphragm spring, dry single plate	Hydraulic control, diaphragm spring, dry single plate OPT Hydraulic control, with vacuum booster, diaphragm spring dry single plate	Hydraulic control, diaphragm spring, dry single plate OPT Hydraulic control, with vacuum booster, diaphragm spring dry single plate
Pedal free play mm (in)	15 to 25 (0.59 to 0.98)	15 to 25 (0.59 to 0.98)	15 to 25 (0.59 to 0.98)	15 to 25 (0.59 to 0.98)
TRANSMISSION				
Manual transmission	MSB5S	MSB5S	MYY5T	MYY5T
Smoother	-	-	-	-
REAR AXLE				
Type	Spiral bevel pinion and hypoid gear	Spiral bevel pinion and hypoid gear	Spiral bevel pinion and hypoid gear	Spiral bevel pinion and hypoid gear
Oil capacity liters (US/Imp gal.)	∅244 2.7 (0.71/0.59)	∅244 2.7 (0.71/0.59)	∅320 3.4 (0.89/0.75)	∅292 3.0 (0.79/0.66)
STEERING				
Type	Recirculating ball OPT Recirculating ball with power assisted	Recirculating ball OPT Recirculating ball with power assisted	Recirculating ball OPT Recirculating ball with power assisted	Recirculating ball OPT Recirculating ball with power assisted
Steering wheel free play mm (in)	10 to 30 (0.4 to 1.2) OPT 10 to 50 (0.4 to 2.0)	10 to 30 (0.4 to 1.2) OPT 10 to 50 (0.4 to 2.0)	10 to 30 (0.39 to 1.18) OPT 10 to 50 (0.39 to 1.97)	10 to 30 (0.39 to 1.18) OPT 10 to 50 (0.39 to 1.97)
Oil capacity liters (US/Imp gal.)	0.54 (0.14/0.12) OPT 1.6 (0.42/0.35)	0.54 (0.14/0.12) OPT 1.6 (0.42/0.35)	0.54 (0.14/0.12) OPT 1.6 (0.42/0.35)	0.54 (0.14/0.12) OPT 1.6 (0.42/0.35)

Vehicle model	NKR69E	NKR69L	NKR71L	NKR77E
SERVICE BRAKE				
Type	Hydraulic dual circuit with vacuum booster	Hydraulic dual circuit with vacuum booster	Hydraulic dual circuit with vacuum booster	Hydraulic dual circuit with vacuum booster
Pedal free play mm (in)	4 to 7 (0.16 to 0.28)	4 to 7 (0.16 to 0.28)	4 to 7 (0.16 to 0.28)	4 to 7 (0.16 to 0.28)
PARKING BRAKE				
Type	Mechanical internal expanding at rear of transmission	Mechanical internal expanding at rear of transmission	Mechanical internal expanding at rear of transmission	Mechanical internal expanding at rear of transmission
Brake lever travel (when pulled with a 15 kg (33 lbs, 147 N)) notches	6 to 8	6 to 8	6 to 8	6 to 8
SUSPENSION				
Type: Front	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers or independent torsion bar spring, with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers or independent torsion bar spring, with hydraulic double acting telescopic shock absorbers
Rear	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers
ELECTRICAL				
Type	12 volt system with negative polarity ground	12 volt system with negative polarity ground	24 volt system with negative polarity ground	24 volt system with negative polarity ground
Battery volt/amp. hr.	80D26R (12/65) OPT 115E41R (12/110)	80D26R (12/65) OPT 115E41R (12/110)	75D23R (12/65) OPT 65D23R (12/65) OPT 80D26R (12/65)	80D26R (12/65) TUNGSTONE 072-630 (12/70 (20))
Starter volt/kw	12/2.0	12/2.0	24/4.0	12/2.0
AC generator volt/amp. hr.	12/50	12/50	24/35	12/60

Vehicle model	NKR77E2	NKR77L
DIMENSIONS		
Wheelbase mm (in)	2,460 (96.9)	3,360 (132.3)
Tread: Front mm (in)	1,400 (55.1)	1,400 (55.1)
Rear mm (in)	1,425 (56.1)	1,425 (56.1)
Minimum ground clearance mm (in)	190 (7.5)	190 (7.5)
WEIGHTS		
Gross vehicle mass kg (lb)	3,500 (7,718) / 4,490 (9,900) / 5,200 (11,466)	3,500 (7,718) / 4,490 (9,900) / 5,200 (11,466)
Axle capacity: Front kg (lb)	1,900 (4,190)	1,900 (4,190)
Rear kg (lb)	3,600 (7,938)	2,200 (4,851) / 3,600 (7,938)
ENGINE		
Model	TRB 4JH1-TC	TRB 4JH1-TC
Fuel tank capacity liters (US/Imp gal.)	75 (19.8/16.5)	100 (26.4/22.0)
CLUTCH		
Type	Hydraulic control, diaphragm spring, dry single plate OPT Hydraulic control, with vacuum booster, diaphragm spring dry single plate	Hydraulic control, diaphragm spring, dry single plate OPT Hydraulic control, with vacuum booster, diaphragm spring dry single plate
Pedal free play mm (in)	15 to 25 (0.59 to 0.98)	15 to 25 (0.59 to 0.98)
TRANSMISSION		
Manual transmission	MYY5T	MYY5T
Smoother	-	-
REAR AXLE		
Type	Spiral bevel pinion and hypoid gear	Spiral bevel pinion and hypoid gear
Oil capacity liters (US/Imp gal.)	∅292 3.0 (0.79/0.66)	∅292 3.0 (0.79/0.66)
STEERING		
Type	Recirculating ball OPT Recirculating ball with power assisted	Recirculating ball OPT Recirculating ball with power assisted
Steering wheel free play mm (in)	10 to 30 (0.39 to 1.18) OPT 10 to 50 (0.39 to 1.97)	10 to 30 (0.39 to 1.18) OPT 10 to 50 (0.39 to 1.97)
Oil capacity liters (US/Imp gal.)	0.54 (0.14/0.12) OPT 1.6 (0.42/0.35)	0.54 (0.14/0.12) OPT 1.6 (0.42/0.35)

Vehicle model	NKR77E2	NKR77L
SERVICE BRAKE		
Type	Hydraulic dual circuit with vacuum booster	Hydraulic dual circuit with vacuum booster
Pedal free play mm (in)	4 to 7 (0.16 to 0.28)	4 to 7 (0.16 to 0.28)
PARKING BRAKE		
Type	Mechanical internal expanding at rear of transmission	Mechanical internal expanding at rear of transmission
Brake lever travel (when pulled with a 15 kg (33 lbs, 147 N)) notches	6 to 8	6 to 8
SUSPENSION		
Type: Front	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers or independent torsion bar spring, with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers or independent torsion bar spring, with hydraulic double acting telescopic shock absorbers
Rear	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers
ELECTRICAL		
Type	12 volt system with negative polarity ground	12 volt system with negative polarity ground
Battery volt/amp. hr.	80D26R (12/65) TUNGSTONE 072-630 (12/70 (20))	80D26R (12/65) TUNGSTONE 072-630 (12/70 (20))
Starter volt/kw	12/2.0	12/2.0
AC generator volt/amp. hr.	12/60	12/60

MAIN DATA AND SPECIFICATIONS ; NPR, NPS

Vehicle model	NPR66G	NPR66L	NPR66P	NPR70G
DIMENSIONS				
Wheelbase mm (in)	2,760 (108.7)	3,365 (132.5)	3,815 (150.2)	2,760 (108.7)
Tread: Front mm (in)	1,680 (66.1)	1,680 (66.1)	1,680 (66.1)	1,680 (66.1)
Rear mm (in)	1,485 (58.5) / 1,525 (60.0)	1,485 (58.5) / 1,525 (60.0) / 1,650 (65.1)	1,485 (58.5) / 1,525 (60.0) / 1,650 (65.1)	1,650 (65.1)
Minimum ground clearance mm (in)	210 (8.3)	210 (8.3)	210 (8.3)	205 (8.0)
WEIGHTS				
Gross vehicle mass kg (lb)	6,000 (13,230) / 7,000 (15,435)	3,500 (7,718) / 6,000 (13,230) / 6,300 (13,892) / 7,000 (15,435)	6,000 (13,230) / 6,300 (13,892) / 7,000 (15,435)	6,000 (13,230) / 7,000 (15,435)
Axle capacity: Front kg (lb)	3,100 (6,836)	3,100 (6,836)	3,100 (6,836)	2,400 (5,292) / 2,800 (6,174)
Rear kg (lb)	4,000 (8,820) / 5,000 (11,025)	4,000 (8,820) / 5,000 (11,025)	4,000 (8,820) / 5,000 (11,025)	4,600 (10,143)
ENGINE				
Model	4HF1 4HF1-2	4HF1 4HF1-2	4HF1 4HF1-2	TRB 4HE1-TC
Fuel tank capacity liters (US/Imp gal.)	100 (26.4/22.0)	100 (26.4/22.0)	100 (26.4/22.0)	100 (26.4/22.0)
CLUTCH				
Type	Hydraulic control, diaphragm spring, dry single plate OPT Hydraulic control, with vacuum booster, diaphragm spring dry single plate	Hydraulic control, diaphragm spring, dry single plate OPT Hydraulic control, with vacuum booster, diaphragm spring dry single plate	Hydraulic control, diaphragm spring, dry single plate OPT Hydraulic control, with vacuum booster, diaphragm spring dry single plate	Hydraulic control, diaphragm spring, dry single plate OPT Hydraulic control, with vacuum booster, diaphragm spring dry single plate
Pedal free play mm (in)	15 to 25 (0.59 to 0.98)	15 to 25 (0.59 to 0.98)	15 to 25 (0.59 to 0.98)	15 to 25 (0.59 to 0.98)
TRANSMISSION				
Manual transmission	MYY5T	MYY5T	MYY5T	MYY5T MZZ6U
Smoother	-	-	-	-
REAR AXLE				
Type	Spiral bevel pinion and hypoid gear	Spiral bevel pinion and hypoid gear	Spiral bevel pinion and hypoid gear	Spiral bevel pinion and hypoid gear
Oil capacity liters (US/Imp gal.)	∅292 3.0 (0.79/0.66)	∅292 3.0 (0.79/0.66)	∅292 3.0 (0.79/0.66)	∅292 3.0 (0.79/0.66) ∅320 4.3 (1.14/0.95)

Vehicle model	NPR66G	NPR66L	NPR66P	NPR70G
STEERING				
Type	Recirculating ball [OPT] Recirculating ball with power assisted	Recirculating ball [OPT] Recirculating ball with power assisted	Recirculating ball [OPT] Recirculating ball with power assisted	Recirculating ball [OPT] Recirculating ball with power assisted
Steering wheel free play mm (in)	10 to 30 (0.39 to 1.18) [OPT] 10 to 50 (0.39 to 1.97)	10 to 30 (0.39 to 1.18) [OPT] 10 to 50 (0.39 to 1.97)	10 to 30 (0.39 to 1.18) [OPT] 10 to 50 (0.39 to 1.97)	10 to 30 (0.39 to 1.18) [OPT] 10 to 50 (0.39 to 1.97)
Oil capacity liters (US/Imp gal.)	1.02 (0.26/0.22) [OPT] 1.6 (0.42/0.35)	1.02 (0.26/0.22) [OPT] 1.6 (0.42/0.35)	1.02 (0.26/0.22) [OPT] 1.6 (0.42/0.35)	1.02 (0.26/0.22) [OPT] 1.6 (0.42/0.35)
SERVICE BRAKE				
Type	Hydraulic dual circuit with vacuum booster	Hydraulic dual circuit with vacuum booster	Hydraulic dual circuit with vacuum booster	Hydraulic dual circuit with vacuum booster
Pedal free play mm (in)	4 to 7 (0.16 to 0.28)	4 to 7 (0.16 to 0.28)	4 to 7 (0.16 to 0.28)	4 to 7 (0.16 to 0.28)
PARKING BRAKE				
Type	Mechanical internal expanding at rear of transmission	Mechanical internal expanding at rear of transmission	Mechanical internal expanding at rear of transmission	Mechanical internal expanding at rear of transmission
Brake lever travel (when pulled with a 15 kg (33 lbs, 147 N)) notches	6 to 8	6 to 8	6 to 8	6 to 8
SUSPENSION				
Type: Front	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers
Rear	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers
ELECTRICAL				.
Type	24 volt system with negative polarity ground	24 volt system with negative polarity ground	24 volt system with negative polarity ground	24 volt system with negative polarity ground
Battery volt/amp. hr.	75D23R (12/65) [OPT] 65D23R (12/65) [OPT] 80D26R (12/65)	75D23R (12/65) [OPT] 65D23R (12/65) [OPT] 80D26R (12/65)	75D23R (12/65) [OPT] 65D23R (12/65) [OPT] 80D26R (12/65)	80D26R (12/65) [OPT] 115E41R (12/110)
Starter volt/kw	24/4.0 [OPT] 24/4.5	24/4.0 [OPT] 24/4.5	24/4.0 [OPT] 24/4.5	24/4.5
AC generator volt/amp. hr.	24/50 [OPT] 24/60	24/50 [OPT] 24/60	24/50 [OPT] 24/60	24/50, 24/60

MAIN DATA AND SPECIFICATIONS

Vehicle model	NPR70L	NPR70P	NPR71L	NPR71P
DIMENSIONS				
Wheelbase mm (in)	3,365 (132.5)	3,815 (150.2)	3,365 (132.5)	3,815 (150.2)
Tread: Front mm (in)	1,680 (66.1)	1,680 (66.1)	1,680 (66.1)	1,680 (66.1)
Rear mm (in)	1,650 (65.1)	1,650 (65.1)	1,475 (58.2) / 1,525 (60.0) / 1,650 (65.1)	1,650 (65.1)
Minimum ground clearance mm (in)	205 (8.0)	205 (8.0)	210 (8.3)	210 (8.3)
WEIGHTS				
Gross vehicle mass kg (lb)	6,000 (13,230) / 6,300 (13,892) / 7,000 (15,435)	6,000 (13,230) / 6,300 (13,892) / 7,000 (15,435)	4,800 (10,584) / 6,000 (13,230) / 7,500 (16,538)	7,000 (15,435)
Axle capacity: Front kg (lb)	2,400 (5,292) / 2,800 (6,174)	2,400 (5,292) / 2,800 (6,174)	2,700 (5,954)	2,700 (5,954)
Rear kg (lb)	4,600 (10,143)	4,600 (10,143)	5,000 (11,025)	5,000 (11,025)
ENGINE				
Model	TRB 4HE1-TC	TRB 4HE1-TC	TRB 4HG1-T	TRB 4HG1-T
Fuel tank capacity liters (US/Imp gal.)	100 (26.4/22.0)	100 (26.4/22.0)	100 (26.4/22.0)	100 (26.4/22.0)
CLUTCH				
Type	Hydraulic control, diaphragm spring, dry single plate OPT Hydraulic control, with vacuum booster, diaphragm spring dry single plate	Hydraulic control, diaphragm spring, dry single plate OPT Hydraulic control, with vacuum booster, diaphragm spring dry single plate	Hydraulic control, diaphragm spring, dry single plate OPT Hydraulic control, with vacuum booster, diaphragm spring dry single plate	Hydraulic control, diaphragm spring, dry single plate OPT Hydraulic control, with vacuum booster, diaphragm spring dry single plate
Pedal free play mm (in)	15 to 25 (0.59 to 0.98)	15 to 25 (0.59 to 0.98)	15 to 25 (0.59 to 0.98)	15 to 25 (0.59 to 0.98)
TRANSMISSION				
Manual transmission	MYY5T MZZ6U	MYY5T MZZ6U	MYY5T MYY6P	MYY6P
Smoother	-	-	-	-
REAR AXLE				
Type	Spiral bevel pinion and hypoid gear	Spiral bevel pinion and hypoid gear	Spiral bevel pinion and hypoid gear	Spiral bevel pinion and hypoid gear
Oil capacity liters (US/Imp gal.)	∅292 3.0 (0.79/0.66) ∅320 4.3 (1.14/0.95)	∅292 3.0 (0.79/0.66) ∅320 4.3 (1.14/0.95)	∅292 3.0 (0.79/0.66) ∅320 4.3 (1.14/0.95)	∅320 4.3 (1.14/0.95)
STEERING				
Type	Recirculating ball OPT Recirculating ball with power assisted	Recirculating ball OPT Recirculating ball with power assisted	Recirculating ball OPT Recirculating ball with power assisted	Recirculating ball OPT Recirculating ball with power assisted
Steering wheel free play mm (in)	10 to 30 (0.39 to 1.18) OPT 10 to 50 (0.39 to 1.97)	10 to 30 (0.39 to 1.18) OPT 10 to 50 (0.39 to 1.97)	10 to 30 (0.39 to 1.18) OPT 10 to 50 (0.39 to 1.97)	10 to 30 (0.39 to 1.18) OPT 10 to 50 (0.39 to 1.97)
Oil capacity liters (US/Imp gal.)	1.02 (0.26/0.22) OPT 1.6 (0.42/0.35)	1.02 (0.26/0.22) OPT 1.6 (0.42/0.35)	1.02 (0.26/0.22) OPT 1.6 (0.42/0.35)	1.02 (0.26/0.22) OPT 1.6 (0.42/0.35)

Vehicle model	NPR70L	NPR70P	NPR71L	NPR71P
SERVICE BRAKE				
Type	Hydraulic dual circuit with vacuum booster	Hydraulic dual circuit with vacuum booster	Hydraulic dual circuit with vacuum booster	Hydraulic dual circuit with vacuum booster
Pedal free play mm (in)	4 to 7 (0.16 to 0.28)	4 to 7 (0.16 to 0.28)	4 to 7 (0.16 to 0.28)	4 to 7 (0.16 to 0.28)
PARKING BRAKE				
Type	Mechanical internal expanding at rear of transmission	Mechanical internal expanding at rear of transmission	Mechanical internal expanding at rear of transmission	Mechanical internal expanding at rear of transmission
Brake lever travel (when pulled with a 15 kg (33 lbs, 147 N)) notches	6 to 8	6 to 8	6 to 8	6 to 8
SUSPENSION				
Type: Front	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers
Rear	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers
ELECTRICAL				
Type	24 volt system with negative polarity ground	24 volt system with negative polarity ground	24 volt system with negative polarity ground	24 volt system with negative polarity ground
Battery volt/amp. hr.	80D26R (12/65) OPT 115E41R (12/110)	80D26R (12/65) OPT 115E41R (12/110)	75D23R (12/65) OPT 80D26R (12/65) OPT 65D23R (12/65)	75D23R (12/65) OPT 80D26R (12/65) OPT 65D23R (12/65)
Starter volt/kw	24/4.5	24/4.5	24/4.0 OPT 24/4.5, 12/3.0	24/4.0 OPT 24/4.5, 12/3.0
AC generator volt/amp. hr.	24/50, 24/60	24/50, 24/60	24/50 OPT 24/60	24/50 OPT 24/60

MAIN DATA AND SPECIFICATIONS

Vehicle model	NPR75G	NPR75L	NPR75P	NPR77G
DIMENSIONS				
Wheelbase mm (in)	2,760 (108.7)	3,365 (132.5)	3,815 (150.2)	2,765 (108.9)
Tread: Front mm (in)	1,680 (66.1)	1,680 (66.1)	1,680 (66.1)	1,680 (66.1)
Rear mm (in)	1,650 (65.1)	1,650 (65.1)	1,650 (65.1)	1,485 (58.5)
Minimum ground clearance mm (in)	205 (8.0)	205 (8.0)	205 (8.0)	210 (8.3)
WEIGHTS				
Gross vehicle mass kg (lb)	4,490 (9,900)	4,490 (9,900) / 6,200 (13,671) / 6,500 (14,333) / 7,500 (16,538)	6,200 (13,671) / 7,000 (15,435) / 7,500 (16,538)	3,500 (7,718)
Axle capacity: Front kg (lb)	2,700 (5,954)	2,700 (5,954) / 3,100 (6,840)	3,100 (6,840)	1,900 (4,190)
Rear kg (lb)	5,000 (11,025)	5,000 (11,025) / 6,000 (13,230)	5,000 (11,025) / 6,000 (13,230)	2,200 (4,851)
ENGINE				
Model	TRB 4HK1-TC	TRB 4HK1-TC	TRB 4HK1-TC	TRB 4JH1-TC
Fuel tank capacity liters (US/Imp gal.)	100 (26.4/22.0)	100 (26.4/22.0) 125 (33.0/27.5)	100 (26.4/22.0) 125 (33.0/27.5)	100 (26.4/22.0)
CLUTCH				
Type	Hydraulic control, diaphragm spring, dry single plate OPT Hydraulic control, with vacuum booster, diaphragm spring, dry single plate	Hydraulic control, diaphragm spring, dry single plate OPT Hydraulic control, with vacuum booster, diaphragm spring, dry single plate	Hydraulic control, diaphragm spring, dry single plate OPT Hydraulic control, with vacuum booster, diaphragm spring, dry single plate	Hydraulic control, diaphragm spring, dry single plate OPT Hydraulic control, with vacuum booster, diaphragm spring, dry single plate
Pedal free play mm (in)	15 to 25 (0.59 to 0.98)	15 to 25 (0.59 to 0.98)	15 to 25 (0.59 to 0.98)	15 to 25 (0.59 to 0.98)
TRANSMISSION				
Manual transmission	MYY5T	MYY5T MYY6P	MYY5T MYY6P MZZ6U	MYY5T
Smoother	OPT Smoother	OPT Smoother	OPT Smoother	-
REAR AXLE				
Type	Spiral bevel pinion and hypoid gear	Spiral bevel pinion and hypoid gear	Spiral bevel pinion and hypoid gear	Spiral bevel pinion and hypoid gear
Oil capacity liters (US/Imp gal.)	∅320 4.3 (1.14/0.95)	∅320 4.3 (1.14/0.95)	∅320 4.3 (1.14/0.95)	∅292 3.0 (0.79/0.66)
STEERING				
Type	Recirculating ball with power assisted	Recirculating ball with power assisted	Recirculating ball with power assisted	Recirculating ball with power assisted
Steering wheel free play mm (in)	10 to 50 (0.39 to 1.97)	10 to 50 (0.39 to 1.97)	10 to 50 (0.39 to 1.97)	10 to 50 (0.39 to 1.97)
Oil capacity liters (US/Imp gal.)	1.6 (0.42/0.35)	1.6 (0.42/0.35)	1.6 (0.42/0.35)	1.6 (0.42/0.35)

Vehicle model	NPR75G	NPR75L	NPR75P	NPR77G
SERVICE BRAKE				
Type	Hydraulic dual circuit with vacuum booster	Hydraulic dual circuit with vacuum booster	Hydraulic dual circuit with vacuum booster	Hydraulic dual circuit with vacuum booster
Pedal free play mm (in)	4 to 7 (0.16 to 0.28)	4 to 7 (0.16 to 0.28)	4 to 7 (0.16 to 0.28)	4 to 7 (0.16 to 0.28)
PARKING BRAKE				
Type	Mechanical internal expanding at rear of transmission	Mechanical internal expanding at rear of transmission	Mechanical internal expanding at rear of transmission	Mechanical internal expanding at rear of transmission
Brake lever travel (when pulled with a 15 kg (33 lbs, 147 N)) notches	6 to 8	6 to 8	6 to 8	6 to 8
SUSPENSION				
Type: Front	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers
Rear	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers
ELECTRICAL				
Type	24 volt system with negative polarity ground	24 volt system with negative polarity ground	24 volt system with negative polarity ground	12 volt system with negative polarity ground
Battery volt/amp. hr.	80D26R (12/65)	80D26R (12/65) OPT 115E41R (12/110) OPT TUNGSTONE 072-630 (12/70(20))	80D26R (12/65) OPT 115E41R (12/110) OPT TUNGSTONE 072-630 (12/70(20))	80D26R (12/65) OPT TUNGSTONE 072-630 (12/70(20))
Starter volt/kw	24/4.5	24/4.5	24/4.5	12/2.3
AC generator volt/amp. hr.	24/50 OPT 24/60	24/50 OPT 24/60, 24/80	24/50 OPT 24/60, 24/80	12/60 OPT 12/80

Vehicle model	NPR77L	NPS71L	NPS75L
DIMENSIONS			
Wheelbase mm (in)	3,365 (132.5)	3,425 (134.8)	3,425 (134.8)
Tread: Front mm (in)	1,680 (66.1)	1,665 (65.6)	1,665 (65.6)
Rear mm (in)	1,485 (58.5)	1,525 (60.0)	1,525 (60.0)
Minimum ground clearance mm (in)	210 (8.3)	225 (8.9)	225 (8.9)
WEIGHTS			
Gross vehicle mass kg (lb)	3,500 (7,718) / 5,020 (11,069)	4,490 (9,900) / 6,000 (13,230)	4,490 (9,900) / 6,000 (13,230)
Axle capacity: Front kg (lb)	1,900 (4,190)	2,600 (5,733)	2,600 (5,733)
Rear kg (lb)	2,200 (4,851) / 3,600 (7,938)	4,000 (8,820)	5,000 (11,025)
ENGINE			
Model	TRB 4JH1-TC	4HG1	TRB 4HK1-TC
Fuel tank capacity liters (US/Imp gal.)	100 (26.4/22.0)	100 (26.4/22.0)	125 (33.0/27.5)
CLUTCH			
Type	Hydraulic control, diaphragm spring, dry single plate OPT Hydraulic control, with vacuum booster, diaphragm spring, dry single plate	Hydraulic control, diaphragm spring, dry single plate OPT Hydraulic control, with vacuum booster, diaphragm spring, dry single plate	Hydraulic control, diaphragm spring, dry single plate OPT Hydraulic control, with vacuum booster, diaphragm spring, dry single plate
Pedal free play mm (in)	15 to 25 (0.59 to 0.98)	15 to 25 (0.59 to 0.98)	15 to 25 (0.59 to 0.98)
TRANSMISSION			
Manual transmission	MYY5T	MYY5T	MYY5T
Smoother	-	-	-
REAR AXLE			
Type	Spiral bevel pinion and hypoid gear	Spiral bevel pinion and hypoid gear	Spiral bevel pinion and hypoid gear
Oil capacity liters (US/Imp gal.)	∅292 3.0 (0.79/0.66)	∅292 3.0 (0.79/0.66)	∅320 3.4 (0.89/0.75)
STEERING			
Type	Recirculating ball with power assisted	Recirculating ball with power assisted	Recirculating ball with power assisted
Steering wheel free play mm (in)	10 to 50 (0.39 to 1.97)	10 to 50 (0.39 to 1.97)	10 to 50 (0.39 to 1.97)
Oil capacity liters (US/Imp gal.)	1.6 (0.42/0.35)	1.6 (0.42/0.35)	1.6 (0.42/0.35)

Vehicle model	NPR77L	NPS71L	NPS75L
SERVICE BRAKE			
Type	Hydraulic dual circuit with vacuum booster	Hydraulic dual circuit with vacuum booster	Hydraulic dual circuit with vacuum booster
Pedal free play mm (in)	4 to 7 (0.16 to 0.28)	4 to 7 (0.16 to 0.28)	4 to 7 (0.16 to 0.28)
PARKING BRAKE			
Type	Mechanical internal expanding at rear of transmission	Mechanical internal expanding at rear of transmission	Mechanical internal expanding at rear of transmission
Brake lever travel (when pulled with a 15 kg (33 lbs, 147 N)) notches	6 to 8	6 to 8	6 to 8
SUSPENSION			
Type: Front	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers
Rear	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers
ELECTRICAL			
Type	12 volt system with negative polarity ground	24 volt system with negative polarity ground	24 volt system with negative polarity ground
Battery volt/amp. hr.	80D26R (12/65) OPT TUNGSTONE 072-630 (12/70(20))	75D23R (12/65) OPT 80D26R (12/65)	80D26R (12/65)
Starter volt/kw	12/2.3	24/4.0 OPT 24/4.5	24/4.5
AC generator volt/amp. hr.	12/60 OPT 12/80	24/50 OPT 24/60	24/50 OPT 24/60

MAIN DATA AND SPECIFICATIONS ; NQR

Vehicle model	NQR66P	NQR66R	NQR70P	NQR70R
DIMENSIONS				
Wheelbase mm (in)	3,815 (150.2)	4,175 (164.4)	3,815 (150.2)	4,175 (164.4)
Tread: Front mm (in)	1,680 (66.1)	1,680 (66.1)	1,680 (66.1)	1,680 (66.1)
Rear mm (in)	1,650 (65.0)	1,650 (65.0)	1,650 (65.0)	1,650 (65.0)
Minimum ground clearance mm (in)	180 (7.1)	180 (7.1)	205 (8.0)	205 (8.0)
WEIGHTS				
Gross vehicle mass kg (lb)	8,000 (17,460)	8,000 (17,460) / 8,500 (18,743)	7,500 (16,538)	7,500 (16,538) / 8,500 (18,743)
Axle capacity: Front kg (lb)	3,100 (6,840)	3,100 (6,840)	3,100 (6,840)	3,100 (6,840)
Rear kg (lb)	6,000 (13,230)	6,000 (13,230)	6,000 (13,230)	6,600 (14,553)
ENGINE				
Model	4HF1	4HF1	TRB 4HE1-TC	TRB 4HE1-TC
Fuel tank capacity liters (US/Imp gal.)	100 (26.4/22.0)	100 (26.4/22.0)	100 (26.4/22.0)	100 (26.4/22.0)
CLUTCH				
Type	Hydraulic control, diaphragm spring, dry single plate OPT Hydraulic control, with vacuum booster, diaphragm spring, dry single plate	Hydraulic control, diaphragm spring, dry single plate OPT Hydraulic control, with vacuum booster, diaphragm spring, dry single plate	Hydraulic control, diaphragm spring, dry single plate OPT Hydraulic control, with vacuum booster, diaphragm spring, dry single plate	Hydraulic control, diaphragm spring, dry single plate OPT Hydraulic control, with vacuum booster, diaphragm spring, dry single plate
Pedal free play mm (in)	15 to 25 (0.59 to 0.98)	15 to 25 (0.59 to 0.98)	15 to 25 (0.59 to 0.98)	15 to 25 (0.59 to 0.98)
TRANSMISSION				
Manual transmission	MYY5T	MYY5T	MZZ6U	MYY5T MZZ6U
Smoother	-	-	-	-
REAR AXLE				
Type	Spiral bevel pinion and hypoid gear	Spiral bevel pinion and hypoid gear	Spiral bevel pinion and hypoid gear	Spiral bevel pinion and hypoid gear
Oil capacity liters (US/Imp gal.)	∅320 4.3 (1.14/0.95)	∅320 4.3 (1.14/0.95)	∅320 4.3 (1.14/0.95)	∅320 4.3 (1.14/0.95)

Vehicle model	NQR66P	NQR66R	NQR70P	NQR70R
STEERING				
Type	Recirculating ball [OPT] Recirculating ball with power assisted	Recirculating ball [OPT] Recirculating ball with power assisted	Recirculating ball with power assisted	Recirculating ball with power assisted
Steering wheel free play mm (in)	10 to 30 (0.39 to 1.18) [OPT] 10 to 50 (0.39 to 1.97)	10 to 30 (0.39 to 1.18) [OPT] 10 to 50 (0.39 to 1.97)	10 to 50 (0.39 to 1.97)	10 to 50 (0.39 to 1.97)
Oil capacity liters (US/Imp gal.)	1.02 (0.26/0.22) [OPT] 1.6 (0.42/0.35)	1.02 (0.26/0.22) [OPT] 1.6 (0.42/0.35)	1.6 (0.42/0.35)	1.6 (0.42/0.35)
SERVICE BRAKE				
Type	Hydraulic dual circuit with hydro booster	Hydraulic dual circuit with hydro booster	Hydraulic dual circuit with hydro booster	Hydraulic dual circuit with hydro booster
Pedal free play mm (in)	24 to 29 (0.95 to 1.14)	24 to 29 (0.95 to 1.14)	24 to 29 (0.95 to 1.14)	24 to 29 (0.95 to 1.14)
PARKING BRAKE				
Type	Mechanical internal expanding at rear of transmission	Mechanical internal expanding at rear of transmission	Mechanical internal expanding at rear of transmission	Mechanical internal expanding at rear of transmission
Brake lever travel (when pulled with a 15 kg (33 lbs, 147 N)) notches	6 to 8	6 to 8	6 to 8	6 to 8
SUSPENSION				
Type: Front	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers
Rear	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers
ELECTRICAL				
Type	24 volt system with negative polarity ground	24 volt system with negative polarity ground	24 volt system with negative polarity ground	24 volt system with negative polarity ground
Battery volt/amp. hr.	75D23R (12/65) [OPT] 80D26R (12/65) [OPT] 65D23R (12/65)	75D23R (12/65) [OPT] 80D26R (12/65) [OPT] 65D23R (12/65)	80D26R (12/65) [OPT] 115E41R (12/110)	80D26R (12/65) [OPT] 115E41R (12/110)
Starter volt/kw	24/4.0 [OPT] 24/4.5	24/4.0 [OPT] 24/4.5	24/4.5	24/4.5 [OPT] 12/3.0
AC generator volt/amp. hr.	24/50 [OPT] 24/60	24/50 [OPT] 24/60	24/50, 24/60	24/50, 24/60

MAIN DATA AND SPECIFICATIONS

Vehicle model	NQR71L	NQR71P	NQR71R	NQR75L
DIMENSIONS				
Wheelbase mm (in)	3,365 (132.5)	3,815 (150.2)	4,175 (164.4)	3,365 (132.5)
Tread: Front mm (in)	1,680 (66.1)	1,680 (66.1)	1,680 (66.1)	1,680 (66.1)
Rear mm (in)	1,650 (65.0)	1,650 (65.0)	1,650 (65.0)	1,650 (65.0)
Minimum ground clearance mm (in)	180 (7.1)	180 (7.1)	180 (7.1)	205 (8.0)
WEIGHTS				
Gross vehicle mass kg (lb)	8,000 (17,460)	8,000 (17,460)	8,000 (17,460)	7,500 (16,538) / 8,500 (18,743)
Axle capacity: Front kg (lb)	3,100 (6,840)	3,100 (6,840)	3,100 (6,840)	3,100 (6,840)
Rear kg (lb)	6,600 (14,553)	6,600 (14,553)	6,600 (14,553)	6,600 (14,553)
ENGINE				
Model	4HG1	4HG1 TRB 4HG1-T	4HG1	TRB 4HK1-TC
Fuel tank capacity liters (US/Imp gal.)	100 (26.4/22.0)	100 (26.4/22.0)	100 (26.4/22.0)	100 (26.4/22.0) 125 (33.0/27.5)
CLUTCH				
Type	Hydraulic control, diaphragm spring, dry single plate OPT Hydraulic control, with vacuum booster, diaphragm spring dry single plate	Hydraulic control, diaphragm spring, dry single plate OPT Hydraulic control, with vacuum booster, diaphragm spring dry single plate	Hydraulic control, diaphragm spring, dry single plate OPT Hydraulic control, with vacuum booster, diaphragm spring dry single plate	Hydraulic control, diaphragm spring, dry single plate OPT Hydraulic control, with vacuum booster, diaphragm spring dry single plate
Pedal free play mm (in)	15 to 25 (0.59 to 0.98)	15 to 25 (0.59 to 0.98)	15 to 25 (0.59 to 0.98)	15 to 25 (0.59 to 0.98)
TRANSMISSION				
Manual transmission	MYY5T	MYY5T	MYY5T	MYY5T MZZ6U MZZ6F
Smoother	-	-	-	V Smoother
REAR AXLE				
Type	Spiral bevel pinion and hypoid gear	Spiral bevel pinion and hypoid gear	Spiral bevel pinion and hypoid gear	Spiral bevel pinion and hypoid gear
Oil capacity liters (US/Imp gal.)	∅320 4.3 (1.14/0.95)	∅320 4.3 (1.14/0.95)	∅320 4.3 (1.14/0.95)	∅320 4.3 (1.14/0.95)
STEERING				
Type	Recirculating ball OPT Recirculating ball with power assisted	Recirculating ball OPT Recirculating ball with power assisted	Recirculating ball OPT Recirculating ball with power assisted	Recirculating ball with power assisted
Steering wheel free play mm (in)	10 to 30 (0.39 to 1.18) OPT 10 to 50 (0.39 to 1.97)	10 to 30 (0.39 to 1.18) OPT 10 to 50 (0.39 to 1.97)	10 to 30 (0.39 to 1.18) OPT 10 to 50 (0.39 to 1.97)	10 to 50 (0.39 to 1.97)
Oil capacity liters (US/Imp gal.)	1.02 (0.26/0.22) OPT 1.6 (0.42/0.35)	1.02 (0.26/0.22) OPT 1.6 (0.42/0.35)	1.02 (0.26/0.22) OPT 1.6 (0.42/0.35)	1.6 (0.42/0.35)

Vehicle model	NQR71L	NQR71P	NQR71R	NQR75L
SERVICE BRAKE				
Type	Hydraulic dual circuit with hydro booster	Hydraulic dual circuit with hydro booster	Hydraulic dual circuit with hydro booster	Hydraulic dual circuit with hydro booster
Pedal free play mm (in)	24 to 29 (0.95 to 1.14)	24 to 29 (0.95 to 1.14)	24 to 29 (0.95 to 1.14)	24 to 29 (0.95 to 1.14)
PARKING BRAKE				
Type	Mechanical internal expanding at rear of transmission	Mechanical internal expanding at rear of transmission	Mechanical internal expanding at rear of transmission	Mechanical internal expanding at rear of transmission
Brake lever travel (when pulled with a 15 kg (33 lbs, 147 N)) notches	6 to 8	6 to 8	6 to 8	6 to 8
SUSPENSION				
Type: Front	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers
Rear	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers
ELECTRICAL				
Type	24 volt system with negative polarity ground	24 volt system with negative polarity ground	24 volt system with negative polarity ground	24 volt system with negative polarity ground
Battery volt/amp. hr.	75D23R (12/65) OPT 80D26R (12/65) OPT 65D23R (12/65)	75D23R (12/65) OPT 80D26R (12/65) OPT 65D23R (12/65)	75D23R (12/65) OPT 80D26R (12/65) OPT 65D23R (12/65)	80D26R (12/65) OPT 115E41R (12/110) OPT TUNGSTONE 072-630 (12/70(20))
Starter volt/kw	24/4.0 OPT 24/4.5	24/4.0 OPT 24/4.5	24/4.0 OPT 24/4.5	24/4.5
AC generator volt/amp. hr.	24/50	24/50	24/50	24/50 OPT 24/60, 24/80

Vehicle model	NQR75P	NQR75R	NQR75T
DIMENSIONS			
Wheelbase mm (in)	3,815 (150.2)	4,175 (164.4)	4,475 (176.2)
Tread: Front mm (in)	1,680 (66.1)	1,680 (66.1)	1,680 (66.1)
Rear mm (in)	1,650 (65.0)	1,650 (65.0)	1,650 (65.0)
Minimum ground clearance mm (in)	205 (8.0)	205 (8.0)	205 (8.0)
WEIGHTS			
Gross vehicle mass kg (lb)	7,500 (16,538)	8,000 (17,460) / 8,500 (18,743)	7,500 (16,538)
Axle capacity: Front kg (lb)	3,100 (6,840)	3,100 (6,840)	3,100 (6,840)
Rear kg (lb)	6,600 (14,553)	6,600 (14,553)	6,600 (14,553)
ENGINE			
Model	TRB 4HK1-TC	TRB 4HK1-TC	TRB 4HK1-TC
Fuel tank capacity liters (US/Imp gal.)	100 (26.4/22.0) 125 (33.0/27.5)	100 (26.4/22.0) 125 (33.0/27.5)	100 (26.4/22.0) 125 (33.0/27.5)
CLUTCH			
Type	Hydraulic control, diaphragm spring, dry single plate OPT Hydraulic control, with vacuum booster, diaphragm spring dry single plate	Hydraulic control, diaphragm spring, dry single plate OPT Hydraulic control, with vacuum booster, diaphragm spring dry single plate	Hydraulic control, diaphragm spring, dry single plate OPT Hydraulic control, with vacuum booster, diaphragm spring dry single plate
Pedal free play mm (in)	15 to 25 (0.59 to 0.98)	15 to 25 (0.59 to 0.98)	15 to 25 (0.59 to 0.98)
TRANSMISSION			
Manual transmission	MYY5T MZZ6U MZZ6F	MZZ6U	MYY5T MZZ6F
Smoother	V Smoother	-	V Smoother
REAR AXLE			
Type	Spiral bevel pinion and hypoid gear	Spiral bevel pinion and hypoid gear	Spiral bevel pinion and hypoid gear
Oil capacity liters (US/Imp gal.)	∅320 4.3 (1.14/0.95)	∅320 4.3 (1.14/0.95)	∅320 4.3 (1.14/0.95)
STEERING			
Type	Recirculating ball with power assisted	Recirculating ball with power assisted	Recirculating ball with power assisted
Steering wheel free play mm (in)	15 to 50 (0.39 to 1.97)	10 to 50 (0.39 to 1.97)	10 to 50 (0.39 to 1.97)
Oil capacity liters (US/Imp gal.)	1.6 (0.42/0.35)	1.6 (0.42/0.35)	1.6 (0.42/0.35)

Vehicle model	NQR75P	NQR75R	NQR75T
SERVICE BRAKE			
Type	Hydraulic dual circuit with hydro booster	Hydraulic dual circuit with hydro booster	Hydraulic dual circuit with hydro booster
Pedal free play mm (in)	24 to 29 (0.95 to 1.14)	24 to 29 (0.95 to 1.14)	24 to 29 (0.95 to 1.14)
PARKING BRAKE			
Type	Mechanical internal expanding at rear of transmission	Mechanical internal expanding at rear of transmission	Mechanical internal expanding at rear of transmission
Brake lever travel (when pulled with a 15 kg (33 lbs, 147 N)) notches	6 to 8	6 to 8	6 to 8
SUSPENSION			
Type: Front	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers
Rear	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers	Semi-elliptical, alloy steel leaf spring with hydraulic double acting telescopic shock absorbers
ELECTRICAL			
Type	24 volt system with negative polarity ground	24 volt system with negative polarity ground	24 volt system with negative polarity ground
Battery volt/amp. hr.	80D26R (12/65) OPT 115E41R (12/110) OPT TUNGSTONE 072-630 (12/70(20))	80D26R (12/65) OPT 115E41R (12/110)	80D26R (12/65) OPT 115E41R (12/110) OPT TUNGSTONE 072-630 (12/70(20))
Starter volt/kw	24/4.5	24/4.5	24/4.5
AC generator volt/amp. hr.	24/50 OPT 24/60, 24/80	24/50 OPT 24/60	24/50 OPT 24/60, 24/80

TIRE SIZE AND TIRE INFLATION PRESSURE

Vehicle model		Tire size		Tire inflation pressure kPa (kg/cm², psi)	
		Front	Rear	Front	Rear
NHR55	FL	6.00-15-8PR	5.50-13-8PR	417 (4.25, 60)	417 (4.25, 60)
	FL	6.00R15-8PR	155R13-8PR	441 (4.50, 64)	441 (4.50, 64)
	V	6.50-15-10PR	6.50-15-10PR	490 (5.00, 71)	490 (5.00, 71)
	V	6.50-15-6PR	7.00-15-10PR	319 (3.25, 46)	490 (5.00, 71)
	OPT	7.00-15-8PR	7.00-15-8PR	417 (4.25, 60)	417 (4.25, 60)
	OPT	7.00-15-10PR	7.00-15-10PR	490 (5.00, 71)	490 (5.00, 71)
NHR55 (For GCC)	FL	185/80R15	155R13-8PR	441 (4.50, 64)	441 (4.50, 64)
	V	205/80R15	205/80R15	441 (4.50, 64)	441 (4.50, 64)
	OPT	7.00R15-10PR	7.00R15-10PR	515 (5.25, 75)	515 (5.25, 75)
	OPT	6.00R15-8PR	155R13-8PR	441 (4.50, 64)	441 (4.50, 64)
NHR69	FL	6.00-15-8PR	5.50-13-8PR	417 (4.25, 60)	392 (4.00, 57)
	FL OPT	6.00R15-8PR	155R13-8PR	441 (4.50, 64)	441 (4.50, 64)
NKR55	FL	7.00-15-8PR	6.00-13-8PR	417 (4.25, 60)	417 (4.25, 60)
	V	7.00-15-8PR	7.50-15-10PR	345 (3.50, 50)	515 (5.25, 75)
	V	7.50-15-10PR	7.50-15-10PR	345 (3.50, 50)	515 (5.25, 75)
	OPT	7.00-15-8PR	7.00-15-8PR	417 (4.25, 60)	417 (4.25, 60)
	OPT	7.00R16-10PR	7.00R16-10PR	515 (5.25, 75)	515 (5.25, 75)
	OPT	7.00-15-10PR	7.50-15-12PR	345 (3.50, 50)	588 (6.00, 85)
	OPT	7.00-15-10PR	7.00-15-10PR	490 (5.00, 71)	490 (5.00, 71)
	OPT	7.00R15-10PR	7.00R15-10PR	515 (5.25, 75)	515 (5.25, 75)
	OPT	7.00-16-10PR	7.00-16-10PR	490 (5.00, 71)	490 (5.00, 71)
	OPT	7.00-16-8PR	7.00-16-8PR	417 (4.25, 60)	417 (4.25, 60)
NKR66	V	7.00-15-8PR	7.50-15-10PR	345 (3.50, 50)	515 (5.25, 75)
	V	7.00-15-8PR	7.00-15-8PR	417 (4.25, 60)	417 (4.25, 60)
	V	7.00-16-14PR	7.00-16-14PR	711 (7.25, 103)	711 (7.25, 103)
	V	7.00R16-10PR	7.00R16-10PR	515 (5.25, 75)	515 (5.25, 75)
	OPT	7.50-15-10PR	7.50-15-10PR	345 (3.50, 50)	515 (5.25, 75)
	OPT	7.00-15-10PR	7.50-15-12PR	490 (5.00, 71)	588 (6.00, 85)
	OPT	7.00R15-10PR	7.00R15-10PR	515 (5.25, 75)	515 (5.25, 75)
	OPT	7.00-16-10PR	7.00-16-10PR	490 (5.00, 71)	490 (5.00, 71)
	OPT	7.00-16-8PR	7.00-16-8PR	417 (4.25, 60)	417 (4.25, 60)
	OPT	195/85R16	195/85R16	588 (6.00, 85)	588 (6.00, 85)

Vehicle model		Tire size		Tire inflation pressure kPa (kg/cm², psi)	
		Front	Rear	Front	Rear
NKR66	OPT	205/85R16	205/85R16	588 (6.00, 85)	588 (6.00, 85)
NKR66 (For GCC)	V	195/85R16	195/85R16	588 (6.00, 85)	588 (6.00, 85)
	V	205/85R16	205/85R16	588 (6.00, 85)	588 (6.00, 85)
	OPT	7.00R16-10PR	7.00R16-10PR	515 (5.25, 75)	515 (5.25, 75)
NKR69	V	7.00-15-8PR	7.50-15-10PR	345 (3.50, 50)	515 (5.25, 75)
	V	7.00-15-8PR	7.00-15-8PR	417 (4.25, 60)	417 (4.25, 60)
	OPT	7.00-15-10PR	7.50-15-12PR	345 (3.50, 50)	588 (6.00, 85)
	OPT	7.00-15-10PR	7.00-15-10PR	490 (5.00, 71)	490 (5.00, 71)
	OPT	7.00-16-8PR	7.00-16-8PR	417 (4.25, 60)	417 (4.25, 60)
	OPT	7.00-16-10PR	7.00-16-10PR	490 (5.00, 71)	490 (5.00, 71)
	OPT	7.00R16-10PR	7.00R16-10PR	515 (5.25, 75)	515 (5.25, 75)
	OPT	7.50-15-10PR	7.50-15-10PR	515 (5.25, 75)	515 (5.25, 75)
NKR71	V	7.00-16-14PR	7.00-16-14PR	711 (7.25, 103)	711 (7.25, 103)
NKR77	FL	195/85R16	175R14-8PR	588 (6.00, 85)	441 (4.50, 64)
	V	7.00-15-8PR	7.00-15-8PR	417 (4.25, 60)	417 (4.25, 60)
	V	195/75R16C	195/75R16C	475 (4.75, 68)	475 (4.75, 68)
	V	195/85R16	195/85R16	588 (6.00, 85)	588 (6.00, 85)
	V	205/75R16C	205/75R16C	450 (4.50, 64)	450 (4.50, 64)
	OPT	7.00R16-10PR	7.00R16-10PR	515 (5.25, 75)	515 (5.25, 75)
	OPT	7.00-15-10PR	7.00-15-10PR	490 (5.00, 71)	490 (5.00, 71)
	OPT	7.00-16-8PR	7.00-16-8PR	417 (4.25, 60)	417 (4.25, 60)
	OPT	7.00-16-10PR	7.00-16-10PR	490 (5.00, 71)	490 (5.00, 71)
NPR66	V	7.00-16-10PR	7.00-16-10PR	490 (5.00, 71)	490 (5.00, 71)
	V	7.50-16-10PR	7.50-16-10PR	515 (5.25, 75)	515 (5.25, 75)
	V	7.50-16-12PR	7.50-16-12PR	588 (6.00, 85)	588 (6.00, 85)
	OPT	7.00-16-12PR	7.00-16-12PR	564 (5.75, 82)	564 (5.75, 82)
	OPT	7.00R16-10PR	7.00R16-10PR	515 (5.25, 75)	515 (5.25, 75)
	OPT	7.50-16-8PR	7.50-16-8PR	417 (4.25, 60)	417 (4.25, 60)
	OPT	7.50-16-14PR	7.50-16-14PR	637 (6.50, 92)	637 (6.50, 92)
	OPT	7.50R16-10PR	7.50R16-10PR	564 (5.75, 82)	564 (5.75, 82)
	OPT	7.50R16-12PR	7.50R16-12PR	637 (6.50, 92)	637 (6.50, 92)
NPR66 (For GCC)	V	205/85R16	205/85R16	588 (6.00, 85)	588 (6.00, 85)
	V	225/85R16	225/85R16	588 (6.00, 85)	588 (6.00, 85)

Vehicle model		Tire size		Tire inflation pressure kPa (kg/cm², psi)	
		Front	Rear	Front	Rear
NPR66 (For GCC)	OPT	7.50R16-12PR	7.50R16-12PR	637 (6.50, 92)	637 (6.50, 92)
	OPT	7.50-16-12PR	7.50-16-12PR	588 (6.00, 85)	588 (6.00, 85)
	OPT	7.50R16-10PR	7.50R16-10PR	564 (5.75, 82)	564 (5.75, 82)
	OPT	215/75R17.5	215/75R17.5	600 (6.00, 85)	600 (6.00, 85)
	OPT	215/85R16	215/85R16	588 (6.00, 85)	588 (6.00, 85)
NPR70	V	7.00-16-10PR	7.00-16-10PR	490 (5.00, 71)	490 (5.00, 71)
	V	7.50-16-10PR	7.50-16-10PR	515 (5.25, 75)	515 (5.25, 75)
	V	215/75R17.5	215/75R17.5	600 (6.00, 85)	600 (6.00, 85)
	V	215/85R16	215/85R16	588 (6.00, 85)	588 (6.00, 85)
	OPT	7.00-16-12PR	7.00-16-12PR	564 (5.75, 82)	564 (5.75, 82)
	OPT	7.00R16-10PR	7.00R16-10PR	515 (5.25, 75)	515 (5.25, 75)
	OPT	7.50-16-8PR	7.50-16-8PR	417 (4.25, 60)	417 (4.25, 60)
	OPT	7.50-16-12PR	7.50-16-12PR	588 (6.00, 85)	588 (6.00, 85)
	OPT	7.50-16-14PR	7.50-16-14PR	637 (6.50, 92)	637 (6.50, 92)
	OPT	7.50R16-10PR	7.50R16-10PR	564 (5.75, 82)	564 (5.75, 82)
	OPT	7.50R16-12PR	7.50R16-12PR	637 (6.50, 92)	637 (6.50, 92)
NPR71	FL	7.00R16-12PR	175R14-8PR	588 (6.00, 85)	441 (4.50, 64)
	V	7.00-16-10PR	7.00-16-10PR	490 (5.00, 71)	490 (5.00, 71)
	V	7.50-16-10PR	7.50-16-10PR	515 (5.25, 75)	515 (5.25, 75)
	V	7.50-16-14PR	7.50-16-14PR	637 (6.50, 92)	637 (6.50, 92)
	OPT	7.00-16-12PR	7.00-16-12PR	564 (5.75, 82)	564 (5.75, 82)
	OPT	7.00R16-10PR	7.00R16-10PR	515 (5.25, 75)	515 (5.25, 75)
	OPT	7.50-16-8PR	7.50-16-8PR	417 (4.25, 60)	417 (4.25, 60)
	OPT	7.50R16-10PR	7.50R16-10PR	564 (5.75, 82)	564 (5.75, 82)
	OPT	7.50R16-12PR	7.50R16-12PR	637 (6.50, 92)	637 (6.50, 92)
	OPT	7.50-16-12PR	7.50-16-12PR	588 (6.00, 85)	588 (6.00, 85)
	OPT	7.00R16-12PR	185R14-8PR	588 (6.00, 85)	441 (4.50, 64)
NPR75	V	7.50-16-10PR	7.50-16-10PR	515 (5.25, 75)	515 (5.25, 75)
	V	195/85R16	195/85R16	588 (6.00, 85)	588 (6.00, 85)
	V	205/75R17.5	205/75R17.5	750 (7.50, 109)	750 (7.50, 109)
	V	215/75R17.5	215/75R17.5	600 (6.00, 85)	600 (6.00, 85)
	OPT	7.00R16-10PR	7.00R16-10PR	515 (5.25, 75)	515 (5.25, 75)
	OPT	7.50-16-12PR	7.50-16-12PR	588 (6.00, 85)	588 (6.00, 85)

Vehicle model		Tire size		Tire inflation pressure kPa (kg/cm², psi)	
		Front	Rear	Front	Rear
NPR75	OPT	7.50-16-14PR	7.50-16-14PR	637 (6.50, 92)	637 (6.50, 92)
	OPT	7.50R16-12PR	7.50R16-12PR	637 (6.50, 92)	637 (6.50, 92)
	OPT	215/75R16C	215/75R16C	525 (5.36, 76)	525 (5.36, 76)
NPR77	V	195/75R16C	195/75R16C	475 (4.75, 68)	475 (4.75, 68)
NPS71	V	7.50R16-12PR	7.50R16-12PR	637 (6.50, 92)	637 (6.50, 92)
NPS75	V	8.5R17.5	8.5R17.5	625 (6.25, 90)	625 (6.25, 90)
NQR66	V	7.50-16-14PR	7.50-16-14PR	637 (6.50, 92)	637 (6.50, 92)
	V	8.25-16-14PR	8.25-16-14PR	564 (5.75, 82)	564 (5.75, 82)
	OPT	8.25-16-12PR	8.25-16-12PR	490 (5.00, 71)	490 (5.00, 71)
NQR70	V	7.50-16-14PR	7.50-16-14PR	637 (6.50, 92)	637 (6.50, 92)
	V	215/75R17.5	215/75R17.5	600 (6.00, 85)	600 (6.00, 85)
	OPT	7.50-16-10PR	7.50-16-10PR	515 (5.25, 75)	515 (5.25, 75)
	OPT	7.50R16-10PR	7.50R16-10PR	564 (5.75, 82)	564 (5.75, 82)
	OPT	7.50R16-12PR	7.50R16-12PR	637 (6.50, 92)	637 (6.50, 92)
NQR71	V	7.50-16-14PR	7.50-16-14PR	637 (6.50, 92)	637 (6.50, 92)
	V	8.25-16-14PR	8.25-16-14PR	564 (5.75, 82)	564 (5.75, 82)
	OPT	8.25-16-12PR	8.25-16-12PR	490 (5.00, 71)	490 (5.00, 71)
NQR71 (For GCC)	V	215/75R17.5	215/75R17.5	600 (6.00, 85)	600 (6.00, 85)
NQR75	V	7.50-16-14PR	7.50-16-14PR	637 (6.50, 92)	637 (6.50, 92)
	V	215/75R17.5	215/75R17.5	600 (6.00, 85)	600 (6.00, 85)
	V	225/70R19.5	225/70R19.5	660 (6.75, 95)	660 (6.75, 95)
	OPT	7.50-16-10PR	7.50-16-10PR	515 (5.25, 75)	515 (5.25, 75)
	OPT	7.50-16-12PR	7.50-16-12PR	588 (6.00, 85)	588 (6.00, 85)
	OPT	7.50R16-10PR	7.50R16-10PR	564 (5.75, 82)	564 (5.75, 82)
	OPT	7.50R16-12PR	7.50R16-12PR	637 (6.50, 92)	637 (6.50, 92)

- NOTE -

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N*R-IE-0552

You are requested to order this manual using the manual number that is shown above.

This manual is applicable for vehicles in all countries except USA and Canada.

Issued by

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