# FOREWORD

Thank you for selecting a MITSUBISHI MOTORS Product as your new vehicle. This Owner's Handbook can add to your understanding and full enjoyment of the many fine features of this vehicle.

It contains information prepared to acquaint you with the proper way to operate and maintain your vehicle for the utmost in driving pleasure.

Mitsubishi Motors Philippines Corporation reserves the right to make changes in design and specifications and / or to make additions to or improvements in this product without obligation to install them on products previously manufactured.

It is an absolute requirement for the driver to strictly observe all laws and regulations concerning vehicles.

This manual has been written in compliance with such laws and regulations, but some of the contents may become contradictory with later amendment of the laws and regulations.

If your vehicle is equipped with any locally produced part, the operating procedure, specifications, maintenance intervals and other contents found in this manual may not sometimes apply to it.



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# **Running-in recommendations**

During the running-in period for the first 1,000km (600 miles), it is advisable to drive your new vehicle using the following precautions as a guideline to aid long life as well as future economy and performance.

- 1. Do not race the engine at high speeds.
- 2. Avoid rapid starting, acceleration, breaking and prolonged high-speed running.
- 3. Keep to the running-in speed limits shown below.

Drive range	Running-in speed km/h (mph)	
1st	20 (12)	
2nd	40 (24)	
3rd	60 (37)	
4th	80 (49)	
5th	85 (52)	

Please note that the legal speed limits displayed must be adhered to.

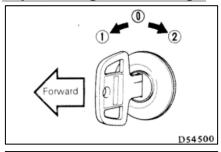
- 4. Do not exceed loading limits.
- 5. Refrain from towing a trail

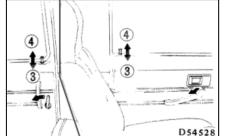
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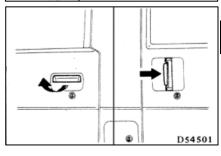
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# Keys – locking and unlocking







# Keys

Two keys are provided. Both keys operate all the locks on your vehicle.

# Doors

- Outside the vehicle:
- 0 Insert (or remove) the key
- 1 Lock
- 2 Unlock

Inside the vehicle:

- 3 Lock
- 4 Unlock

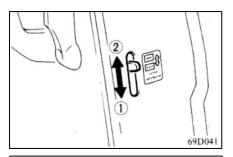
Operate the outside or inside handle as shown to open the door.

# To lock the door without a key

Front door - Set the inside lock knob to position (3) and, while pulling the outside handle up, close the door.

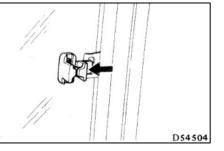
Sliding door - Set the inside lock knob to position (3) and close the door.

Be careful not to lock the door while the key is inside the vehicle.

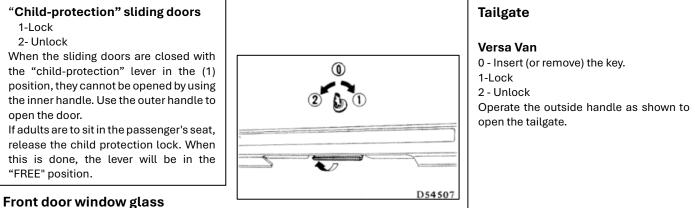








### Keys – locking and unlocking 5



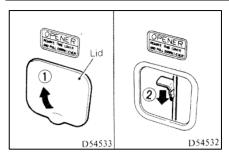
Turn the window regulator handle to raise or lower the window.

Sliding door and quarter window glass (Versa Van)

Sliding the window glass rearward while pressing the lock knob.

To close, slide the window glass all the way and it will automatically lock.

# 6 Keys – locking and unlocking



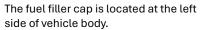
# Versa Van

# Emergency tailgate opener (Versa Van)

In case of emergency, the tailgate can be opened by the emergency opener.

1 – To remove the lid 2 – To unlock the tailgate

# Fuel filler cap



On Versa Van, the cap is covered with a lockable flap.

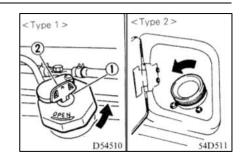
NOTE

Refer to service data for information regarding fuel.

# Fuel filler flap

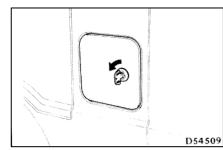
To unlock – Insert and turn the key. The key can be inserted only about half its length into the key cylinder. Tum the key in that position to unlock the flap.

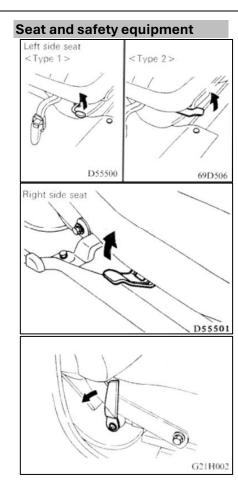
To lock - Push the flap. The flap can be locked without the key.



# Fuel filler cap

1 – Lock 2 – Unlock Turn the cap to remove





# Front seat Forward or backward adjustment

Driver seat – all models

Assistant seat – for some models

Adjust the seat by pulling the lever up. After adjustment, release the lever to lock the seat.

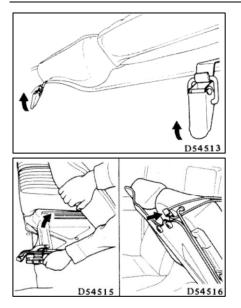
Never move the driver's seat while the vehicle is in motion.

# Seatback angle adjustment (for some models)

Adjust the seatback angle by pulling the lever up. After adjustment, release the lever to lock the seatback. Never move the driver's seat while the vehicle is in motion.

# Folding the seatback forward

To inspect the battery or take out tools, fold the seatback forward by pulling the lever up.



### **Providing access to engine** To open, release the clamps.

### • L.H. seat

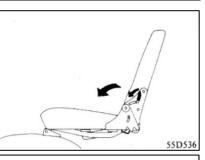
Move the seat fully rearward. While lifting the seat cushion up to where it reaches a stop, lift the seat base. Hook the strap onto the hook of the clamp to secure the seat.

### WARNING

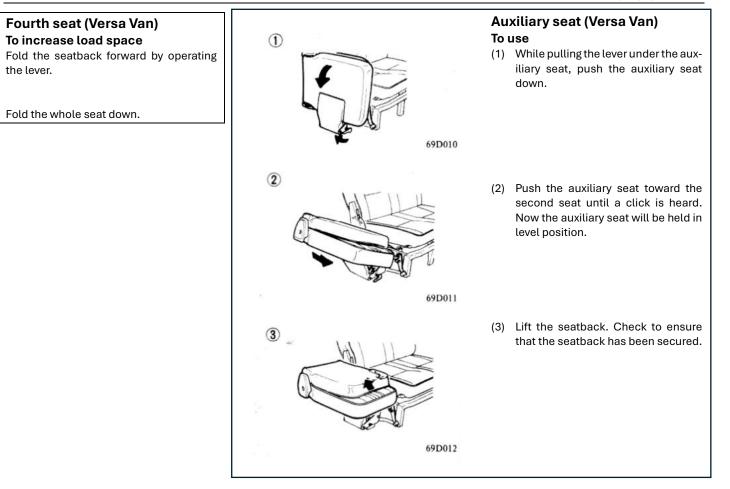
Check that the strap is free of fraying or tearing, and that the metal parts and other components move properly before use. If used in an abnormal state, the strap may not function properly. If there are any problems with the strap or metal parts, etc., have them serviced or replaced by an authorized MITSUBISHI MOTORS dealer.

### CAUTION

When raising the seat cushion, take care to prevent the seat belt or buckle from entering the engine room. After returning the seat to its original position, check that the seat belt and buckle are sticking out of the top of the seat.

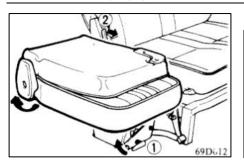


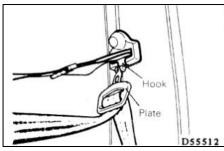


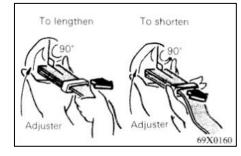


the lever.

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### To fold

- 1. Pull the lever (2) and fold the seatback forward down.
- 2. While pulling the lever (1), raise the auxiliary seat

### CAUTION

Do not fold or unfold the auxiliary seat while the vehicle is in motion as it is very dangerous.

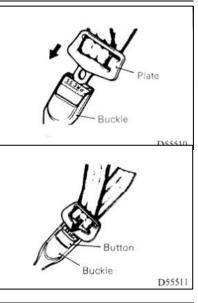
# Seat belts

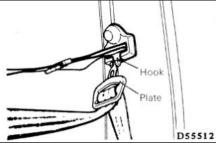
To protect you and your passengers in the o event of an accident, it is most important that the seat belts be worn correctly when if you drive.

# 3-point seat belt without E.L.R. (for some models) To fasten the seat belt

1 - Disconnect the plate from the hook.

- 2 With the belt at a 90° angle relative to the adjuster, adjust the length so the palm of a hand will barely enter between the chest and the shoulder belt when the belt is worn.
- 3 Side the plate into the buckle until the buckling sound is heard.

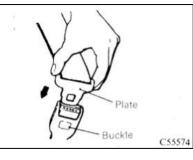




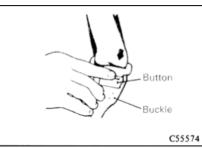
# To unfasten the belt

1- Press the buckle button.

2 - After unfastening the seat belt, attach the plate to the hook, as shown in the figure.



To unfasten the seat belt opposite this figure



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# 3-point seat belts with E.L.R. (for some models)

It is not necessary to adjust the belt length. The belt becomes looser and tighter as the wearer moves, but is locked automatically to hold the wearer if a strong impact occurs.

NOTE "You can check if the belt locks by pulling it forward quickly.

# To fasten the belt

Pull the belt, and move the plate toward the buckle. Pull the buckle upward sufficiently. Insert the plate into the buckle until a "click" is heard.

# CAUTION

(1) Be sure to push the lap belt part down so that it is at the hipbone.

(2) The seat belts must not be twisted when worn

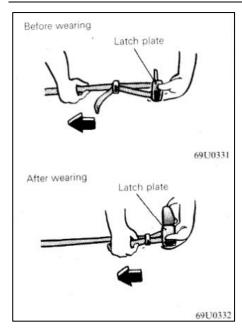
Adjust any looseness by pulling the belt slightly.

### To unfasten the belt

Press the button in the buckle while holding the plate.

NOTE

The belt will rewind automatically; hold the plate and let it rewind gradually.



#### Lap belt

The lap belt should be adjusted by holding the belt and latch plate at right angles to each other, and then pulling the belt as illustrated above to a snug fit around the occupant.

# Use of seat belts WARNING

(4) Do not let children play with the seat belts. If children play with the seat belts by wrapping them around their bodies, the seat belt may retract and become tight. This can result in a serious injury or death, such as suffocation. This can occur even if the vehicle is parked. If the child cannot be released from the seat belt, use an appropriate tool such as a knife or scissors to cut the seat belt.

• Seat belts should always be worn by every adult who drives or rides in this vehicle, and by all children who are large enough to wear seat belts properly.

Other children should always use proper child restraint systems.

No modifications or additions should be made by the user which will either prevent the seat belt adjusting devices from operating to remove from being adjusted to remove slack.
Never hold a child in your arms or on your lap when riding in this vehicle, even if you are wearing your seat belt. To do so risks severe or fatal injury to your child in a collision or sudden stop.

• One seat belt should be used by only one person. Doing otherwise can be dangerous.

• When driving with children, they should be seated in the front seat, and wear lap belts. For an infant, a child safety seat should be used. The regulations concerning driving with children in the front seat may differ from country to country. It is recommended that you obey the pertinent regulations.

• The seat belts must not be twisted when worn.

• Check the belt for cut, worn or frayed webbing and for cracked or deformed metallic parts. Replace the belt if defective.

• A dirty belt should be cleaned with neutral detergent in warm water. After rinsing in water, let it dry in the shade. Do not attempt to bleach or re-dry the belts as this affects their characteristics.

• Seat belts worn at the time of an accident should not be reused even if they appear flawless, because deteriorated belts cannot withstand another accident. Be sure to replace the seat belts and mounting bolts with new ones.

### **Child restraint**

When transporting children in your vehicle, some type of child restraint system should always be used according to the size of the child. This is required by law in most countries.

The regulations concerning driving with children in the front seat may differ from country to country. It is recommended that you obey the pertinent regulations.

### WARNING

- Holding a child in your arms is no substitute for a restraint system. Failure to use a proper restraint system can result in severe or fatal injury to your child.
- (2) (2) No more than one restraint device or fixing to be used by more than one child

### Infants and small children

For infants small enough for infants seats, an infant carrier should be used. For small children whose height when seated al- lows the shoulder belt to lie in contact with the face or the throat, a child seat should be used.

The child restraint system should be appropriate for your child's weight and height and properly fit the vehicle.

When installing a child restraint system, refer to the instructions provided by the manufacturer of the restraint system. Failure to do so can result in severe or fatal injury to your child. When not in use, keep your child or infant seat secured with the seat belt or remove it from the vehicle in order to prevent injury to your child.

### NOTE

Before purchasing a child seat or infant carrier, try installing it in the seat to assure a good fit. Due to the location of the seat belt buckles in the seat cushion, it may be difficult to securely install some child re- straint systems.

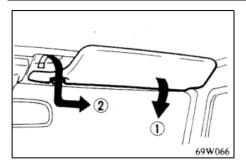
If the child restraint system can be pulled forward easily on the seat cushion after the belt has been tightened, choose another child restraint system.

# **Older children**

Children who have outgrown child restraint system should be seated in the seat and wear combination lap shoulder belt The lap belt should be snug and positioned low on the abdomen so that it is below the top of the hip-bone. Otherwise, the belt could intrude into the child's abdomen during an accident and cause personal injury.

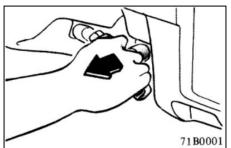
### CAUTION

- Children who aren't buckled up can be thrown out of the vehicle in an accident.
- (2) Children who aren't buckled up can strike other people who are sitting next to them.
- (3) A child should never be left unattended in your vehicle. When you leave the vehicle, take the child out as well.



# Sun visor

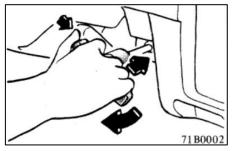
To eliminate front glare
 To eliminate side glare



# Parking brake lever

To park the vehicle, first bring it to a complete stop, fully engage the parking brake, and then set the gearshift lever 1st or reverse.

1 - To apply. pull the lever up.



2 - To release, push the button at the end of the lever, and turn it to the right and then push it downward.

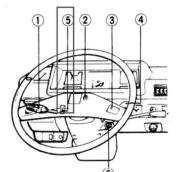
# CAUTION

Before driving, be sure that the parking brake is fully released and brake warning lamp is off.

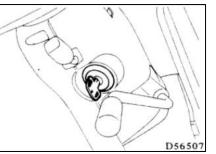
### Switches 15

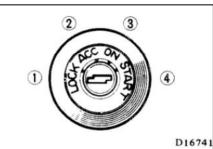
### Switches

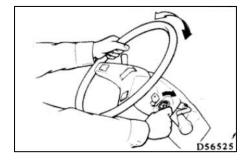
- 1 Combination switch (lights, turn signal, lane-change, passing, dipper)
- 2 Hazard warning flasher switch
- 3 Horn switch
- 4 Windscreen wipers and washer switch
- 5 Tailgate window wiper and washer switch (for some models)
- 6 ignition switch



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# **Ignition switch**

- 1. The engine stops and the steering wheel is locked. The key can be inserted and removed only at this position.
- 2. The engine stops, but the radio, cigarette lighter, wipers and washers can be operated.
- 3. The engine is running and all electrical systems can be operated. For diesel-powered vehicles, the glow plug is to be preheated at this position before starting the engine.
- 4. The starter motor operates. After the engine has started, release the key and it will automatically return to position 3.

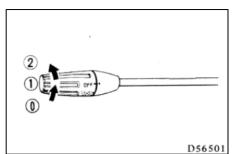
How to lock and unlock the steering wheel

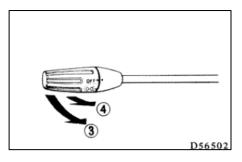
- To lock Remove the key at position1. Slightly turn the steering wheel until it is locked.
- To unlock Turn the key to position 2 while moving the steering wheel slightly.

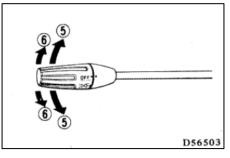
### CAUTION

If you stop the engine by turning the key while driving, the brake servo will cease to function and braking efficiency will deteriorate. If the key is accidentally removed, the steering wheel will lock, making it impossible to control the vehicle. Do not leave the key in position 3 for 2 long time when the engine is not running, because ignition system parts might be damaged.

Do not turn the key to position 4 when the engine is running, because the starter motor might be damaged.







# **Combination switch**

# Lights

Operate regardless of the position of the ignition switch.

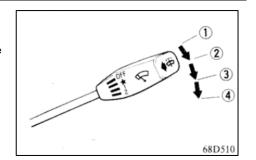
- Turn the end of the lever.
- 0 Lights off
- 1 Position, tail, number plate and instrument panel lights on
- 2 Headlights on (Lights turned on at 1 stay on.)
- Pull the lever toward you.
  - 3 Upper beam and lower beam Each time the lever is pulled with the headlights on, the headlight beam direction switches between up and down.
  - 4 Headlight flasher The headlights flash when the levers pulled slightly toward you and will go off when it is released. While the high beam is on, a blue light in the

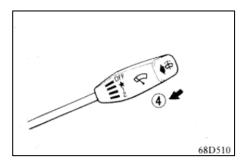
instrument cluster will also

### Turn signal

illuminate.

- Operate when engine is running Move the lever up or down.
- 5 Right or left turn indicators
- 6 Signaling change of lane
- Move the lever until slight resistance is felt. The turn-signal indicators continue to flash while the lever is being pushed.
- The turn-signal indicators are self- cancelling.





### Switches 17

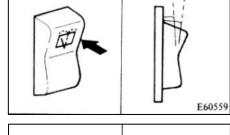
# Windscreen wipers and washer switch

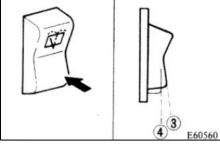
Operate when the ignition is switched on. Move the lever as shown to operate the wiper and washer.

### Windscreen wipers

- 1 Wipers off.
- 2 Intermittent operation
- 3 Slow wiper speed.
- 4 Fast wiper speed.

Do not use the wipers when the glass is dry; this could scratch the glass and wear the blades prematurely.





### Windscreen washer

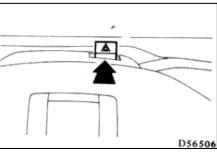
Pull the lever toward you to spray washer fluid on the windscreen.

The wipers operate automatically while washer fluid is being sprayed (for some models)

4 - To spray the washer fluid

Avoid using the washer continuously for more than 20 seconds.

Do not operate the washer when the fluid container is empty.



# Tailgate window wiper and washer switch (for some models)

Operate with the key at the "ON" or "ACC" position.

Push the switch to operate the wiper and washer.

- 1 To operate the wiper
- 2 To spray while the wiper is in operation
- 3 "OFF" position
- 4 To spray the washer fluid

The washer fluid will be sprayed onto the tail gate window glass while the switch is being pushed.

Do not use the wiper when the glass is dry; this could scratch the glass and wear the blade prematurely.

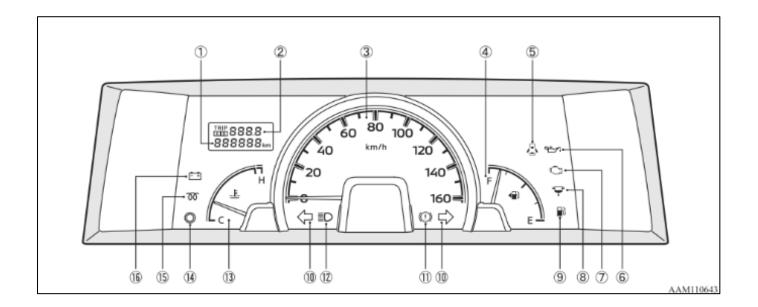
Avoid using the washer continuously for more than 20 seconds.

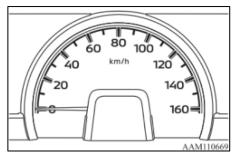
Do not operate the washer when the fluid reservoir is empty.

### Hazard warning flasher switch

When this switch is pushed, all direction indicators flash continuously. Limit the operating time to less than an hour, otherwise the battery will be discharged.

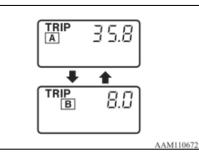
# Instruments

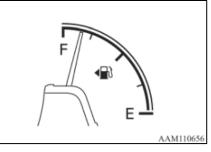




### 1 – Odometer

- 2 Trip meter
- 3 Speedometer
- 4 Fuel gauge
- 5 Door-ajar indication lamp
- 6 Oil pressure indication lamp
- 7 Check engine warning lamp
- 8 Fuel filter warning lamp
- 9 Fuel warning lamp
- 10 Tum-signal indication lamps
- 11 Brake warning lamp
- 12 Upper beam indication lamp
- 13 Coolant temperature gauge
- 14 Trip meter reset button
- 15 Diesel preheat indication lamp
- 16 Charging indication lamp





# Speedometer

Indicates vehicle speed in kilometers per hour (km/h).

### Odometer

Indicates the total distance the vehicle has travelled.

# Trip meter and reset button

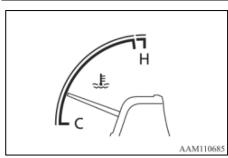
Indicates the distance travelled during a particular trip.

There are two trip meter displays Trip A and Trip B Every time the reset button press lightly, trip meter indications are changed. To return the display to "0", press the reset button for more than 1 second.

# Fuel gauge

Indicates the fuel level in the fuel tank when the ignition is switched on.

F-Full E- Empty



Coolant temperature gauge

Indicates the coolant temperature when the key is at the ON position. If the indication needle enters the red zone during operation, the engine is overheating. For details concerning servicing an overheated engine, refer to page 34.

### Indicators



**Turn signal indication lamps - green** These indication lamps blink on and off when a turn-signal lamp is blinking. If the blinking is too fast, the cause may be a faulty connection of the turn-signal or a malfunction of the turn-signal itself.

### Door-ajar indication lamp - red

### (for some models)

incompletely closed.

### Oil pressure indication lamp - red

Illuminates when the door is open or

Illuminates when the key is turned on and goes out after the engine has started.

If it illuminates while the engine is running, the oil pressure is too low. Turn the engine off and have it inspected.



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# Charging indication lamp - red

C66003 Illuminates when the key is turned on and goes out after the engine has started. If it illuminates while the engine is running there is a problem in the charging system.

> Immediately park your vehicle in a safe place and contact your nearest authorized MITSUBISHI MOTORS dealer.

Upper beam indication lamp - blue violet

This indication lamp illuminates when the high beams are on



Fuel warning lamp – yellow

This lamp illuminates when the C66003 fuel level in the fuel tank falls to a low level approx. 8 lit (8.5 U.S.qts., 7 lmp.qts.). If it illuminates, fuel should be replenished soon.

#### Brake warning lamp – red

With the key at the "ON" position, the brake warning lamp illuminates under the following 68U0022 conditions:



- (1) When the parking brake lever has been pulled.
- (2) When the brake fluid level in the reservoir falls to a low level. (for some models)
- (3) If a malfunction develops in the brake servo system.

If the lamp should illuminate, it indicates that the effectiveness of the brakes has become bad and that they should be depressed with more force than usual.

If the lamp illuminates, stop the vehicle immediately and call the nearest authorized MITSUBISHI MOTORS dealer.

(4) The indicator lights a 3 second precheck light by the meter when the IG changes from OFF to ON

After the pre-check finished, immediately shift to the normal control.

### F Fuel filter warning lamp – yellow

The lamp illuminates when the key is turned to the "ON", and goes off after the engine has started. If it illuminates during travel, this indicates that water has accumulated inside the fuel filter. If this happens, remove the water from the fuel filter. (Refer to page 35).

### Diesel preheat indication lamp – yellow

 $\mathcal{O}\mathcal{O}$ 

C66003 The indication lamp illuminates red-when the key is turned to the "ON" position and As the glow plug becomes hot, the lamp goes out and the engine can be started.

# Check engine warning lamp - yellow

This lamp is a part of an onboard diagnostic system which monitors the emissions, engine control system.

If a problem is detected in one of these systems, this lamp illuminates or flashes. Although your vehicle will usually be drivable and not need towing, we recommend you to have the system checked as soon as possible.

This lamp will also illuminate when the key is turned "ON", and goes off after the

Check engine warning lamp engine has started. If it does not go off after the engine has started, we recommend you to have the vehicle checked.

### CAUTION

- Prolonged driving with this lamp on may cause further damage to the emission control system. It could also affect fuel economy and drivability.
- If the lamp does not illuminate when the key is turned to the "ON" position, we recommend you to have the system checked.
- If the lamp illuminates while the engine is running, avoid driving at high speeds and have the system inspected by an authorized MITSUBISHI MOTORS dealer as soon as possible.

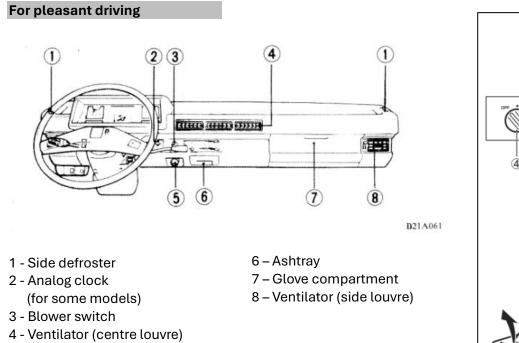
Accelerator pedal and brake pedal response may be negatively influenced under these conditions.

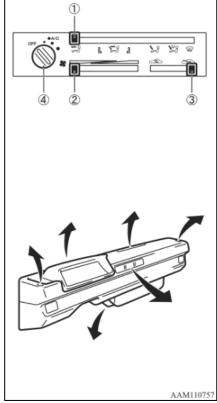
### NOTE

The engine electronic control module accommodating the onboard diagnostic system has various fault data (especially about the exhaust emission) stored.

This data will be erased if a battery cable is disconnected which will make a rapid diagnosis difficult. Do not disconnect a battery cable when the check engine warning lamp is ON.

5 - Cigarette lighter (for some models)





### Heater (for some models)

The heater can be operated when the engine is running.

### **Operation of controls**

- 1 Mode-selection lever
- Air flows to the windscreen and door windows.
- Air flows to the leg area of front seats.
- Small amount of air flows to the face and upper body while large amount of air flows to the feet
- Large amount of air flows to the face and upper body while small amount of air flows to the feet.
- Air flows to the vehicle interior.
- 2 Temperature control lever Move the lever toward right to increase the temperature. When the heater is not required, set the lever in the left end.
- 3 Air-selection lever
- The inside air will be recirculated. Set the lever to this position when driving along a dusty road.
- To introduce outside air to inside the vehicle.
- 4 Blower switch
- Air flow can be increased in three stages.
   F58504

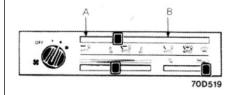
### Heating

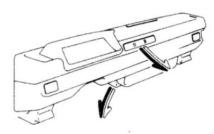
Set the controls as shown for heating. Heated air can be directed to the leg area Adjust the temperature of heated air by combined use of the temperature control lever and blower switch.

# Combined outside air introduction and heating

Heated air can be directed to the leg area and outside air to the face.

The ratio of air flow to the leg and face areas should be adjusted by setting the mode-selection lever to a position between A and B.





D58503

70D518

D58504

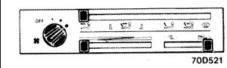
# Demisting and defrosting

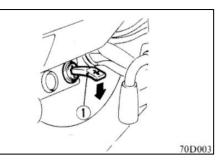
To demist and defrost the windscreen and the front door windows, set the control levers as shown. In summer, demisting should be done

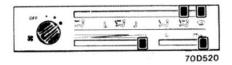
with the temperature control lever in the right side position.

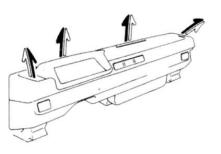
### Introduction of outside air

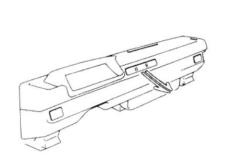
For introducing outside air into the vehicle interior during hot weather. Outside air can be drawn in by switching the blower on.











HOT OFF 2 2

D58539

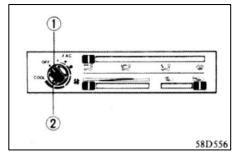
D58506

### Rear heater (for some models)

The rear heater can be operated when the engine is running.

### **Operation of controls**

- 1 Blower switch Air flow can be increased in two stages.
- 2 Water valve control leverSet the lever in "HOT" position toincrease the temperature.When the heater is not required, set thelever in the "OFF" position.



### For pleasant driving 25

# Front air conditioner (for some models)

The front air conditioner can be operated when the engine is running.

### **Operation of controls**

 Air conditioner temperature control Controls the temperature of refrigerated air. As the ring is turned clockwise, the temperature is set lower.

Heater temperature control lever must be in left end position for maximum efficiency of cooling.

2 - Blower switch

Air flow can be increased in three stages.

Rear air conditioner (for some models)

The rear air conditioner can be used only when the front air conditioner is in operation.

### **Operation of controls**

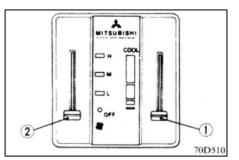
1 - Blower switch

Air flow can be increased in three stages.

2 - Air conditioner temperature control

Controls the temperature of the cabin air. The closer the lever is adjusted to the

"COOL" side, the lower the temperature becomes.



# Important operation tips for air conditioning

- (1) Park the vehicle in the shade. Parking under the hot sun will make the vehicle interior extremely hot, and it will require more time to cool the interior. If it is necessary to park in the sun, open the windows for the first few minutes of air conditioning operation 10 expel the hot air
- (2) Close the windows when the air conditioning is in use. The entry of outside air through open windows will reduce the cooling efficiency.
- (3) Too much cooling is not goad for the health. The air temperature should only be 6 to 6°C lower than the outside air
- (4) When operating the system, make sure the air intake, which is located in front of the windshield, is free of obstructions such as leaves. Leaves collected in the air-intake plenum may reduce air flow and plug the plenum water drains.
- (5) The air conditioner can be used even while the vehicle is standing parked Operation of the air conditioner will automatically increase the engine idling speed by approximately 200 to 300 rpm

# Air conditioning system refrigerant and lubricant recommendations

If the air conditioning seems less effective than usual, the cause might be a refrigerant leak. Have the system inspected by your authorized dealer.

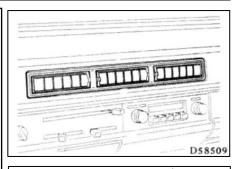
The air conditioning system in your vehicle must be charged with the refrigerant HFC-134a and the lubricant ND-OIL8.

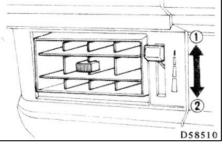
Use of any other refrigerant or lubricant will cause severe damage which will result in the need to replace your vehicle's entire air conditioning system.

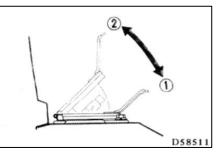
The release of refrigerant into the atmosphere is not recommended. The new refrigerant HFC-134a in your vehicle will not harm the earth's ozone layer. However, it may slightly contribute to global warming. Mitsubishi Motors Philippines Corporation recommends that the refrigerant be recovered and recycled for further use.

### During a long period of disuse

The air conditioning should be operated for at least five minutes each a week, even in cold weather. This is to prevent poor lubrication of the compressor internal parts and maintain the air conditioning in the best operating condition.

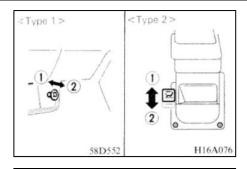






# Ventilator

**Centre louvre** Move the louvre to adjust air flow to the desired direction.



### For pleasant driving 27

# Side floor ventilator lid (for some models)

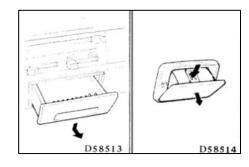
- 1 Outside air blown into the face area.
- 2 Outside air blown into the face area and the leg area.

# Side louvre

- 1 Outside air shut off.
- 2 Outside air blown into the vehicle

Move the louvre to adjust air flow to the desired direction.





# Cigarette lighter (for some models)

The cigarette lighter can be used when the ignition is switched on.

To use, push all the way in. It will automatically return to its original position with a click when ready for use. The lighter can be pulled out for use.

# Ashtrays

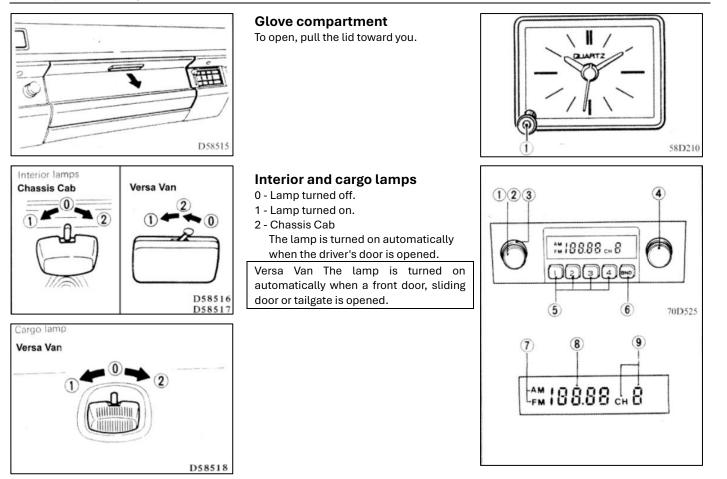
# To empty

For front seat ashtray - Pull out the ashtray while pressing it down slightly.

For other ashtrays — Draw out the ashtray while pressing the metal fitting at the centre.

# Centre floor ventilator lid

- (for some models)
- 1 Outside air shut off.
- 2 Outside air blown into the leg area



### Analog clock

### (for some models)

To set the time, turn the knob (1) while pulling it outward.

### NOTE

If the battery cables are disconnected during repairs or for any other reason, reset the clock to the correct time after the cables are reconnected.

# AM/FM electronic tuning radio (for some models)

The radio can be operated when the ignition switch is in the "ON" or "ACC" position. NOTE

To listen to the radio while the engine is stopped, turn the ignition switch to the "ACC" position.

- 1 SW (On-off switch)
- 2 VOL (Volume control)
- 3 TONE (Tone control)
- 4 TUNE (Up-step/Up-seek control, Down-step/Down-seek control)
- 5 Memory select buttons
- 6- BND (FM/AM select button)
- 7 AM/EM (AM/FM indicators)
- 8 Frequency display window
- 9 Preset memory number display

### To listen to the radio

- Press the on-off switch (1) to turn on the radio.
   Press it again to switch it off.
- Press the BND button (6) to select the desired band (FM/AM)
- Turn the TUNE knob (4) or press one of the memory select buttons (5) to tune to a station. Refer to "Tuning in" or "Memorizing

### Adjusting radio volume and tone

VOL (Volume control) - 2

stations"

Turn the knob clockwise to increase the volume.

TONE (Tone control) - 3

Turn the knob clockwise to increase treble. Turn it anticlockwise for more bass.

### Tuning in

TUNE (Up-step/Up-seek control, Downstep/Down-seek control) - 4 Turn the knob clockwise to tune higher frequencies, and turn it anticlockwise to tune lower frequencies. The knob will return to the neutral position when released.

### Manual tuning

Every time the knob is turned for less than 0.5 seconds, the frequency changes by 1 KHz for AM reception and by 25 kHz for FM reception.

### Automatic tuning

Continue to turn the knob for approximately 0.5 seconds or more to switch to the automatic tuning mode. In the automatic tuning mode, the radio will automatically tune in to a receivable station.

### **Memorizing stations**

As many as 4 AM and 4FM station frequencies can be memorized.

### Follow these steps.

- 1. Turn the TUNE knob (4) to tune in a station to memorize
- Press one of the memory select buttons (5) for at least 2 seconds. The sound will be interrupted while the frequency is being memorized. The number of the pressed memory select button and the memorized frequency are displayed.
- 3. The preset memory setting is recalled by pressing the button and releasing it within 2 seconds.

### NOTE

Disconnecting the battery terminal erases all frequencies stored in memory.

### Antenna

Pull the antenna out.

\*About audio, it is developed locally

### 30

# Starting and driving

# **Tips for starting**

 Do not operate the starter motor continuously for longer than 10 seconds; doing so could run down the battery.

> If the engine does not start, turn the ignition switch back to "LOCK", wait a few seconds, and then try again. Trying repeatedly with the starter motor still turning will damage the starter mechanism.

- 2. If the engine cannot be started because the battery is weak or dead, refer to the emergency starting section for instructions on starting the engine.
- After starting the engine, do not keep the engine idling without driving. Only when the atmospheric temperature is very low, warm up the engine at a high idling speed to ensure proper circulation of oil.

### CAUTION

- Never run the engine in a closed or poorly ventilated area any longer than is needed to move your vehicle in or out of area. Carbon monoxide gases are odorless and can be fatal.
- (2) Do not run the engine at high rpm or drive the vehicle at high speed until the engine has had a chance to warm up.

(3) Release the ignition key as soon as the engine starts to avoid damaging the starter motor.

If your engine is equipped with a turbocharger, do not stop the engine immediately after high-speed or uphill driving. First allow the engine to idle to give the turbocharger a chance to cool down.

### Starting the engine

- 1. Insert the ignition key and fasten the seat belt.
- 2. Make sure the parking brake is applied.
- 3. Depress and hold the brake pedal.
- 4. Fully depress the clutch pedal.
- 5. Place the gearshift lever in the "N" (Neutral) position.
- 6. Turn the ignition key to the "ON" position. The diesel preheat indication lamp will first illuminate, and then after a short time go out, indicating the preheating is completed.
- 7. Turn the ignition key to the "START" position without depressing the accelerator pedal, and release it when the engine starts.

### NOTE

Minor noises may be heard on engine startup. These will disappear as the warms up.

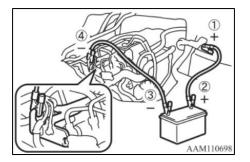
### NOTE

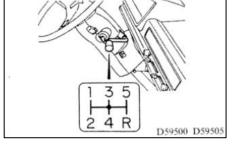
- (1) If the engine is cold, the diesel preheat indication lamp is on for a longer time.
- (2) When the engine has not been started within approximately 5 seconds after the diesel preheat indicator lamp went out, return the ignition key to the "LOCK" position. Then, turn the switch to the "ON" position to preheat the engine again.
- (3) When the engine is warm, the diesel preheat indicator lamp does not come on even if the ignition key is place in the "ON" position.

Start the engine by turning the ignition key right to the "START" position.

# • Bleeding the fuel system

If air enters the fuel line, fuel supply will become poor, and the engine may be difficult to start. If the engine does not start even after the ignition key has been turned to "START" several times, airbleeding of the fuel system is necessary.





#### Weak battery

When the engine is difficult to start due to a flat battery, the engine may easily be started by utilizing jumper cables and the charged battery of another vehicle. Proceed as follows:

- Connect one end of the red jumper cable to the positive terminal of the flat battery ①, and the other end to the positive terminal of the booster battery ②.
- Connect one end of the black jumper cable to the negative terminal of the booster battery ③, and the other end to the engine block of your vehicle at the point farthest from the battery ④. Do not connect the black cable to the negative terminal of the flat battery, because the current will flow from the booster battery directly to the flat battery, resulting in discharge of the booster battery.
- Start the engine The booster battery should be of the same rated voltage (12V) as the one to be charged.

### Driving the vehicle

At start of driving, avoid revving up the engine and letting out the clutch suddenly; the sudden force could damage the clutch, transmission, or other parts.

#### Transmission shift lever

Never move the gearshift lever to "R" (reverse) gear unless the car is completely

stationary. If the car is moving, the transmission may be damaged.

# **Changing gears**

Always use care to change the gear with the vehicle speed matched to the engine speed.

Proper shifting will prolong engine life.

#### Possible driving speed

Drive	Speed limit		
range	km/h (mph)		
1st	30 (18)		
2nd	60 (37)		
3rd	95 (59)		
4th	120 (74)		

### **Economical driving**

The fuel consumption and life of a vehicle depend largely on how it is driven. Take care to operate the vehicle properly.

- Sudden start, rapid acceleration, and maximum speed driving consume large amounts of fuel, and therefore should be avoided whenever possible.
- Gear changes should be made with the speed matched with the engine speed. Avoid increasing the vehicle speed in a low-speed gear or driving with a "knocking" engine in a high-speed gear, because fuel economy and the engine will be affected.
- When utilizing engine braking by shifting down when descending a slope, make certain that the vehicle speed does not exceed the speed range, otherwise will engine overrun and might be damaged due to the overload.
- Since unnecessary speed changes increase fuel consumption, take care to always maintain a constant speed. Accelerate to the desired speed and maintain that speed.
- A dirty air filter element will increase fuel consumption. Clean or change the element at regular intervals.
- The tyre inflation pressures should always be adjusted to the specified values.

- Starting cold engine requires more fuel than starting a warm engine. Do not overload the engine; run it at a constant speed until smooth operation is obtained.
- Weight on the roof rack or in the boot will result in a higher rate of fuel consumption; therefore, be sure to carry only the necessary amount of luggage, etc.
- The fuel consumption greatly depends on the driving conditions and your own way of driving.

### **Power steering system**

When the engine is stopped, the power steering system will not function and it will require greater manual effort to operate the steering wheel. Keep this in mind in particular when towing the vehicle. Never turn off the engine while driving. Periodically check the power steering fluid

### CAUTION

level.

On vehicles with power steering, do not leave the steering wheel in the fully turned position.

This can cause the power steering pump to be damaged due to poor lubrication.

### Brake system

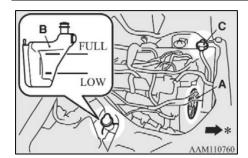
- After driving through deep water, or during extremely heavy rains, a thin film of water may form on the brake discs, thus causing a temporary reduction in the efficiency of brake operation. This problem can be easily remedied by depressing the brakes lightly while driving.
- It is important to make effective use of gear downshifting on steep downhill, slopes in order to prevent the reduction in the efficiency of brake operation which might result from brake overheating

# Limited-slip differential

# (for some models)

If the engine is started while one of the rear wheels is raised on a jack, the vehicle will move forward; do not start the engine while the vehicle is raised on a jack.

If one of the rear wheels become stuck in mud, snow, etc., it may be possible to extract the vehicle by depressing the accelerator pedal; however, if in this condition the engine is continuously run at high speed, the limited-slip differential might be damaged.



### **Engine overheating**

If the coolant temperature gauge indication is in the red zone for a long time, the engine is practically in an overheated condition. In this event, take the following corrective measures.

- 1. Stop the vehicle in a safe place.
- 2. Check whether steam is coming from the engine compartment.

[If steam does not come from the engine compartment]

With the engine still running, raise the front seat to ventilate the engine compartment.

[If steam is coming from the engine compartment]

Stop the engine, and when the steam stops, raise the front seat to ventilate the engine compartment. Restart the engine.

### WARNING

Do not raise the front seat while steam is coming from the engine compartment. It could cause steam or hot water to spurt out, causing burns. Hot water could spurt out even when there is no steam coming out, and some parts will be very hot. Be very careful when raising the front seat.
Be careful of hot steam, which could be blowing off the reserve tank cap.

• Do not attempt to remove the radiator cap while the engine is hot.

3. Confirm that the cooling fans (A) are turning.

[If the cooling fans are turning] After the high coolant temperature warning has gone off, stop the engine.

[If the cooling fans are not turning] Stop the engine immediately and contact an authorized MITSUBISHI MOTORS dealer for assistance.

### WARNING

- Be careful not to get your hands or clothes caught in the cooling fan.
- 4. Check the coolant level in the reserve tank(B).
- 5. Add coolant to the radiator and/or reserve tank if necessary.

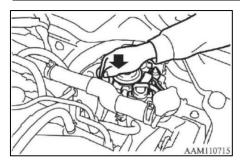
### WARNING

 Make sure that the engine has cooled down before removing the radiator cap (C), because hot steam or boiling water otherwise will gush from the filler port and may scald you.

# CAUTION

- Do not add coolant while the engine is hot. Suddenly adding cold coolant could damage the engine. Wait for the engine to cool down, then add coolant a little at a time.
- 6. Examine the radiator hoses for coolant leakage and the drive belt for looseness or damage.

If there is anything wrong with the cooling system or drive belt, we recommend you to have it checked and repaired.



# Bleeding the fuel system

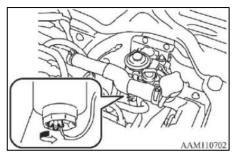
The fuel system should be bled to remove air as described below if the fuel supply is exhausted during travel.

Pump the hand pump at the top of the fuel filter until the hand pump becomes stiff.

Then try again to start the engine. If the engine does not start, repeat the process above.

# CAUTION

- Do not smoke or have any other open flame near the vehicle while bleeding the fuel system.
- Be sure to carefully clean away any spilt fuel which could ignite and cause a fire.



# Removal of water from the fuel filter

If the fuel filter warning lamp illuminates during driving, it indicates that water has accumulated in the fuel filter. If this occurs, remove the water as described below.

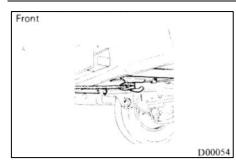
- 1. Loosen the drain plug of the fuel filter.
- 2. Operate the hand pump slowly 6 or 7 times in order to force the water out through the drain plug.
- 3. Tighten the drain plug when water no longer comes out.

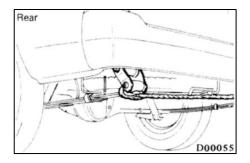
### Starting and driving 35

 Bleed the air in the fuel system. (Refer to "Bleeding the fuel system").
 Check to be sure that the fuel filter indicator lamp illuminates when the key is turned to "ON", and that it goes off when the engine is started. If in doubt, consult your nearest authorized MITSUBISHI MOTORS dealer.

### CAUTION

- Do not smoke or have any other open flame near the vehicle while bleeding the fuel system.
- Be sure to carefully clean away any water drained out because any fuel mixed with the water could ignite and cause a fire.





# Towing

### Towing a disabled vehicle

To have this vehicle towed, fasten the towing rope to the hook provided on the underside of the vehicle front. To tow a disabled vehicle on the other hand, use the leaf spring shackle.

During towing make sure that close contact is maintained between the drivers of both vehicles, and that the vehicles travel at low speed. Avoid abrupt starting or stopping which might subject the vehicles to shock.

Make sure that the gearshift lever on the vehicle to be towed is in the neutral position and steering wheel unlocked. When this vehicle is towed, remember that the brake system has a brake servo. When the engine is stopped, the brakes may be applied with normal foot pressure only the first one or two times, but thereafter a greater foot pressure must be applied to the brake pedal to obtain normal braking. Using wipers or turn signals on towed vehicle

If you have to use the windscreen wipers or turn signals while your vehicle is towed, leave the key in the "ON" position. To prevent entry of exhaust emissions from the towing vehicle into this vehicle set the AIR selection lever of the heater to the cos position.

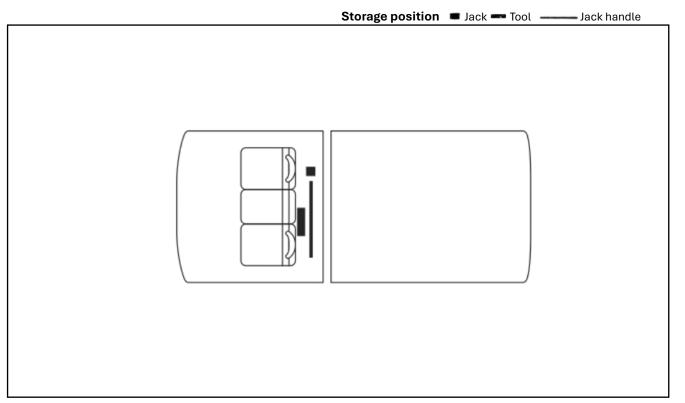
Do not fail to connect the tow rope to the towing hook as specified. If connected elsewhere, damage may result.

### **Towing a trailer**

The regulations concerning the towing of a trailer may differ from country to country. It is recommended that you obey the pertinent regulations.

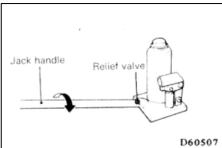
#### Wheels

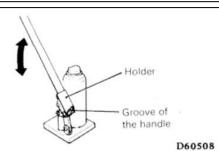
Tools and jack storage



37

#### 38 Wheels



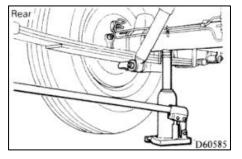


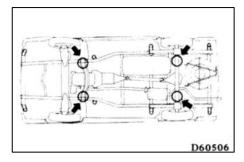
#### Jack set-up

Tighten the relief valve by using the jack handle.

Then fit the handle into the holder and align the groove of the handle with the notch of the holder.

# Front D60584





#### **Jacking points**

When jacking up the vehicle, make certain that the jack is used only at one of the specified jacking points.

#### CAUTION

Do not use any jack other than the one with which the vehicle is equipped. Do not use the jack for any work other than tyre replacement or tyre chain mounting.

When using the jack, block the wheels so that the vehicle does not move.

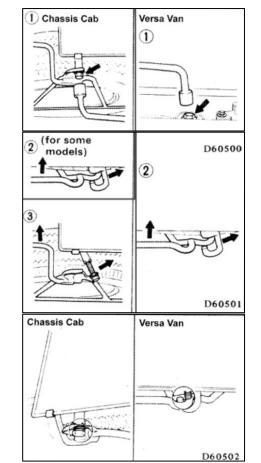
Never leave, rock or get beneath the vehicle while vehicle is supported by jack. A slip out of jack may be a cause of severe injury or damage.

This jack is hydraulic, and the ram is a two-stage type.

When jacking up the vehicle, do so only until the tyres are slightly lifted from the ground.

It is dangerous to jack up the vehicle more than that much.

On vehicles equipped with limited slip differential, do not run the engine while jacking up one side of the vehicle. The driving force may be transmitted to the tyres resting on the ground to let the vehicle move off.



#### Electrical system 39

#### Spare wheel

The spare wheel is stored under the rear of the body.

#### Removal

•

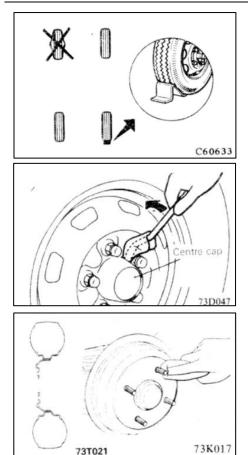
- 1. Loosen the bolts with the wheel nut wrench.
- 2. Lift the bar to remove the holder and hook, lower the carrier together with the wheel and take out the wheel.

#### Storage

•

- 1. Place the wheel positively on the carrier.
- 2. Lift the bar to fit the holder and hook in position and firmly tighten the bolt as shown.

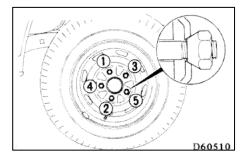
#### 40 Electrical System



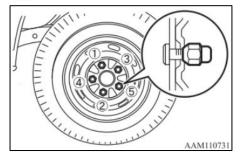
#### Changing a wheel

- 1. Apply the parking brake and then block the wheel diagonally opposite to the one to be changed.
- 2. Take out the spare wheel, jack, jack handle, wheel cap wrench and wheel nut wrench. Place them near the flat tyre.
- 3. Using a screwdriver or similar tool, remove the centre cap. Cover the screwdriver or the tool with a piece of cloth or something appropriate to prevent damages to the wheel.
- 4. Loosen wheel nuts with the wheel nut wrench. Do not remove the wheel nuts yet.
- 5. Place the jack at the specified jacking point nearest the flat tyre. Be careful to place the jack in firm place. Move the jack handle up and down to raise the vehicle until the tyre is slightly off the ground.
- 6. Remove the wheel nuts with the wheel nut wrench or by hand, and then take the tyre off.
- 7. If there is mud in the installation holes at the inner side of the wheel or on the hub, clean it away before installing the wheel.

#### Type A:







#### Electrical system 41

- 8. Then install the wheel, fit the wheel nuts closely to the nut bearing surfaces of the wheel and tighten temporarily.
- Loosen the relief valve by turning anticlockwise, lower the vehicle, and place enough weight on the wheel to allow full tightening of the wheel nuts

Tighten alternately every other nut until each nut has been tightened to specified torque.

Tightening torque:

120 to 140 Nm

(12 to 14 kgm, 87 to 101 ft.lbs.)

10. Adjust the tyre inflation pressure to the specified value.

#### Tyre care

For driving safety, and in order to obtain the maximum useful life of the tyres, the following points should be observed (for information concerning inspection, air pressure and rotation of the tyres, refer to the part which deals with wheels in the section entitled "Do it yourself").

#### Tyre air pressure

The air pressure of the tyres must always be maintained in accordance with specifications.

If any changes in driving conditions (speed and/ or load weight) occur, the air pressure of the tyres must meet the specifications which apply to the new driving conditions.

If the vehicie is going to be driven under varying conditions (city driving, high speeds, maximum load weight, etc.), the air pressure must be adjusted in order to meet the highest specifications of the conditions under which the vehicle is driven (high speeds and maximum toad weight)

#### Load weight and driving speed

Remove any luggage, etc, which is not necessary from the vehicle. The load weight placed on the roof or towed in a trailer also shouid not be excessive Correctly adjusting the air pressure of the tyres before driving under maximum load weight conditions and before long distances is especially important.

#### Tyre replacement

Tyres which do not meet the size specifications must not be used. Replacement of the tyres must be made as a set of the two front tyres, the two rear tyres, or all five tyres (including the spare tyre).

A mixture of bias-ply tyres and radial tyres must not be used. Consult an authorized MITSUBISHI MOTORS dealer regarding tyre replacement.

#### Kerb parking

If the tyres strike a kerb or concrete parking barrier, it's possible that the tyres might be damaged, and this damage could become a source of extreme danger when the vehicle is subsequently driven at high speed

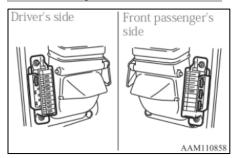
If the vehicle is to be driven over or onto a kerb or any other such barrier, the vehicle should be driven slowly and at an appropriate angle to the kerb or barrier.

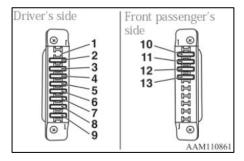
#### Tyre storage

Storage of the tyres should be in a dark, well ventilated place. Tyres not mounted on rims shoulid be stored vertically. Be sure that the tyres are not in any direct contact with fuel, oil, grease, etc.

#### 42

#### **Electrical System**





#### **Fuse housing**

The fuse housing is located on the driver's side, and on the front passenger's side, next to the lid of the side floor ventilator.

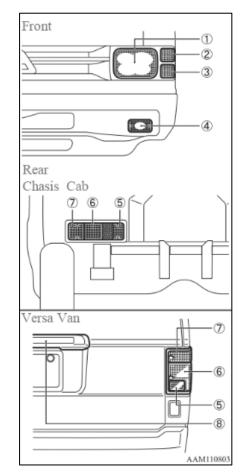
#### Spare fuse

A spare fuse is located on the inside the cover of the fuse housing. A fuse of the same capacity should be used for replacement.

#### **Fuse load capacity**

The fuse housing cover lists the names of electrical systems and fuse capacity. L.H. drive vehicles

- 1. —
- 2.15A Cigarette lighter
- 3. 15A Wiper, Washer
- 4.15A Heater
- 5. 15A Reversing lamps, Turn signal lamps
- 6. 15A Upper beam indication lamp
- 7. 15A Position lamps, Stop lamps
- 8. 15A Horn, Hazard lamps
- 9.15A Interior lamp, radio
- 10. 20A ENG/POWER
- 11. 7.5A ENG ECU
- 12. 10A DIAG CHECKER
- 13. 7.5A Starter



#### Lamp bulbs

- 1 Headlights, upper/lower beam
- Halogen lamps 60/55W

65/55W

5W

5W

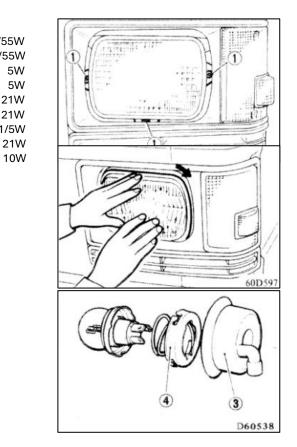
21W

21W

10W

21/5W

- Others
- 2 Position lamps
- 3 Side turn signal lamps
- 4 Front turn signal lamps
- 5 Reversing lamps
- 6 Stop and tail lamps
- 7 Rear turn signal lamps
- 8- Number plate lamps



#### Electrical system 43

#### **Replacement of lamp bulbs**

#### Headlights

1. Headlight adjusting screws (1) must not be loosened. These are for aiming.

If these screws are loosened, incorrect aiming of the headlight will result, necessitating readjustment of aiming.

- While pressing the whole headlight 2. in, turn clockwise and remove from the housing.
- 3. While tilting it, withdraw toward you and disconnect the connector.
- if your headlights are of the replace-4. able bulb type, remove the headlights and remove the sealing cover (3) by pulling rearward. Remove the bulb retainer (4) by depressing and turning anticlockwise, and withdraw the bulb. CAUTION

Do not hold the headlight bulb with bare fingers. Hand-grease on the bulb may vaporize and cause damage to the reflector.

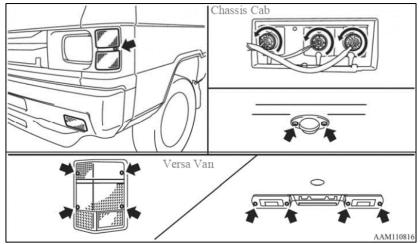
#### 44 Electrical system

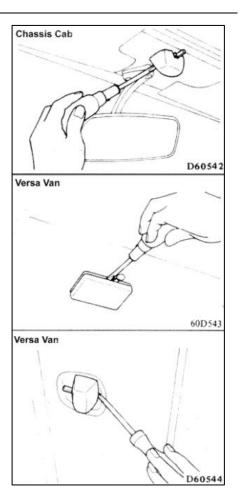
#### • Front, rear and number plate lamps (Except Chassis Cab rear lamp)

Remove the lens mounting screws, remove the lens, and the bulb by turning anticlockwise while pressing it inward.

#### •Chassis Cab rear lamp

Turn the socket anticlockwise to remove it, and then remove the bulb by turning anticlockwise while pressing it inward.





#### Interior lamps

Insert a screwdriver into the notch of the lamp assembly and pry gently to remove the lens. Remove the bulb from the light holder.

#### Do it yourself

It is necessary to constantly maintain your vehicle in top operating condition in order to enjoy safe and pleasant driving. Checking of the inspection items shown below is recommended before you drive your vehicle. Certain maintenance items must also be done periodically in accordance with distance travelled. If there is anything wrong, take the vehicle to an authorized MITSUBISHI MOTORS dealer for inspection

#### CAUTION

Before working on any part in the engine compartment, turn off the engine and let it cool down sufficiently. If work has to be done with the engine running, exercise extreme caution to prevent neckties, jewelry or long hair from getting caught in the drive belt or fan.

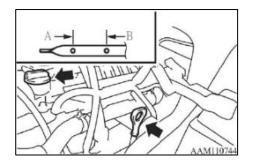
#### **Pre-drive inspections**

- Engine oil level
- Engine coolant level
- Battery-charge condition
- Brake fluid level
- Clutch fluid level
- Power steering fluid level
- Windscreen washer fluid level
- Tailgate window washer fluid level

- Wheel condition
   (including spare wheel)
- Tyre inflation pressure (including spare wheel)
- Fuel, engine coolant, oil and exhaust gas leakage
- Exterior and interior lamps condition
- Meters, gauges and indication lamps
   operation
- Steering wheel free play
- Clutch pedal free play
- Brake pedal free play
- Parking brake lever stroke

#### **Other inspections**

• Body mechanism lubrication Perform when noise is heard from various parts of the body and lack of lubrication is evident.



#### **Engine Oil**

The engine oil used has a significant effect on the engine's performance, service life and startability. Be sure to use oil of the recommended quality and appropriate viscosity.

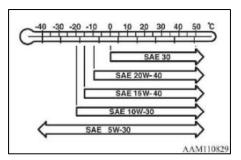
All engines consume a certain amount of oil during normal operation. Therefore, it is important to check the oil level at regular intervals or before starting a long trip.

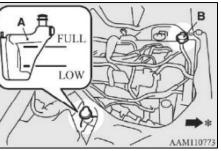
- (1) Park the vehicle on a horizontal surface.
- (2) Switch off the engine.
- (3) Wait a few minutes.
- (4) Remove the dipstick and wipe it with a clean cloth.
- (5) Reinsert the dipstick as far as it goes.
- (6) Remove the dipstick and read the oil level, which should always be within the range indicated.
- (7) If the oil level is below the specified limit, remove the cap located on the cylinder head cover and add enough oil to raise the level to within the specified range. Do not overfill to avoid engine damage. Be sure to use the specified engine oil and do not mix various types of oil.

- (8) After adding oil, close the cap securely.
- (9) Confirm the oil level by repeating step 4 to 6.

#### NOTE

- Check or refill the oil according to the following manner.
- When the oil level is checked in step 6 above, check it on a low side of the dipstick because it is different in appearance of ol level in the two sides of the dipstick.
- The oil level should be within the range (A) to (B) on the dipstick.
- The engine oil will deteriorate rapidly if the vehicle is subjected to severe conditions, requiring earlier oil replacement. Please refer to the maintenance schedule.
- For handling of used engine oils, refer to page 62.





Recommended engine oil viscosity NOTE

- Use of additives is not recommended since they may reduce the effectiveness of additives already included in the engine oil. It may result in failure of the mechanical assembly.
- If those classifications are not available, contact an Authorized MITSUBISHI MOTORS dealer.
- (1) Select engine oil of the proper SAE viscosity number according to the atmospheric temperature.
- (2) Use engine oil conforming to the following classification:
- ACEA classification "For service A1/B1, A3/B3, A3/B4, A5/B5"
- API classification "For service CD" or higher

\*:Front of the vehicle

#### Engine coolant To check the coolant level

A transparent coolant tank (4) is located in the engine compartment.

The coolant level is this tank should be kept between the "LOW" and "FULL" marks when measured while the engine is cold.

#### To add coolant

The cooling system is a closed system and normally the loss of coolant should be very slight. A noticeable drop in the coolant level could indicate leakage. If this occurs, we recommend you to have the system checked as soon as possible.

If the level should drop below the "LOW" level on the reserve tank, open the lid and add coolant.

Also, if the reserve tank is completely empty, remove the radiator cap (B) and add coolant until the level reaches the filler neck.

#### WARNING

 Do not open the radiator cap (B) while the engine is hot. The coolant system is under pressure and any hot coolant escaping could cause severe burns.

#### Anti-freeze

The engine coolant contains an ethylene glycol anti-corrosion agent. Some parts of the engine are cast aluminum alloy, and periodic changing of the engine coolant is necessary to prevent corrosion of these parts.

Use "MITSUBISHI MOTORS GENUINE SUPER LONG LIFE COOLANT PREMIUM" or equivalent\*.

\*: similar high quality ethylene glycol based non-silicate, non-amine, non- nitrate and non-borate coolant with long life hybrid organic acid technology

MITSUBISHI MOTORS GENUINE Coolant has excellent protection against corrosion and rust formation of all metals including aluminum and can avoid blockages in the radiator, heater, cylinder head, engine block, etc.

Because of the necessity of this anticorrosion agent, the coolant summer. The required concentration of anti-freeze differs depending on the expected ambient temperature. Above -35 ° C: 50 % concentration of antifreeze

Below -35 ° C: 60 % concentration of antifreeze

#### CAUTION

• Do not use alcohol or methanol antifreeze or any engine coolants mixed with alcohol or methanol anti-freeze.

• The use of an improper anti-freeze can cause corrosion of the aluminum components.

• Do not use water to adjust the concentration of coolant.

• Concentrations exceeding 60 % will result in a reduction of both the anti- freeze and cooling performance thus adversely affecting the engine.

• Do not top up with water only. Water by itself reduces the rust- protective and antifreeze qualities of the coolant and has a lower boiling point. It can also cause damage to the cooling system if it should freeze. Do not use tapwater, as it can cause corrosion and rust formation.

#### **During cold weather**

If the temperatures in your area drop below freezing, there is the danger that the coolant in the engine or radiator could freeze and cause severe damage to the engine and/or radiator. Add a sufficient amount of antifreeze to the coolant to prevent it from freezing.

The concentration should be checked before the start of cold weather and antifreeze added to the system if necessary.

#### Battery

The battery is stored under the floor behind the left front seat. Lift the seat cushion.

The condition of the battery is very important for quick starting of the engine and proper functioning of the vehicle's electrical system. Regular inspection and care are especially important in cold weather.

#### **During cold weather**

The capacity of the battery is reduced at low temperatures. This is an inevitable result of its chemical and physical properties. This is why a very cold battery, particularly one that is not fully charged anyway, will only deliver a fraction of the starter current which is normally available It is recommended that you have the battery checked by an authorized MITSUBISHI MOTORS dealer before the start of cold weather and, if necessary, have it charged This not only ensures reliable starting, but a battery which is kept fully charged also has a longer life.

#### **Disconnection and connection**

To disconnect the battery cable, stop the engine, first disconnect the negative terminal and then the positive terminal. When connecting the battery, first connect the positive terminal and then the negative terminal.

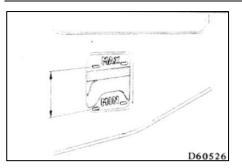
#### CAUTION

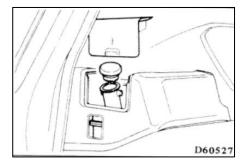
- Never disconnect the battery while the engine is running; doing so could damage the vehicle's electrical components.
- (2) Never short-circuit the battery; doing so could cause it to overheat and be damaged.
- (3) Do not smoke or bring an open flame near the battery; doing so could ignite the explosive gas generated by the battery.
- (4) The battery electrolyte is extremely caustic. Do not allow it to come in contact with your eyes, skin, clothing, or the painted surfaces of the vehicle. Spilled electrolyte should be flushed immediately with ample amounts of water. Irritation to eyes or skin from contact with electrolyte requires immediate medical attention.
- (5) Ventilate when charging or using the battery in an enclosed space.
- (6) If the battery is to be quickcharged, first disconnect the battery cables.

- (7) In order to prevent a short circuit, be sure to disconnect the negative (-) terminal before doing anything else.
- (8) Keep it out of the reach of children.

#### NOTE

- Keep the terminals clean. After the battery is connected, apply terminal protection grease. To clean the terminals, use lukewarm water.
- (2) Check to see if the battery is securely installed and cannot be moved during travel. Also check each terminal for tightness.
- (3) When the vehicle is to be left unused for a long period of time, remove the battery and store it in a place where the battery fluid will not freeze. The battery should be stored only in a fully charged condition.





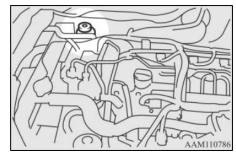
#### Brake fluid level

The level should be between the MIN and MAX lines on the reservoir.

If the level is below the MIN line, have brake fluid replenished by an authorized MITSUBISH MOTORS dealer.

Use brake fluid conforming to DOT3 or DOT4.

If the brake fluid level falls rapidly, consult an authorized MITSUBISHI MOTORS dealer.

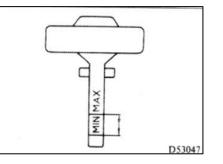


#### CAUTION

Be sure to use the prescribed brake fluid, and do not mix it with any other brand.

#### **Clutch fluid level**

The fluid for hydraulic control of clutch is contained in the brake fluid reservoir. Refer to instructions under "Brake fluid level".



#### Power steering fluid level

Check the fluid level while the engine is idling. Remove the reservoir cap and check the fluid level.

The level should be between the MAX and MIN lines on the level gauge.

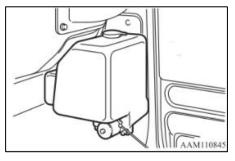
If the level is below the MIN line, request an authorized MITSUBISHI MOTORS dealer to replenish the power steering fluid.

Use MITSUBISHI MOTORS GENUINE PSF (POWER STEERING FLUID)

Note that excess fluid could cause power steering failure, similar to a shortage of fluid.

#### Windscreen washer fluid level

Check the washer fluid level in the reserve tank. If the level is low, add the windscreen washer fluid as necessary.



# Tailgate window washer fluid level

Remove the lid on the right quarter trim in the luggage compartment and check the washer fluid level. If the level is low, add the window washer fluid as necessary.

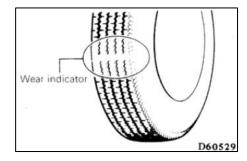
#### Wheel condition

Check the tyres for flaws and cracks. Replace the tyre if there is a deep flaw or crack. Also check each tyre for pieces of metal or pebbles.

The tread depth of the tyres must exceed 1.6 mm (0.06 in.) in order for the tyres to meet the minimum requirement for use.

If there are wear indicators on the tyres, these belt-line wear indicators will appear in six places on the surface of the tyre as the tyre wears, thereby indicating that the tyre no longer meets the minimum requirement for use.

When these wear indicators do appear, the tyres must be replaced with new one. Refer to the section entitled "Wheels" for information concerning care of the tyres.



#### Tyre inflation pressure

Check the tyre inflation pressure of all tyres when tyres are cold. If insufficient of excessive, adjust to the specified value. After the tyre inflation pressures have been adjusted, check for damage. If there are no air leaks, be sure to put rubber caps on the valve.

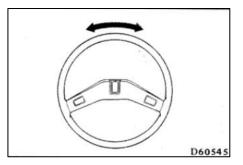
Tyre size	2 passengers		3 passengers + load	
-	Front	Rear	Front	Rear
Front and Rear	294	294	294	368
185R14C 102/100P	(3.0.	(3.0.	(3.0.	(3.75.
8PR	43)	43)	43)	53)

### Fuel, engine coolant, oil and exhaust gas leakage

Look under the body of your vehicle to check for fuel, water, oil and exhaust gas leaks. If leaks are evident, take your vehicle to an authorized MITSUBISHI MOTORS dealer for inspection.

# Exterior and interior lamps condition

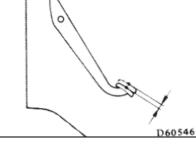
Operate the light switch and column switch to confirm operation of all the lamps. If the lamps do not operate, the probable cause is a blown fuse or defective lamp bulbs. Check the fuses first. If there is no blown fuse, remove and check the lamp bulbs. For inspection and replacement of fuses and lamp bulbs, refer to Electrical System. If fuses and bulbs are good, take your vehicle to an authorized MITSUBISHI MOTORS dealer for inspection.

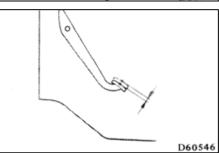


# Meters, gauges and indication lamps operation

Run the engine or operate the vehicle to check all meters, gauges and indicators for operation

If there is anything wrong, take your vehicle to an authorized MITSUBISHI MOTORS dealer for inspection.





#### Clutch pedal free play

Lightly depress the clutch pedal to check the free play. Free play: Petrol-powered vehicles 20 to 35 mm (0.8 to 1.4 in.) Diesel-powered vehicles 8 to 15mm (0.31 to 0.59 in.)

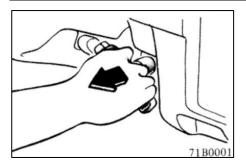
If the clutch pedal free play is not within the standard limits, have jt adjusted by an authorized MITSUBISHI MOTORS dealer.

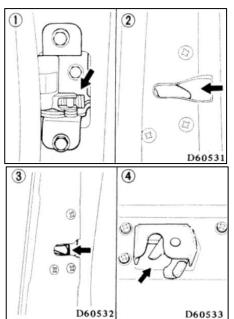
#### Brake pedal free play

Stop the engine and depress the brake pedal several times, and press down the pedal with your fingers until initial resistance is felt.

This distance should be within the specified range

Free play: 3 to 8 mm (0.12 to 0.31 in.) If the brake pedal free play is not within the standard limits, have it adjusted by an authorized MITSUBISHI MOTORS dealer.





#### Parking brake lever stroke

Pull the parking brake lever all the way out to check the clicks that the ratchet makes.

One click indicates a lever movement of one notch.

Diesel-powered vehicles 18 to 22 notches

If the parking brake lever stroke is not within the standard limits, have it adjusted by an authorized MITSUBISHI MOTORS dealer.

#### **Body mechanisms lubrication**

Check the latches and hinges of all doors for lack of lubrication.

1 - Front door upper hinge 2 - Front door latch

3 - Side door latch

4 - Tailgate latch

Clean and apply chassis grease as necessary.

#### Wheel rotation

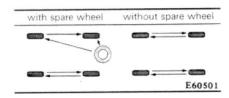
To equalize the wear and help extend tyre life, Mitsubishi Motors Philippines Corporation recommends that you rotate your tyres approximately every 10,000 km.

Since, however, tyre wear varies with vehicle conditions, road surface conditions and individual vehicle driver's driving habits, it is recommended to rotate the tyres immediately after discovery of abnormal wear.

When rotating tyres, check for uneven wear and damage. Abnormal wear is usually caused by incorrect tyre pressure, improper wheel alignment, out-ofbalance wheel, or severe braking.

Consult your authorized dealer to determine the cause of irregular tread wear.

#### **Radial tyres**



#### Vehicle care

#### Washing

Chemicals contained in the dirt and dust picked up from the road surface can dam age the paint coat and body of your vehicle if left in prolonged contact. Frequent washing and waxing is the best way to protect your vehicle from this damage. This will also be effective in protecting it from environmental elements such as rain, snow, salt air, etc. Do not wash the vehicle in direct sunlight Park the vehicle in the shade and spray it with water to remove dust.

Next, using an ample amount of clean water and a car washing brush or sponge, wash the vehicle from top to bottom. Use a mild car washing soap if necessary. Rinse thoroughly and wipe dry with a soft cloth. After washing the vehicle, carefully clean the joints and flanges of the doors, hood, etc., where dirt is likely to remain.

#### CAUTION

- When washing the under carriage of your vehicle, wear a pair of rubber gloves in order not to hurt your hand.
- (2) Try to refrain from using a car wash as its brushes may scratch the paint surface, causing it to lose its gloss.

Scratches will be especially visible on darker coloured vehicles.

- (3) Never spray or splash water on the electrical components in the engine compartment, as this may adversely affect the starting circuit
- (4) Some types of hot water washing equipment apply high pressure and heat to the vehicle.

They may cause heat distortion and damage to the vehicle resin parts and may result in flooding of the vehicle interior. Therefore, be sure to observe the following.

- Maintain a good distance of ap- prox.
   40 cm or more between the vehicle body and the washing nozzle.
- When washing around the door glass, hold the nozzle at right angles to the glass surface.

#### 56 Vehicle care

#### **During cold weather**

The salt and other chemicals spread on winter roads in some areas can have a detrimental effect on the vehicle body. You should therefore wash the vehicle as often as convenient in accordance with our care-instruction. It is recommended to have a preservative applied and the underfloor protection checked at an authorized MITSUBISHI MOTORS dealer before and after the cold weather season. After washing your vehicle, wipe off all waterdrops from the rubber parts around the doors to prevent the doors from freezing

#### NOTE

To prevent freezing of the weatherstripping on the doors, hood, etc., they should be treated with silicone spray or grease.

#### Waxing the vehicle

Wax the vehicle every 3 months or when painted surfaces do not shed water. When washing, apply a small amount of wax to the painted surface repeatedly with a soft cloth. Use a pure wax. Avoid using a wax containing an abrasive compound, etc.

If the painted surfaces feel hot to the touch, first move the vehicle to a shaded area.

Apply wax only when the painted surfaces are cool.

Make certain that the waxed vehicle is not directly exposed to strong sunlight.

For vehicle with a sunroof, take care not 10 apply wax to the weatherstrip used at the sunroof opening. Clean away any wax which has adhered to the weatherstrip.

#### NOTE

When waxing vehicle with dark body colors, pay particular attention to the following points.

If a wax which contains rubbing compound is used, it will cause a loss of lustre, a loss of color, or scratch marks to appear in the surface coating. When purchasing wax to be used on the vehicle, be sure to confirm whether or not the wax contains rubbing com- pound.

# Protection of exterior bright metal parts

Bright metal parts should be cleaned regularly to maintain lustre. Washing with water is all that is usually required In winter, preserve the smoothness of bright metal surfaces with a protective coating of wax, etc.

#### Touching up flawed paintwork

If the painted surface of the body has small flaws produced by pebbles, etc. scrape away rust and apply touch-up paint (available at an authorized MITSUBISHI MOTORS dealer).

#### Maintenance of upholstery

To maintain the interior of your vehicle, the upholstery should be properly cared for

- Dirt, dust, cigarette ash or tar on artificial leather Spray artificial leather cleaner on soiled sections, and then wipe away with a soft white cloth such as gauze.
- Oil marks (include grease, machine oil, lipstick and shoe polish marks) Soak a white cloth in petroleum spirit or unleaded petrol, and wipe away while dabbing lightly

# Maintenance of vehicle during cold weather

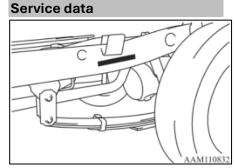
#### Washing

If you have driven the vehicle on a salted or gritte road, wash the under side of the vehicle as soon as possible.

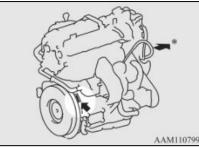
# Checks to make before arrival of the cold season

Ask an authorized MITSUBISHI MOTORS dealer to check the following points:

- Engine starting
- Replacement of engine oil
- Battery-charge condition
- Drive belt looseness
- Ratio of antifreeze to coolant
- Addition of windscreen washer fluid containing antifreeze
- Snow tyres or tyre chains
- Application of silicone wax to weather Engine number stripping



# Versa Van

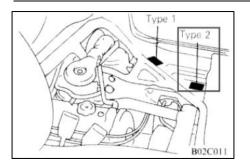


#### Chassis and engine numbers Chassis number

Stamped on the side wall of the frame near the right rear spring hanger. When ordering replacement parts, be sure to quote this number.

#### **Engine number**

Stamped on the middle of the engine cylinder block, at the rear end. \*: Front of the vehicle

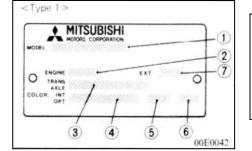


#### Vehicle information code plate

The vehicle information code plate is riveted as illustrated.

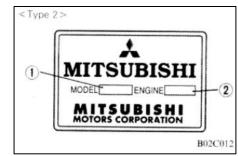
The plate shows model code, engine model, transmission model and body colour code, etc.

Please use this number when ordering replacement parts.





- 2 Engine model code
- 3 Transmission model code
- 4 Body color code
- 5 Interior code
- 6 Option code
- 7 Exterior code



#### Specifications

Description	Specifications	
Engine		
Model	4N14	
No. of cylinders	4 in line	
Total displacement	2,268 cc	
Bore	86.0 mm	
Stroke	97.6 mm	
Camshaft	Double overhead	
Mixture preparation	Electronic injection	
Battery	Battery Type A:	Battery Type B:
Туре	95D3IR	80D26R
Capacity (5HR)	64Ah	55Ah
Alternator	12V - 65A	
Starter	12V – 2.0kW	
*Depending on the vehicle model, there are vehicles t only use Battery Type A and vehicles that can use either T Type B. For further information, please contact an aut MITSUBISHI MOTORS dealer	ype A or	

#### Specifications

Description	Specifications
Transmission	
Model	R5M21
Shift type	Column shift
Gear box	5-speed manual
Gear ratio	
1st	3.967
2nd	2.136
3rd	1.360
4th	1.000
5th	0.822
Reverse	3.578
Final gear ratio	3.909
Steering	Recirculating ball type
Front suspension	Wishbone-coil spring
Rear suspension	Rigid-elliptic leaf spring
Brakes	Double circuit brake system. brake servo
	Front Disc brakes
	Rear Leading trailing brakes
Tyres and wheels	
Tyre size Front and Rear	185R14C 102/100P 8PR
Wheel size	5 .0J x 14

#### Fluids and lubricants

Lubrication point	Quantity	Recommended lubricants	
Eddication point	lit. (U.S. qts.,imp.qts)	necommended tubicants	
Engine			
Oil sump	5.5 (5.8, 4.8)		
Oil filter	0.3 (0.32, 0.26)	Refer to "Do it yourself"	
Oil cooler	0.1 (0.11, 0.09)		
Transmission	2.0 (2.1, 1.8)	MITSUBISHI MOTORS GENUINE MIF AP GL-3 SAE 75W-85 or	
		MITSUBISHI MOTORS GENUINE Multi Gear Oil API GL-4 SAE 75W-85	
Differential	1.6 (1.69, 1.41)	MITSUBISHI MOTORS GENUINE Super Hypoid Gear Oil ECOLOGY API GL-5	
Conventional differential		SAE 90	
Limited-slip differential	1.8 (1.90, 1.58)	MITSUBISHI genuine gear oil Part No. 8149630 EX or CASTROL HYPOY LS	
Power steering fluid	As required	MITSUBISHI MOTORS GENUINE PSF (Power Steering Fluid)	
Engine coolant	5.0 (5.28, 4.40)	MITSUBISHI MOTORS GENUINE SUPER LONG LIFE COOLANT PREMIUIM or	
{Includes 0.65 L in reserve tank}	(,)	equivalent*	
Brakes	As required	Brake fluid DOT3 or DOT4	
Refrigerant	1300g to 1450g	HFC-134a	
-	(45ozs. to 51ozs.)		

\*Similar high quality ethylene glycol based non-silicate, non-amine, non-nitrate and non-borate coolant with long life hybrid organic acid technology

#### Fuel

Tank capacity	55 lit. (14.5 U.S. gal., 12.1 imp.gal.)
Fuel	Euro IV-PH

#### Used engine oils safety instructions

#### WARNING

- (1) Prolonged and repeated contact may cause serious skin disorders, including dermatitis and cancer.
- (2) Avoid contact with the skin as far as possible and wash thoroughly after any contact.
- (3) Keep out of reach of children.

#### CAUTION

- Use of any other type of diesel fuel would adversely affect the engine's performance and durability.
- If you continuously use fuel that contains more than 7 % biodiesel, the impurities in the bio-diesel could precipitate.

If this occurs, the properties of the fuel in the fuel tank will change, which could adversely affect the engine, fuel filter, and other components, leading to engine problems.

If the engine is not operating properly, switch to fuel that contains 7 % or less biodiesel as soon as possible and have the vehicle checked at an authorized MITSUBISHI MOTORS dealer.

 If proper "winter" fuel is not used in winter, the diesel preheat indication lamp may blink and the engine speed may not rise above the idling speed because of fuel freezing. In this case, keep the engine idling for approximately 10 minutes, then turn off the ignition switch and immediately turn it on again to confirm that the diesel preheat indication lamp is off.

#### Notes regarding diesel fuel

• Due to the separation of paraffin, the fluidity decreases considerably as the temperature falls.

Because of this fact there are two kinds of fuel: "summer" and "winter". This must be considered in winter use. Select either of the two kinds of fuel in accordance with ambient temperature.

Above -5° C: "summer" diesel

Below -5° C: "winter" diesel

When travelling abroad, find out in advance about the fuels served in local service stations.

 Poor-quality diesel fuel can cause deposits form in the injector, resulting in black smoke and rough idling.

If these problems occur, you are advised to add a cleaning additive to the diesel fuel when you refuel the vehicle. The additive will break up and remove the deposits, thereby returning the engine to a normal condition. Be sure to use a MITSUBISHI MOTORS GENUINE DIESEL FUEL SYSTEM CLEANER. Using an unsuitable additive could make the engine malfunction.

#### Catalytic converter

Catalytic converter is installed on the exhaust system and is very efficient in reducing dangerous exhaust gas. Engine must be tune-up well to make sure the catalyst works correctly and avoid any damage on the catalyst.

Problems in the catalytic converter occurs because the vehicle is not operated well. If the damage causes the engine to not start or its performance reduced, immediately bring your vehicle to an authorized MITSUBISHI MOTORS service center. Continuous usage of the vehicle on bad ADD overheated condition can cause further damage to the catalytic converter and the vehicle.

Do not park or use the vehicle on a place surrounded with easyto-burn materials such as dry grass, because the leaves can interact with hot exhaust gas that can cause fire accident.

The catalytic converter can quickly heat and be damage when overheated. Take note of the following points to avoid unburned fuel inside the catalytic converter from igniting.

- Do not drive with a low level of fuel. Driving on empty fuel tank can damage the converter.
- Do not try to start the engine by pushing the vehicle. If the battery is low or dried, replace the battery immediately.
- Do not extend the engine's idling time during trouble-fixing.
- Stop the vehicle if you think the engine's performance is very low, or if any engine problem occurs.
- If you can't stop immediately, reduce your speed and drive the vehicle for 3 while. Check your vehicle at the nearest authorized MITSUBISHI MOTORS service center immediately.

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