

## GENERAL CHECKS

### Engine Compartment

The following should be checked regularly:

- Engine oil level and condition
- Transmission fluid level and condition
- Brake fluid level
- Clutch fluid level
- Engine coolant level
- Windshield washer fluid level
- Accessory drive belt condition
- Coolant hose condition
- Fluid leaks (on or below components)
- Power steering fluid level and condition
- Tire pressure and condition (including spare)
- Battery condition

### Vehicle Exterior

The following should be checked monthly:

- Overall appearance and condition
- Wheel condition and wheel nut tightness
- Air cleaner filter condition
- Exhaust system condition

- Light condition and operation
- Windshield glass condition
- Wiper blade condition
- Paint condition and corrosion
- Fluid leaks
- Door and hood lock condition

### Vehicle Interior

The following should be checked each time when the vehicle is driven:

- Light operation
- Windshield wiper operation
- Horn operation
- Defroster, heater operation (and air conditioning, if equipped)
- Steering operation and condition
- Mirror condition and operation
- Turn signal operation
- Accelerator pedal operation
- Brake operation, including parking brake
- Manual transmission operation, including clutch operation
- Automatic transmission operation, including "Park" mechanism operation
- Seat control condition and operation
- Seat belt condition and operation
- Sun visor operation

If you notice anything that does not operate and/or function correctly, inspect it carefully and seek assistance from your Hyundai dealer if service is needed.

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 (Consumer Information), while other 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 HYUNDAI 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.

When checking or servicing the inside of the engine compartment, be sure the engine is stopped and has had a chance to cool down. If it is necessary to do work in the engine compartment with the engine running, be especially careful that your clothing, hair, etc., becomes not caught by the fan, V-belts, or other moving parts.

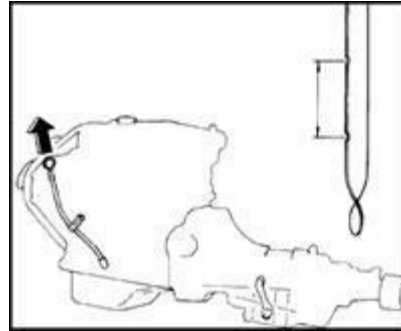
## Inspection items

- (1) Engine oil
- (2) Engine coolant
- (3) Battery
- (4) Brake fluid
- (5) Clutch fluid (hydraulic clutch only)
- (6) Washer fluid
- (7) Wheel condition (including spare wheel)
- (8) Tire inflation pressure (including spare wheel)
- (9) Fuel, engine coolant, oil and exhaust gas leakage
- (10) Exterior and interior lamp operation
- (11) Meter, gauge, and indication/warning lamp operation
- (12) Steering wheel free play
- (13) Clutch pedal free play
- (14) Brake pedal free play
- (15) Parking brake lever stroke

## Others

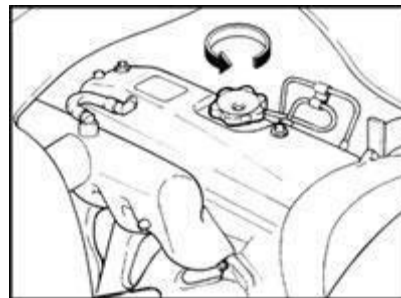
- (1) Wheel rotation  
Every 20,000km (12,000miles) or 12 months, whichever comes first
- (2) Hinge and latch lubrication

## ENGINE OIL



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 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.

### **WARNING:**

**Be careful not to touch the hot exhaust manifold.**

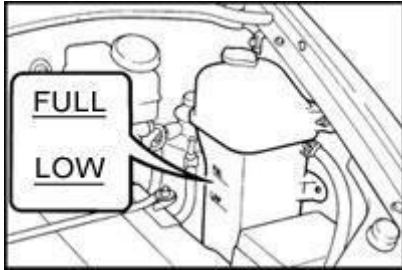
### **CAUTION:**

**Avoid overfilling, or the engine could be damaged.**

### **NOTE:**

Check the oil level on the dipstick once again after adding the oil.

## ENGINE COOLANT



A translucent coolant reservoir tank is 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 HYUNDAI dealer as soon as possible.

If the level should drop below the "LOW" level on the reservoir tank, add coolant.

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

## WARNING:

Do not open the reservoir 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 coolant pump housing are cast aluminium 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.

Ambient Temperature (minimum) °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.

## CHECKING THE BATTERY WARNING:

**When working with batteries, carefully observe the following precautions to avoid serious injuries.**

The fluid in the battery contains a strong solution of sulfuric acid, which is poisonous and highly corrosive. Be careful not to spill it on yourself or the car. If you do spill battery fluid on yourself, immediately do the following:

If battery fluid is on your skin, wash the affected areas with water for at least 15 minutes and then seek medical assistance.

If battery fluid is in your eyes, rinse out your eyes with water and get medical assistance as soon as possible. While you are being driven to get medical assistance, continue to rinse your eyes by

using a sponge or soft cloth saturated with water.

If you swallow battery fluid, drink a large quantity of water or milk followed by milk of magnesia, eat a raw egg or drink vegetable oil. Get medical assistance as soon as possible.

While batteries are being charged (either by a battery charger or by the vehicle's alternator), they produce explosive gases. Always observe these warnings to prevent injuries from occurring:

Charge batteries only in a well ventilated area.

Do not permit flames, sparks or smoking in the area.

Keep children away from the area.

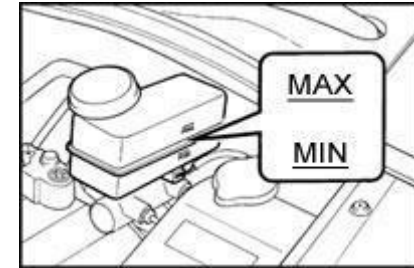
### Disconnection and connection

Never disconnect the battery while the engine is running; doing so could damage the vehicle's electrical components. 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) Keep the terminals clean. After the battery is connected, apply terminal protection grease. To clean the terminals, use lukewarm water.
- (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) If the battery is to be quick-charged, first disconnect the battery cables.
- (6) In order to prevent a short circuit, be sure to disconnect the negative (-) terminal before doing anything else.

### BRAKE FLUID



Check the brake fluid level in the reservoir. The brake fluid level must be between the "MAX" and "MIN" marks on the reservoir.

The fluid level falls slightly with wear of the brake pads but it does not indicate any abnormality.

If the brake fluid level falls markedly in a short time, it indicates leaks from the brake system.

In such a case, have your vehicle checked by an authorized HYUNDAI dealer.

Use SAE J1703 (or DOT3 or DOT 4) or equivalent type brake fluid.

On a vehicle with the brake fluid warning lamp, the brake fluid level is monitored by a float. When the brake fluid level falls to below the "MIN" mark, the brake fluid warning lamp lights up.

**WARNING:**

- (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) Use extreme caution in filling the brake fluid because it is toxic and corrosive, and it can harm your eyes and damage painted surface. If the fluid gets in your eyes, wash your eyes with clean water.

**CLUTCH FLUID (If installed)**

In the case of vehicles with the hydraulic operating clutch, the reservoir for the clutch fluid also serves as the reservoir for the brake fluid.

**CHECKING THE AUTOMATIC TRANSMISSION FLUID (If installed)**

Transmission fluid in the automatic transmission should be changed at those intervals specified in the vehicle maintenance schedule.

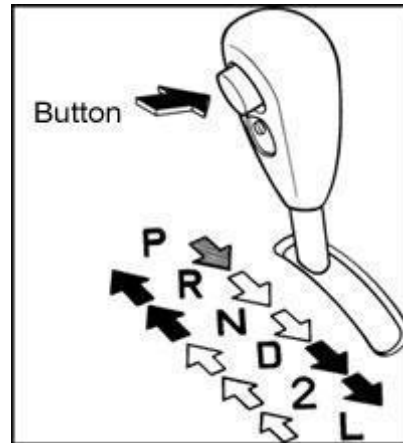
**WARNING:**

**The transmission fluid level should be checked when the engine is at normal operating temperature. This means that the engine, radiator, exhaust system etc., are very hot. Exercise great care not to burn yourself during this procedure.**

**WARNING:**

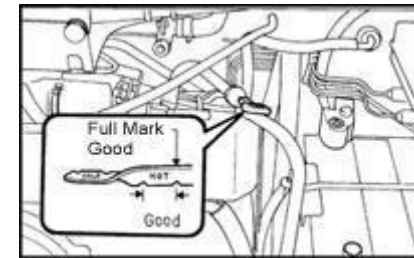
**The radiator fan is controlled by engine coolant temperature and may sometimes operate even after the ignition key has even turned off. Use extreme caution when working near the blades of the cooling fan, so that you are not injured by a rotating fan blade. As the coolant temperature decreases, the fan will automatically shut off. This is a normal condition.**

**To Check the Transmission Fluid Level**



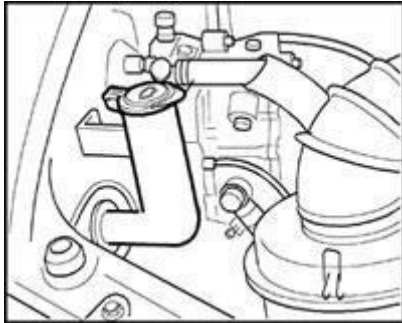
Park the vehicle on level ground with the parking brake engaged. When the transmission fluid level is checked, the transmission fluid should be at normal operating temperature and the engine idling.

While the engine is idling, apply the brakes and move the gear selector lever from "P" to each of its other positions--"R", "N", "D", "2", "L"--and then return to "N" or "P" with the engine still idling:



1. Open the hood, being careful to keep hands, long hair and clothing clear of any moving parts.
2. Remove the transmission dipstick, wipe it clean, reinsert the dipstick as far as it will go, then remove it again. Now check the fluid level on the dipstick. It should be in the "HOT" range on the dipstick.
3. If the transmission fluid level is low, use a funnel to add transmission fluid through the dipstick tube until the level reaches the "HOT" range. Do not overfill, otherwise the transmission could be damaged.

## WINDSHIELD WASHER FLUID LEVEL



The washer fluid reservoir supplies fluid to the windshield washer system.

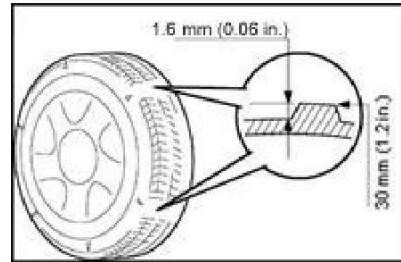
A good quality washer fluid should be used to fill the washer reservoir. The fluid level should be checked more frequently during bad weather or whenever the washer system is in more frequent use.

### CAUTION:

**Radiator antifreeze (engine coolant) should not be used in the washer system because it will damage the car's finish.**

**The washer lever should not be pulled and the washer should not be operated if the washer reservoir is empty. This can damage the washer fluid pump.**

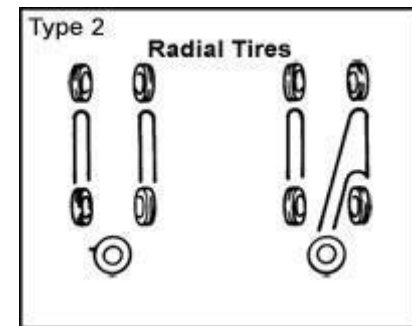
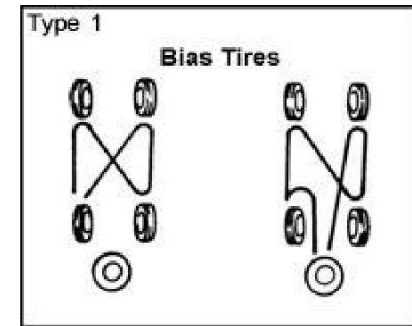
## WHEEL CONDITION



Check the tires for cuts, cracks and other damage. Replace the tires if there are deep cuts or cracks. Also check each tire for pieces of metal or pebbles.

The use of worn tires can be very dangerous because of the greater chance of skidding or hydroplaning. The tread depth of the tires must exceed 1.6 mm (0.06 in.) in order for the tires to meet the minimum requirement for use.

If there are belt-line wear indicators on the tires, they will appear in six places on the surface of the tire thereby indicating that the tire no longer meets the minimum requirement for use. When these wear indicators appear, the tires must be replaced with new one. Confirm that the wheel nuts are tightened sufficiently.



Tires tend to wear unevenly over a long period of service. To make sure that the tires wear evenly as possible and for longer tire life, rotate the wheels in the sequence illustrated.

Take the vehicle to an authorized HYUNDAI dealer to have the chance of the wheels properly adjusted.

**CAUTION:**

If the front wheels are of a different type from the rear and spare wheels, do not attempt to mount the wheel for front onto rear. In this instance, use the type 2 wheel rotation method.

**HINGES AND LATCHES LUBRICATION**

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