Maintenance

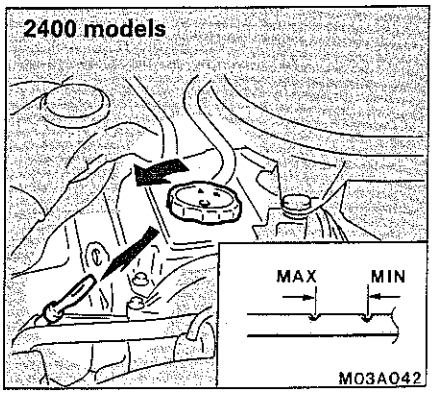
MAINTENANCE

EM01A-Ha

Adequate care of your vehicle at regular intervals serves to preserve the value and appearance as long as possible.
Some maintenance items can be carried out by the owner (do it yourself), while others should be done only by an authorized dealer (periodic inspection and maintenance).
This section describes only those items which can be carried out by the owner. In the event a malfunction or other problem is discovered, have it corrected by an authorized MITSUBISHI dealer.
This section contains information on inspection maintenance procedures that you can do yourself, if you so desire. Follow the instructions and cautions for each of the various procedures.

⚠ *CAUTION*

(1) When checking or servicing the inside of the engine compartment, be sure the engine is switched off and has had a change to cool down.
(2) If it is necessary to do work in the engine compartment with the engine running, be especially careful that your clothing, hair, etc., does not become caught by the fan, V belts, or other moving parts.
(3) Improper handling of components and materials used in the vehicle can endanger your personal safety.
Consult an authorized MITSUBISHI dealer for necessary information.

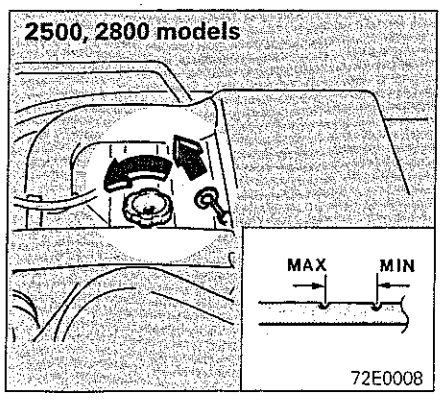


Engine oil

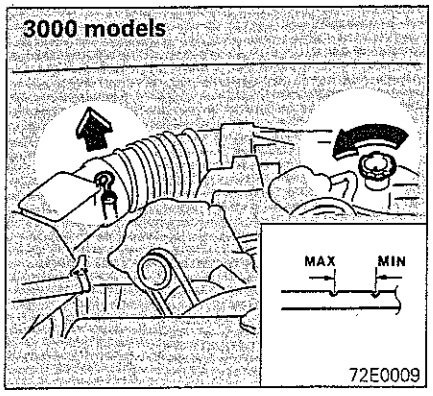
EM03A-Ab

All engines consume a certain amount of oil during normal operation, and engine oil consumption is greatly influenced by payload, engine speed, etc. Therefore it is important to check the oil level at regular intervals or before starting a long trip.

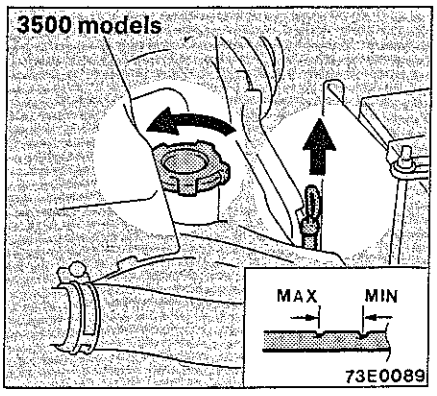
This check must be made with the engine warm but not running. Park the vehicle on a level surface, stop the engine, and then wait a few moments to allow the engine oil in circulation to return to the oil pan to ensure accurate measurement.



Remove the dipstick and wipe it with a clean cloth. Reinsert the dipstick as far as it goes. Remove the dipstick and read the oil level, which should always be within the range indicated in the figure.

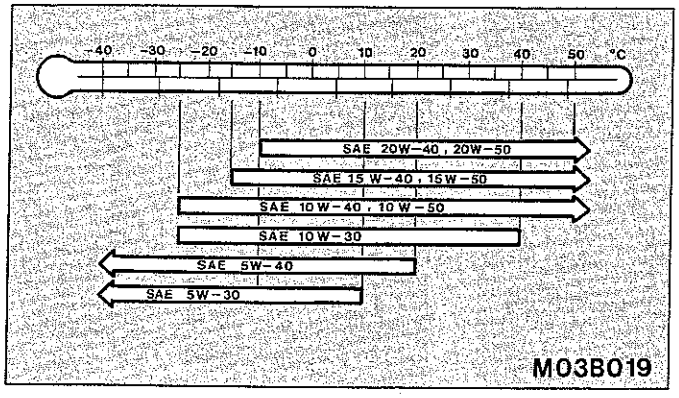


If the oil level is below the specified limit, remove the cap located on the cylinder head cover and add enough oil to raise the level to within the specified range.



Be sure to use the specified engine oil and do not mix various types of oil. Also, avoid mixing different makes of oil together if possible.
After adding oil, close the cap securely.

NOTE
For handing of used engine oils, refer to page 7.

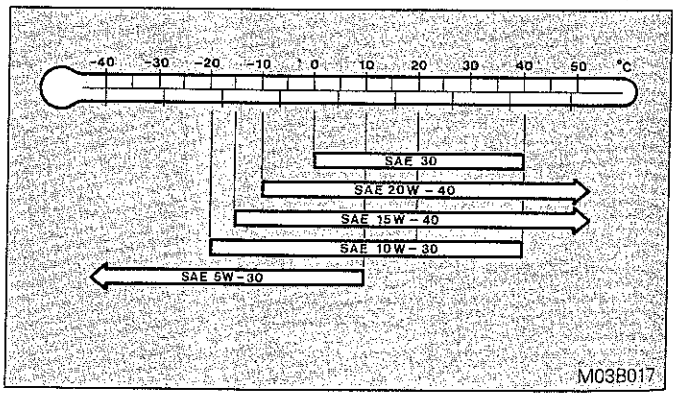


Selection of engine oil (Petrol-powered vehicles)

EM03BAF

(1) Select engine oil of the proper SAE viscosity number according to the atmospheric temperature.
(2) Use engine oil conforming to the following API classification:
"FOR SERVICE SE" or higher

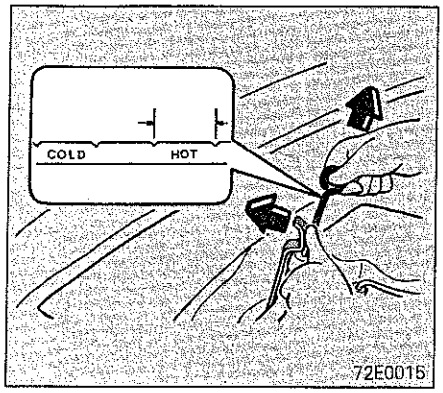
NOTE
If SE grade engine oil or higher is difficult to obtain, use API classification SD engine oil.



Selection of engine oil (Diesel-powered vehicles)

EM03B-S

(1) Select engine oil of the proper SAE viscosity number according to the atmospheric temperature.
(2) Use engine oil conforming to the following API classification:
"FOR SERVICE CD" or higher



Automatic transmission fluid*

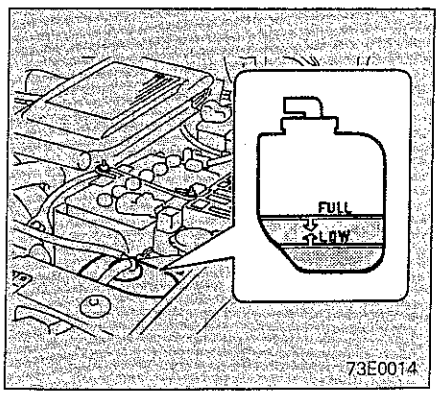
EM05A-Ea

The proper amount of automatic transmission fluid is essential to the life and operation of the automatic transmission. Either insufficient fluid or excessive fluid could cause transmission trouble. The transmission fluid filler port cap is equipped with a dipstick. Use the following procedure to check the fluid level.

(1) Check the fluid level after the vehicle has been driven enough to warm up the transmission fluid.
(2) Park the vehicle on a flat, level surface and apply the parking brake.
(3) With the engine idling and the brake pedal fully depressed, move the transmission selector lever through all the positions from the "P" to "L", stopping momentarily at each position.
(4) Move the selector lever to "N".
(5) Remove the dipstick and wipe it with a clean lint-free cloth.
(6) The fluid level should always be between the two marks on the dipstick.

"ATF DEXRON II" automatic transmission fluid should be used for replenishment.

⚠ CAUTION
Do not spill the fluid onto the exhaust manifold when it is inspected or added soon after driving. Wipe out eventual spilt fluid completely.



Engine coolant

EM36A-Ha

A translucent coolant reserve tank is located in the engine compartment. The coolant level in this tank should be kept between the "LOW" and "FULL" marks when measured while the engine is warm and idling.
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, have the system checked at an authorized MITSUBISHI dealer 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 and add coolant until the level reaches the filler neck.

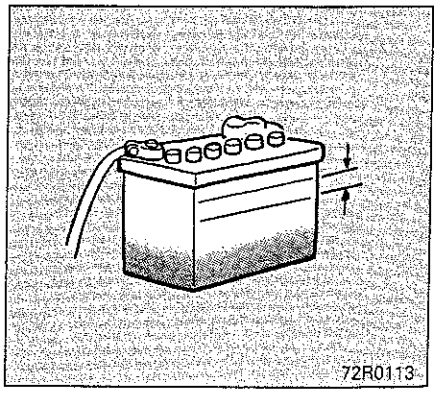
⚠ CAUTION
Do not open the reserve tank lid or radiator cap while the engine is hot. The coolant system is under pressure and any hot coolant escaping could cause severe burns.

Anti-freeze
The engine coolant contains an ethylene glycol anti-corrosion agent. The cylinder head and water pump housing are cast aluminum alloy, and periodic changing of the engine coolant is necessary to prevent corrosion of these parts.
Because of the necessity of this anti-corrosion agent, the coolant must not be replaced with plain water even in summer. The required concentration of anti-freeze differs depending on the expected ambient temperature.

Minimum ambient temperature °C (°F)	-10 (15)	-20 (-5)	-30 (-20)	-45 (-49)
Anti-freeze concentration %	30	40	50	60

⚠ CAUTION
For effective anti-corrosion and anti-freeze performance, keep the anti-freeze concentration within the range of 30 to 60%.
Concentrations exceeding 60% will result in a reduction of both the anti-freeze and cooling performance thus adversely affecting the engine.

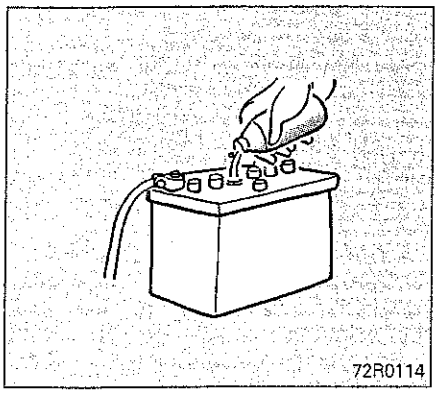
During cold weather
If the temperatures in your area drop below freezing, there is the danger that the coolant in the engine or radiator could freeze and cause severe damage to the engine and/or radiator. Add a sufficient amount of anti-freeze to the coolant to prevent it from freezing.
The engine coolant mixture used at the factory provides protection against freezing for temperatures as low as approximately -30°C (-20°F). The concentration should be checked before the start of cold weather and anti-freeze added to the system if necessary.



Battery

EM37A-Ha

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.



Checking battery electrolyte level

The electrolyte level must be between the "UPPER" and "LOWER" marks stamped on the outside of the battery. Replenish with distilled water as necessary. The inside of the battery is divided into several compartments; remove the cap from each compartment and fill to the "UPPER" mark.
Do not over-replenish beyond the "UPPER" mark because spillage during driving could cause damage.
Check the electrolyte level at least once every four weeks, depending on the operating conditions.

If the battery is not used, it will discharge by itself with time. Check it once every four weeks and charge with low current as necessary.

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 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

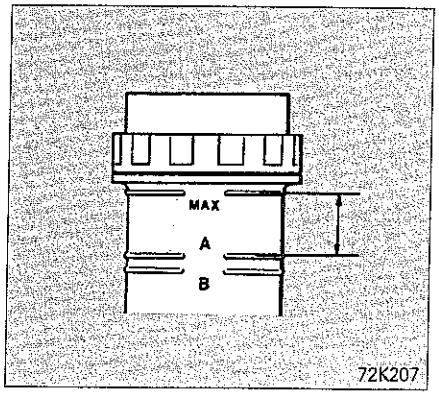
To disconnect the battery cable, stop the engine, first disconnect the negative terminal and then the positive terminal. When connecting the battery, first connect the positive terminal and then the negative terminal.

⚠ *CAUTION*

(1) 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) Always wear protective eye goggles when working near the battery.

(7) If the battery is to be quick-charged, first disconnect the battery cables.
(8) In order to prevent a short circuit, be sure to disconnect the negative (−) terminal before doing anything else.
(9) Keep it out of the reach of children.

NOTE
(1) 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.



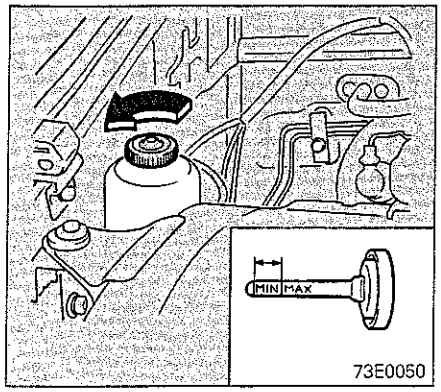
Brake fluid

EM08A-Ma

Check the brake fluid level in the reservoir.
The brake fluid level must be between the "MAX" and "A" marks on the reservoir. The fluid level falls slightly with wear of the brake pads, but this does not indicate any abnormality.
If the brake fluid level falls markedly in a short length of time, it indicates leaks from the brake system.
If this occurs, have the vehicle checked at an authorized MITSUBISHI dealer.

Use brake fluid conforming to DOT 3 or DOT 4. The brake fluid is hygroscopic. Too much moisture in the brake fluid will adversely affect the brake system, reducing the brake performance.
In addition, the brake fluid reservoir is equipped with a special cap to prevent the entrance of air, and this cap should not be removed.
On a vehicle with a brake fluid warning lamp, the brake fluid level is monitored by a float. When the brake fluid level falls below the "A" mark, the brake fluid warning lamp lights up.

⚠ CAUTION
(1) Use only the specified brake fluid. Also, the additives in different brands may result in a chemical reaction when mixed together, so avoid mixing different brands if possible.
(2) Brake fluid is toxic and corrosive.

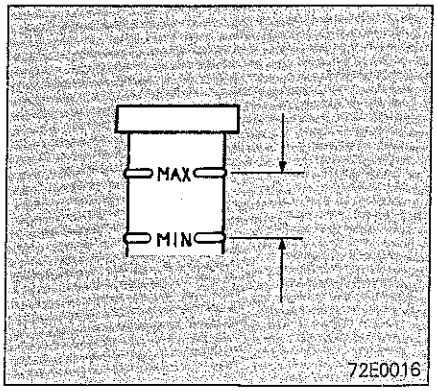


Power steering fluid* EM09A-D

Check the fluid level in the reservoir while the engine is idling.
Unscrew the reservoir cap; the level gauge is attached to the bottom of the cap.

The level should be between the "MAX" and "MIN" lines on the level gauge.
Use "DEXRON" or "DEXRON II" automatic transmission fluid.

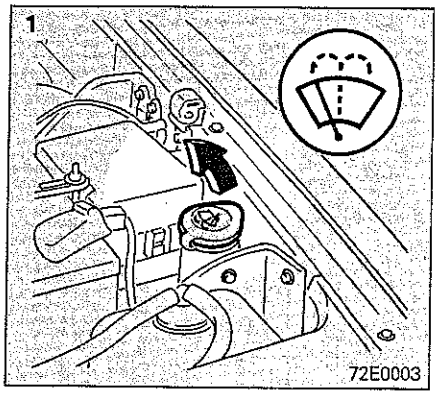
⚠ CAUTION
(1) Use only the specified automatic transmission fluid. Also, the additives in different brands may result in a chemical reaction when mixed together, so avoid mixing different brands if possible.
(2) Automatic transmission fluid is toxic and corrosive.

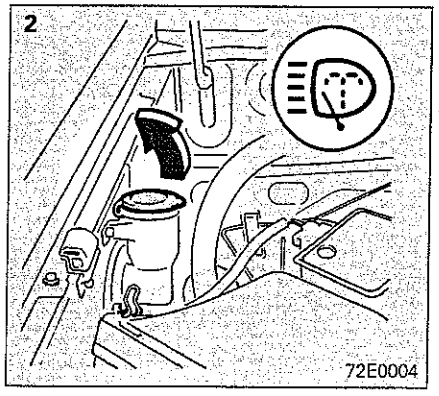


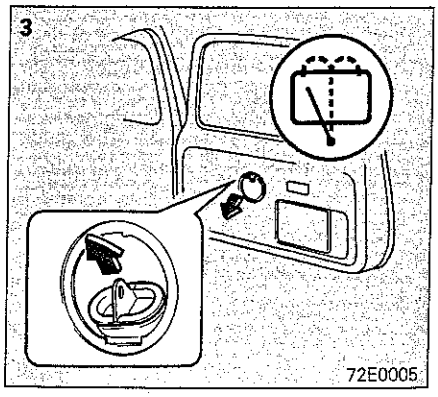
Clutch fluid* EM10A-C

The clutch fluid reservoir is located at the rear of the engine compartment. The fluid level should always be between the "MAX" and "MIN" marks on the reservoir.
Use DOT3 or DOT4 brake fluid.

⚠ CAUTION
(1) Use only the specified brake fluid. Also, the additives in different brands may result in a chemical reaction when mixed together, so avoid mixing different brands if possible.
(2) Brake fluid is toxic and corrosive.







Washer fluid

EM31A-D

Check the washer fluid level in the container.
If the level is low, replenish the container with washer fluid.

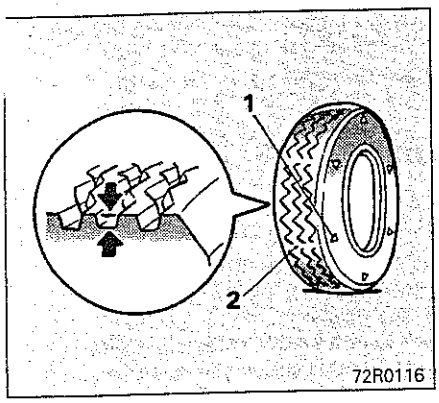
1 - Windscreen washer fluid

2 - Headlight washer fluid*

3 - Rear window washer fluid*

If the washer fluid does not come out when the rear window washer switch is pressed, check the washer fluid level in the container.

During cold weather
To ensure proper operation of the windscreen, rear window and headlight washers at low temperatures, use a fluid containing an anti-freezing agent.



Wheel condition

EM32A-Ab

1 - Location of tread wear indicator
2 - Tread wear indicator

Check the tyres for cuts, cracks and other damage. Replace the tyres if there are deep cuts or cracks. Also check each tyre for pieces of metal or pebbles.
The use of worn tyres can be very dangerous because of the greater chance of skidding or hydroplaning. 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 belt-line wear indicators on the tyres, they 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 ones. Confirm that the wheel nuts are tightened correctly. Refer to the section of this manual entitled "For emergencies" for information concerning replacement of the tyres.

NOTE
The mark and the location of the tyre wear indicator are different depending on tyre manufacturers.

Tyre inflation pressure

EM13A-Db

GL, GLX

Vehicles for Russia kg/cm² (kPa, psi)

Tyre size	To 4 passengers		4 passengers to Max load or Trailer towing	
	Front	Rear	Front	Rear
235/75R15 105S	1.8 (180, 26)	2.0 (200, 29)	1.8 (180, 26)	2.4 (240, 34)

Vehicles not for Russia kg/cm² (kPa, psi)

Tyre size	To 4 passengers		4 passengers to Max load or Trailer towing	
	Front	Rear	Front	Rear
205R16 104Q (S) 205/80R16 104S (Q)*	2.1 (210, 31)	2.5 (250, 37)	2.1 (210, 31)	3.0 (300, 44)
7.50-16-6PRLT*	2.0 (200, 29)	2.0 (200, 29)	2.0 (200, 29)	2.8 (280, 41)

*: Optional tyre is shown.

GLS

kg/cm² (kPa, psi)

Tyre size	To 4 passengers		4 passengers to Max load or Trailer towing	
	Front	Rear	Front	Rear
31 × 10.5R15 6PRLT	2.0 (200, 29)	2.0 (200, 29)	2.0 (200, 29)	2.8 (280, 41)
265/70R16 112H*	1.8 (180, 26)	2.0 (200, 29)	1.8 (180, 26)	2.0 (200, 29)

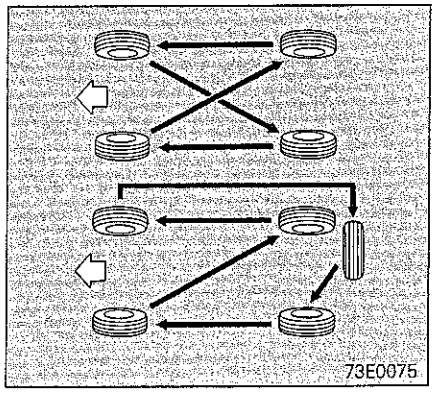
*: Optional tyre is shown.

(1) Check the tyre inflation pressure of all the tyres while they are cold; if insufficient or excessive, adjust to the specified value.

(2) After the tyre inflation pressure has been adjusted, check the tyres for damage and air leaks. Be sure to put rubber caps on the valves.
(3) When the vehicle speed exceeds 100 mph (160 km/h), be sure to install 265/70R16 112H tyres and increase the front and rear tyre inflation pressures according to the following table, provided that the maximum tyre inflation pressure moulded on the sidewall of the tyre is not exceeded. (3500 models only)

kg/cm² (kPa, psi)

	Increase in tyre inflation pressure	
	Front	Rear
To 4 passengers	0.4 (40, 6)	0.2 (20, 3)
4 passengers to Max load	0.5 (50, 7)	0.5 (50, 7)



Wheel rotation EM60A-Db

Tyre wear varies with vehicle conditions, road surface conditions and individual driver's driving habits. To equalize the wear and help extend tyre life, it is recommended to rotate the tyres immediately after discovery of abnormal wear, or whenever the wear difference between the front and rear tyre is recognizable.
Normally rotate tyres between the front and rear ones on the same side.
When rotation tyres, check for uneven wear and damage. Abnormal wear is usually caused by incorrect tyre pressure, improper wheel alignment, out-of-balance wheel, or severe braking. Consult your authorized dealer to determine the cause of irregular tread wear.

Snow tyres EL12A-Da

The use of snow tyres is recommended for driving in snow and ice. To preserve driving stability, mount snow tyres of the same size and tread pattern on all four wheels.
Snow tyres worn more than 50% are no longer suitable for use as snow tyres.
Snow tyres which do not meet specifications must not be used.

NOTE
(1) The laws and regulations concerning snow tyres (driving speed, required use, type, etc.) vary. Find out and follow the laws and regulations in driving area.
(2) If flange nuts are used on your vehicle, change to tapered nuts when snow tyres (steel wheels) are used.

Tyre chains

EL23A-C

If tyre chains are to be used, be sure that they are mounted on the rear wheels. Use only tyre chains which are designed for use with the tyres mounted on the vehicle; use of the incorrect size or type of chain could result in damage to the vehicle body.
Before driving over long stretches of road which are free of snow, you should remove the chains to avoid damage to the tyres.

NOTE
The laws and regulations concerning tyre chains vary. Find out and follow the laws and regulations in driving area.

⚠ *CAUTION*
When snow chains are installed, take care that they do not damage the disc wheel or body.

Fuel, engine coolant, oil and exhaust gas leakage

EM14A-B

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

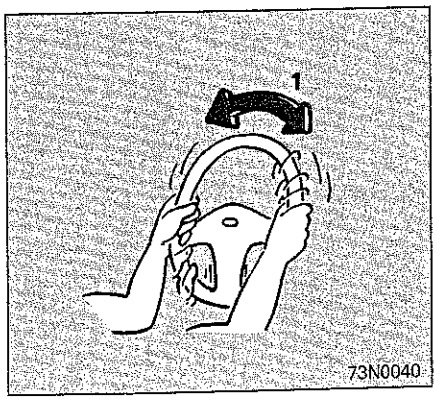
Exterior and interior lamp operation

EM15A-Ba

Operate the light switch and combination switch to confirm that all lamps are functioning properly.
If the lamps do not go on, the probable cause is a blown fuse or defective lamp bulb. Check the fuses first. If there is no blown fuse, check the lamp bulbs.
For information regarding the inspection and replacement of the fuses and the lamp bulbs, refer to the section entitled "For emergencies".
If the fuses and bulbs are all OK, take the vehicle to an authorized MITSUBISHI dealer for inspection.

Meter, gauge and indication/warning lamp operation

Run the engine to check the operation of all meters, gauges, and indication/warning lamps.
If there is anything wrong, take the vehicle to an authorized MITSUBISHI dealer for inspection.



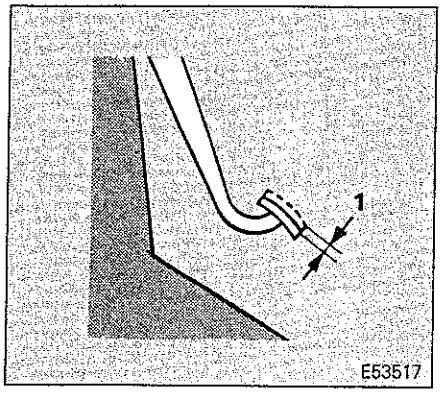
Steering wheel free play

EM16A-Aa

Check by moving the steering wheel left and right.
On vehicles equipped with power steering, check the steering wheel free play while the engine is idling.
The free play at the circumference should not exceed the standard value.

1 - Free play
50 mm (2 in.)

If the steering wheel free play exceeds the standard value, have the steering wheel adjusted at an authorized MITSUBISHI dealer.



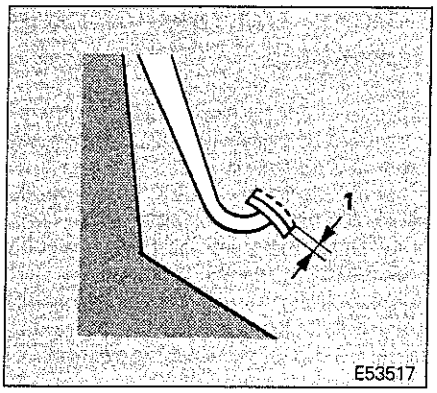
Clutch pedal free play*

EM17A-X

Press down the clutch pedal with your fingers until initial resistance is felt. This distance should be within the specified range.

1 - Free play
6 to 13 mm (0.2 to 0.5 in.)

If the clutch pedal free play is not within the standard range, have the clutch pedal adjusted at an authorized MITSUBISHI dealer.



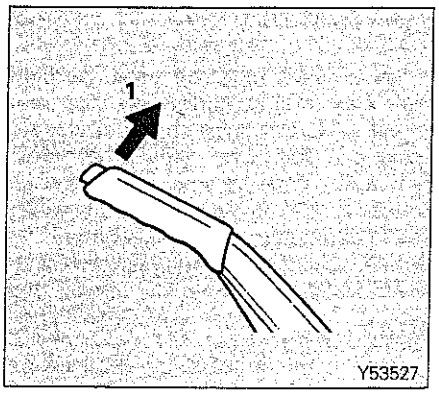
Brake pedal free play

EM18A-Ca

Stop the engine, 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.

1 - Free play
3 to 8 mm (0.1 to 0.3 in.)

If the brake pedal free play is not within the standard range, have the brake pedal adjusted at an authorized MITSUBISHI dealer.



Parking brake lever stroke

EM19A-B

Pull the parking brake lever all the way up to check the number of "clicks" that the ratchet makes. One click represents a lever movement of one notch. The lever should move the specified number of notches for normal brake application.

1 - Parking brake lever stroke
4 to 6 notches

If the parking brake lever stroke is not within the standard range, have the brake lever adjusted at an authorized MITSUBISHI dealer.

Hinges and latches lubrication EM21A-A

Check all latches and hinges, and lubricate if necessary by first cleaning and then applying multipurpose grease.

Wiper blades EL05A-Da

Before operating the wipers, check the wiper blades to confirm that they are not frozen to the windscreen or rear window. If the blades are frozen to the windscreen or rear window, do not operate the wipers until the ice has melted and the blades are freed, otherwise the wiper motor might get damaged.

Ventilation slots EL06A-A

The ventilation slots in front of the windscreen should be brushed clear after a heavy snowfall so that the operation of the heating and ventilation systems will not be impaired.

Weatherstripping EL10A-A

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

Additional equipment EL14A-A

It is a good idea to carry a shovel or a short-handled spade in the vehicle during the winter so that you can clear away snow if you get stuck. A small hand-brush for sweeping snow off the vehicle and a plastic scraper for the windscreen and rear window are also useful.