



obstacle. The reversing radar will start when the reverse gear is engaged. At this moment, the reversing radar will perform a quick self-inspection on overall system to ensure all components work normally. If part of system operation is abnormal or overall system operates abnormally, the buzzer will ring twice for warning. For the self-inspection results, refer to the following table.

self-inspection	buzzer
Normal	Ring once
Partial system abnormal	Beeps twice
System cannot operate	Beeps rapidly for a period of time, then the buzzer shuts down

Basing on the different phases of the detected obstacles, the controller will send out pulse signals of different frequencies to the buzzer, which will send out beeps of different frequencies according to the different distance ranges to remind the obstacle distance.

Obstacle distance	Sound tip	Zone	Note
0.8m–1.2m	1/2s	Safety zone	Normal reverse
0.4m~0.8m	Once per 1/8s	Slow speed zone	Decelerating while reversing
$\leq 0.4\text{m}$	Long beep	Danger zone	Stop reversing

Note

The reverse warning system is an auxiliary system. The driver must observe the area behind the vehicle carefully.

The sound warning signal will be different as the object distance is different. When the sensor is frozen up or polluted by the dust or soil, the sound warning signal may be incorrect.

The reverse warning system may present fault if the vehicle is running in the forest, on the gravel road, serration road or on the slope.

Do not push or scrape the sensor surface, otherwise the sensor covering may be damaged.

The sensor system may not identify the cloth or sponge

which can absorb frequency.

Clean the dusty sensor surface with soft sponge and clean water.

Where two or more objects are detected at the same time, the system will identify the nearest one first.

The system cannot identify the specially near (within 300mm) objects.

Anti-theft system

Vehicle anti-theft is very important, particularly in some cities. Though this vehicle is provided with multi anti-theft functions, it's well known that no anti-theft device may prevent vehicle theft absolutely.

Anti-theft system (if equipped)

Your vehicle is equipped with anti-theft system. The anti-theft system can be activated only when you use the remote control door lock emitter. The anti-theft system will not be activated if you close the door at will other than using key.

Activate the anti-theft system

Activate the anti-theft system in the following procedures

1. Turn the ignition switch to LOCK position and pull the ignition key out.
2. Close the doors and windows.

Ensure the windows have been closed, as this system can be



activated if the windows are not closed.

3. Lock doors by using the remote control door lock emitter. The LED of the emitter will twinkle when the emitter is being used, while the turn lamp will twinkle once at the same time, indicating all the doors are locked and anti-theft mode is to activate.

Warning will be sent out no matter in what way the door lock or trunk is opened.

If you cannot activate the anti-theft system, please lock the vehicle with key or manual door lock.

Release the anti-theft system

Release the system through one of the following procedures

Press the locking/unlocking button on the emitter.

- The LED on the emitter will

twinkle.

- All doors will be opened.
- The hazard warning lamp will twinkle twice.
- The anti-theft mode will be released.

If the door is not opened or the engine is not started within 30s after the system is released by emitter, all the doors will be locked automatically and the anti-theft mode will be activated again.

How to close anti-theft warning

Press the locking/unlocking button of the remote control door lock emitter if anti-theft warning has been enabled.

Other warning devices



If you carry reflection tripod mounting, set it at the road side, about 300 feet (100m) behind your vehicle.

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Running-in period

Running-in

At the very beginning of new car running, a car undergoes more abrasions inside engine than the abrasion after the running-in period. Running-in effect is mainly decided by the running of first 2,000km.

Note

In order to achieve the best adhesion property, new tires have to undergo running-in. Drive your car stably and properly with great care on the strip of first 500km. Similarly, you should run new brake friction plates in because the best friction performance will not emerge in the first 200km. Under situations without the best brake effect, please properly increase brake pedal efforts. Running-in is also requested

after brake friction plates are replaced with new ones.

Less than 1,000km

Running-in experience is elaborated below.

- Don't pedal accelerator till it contacts floor.
- Keep the running speed less than 80km/h.
- Avoid keeping engine running at high speed.
- Don't use a new car as a trailer to drag other vehicles

1,000km to 2,010km

Accelerate your car to the highest running speed or the highest speed allowable for engine. Following proposals are applicable to driving during and after running-in

● Particularly prevent engine running at high speed under cold condition regardless of neutral gear or other gears.

● Don't drive your car at an excessively lower speed and shift to a low gear if the engine fails to run stably.

Tips

◎ Please don't drive your car at an unnecessary high speed. Shifting to high gear early will not help save fuel, reduce noise and protect environment.

Driving after running-in period

The highest speed allowable for car engine is indicated by a red zone on tachometer. Avoid pointer reaching this zone and prevent engine from damages.

Chapter III Knowledge on Vehicle Driving

Driving notices

Before entering your vehicle

1. Ensure all windows, interior and exterior rearview mirrors, bulbs and lamps are clean and normal.
2. Check whether there is leak under the vehicle.
3. Check the level of engine oil and other oil in the engine compartment.
4. Carry out visual inspection on tyres to check whether they are damaged, whether the inflation pressure is proper and whether there is foreign body in the tread. Take corrective measures if necessary.

Note

Ensure all exterior bulbs, lamps, signal system and warning indicator lamps are clean and normal.

These help to prevent human injury accident or vehicle damage.

Before driving

1. Ensure you are familiar with your vehicle and methods on safe operation.
2. Adjust the seat to the comfortable position.
3. Adjust the interior and exterior rear-view mirrors.
4. Ensure all occupants have fastened the safety belt.
5. Check the working conditions of warning lamp when the ignition switch is switched on.

Note

The objects on the instrument board or rear window bed plate may screen your sight.

Please remove the objects on the instrument board or rear window

bed plate. These objects may hit the passengers in the case of hard braking or collision and cause personal injury or vehicle damage consequently.



Fuel

Recommendation on fuel

Fuel quality has important effect on engine power output, drive ability and lifetime.

Fuel with excessively low octane ratio will result in engine knocking. It's recommended that you use fuel with high octane ratio.

Tips

- ◎ Use of poor quality fuel or fuel with excessively low octane ratio may damage the engine.
- ◎ Use of leaded fuel may damage the emission system catalytic purification function and cause pollution of the environment.

Note

Please don't fill your car with fuels containing formaldehyde for this will degrade car performance and damage fuel system parts. Failures arising from this are beyond the scope of warranty.

Charging the fuel tank



1. Shut down the engine.
2. Pull the tie rod of fuel tank cap at the floor under the driver's seat to open the fuel tank cap.
3. Turn the filler cap counterclockwise slowly. If fizz is heard, wait until the sound disappears and then unscrew the filler cap.
4. Unscrew the filler cap. The filler cap is tied to the vehicle by chain. Place the filler cap on the support inside the oil filler gate.

Chapter III Knowledge on Vehicle Driving

5. Fit the filler cap back after fuel charging. Turn the filler cap clockwise until clicks are heard and then fasten the oil filler gate.

Note

If you cannot open the filler cap in frigid days, you may tap it. And then try again.

If your vehicle will be out of use for a long time, please drain the gasoline in the tank off to prevent gasoline volatilizing to damage vehicle parts.

Description of environmental protection icon

◎ So long as the automatic fuel truck nozzle stops, the fuel tank is "FULL" and do not charge it any more. Otherwise, the internal expansion space of fuel tank will be filled and the fuel will spill if being heated. Wipe the spilled fuel off immediately, otherwise, it may damage the paint surface.

◎ For vehicle equipped with catalyst converter, never drive to that the fuel is exhausted. Since this may cause overheating and damage to the catalytic unit.

Note

The fuel vapor is highly flammable. Make sure to keep the gasoline away from spark, flame and other smoking objects, and shut down the engine.

Gasoline vapor catching fire may result in serious burn and damage your vehicle.



Start the engine

Before engine start

Before engine is started, the shift lever of cars equipped with manual transmission should be moved to neutral gear.

It is proposed to pedal brake before starting a car equipped with manual transmission.

After engine is started, please release ignition key immediately to make it move from "START" to "ON". Please avoid synchronous running of starter and engine.

After being started, the engine under cold condition will generate stronger running noise because fuel pressure should be enabled firstly during hydraulic valve clearance adjustment. Therefore, this is a normal phenomenon.

Please don't keep the engine of a parked car running for a long time.

Start the car and drive it as soon as possible.

Prevent high-speed running and sharp speed-up before engine reaches its running temperature. It is prohibited to start a car equipped with exhaust gas catalytic converter by dragging it for more than 50m. Otherwise, not fully burnt fuel will flow into the converter and then damage it.

As for engine start based on dragging, please try to use battery of other vehicles as auxiliary start.

Note

Do not run the starting motor exceeding 15s at one time. If the engine cannot start, please try it again after 10s. This will help to avoid damage to the starting motor.

Do not have the engine racing over 5s. Too high temperature will result in exhaust system damage.

Ignition switch



After inserting the key into the ignition switch, you can turn the key to four different positions.

Note

Do not stop the engine or pull the key out while driving. Pulling the key out will lock the steering wheel.

Ignition switch position and function

Ignition switch is arranged on the right of steering column below steering wheel and is configured with four stages as specified below.

“LOCK”

Ignition key can be unplugged only in this position. During parking and locking, press the key inversely and turn it. After the key is removed from "LOCK", steering wheel is locked to prevent car being stolen.

“ACC”

Since ignition key is turned to "ACC", stereo system, cigarette igniter and car DC power source are available. However, it is not proposed to use those electrical accessories before

engine is started to prevent battery power shortage.

“ON”

When ignition key is turned to "ON", corresponding indicator on instrument panel will be enabled for check. At the same time, all car facilities and accessories are standby. Ignition key is kept in this position during running.

If engine is not started, please don't keep ignition key "ON" for long because this will cause self-discharge, possibly damage ignition system and result in battery power shortage.

“START”

This position only serves for engine ignition. Engine is started when ignition key is turned to "START".



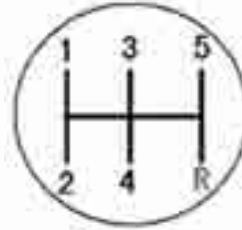
Operation of transmission

Manual transmission

After engine is started, release ignition key and make ignition switch turn back to "ON" automatically.

Tips

© Sometimes, you may find the ignition key can not be turned from "LOCK". This is possibly caused by the enabled steering wheel locking device. So, you should only rotate steering wheel slightly.



- 1 – 1st forward gear
- 2 – 2nd forward gear
- 3 – 3rd forward gear
- 4 – 4th forward gear
- 5 – 5th forward gear
- R – Reverse gear

then the gear lever can be shifted to reverse gear.

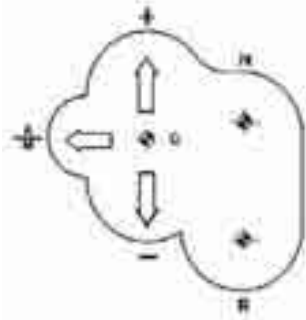
Do not take the gear lever as an armrest during driving, since this will cause untimely wear of transmission gear shifting fork.

Note

To engage the reverse gear, shift the transmission to neutral position for 3s at least after complete stop of vehicle and

Chapter III Knowledge on Vehicle Driving

Integrated automatic/manual transmission (if equipped)



1. Switching between automatic transmission and manual transmission (A/M)

Turn shift lever to A/M for more than 0.3s and then release it. Thus, the system will switch manual transmission into automatic transmission. "AUTO" will be displayed on the integrated instrument or "MANUAL" disappears.

Note

Automatic control prevails in the system upon following situations under manual transmission.

Shift to low gear automatically:
As a car is slowing down in high gear, the system will automatically help drivers shift to a lower lever, thus adapting to current car speed or engine running speed to prevent engine miss.

Shift to high gear automatically:
As a car is speeding up in low gear, the system will automatically help drivers shift to a high gear to avoid excessively high engine running speed and

protect engine accordingly.

Under two situations as above, manual transmission still prevails in the system.

2. Shift to high gear and shift to low gear

A driver should manually move shift lever from + to - and then release it. Thus, the shift lever will turn back to gear G. According to all related conditions, the system should judge and fulfill gear shift. Meanwhile, gear indicator on the integrated instrument will indicate the new gear. If conditions are not met, gear indicator on the integrated instrument will indicate the needed gear.

After the indicator flashes for several



seconds, the indicator is normal again and indicates the current gear. Under automatic transmission, the system shall help shift to high gear and low gear according to engine running speed and car speed.

Note

When a driver manually controls shift lever and shifts to low gear under automatic transmission, the system should accept and execute the driver's rational request. At this time, the system will automatically enable manual transmission. "AUTO" indicator is disabled.

3. Gear G

Gear G is comprised of A/M, low gear and high gear, all of which have stable initial positions. However, they have no specific functional meanings.

4. Gear N

As the shift lever is turned to N, neutral gear prevails in the transmission.

Note

At this time, it is unable to utilize engine brake. So, the driver shall enable the brake pedal or brake handle to avoid the car sliding and causing further accident.

5. Gear R

Car will stop running after brake is enabled. And then reverse gear is enabled. Thus, the integrated instrument will display current working mode and letter "R". Meanwhile, bumping is generated.

Drive the vehicle

Note

To shift the gear lever from 5th gear to 4th gear, note not to engage 2nd gear by mistake. As the sudden lower gear engagement will increase the engine speed, it will cause excessive acceleration of engine and result in damage to the engine.

Use of clutch (for MT vehicle)

To shift the gear, please depress the clutch pedal completely, turn the gear shift lever to required gear and release the clutch slowly. To shift to reverse gear, you must stop your vehicle, depress the clutch and shift the gear shift lever from neutral gear to reverse gear (R).

Tips

- ◎ Stop your vehicle completely before shifting between drive gear and reverse gear.
- ◎ Stop your vehicle completely and depress the clutch to the end before shifting drive gear to reverse gear.
- ◎ After depressing the clutch completely, wait for a moment and then engage the reverse gear.
- ◎ Shifting between drive gear and reverse gear during vehicle running may damage the transmission.
- ◎ Correct operation may prevent gear abrasion and prolong the lifetime of transmission.
- ◎ If gear shifting is not required during driving, do not put your feet on the clutch pedal. Otherwise, it will accelerate clutch abrasion.

Car equipped with integrated automatic/manual transmission

1. Steps of engine start
 - a. Plug key into ignition switch and turn it to "ON".
 - b. Tread brake pedal
 - c. Move shift lever to neutral gear
 - d. Start engine.

Tips

- ◎ Under both manual transmission and automatic transmission, the engine can not be started if the driver has not treaded brake pedal and the shift lever is not shifted to neutral gear.
- ◎ As ignition key is turned to "ON", the integrated instrument works for about 1 second and displays working mode (manual or automatic) during last engine miss and gear indication. At this time, gear shift is allowed. If



current gear indication is not displayed after 10s, turn the key to "OFF" to turn off integrated instrument and repeat operations as above. If it still encounters a failure, please contact JAC franchised after-sales service center.

2. Steps of car start

- a. Start engine
- b. Enable brake pedal, push shift lever upward to + or move shift lever upward twice and reach+. Thus, the instrument displays "1" or "2".
- c. Release brake handle, slightly tread brake pedal and start the car.

Note

Only gear 1, gear 2 and reverse gear R are available for starting a car.

In detail, gear 2 is available to start a car on icy road surfaces. The system will automatically switch automatic transmission into manual transmission.

Please don't release brake handle or shutdown handle if a car is parked for long. At this time, if the driver doesn't tread accelerator pedal, the car starts slowly and the clutch is still partly connected, thus shortening clutch service life. What's worse, the clutch may suffer from abrasions.

Drastic acceleration will result in

clutch acceleration abrasion and even cause clutch abrasions. Therefore, please don't frequently make drastic acceleration during running.

When leaving a car, the driver shall shut down engine and enable parking brake.

Please keep treading brake pedal from engine shutdown to system stop. Release the brake pedal till the instrument screen stops working.

Please don't unplug ignition key when car is running. Otherwise, the system will be under an irregular condition and the steering wheel is locked during first steering till the car stops running.

Chapter III Knowledge on Vehicle Driving

3. Limp Home

Upon a serious unrecoverable failure, the system will enable the function of "Limp Home" to ensure a car reaches a maintenance point most possibly for a repair. After the function is enabled, engine output torque, gear shift and other functions are limited. Solutions to failure are specified below.

4. Self-adaptive driving habits

TCU (Transmission Control Unit) will automatically adjust gear shift points according to personal driving habits. If a driver controls a car by slightly enabling accelerator for long, TCU should identify the driver's preference of low gear and low fuel consumption and the system will lower the gear-up point. However, if

the driver prefers to drive the car by heavily using accelerator, TCU will also identify the preference for larger power. Thus, the system will increase critical speed of shifting gear to acquire higher acceleration performance.

No	Failure	Solution
1	Not normal transmission oil	Shift gear to N, 1, 2, 3 and R and limit the car speed at 40km/h
2	Not normal water level	Shift gear to N, 1, 2, 3 and R and limit the car speed at 40km/h
3	ABS failure	Shift gear to N, 1, 2, 3 and R and limit the car speed at 40km/h
4	Failure of input shaft rotating speed sensor	Shift gear to N, 1, 2, 3 and R and limit the car speed at 40km/h
5	Failure of car speed sensor	Shift gear to N, 1, 2, 3 and R and limit the car speed at 40km/h
6	Failure of gear position sensor	Shift gear to N, 1, 2 and R and limit the car speed at 40km/h



Brake

The brake system is designed to brake the vehicle under any driving conditions.

This vehicle employs double-circuit brake system. In the event of failure of one brake circuit, the other circuit will stop the vehicle, however, the braking length will increase and stepping of brake pedal will require more force.

Note

Stepping of brake pedal will require more effort and the braking length will increase if one circuit is at fault.

If the brake pedal travel increases, it indicates the brake may require service.

Please have the brake system

checked and repaired by Engaged After Service Center designated by JAC immediately.

Tips

Do not put your feet on the brake pedal while driving. Otherwise, it will accelerate abrasion of brake components. In addition, it will result in brake overheating, prolong braking length and reduce the safety consequently.

Tips on driving

After brake is wet

The brake components may get wet after vehicle passing through water or washing.

To restore the normal brake performance

1. Check whether there is vehicle behind.
2. Keep the safe driving speed and ensure there is sufficient space behind and beside the vehicle.
3. Step the brake intermittently with care until normal performance is restored.

Brake overheating

When you drive the vehicle on the long and steep slope downward, excessive braking may result in temporary brake overheating. Engage the lower gear upon downslope

driving and do not apply the brake continuously.

For details, refer to Engine braking below in this chapter.

Note

When the vehicle passes through water or is washed, or the brake is excessively applied on long and steep slope, the brake will lose braking capacity temporarily. This might be caused by brake components wetting or overheating.

Anti-lock braking system (ABS)

Anti-lock braking system is an advanced electronic brake system which helps to prevent vehicle sliding and out-of-control. This system enables you to steer clear of obstacle upon hard braking and provides maximum stop ability on slipping road surface.

When the ignition switch is switched on by half, the ABS warning lamp will be on for about 3s. If the ABS warning lamp is not off or it's on during driving, it indicates the ABS is at fault. Please consult the Engaged After Service Center designated by JAC immediately. Refer to ABS warning lamp. The ABS system will monitor each wheel speed during braking. Where any wheel tends to be blocked, the computer will control the brakes of

the two front wheels and rear wheels respectively. When the ABS is working, the brake pedal will present slight vibration accompanied with noise generally.

Note

ABS neither changes the time required by brake engagement nor shortens the braking length absolutely. Please maintain sufficient braking length even if your vehicle is equipped with ABS.



Parking brake

Though the brake system is equipped with ABS, please do not step the brake pedal frequently under any road conditions. Step the brake pedal to the end and hold it to enable the ABS.

Tips

© When the brake ABS system is working, the brake pedal may present slight vibration and noise may release from the engine compartment, which is normal phenomenon, indicating ABS is working normally.



The parking brake lever is between the front row seats.

To tension the parking brake, please step the brake pedal and pull the parking brake level up. If the ignition switch is switched on, the brake system warning lamp will be on. See Brake system warning lamp in Chapter II To release the parking brake system, keep stepping the brake pedal and pull the parking

brake level up until the release button can be pressed. Keep pressing the release button and lower the parking brake lever to the end at the same time.

Tips

© Do not drive your vehicle with parking brake not released, otherwise it will result in brake system overheating and cause undue abrasion or damage of brake system parts. Check and confirm the parking brake is completely released and the brake warning lamp is off before driving.

Chapter III Knowledge on Vehicle Driving

Leaving vehicle with engine running

Note

It's very dangerous if you leave the vehicle with engine running. If the parking brake is tensioned while the gear shift lever is not engaged to neutral gear or P gear completely, the vehicle may move suddenly. Furthermore, if you do not shut down the engine after leaving the vehicle, it will cause overheating of engine and even initiate fire, getting you or other injured. Please shut down the engine when you leave the vehicle.

In case you must leave the vehicle with engine running, ensure the parking brake has been tensioned and the manual gear is engaged to neutral gear before leaving your vehicle.

Engine brake

To generate braking effect through the engine braking pressure when driving down the long slope, please downshift in turn for manual transmission vehicle.

Note

The case of manual transmission, do not downshift by two or more gears at one time. Otherwise, it will damage the transmission may be damaged, resulting in vehicle out-of-control or human injury.



Notices on engine exhaust (CO)

Stop the vehicle

To stop your vehicle on the slope, please tension the parking brake or step the brake pedal. Do not try to hold your vehicle on the slope through stepping the throttle pedal.

If the vehicle should stop for a long time, e.g., in the case of traffic jam or passing through the railway crossing, please shut down the engine.

To park your vehicle, please engage the neutral gear, apply the parking brake and pull the key out from the ignition switch.

Description of environmental protection

© The engine exhaust gas is harmful and may cause pollution of the environment

The engine exhaust gas is harmful. Please open the windows immediately whenever you smell the engine exhaust gas inside the vehicle.

Do not intake the engine exhaust gas

The exhaust gas maintains carbon monoxide, which is colorless and tasteless and can make people carotoc and even die if being imbibed.

Ensure the exhaust system presents no leak

When the vehicle is lifted for oil change or other purposes, check the exhaust system. In case you hear abnormal sound in the exhaust or the vehicle bottom is impacted during running, have the exhaust system checked in the service center where possible.

Do not run the engine in the enclosed environment

Running the engine idling in the garage is a dangerous habit even if the garage gate opens. Never run the engine for a long time in the garage.

Chapter III Knowledge on Vehicle Driving

Avoid overlong idling with people in the vehicle

Where it's necessary to run the engine idling for a long time with people in the vehicle, ensure to park the vehicle in a clear zone, set the intake to the external circulation position and ensure the fan runs at a high speed to allow fresh air to enter the vehicle.

Where you have drive the vehicle with tail gate or trunk open as you carry certain objects in the vehicle, you must observe the following items

1. Close all the windows.
2. Open the vent opening.
3. Set the intake control in external circulation mode, control the air flow of air outlet to Face or Feet and run the fan at a high speed.

Make sure to keep the A/C air intake clean and clear, and remove the ice, snow, leaves or other foreign body in time if there are any.



Chapter IV Emergency Response

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Chapter IV Emergency Response

Spare tyre, jack and driver tools



The spare tyre, jack and driver tools must be fixed in the trunk.

Note

Ensure to fix the settled support of the dedicated spare tyre on the body floor of the trunk. Inversely triangular light reflecting warning sign is delivered along the car. Upon parking, please put the warning sign 100m far from the rear of your car.



Note

A-class hatch back spare tyre and driver's tools are fixed under luggage compartment flap. Jack is stored in storage shelf on right-hand internal wall of luggage compartment (as illustrated above).

Specification of jack

Maximum operating load	800 (kg)
Grease category	Lithium base grease
Grease grade	National Lubricating Grease Institute (NLGI)

Note

The jack of JAC is designed for your vehicle only.

◇Forbid using your jack to raise other vehicles.

◇Forbid exceeding the maximum permissible loading of jack.

◇Using the jack of this vehicle for other vehicles may cause damage to other vehicles or jack and result in personal injury.



How to replace the flat tyre

If the tyres lose gas, please replace them according to the following safety notices.

Note

1. Switch on the danger warning flash lamp.
2. Park the vehicle in a safe place without traffic stream.
3. Place the vehicle on solid and level ground.
4. Shut down the engine and pull the key out.
5. Apply the parking brake.
6. Require all passengers to get off the vehicle and stay in a safe place.
7. Block the tyre diagonal to the tyre to be replaced with wedge,

wood block or stone front and back.

Violating these safety notices may cause vehicle sliding from the jack and result in personal injury.

Wheel cap (if equipped)



1. Cover the screwdriver tip with cloth to prevent scuffing.
2. Insert the screwdriver in to tyre cap groove and remove the wheel cap carefully.
3. Replace the burst tyre.
4. Align the wheel cap lug with the wheel groove and tap the center section of wheel cap by hand to install the wheel cap.

Chapter IV Emergency Response

Replace the burst tyre



The following pages describe the contents related to rotating the tyres and replacing the burst tyres. When replacing the burst tyres, ensure the gear lever is shifted to reverse gear (for manual transmission) or to "P" gear (for automatic transmission or AMT) and parking brake is applied, then perform the following procedures in turn.

1. Acquire the spare tyre and tools



Take out the tool kit and unscrew the fixing bolts by counterclockwise rotation to remove the spare tyre.

2. Fix the wheel



To prevent the vehicle moving while jacking it, place the wheel stoppers under the wheel diagonal of the burst tyre front and back to block the wheel.



3. Loosen the wheel nuts



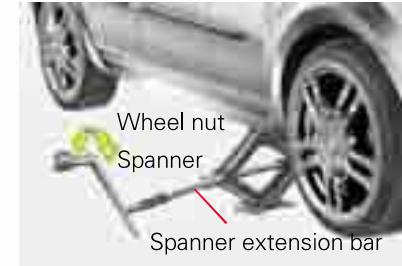
Unscrew the wheel nuts slightly before jacking the wheel. To unscrew the nuts, rotate them counterclockwise. The sleeve must match the nut completely to prevent sleeve sliding. To fully exert the spanner function, the spanner position must be in the position shown in the figure. Depress the spanner with stable force while holding the spanner handle end. However, do not remove the nuts at this moment, just keep them loose.

4. Place the jack



Place the jack base on the solid and level ground and set the jack to the position shown in the figure.

5. Jack the vehicle up



Insert the spanner extension bar in the nut spanner and install the spanner extension bar in the jack, as shown in the figure. To jack the vehicle up, rotate the wheel nut spanner clockwise. Before jacking the wheel, check and confirm the jack position again to avoid the jack sliding. Where the jack is placed on the floppy ground or the sands, you should place an appropriate slab, brick, level stone or other similar

Chapter IV Emergency Response

object under the jack to prevent jack sinkage.

Fully jack the vehicle up to install the spare tyre. Installation of spare tyre requires greater ground clearance than that required by removing the burst tyre.

Note

Never enter the vehicle bottom while jacking the vehicle up since this will be extremely dangerous. Severe personal injury may occur in the event of vehicle falling. No passenger should stay in the vehicle while the vehicle is being jacked up.

6. Replace the wheel



Unscrew the wheel locking nuts and remove them by hand. Move the wheel slightly to slide it out of the studs and then place it on the ground to prevent it rolling. Lift the spare tyre, align it with the stud and slide it in. If this operation is too difficult, push the wheel in slightly and align the holes in the upper section of the wheel with the stud. And then shake the wheel front and back until the wheel slides in.



Note

Ensure there is no foreign body (such as earth, tar oil, sand gravel etc.) in the hub or wheel, as the foreign body may prevent the wheel fixing to the hub. Where there are such substances, clear them away. In case the assembly surfaces of wheel and hub cannot have proper contact, thus the



wheel nuts may get loose. And this may cause the wheel falls and consequently cause the vehicle out of control and even brings severe injury, or death.

7. Reinstall the wheel nuts



Install the wheel to the stud, keep the minor diameter end of the wheel nut facing inward, align it with the stud and tighten the nuts by hand. Shake the tyre slightly to check whether the tyre has been completely fixed and then tighten the nuts using finger as much as possible.

8. Lower the vehicle and fix the nuts



Rotate the wheel nut spanner counterclockwise to lower the vehicle to the ground, as shown in the figure.



Place the spanner to the position shown in the figure, ensure the sleeve completely match the nut and rotate the wheel nut spanner clockwise to tighten the nuts. Never stand on the spanner handle or use extension pipe for the spanner. Tighten all the wheel nuts and check the tightening conditions of the nuts again. To guarantee the proper torque after replacing the wheel, have the technician tighten the wheel nuts as soon as possible.

Notices after tyre replacement

When tyre pressure gauge is available, unscrew the valve cap and check the air pressure. If the air pressure is lower than the specified value, drive your vehicle to the nearby privileged maintenance station at a low speed and inflate the tyre to the specified pressure. If the tyre pressure is too high, adjust it to the specified value. Reinstall the valve cap after checking or adjusting the air pressure. If the valve cap is not installed, the tyre may present leak. Where the valve cap loses, purchase a new one and install it immediately.

After wheel replacement, tighten the burst tyre and place the jack and tools to their storage position.

Start the engine through jumper cable

Note

When the vehicle cannot be started due to battery electricity loss, do not attempt to start the vehicle through pushing or towing.

Otherwise, the catalytic converter and automatic transmission may be damaged, even causing personal injury.

You can transfer the battery power of another vehicle to the vehicle whose battery has discharged to start the vehicle.

**Note**

The battery has the hazard of explosion. You may get burnt by the battery acid while electrical short circuit may cause personal injury or vehicle damage.

- ◇ Prohibit approaching the battery to naked flame or spark.
- ◇ Prohibit leaning your body above the battery when you start the vehicle through jumper cable.
- ◇ Prohibit contact of cable terminals.
- ◇ Please wear the safety goggles when operating near the battery.
- ◇ Prohibit battery acid contacting the eyes, skin fabric or paint surface.
- ◇ Ensure the voltage of battery used for jumper starting is the same as that of the original battery.
- ◇ Prohibit disconnecting the empty battery from the vehicle.

Violating the above notices or the following description during engine start through jumper cable will result in battery explosion, battery acid burning or short circuit. This will damage the electrical systems of the two vehicles and result in severe personal injury.

Preparation before start through jumper cable

- 1) Apply force of the parking brake.
- 2) For manual transmission vehicle, engage neutral gear; for AMT vehicle, engage N gear.
- 3) Switch off all electrical accessories.

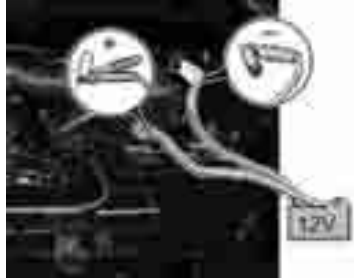
Note

Switch off the sound system before starting the vehicle through jumper cable. Otherwise, the sound system may be damaged.

Connect the jumper cable

Note

Determine the proper position of jumper cable, do not reel it to the rotating members of the engine compartment. Otherwise, it will cause damage to the vehicle and result in personal injury.



Connect the jumper cable according to the following sequences when starting the vehicle

1. Clip one end of the jumper cable to the positive terminal of charged battery. (There is mark of "+" on the battery shell or terminal)
2. Clip the other end of this jumper cable to the positive terminal of the empty battery. (There is mark of "+" on the terminal)
3. Clip one end of the second jumper

cable to the negative terminal of charged battery. (There is mark of – on the battery shell or terminal)

Note

Before connecting the vehicle to be charged in the end, do not connect the battery negative (–) terminal.

Connect the clip which is connected in the end to the steel bracket of engine cylinder block through bolts. The final connection point should be as far from the battery as possible. Connecting the jumper cable to the negative terminal of empty battery may generate electric arc, cause battery explosion and result in severe personal injury or vehicle damage.



Tow the vehicle

4. Ensure the cable is connected to the suitable earth position in the end, for example, connecting it to the steel bracket of engine cylinder block with bolts.
5. The engine of vehicle supplying power may operate during jumper starting.

Note

Start the engine of vehicle whose battery has been discharged at an interval of about 1 minute and each starting should not exceed 15 seconds.

After the start of vehicle whose battery has been discharged:

1. Disconnect the earth connector

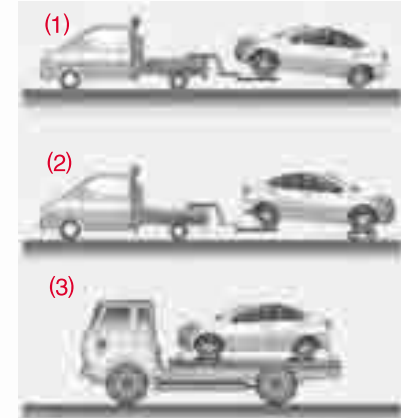
(-) carefully. Disconnect it from the vehicle whose battery has been discharged first. Keep the vehicle whose battery has been discharged running.

2. Disconnect the negative wire from the vehicle supplying jumper starting power.

3. Disconnect the positive wires of the two batteries. Keep the jumper cable and spare tyre together.

4. Run the vehicle whose battery has been charged for about 20min. This will allow the charging system to charge the battery again.

If discharge occurs again, please consult the after service center specially designated by JAC.



Your vehicle can be towed by wheel lifting type truck (1), (2) or platform equipment (3).

Where towing vehicle is required, please contact the after service center specially designated by JAC or professional towing service company.

Chapter IV Emergency Response

Note

Make sure to avoid damaging the vehicle bumper or chassis while towing the vehicle.



Do not use lifting rope type truck to tow the vehicle, since this may damage the vehicle bumper or chassis.

1. When the vehicle should be towed with rear wheel contacting the ground, ensure to release the parking brake.

Tips

⊙ Check the transmission oil level before towing the vehicle. Fill transmission oil if the oil level is at the lower section of "HOT" zone of the dipstick. Where oil servicing is unavailable, the vehicle must be towed by the towing trolley.

2. When any wheel is under load or the suspension components are damaged or the front wheel contacts the ground, the vehicle should be towed through the towing trolley under the front wheel.

◇ Manual transmission

When towing trolley will not be used, turn the ignition switch to "ACC" position and shift the transmission to neutral position.

Tips

⊙ Where the towing trolley will not be used and the vehicle should be towed from the back, does not tow the vehicle with ignition switch key not being pulled out or the ignition switch being in "LOCK" position.



Emergency towing

◇ Automatic/manual transmission

Note



AMT vehicle is not suitable for towing from the back of vehicle with front wheel contacting the ground, since this will cause severe damage to the transmission. Such vehicle must be towed by towing trolley under the front wheel.



If there is no special towing vehicle, to carry out emergency towing, tie the towing rope, steel chain or strap to a certain hook at the front/rear bottom of the vehicle.

Strictly prohibit towing with wheel, power train, axle shaft, steering wheel or brake gear damage. Before towing, ensure the manual transmission vehicle has engaged the neutral gear, or, the AMT vehicle transmission is in "N" gear, and the ignition switch is in "ACC" position (with engine stopping) or "ON" position (with engine running). The driver should control the steering wheel and brake gear in the cab of the vehicle to be towed.

3. It's recommended that you tow the vehicle with all wheels off the ground.

Escape from vehicle trapping

Note

Where all the four wheels contact the ground while towing, the vehicle must be towed from the front. Ensure the manual transmission vehicle has engaged the neutral gear, or the AMT vehicle transmission has been shifted to "N" gear. The towing distance should be within 25km (15 miles) and the vehicle speed should not exceed 50km/h (30mph).

Make sure to turn the ignition switch to ACC position and keep the steering wheel released. The driver must control the steering wheel and brake gear in the vehicle to be towed.

When the vehicle is trapped into snow, slough or other unstable surface, please escape the vehicle from such situation according to the following procedures.

1. Turn the steering wheel leftward to the end and then turn it rightward to the end. In this way, a piece of empty land can present around the front wheels.
2. Engage the reverse gear and drive gear repeatedly.
3. Reduce wheel spin as much as possible.
4. Release the throttle pedal upon gear shifting.
5. Step the throttle pedal slightly after gear engagement.

If the vehicle cannot escape from the difficult situation after several times of attempt, it should be towed. Refer to Tow the vehicle above in this section.

Tips

⊙ In case your vehicle is trapped into snow, slough and sand soil, you might have to drive it away. First, check whether there are obstacles or people around the vehicle, as the vehicle may suddenly advance or reverse and damage the objects during operation.

Note

To avoid damage of transmission and other parts, please observe the following notices when escaping the vehicle from trapping



Overheating of engine

◇ Do not step the throttle pedal upon gear shifting or before drive gear or reverse gear engagement.

◇ Prohibit too high engine speed and avoid wheel spin.

◇ If the wheels keep fast idling, the tyres may burst and hurt you or other passengers. Furthermore, the transmission or other vehicle parts may overheat. And result in the engine compartment catching fire or other damage consequently. Try to avoid wheel spin in the case of vehicle trapping, pay attention to speed meter and prohibit wheel spin speed exceeding 55km/h.

Where the engine coolant temperature meter indicates overheating of engine, or huge knock or knocking is heard, these may be caused by overheating of engine. Perform the following procedures in such cases

1. Drive the vehicle off the road and park the vehicle in a safe place as soon as possible.
2. Switch the A/C off if it's running.
3. In case the engine coolant flows from the vehicle bottom or steam escapes from the engine hood, shut down the engine. When there is no engine coolant or steam flowing out, open the engine hood. Where no evidence shows the engine coolant or steam stops flowing out, keep the engine running, check and verify the operation of engine cooling fan. Stop the engine if the fan does not

operate.

4. Check the water pump driving belt for faults. If there is no fault, check the belt for slack. Where the belt presents no problem, check whether the engine coolant leaks from the radiator, hose or chassis (water leak from the chassis upon vehicle stopping is normal if A/C is used).

Note

Keep the hair, hands and clothes away from the moving parts such as fan and driving belt while the engine is running, so as to avoid personal injury.

5. When the water pump driving belt damages or engine coolant flows out, stop the engine immediately and contact the after-sales service center specially assigned by JAC.

Chapter IV Emergency Response

Note

Never open the radiator cap in the case of engine overheating. Otherwise, the coolant ejected from the radiator may cause severe scald.



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Service and Maintenance Measures

When you check or maintain the vehicle, you must take preventive actions to reduce personnel injury or damage.

The following are general notices to be observed when maintaining the vehicle:

- ◇ Do not work before the engine is cooled.
- ◇ Do not get underneath the vehicle supported by a jack only. Safety support must be used in the event of operation underneath the vehicle.
- ◇ Storage battery, all fuel and parts relating to fuel must be kept away from any smoking object, flare and spark.
- ◇ Do not connect or disconnect storage battery or any transistor part while the ignition switch is on.
- ◇ Must pay attention to polarity

when connecting storage battery cable. Do not connect positive cable to the negative terminal, vice versa.

◇ Keep away from storage battery, ignition line and automotive conduct –or, whose current or voltage is high. Take care.

◇ Touching live parts while the ignition switch is on will result in electric shock or burn.

◇ Must take off large windingprone clothes and jewelry when working in the engine room. Do not keep body close to any fan, belt or other moving part.

◇ Must keep good ventilation when the engine runs in confined space (e. g. garage).

◇ Do not let children or pets contact old engine oil, cooling liquid and other oil.

◇ Do not treat empty lubricating oil barrel and liquid tank or any container containing old lubricating oil or oil along with domestic waste.

◇ Be cautious to sudden unexpected move of the vehicle when checking underneath the engine hood while the engine is running. Place the gearshift rod on neutral position (manual transmission) or gear N (manual/automatic transmission), and tighten the parking brake.

◇ To avoid unexpected injuries to people, the ignition switch must be disconnected and the key must be pulled out before operating underneath the engine hood, unless the maintenance procedure requires to keep the engine running. If the engine must be kept running while working, wide clothes and jewelry

List of Driver's Daily Maintenance

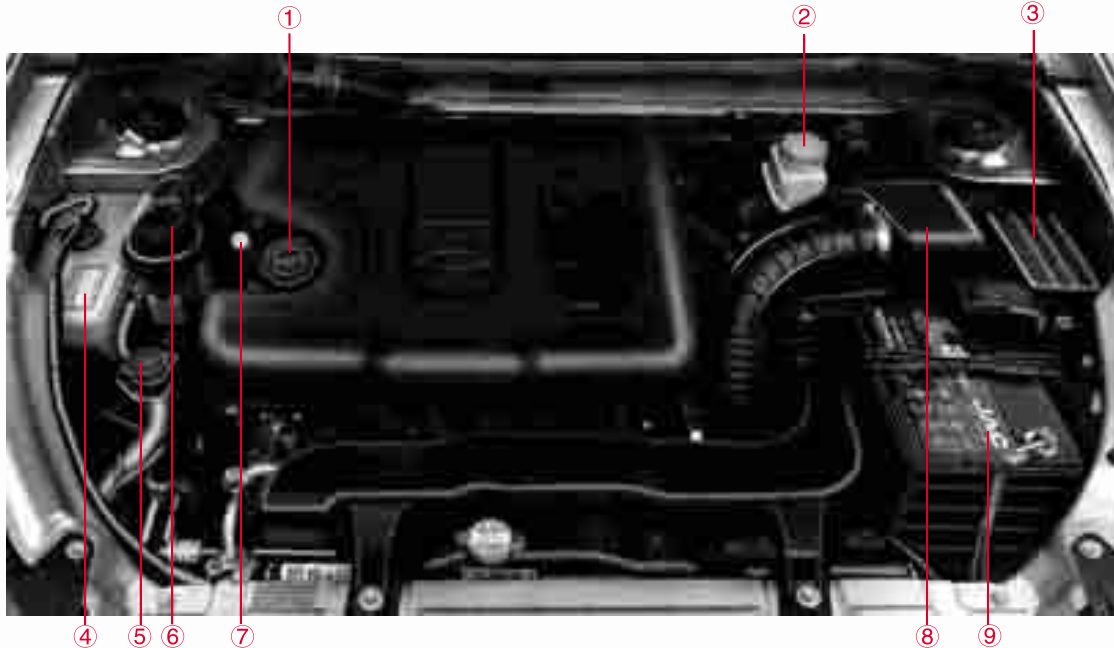
must be put off, or they will wind on moving parts and cause injuries.

Daily service and maintenance is an important job during vehicle use. To avoid malfunction and maintain the vehicle in sound running status, user shall form a habit of checking before and after driving the vehicle or driving it for a long distance.

1. Check radiator cooling water
2. Check lubricating oil level of the engine
3. Check oil level of automatic transmission
4. Check braking liquid
5. Check water storage of the water tank of windscreen washing apparatus
6. Check the amount of fuel oil
7. Check the running of all lamps and horns
8. Check inflation of tyres (including spare tyres) and whether they are damaged and free from major friction
9. Check leakage of fuel oil, lubricating oil, braking oil and cooling water
10. Check whether reflectors of interior and exterior back mirrors are on the position of best eyeshot, and keep them clean.
11. Check free clearance and working situation of clutch and brake pedals
12. Check whether the parking brake works normally
13. Check whether the steering wheel is normal
14. Check whether all the switches work normally
15. Check whether all the instruments work normally
16. Check liquid level of booster steering oil tank



Engine Compartment



1. Filler cap

2. Braking fluid tank

3. Engine compartment fuse box

4. Engine coolant tank

5. Washing solution tank of the front wind shield

6. Power steering liquid tank

7. Engine lubricating oil rule

8. Air filter/filter element

9. Storage battery

Check parts in the engine compartment

Notes

◇ Although the engine does not run, engine cooling fan in the engine compartment may start and cause injury to you. Therefore, you should keep your hands, clothes and tools away from the fan in the engine compartment.

◇ Flammable objects may burn after falling on hot engine parts. Such flammable objects include fuel oil, lubricating oil, cooling liquid, braking liquid and washing solution of the front wind shield, as well as plastic and rubber. Burning may cause injury to you or others. Therefore, it must prevent flammable objects being placed or falling on the engine

not cooled.

◇ Before checking the engine, it shall switch off the engine to stop the fan to prevent injuries caused by the rotating fan. In addition, voltage of electronic ignition system is higher than that of an ordinary system. Therefore, it is dangerous to touching automotive live parts when the ignition switch is on.

Check engine oil



If the engine oil pressure alarm light of the combined device on the console lights, it indicates the need for immediate check of engine oil level.

For details, refer to Chapter II Engine Oil Pressure Alarm Light. You should regularly check engine oil level. The alarm light plays a role of reminding only.



Check engine oil level



You'd better check engine oil before filling at each time. To get accurate readings, the engine oil must be cooled. Check engine oil level according to the following procedures:

1. The vehicle is parked on a flat ground.
2. Switch off the engine, and wait for a few minutes so that the engine oil could backflow to stock solution disk. If not doing in this way, the oil

rule will be unable to display actual oil level.

3. Pull out the oil rule, and insert it into the original position after wiping it clean with tissue or cloth. And then pull it out again and keep its tip downward to check oil level.

4. If engine oil level is at the marked hole (A) on lower part of the oil ruler or below the position, you should fill engine oil. However, you must fill the engine oil of the correct model. The chapter will explain the engine oil model to be used.

5. Make sure to fill enough engine oil to let the oil level within a normal running scope, i.e. between two marked holes of the oil rule. Completely insert the oil ruler into the original position after filling.

Engine oil to be used

Recommended engine oil model:

North of china in winter:

SAE 5W-30 SF or level SG.

North of china in summer or south of china all year:

SAE 15W/40 SF or level SG.

Engine oil additives

Do not add any substance into engine oil. The recommended engine oil can completely guarantee sound running of the engine and protect the engine.

Notes

- ◇The engine oil is irritating and will cause illness or death after drinking.
- ◇Do keep it away from children.
- ◇Prevent skin contacting engine oil repeatedly or for a long time.

Chapter V Maintenance and Repair

◇ Wash the part contacting engine oil with soap and water or hand-washing solution.

Notes

Do not fill engine oil to above the MAX sign on the oil rule. Filling too much oil will damage the car, because:

- ◇ Increase engine oil consumption.
- ◇ Oil spillage of ignition plug.
- ◇ Huge carbon concentrated on the engine.

Description of environmental protection

◎ To discover leakage in time, it shall frequently check the ground

underneath the car. If there are stains of petrol or other working liquids, please have it checked by the authorized maintenance station of JAC for check to prevent environmental pollution.

Replace engine oil and engine oil filter

Engine oil will lose its lubricating oil after being polluted. Make sure to replace engine oil according to the maintenance regulation.

Must replace engine oil filter while replacing engine oil each time. In worse condition, the interval between engine oil replacing and engine oil filter replacing must be shorter than that stipulated by standard maintenance regulation.

Notes

It is recommended to replace engine oil and engine oil cleaner by JAC authorized after-sale service center. Or otherwise, it may cause injuries or damage to the vehicle.



Air filter/filter element

Worse conditions include but not limited to:

- ◇ Frequent cold starting
- ◇ Frequent start and stop when the traffic is jammed.
- ◇ Frequent short-distance drives.
- ◇ Frequent drives when environmental temperature is below the freezing point.
- ◇ Long term idle speed.
- ◇ Frequent low speed drives.
- ◇ Drives under dusty condition.



Regularly check and replace filter member of air filter according to the maintenance regulation herein.

Notes

- ◇ Correct operation of the engine requires clean air.
- ◇ Do not drive any vehicle without filter member of air filter.
- ◇ Driving a vehicle without filter member of air filter will damage the engine.
- ◇ Original parts of JAC shall be used while replacing the air filter.

Engine coolant

Clean air filter

If filter member of an air filter is too dirty, it may be cleaned according to the following procedure.

- 1) Shake filter member of the air filter to drop dust off.
- 2) Clean interior enclosure of the air filter.
- 3) Cover the filter enclosure with wet cloth while cleaning the filter member.
- 4) Clean filter member of the air filter with compressed air in opposite direction of normal airflow.

For maintenance regulation, refer to Chapter VIII Maintenance Plan.

See Engine overheating, Chapter IV if the vehicle occurs the fault of engine overheating.

It is prohibited to use coolant with concentration above 60% or solution with concentration below 35% , otherwise engine cooling system may be damaged. Select the appropriate concentration according to the table below when filling or changing coolant.

Freezing point(°C)	Anti-freezing solution(%)	Water (%)
-15	35%	65%
-25	40%	60%
-35	50%	50%
-45	60%	40%

Make sure to check coolant in winter, and adjust for different circumstances according to the table above. You are advised to use coolant recommended by a JAC franchised after-sales service center.

Notes

Do not add any coolant when the engine is in a hot state. Filling must be carried out after the engine is cooled. Otherwise the engine will be seriously damaged.

Notes

Try to use antifreeze solution of the same brand. Production formulas of antifreeze solution of different brands are different.



Check coolant

In the event of mixed use of them, there may be chemical reaction among various additives, thus causing the additive invalid.

If you need to fill coolant for more than 4 times within a year, you should have the cooling system of your car checked by JAC authorized after-sale service center for saloon car.

If you have used effective coolant, you don't need to add inhibitor or additive that may improve cooling system performance. Such inhibitor is not good for the system.



Engine coolant expansion kettle is located within the engine compartment on site of vehicle passengers. For specific position, refer to General Layout of Engine Compartment.

Notes

If screwing coolant expansion kettle cap or radiator cover when the engine and the radiator is hot, steam and hot liquid may spray out and burn you. Therefore, do not screw the expansion kettle cap and radiator cover when the engine and the radiator are hot. The vehicle must be parked on a flat ground. After the engine is cooled, coolant level shall be between the upper limit (F) and lower limit (L) signs of the coolant expansion kettle. When the engine reaches the strength of normal work, the level will rise. And after the engine is cooled, the level will drop again.

How to add coolant into the coolant expansion kettle

Add coolant

If the liquid level is below the lower limit (L) sign, it may add suitable coolant mixture into the expansion kettle, but fill after the engine is cooled only.

Notes

If the coolant is splashed onto hot engine parts and components, you may be burnt. The coolant contains glycol. If temperature of engine parts and components is high enough, glycol will burn. Therefore, do not splash coolant onto the hot engine. When closing the expansion kettle cover again, please confirm the cover is screwed tight.

Notes

It is very dangerous to add clean water into the cooling system, because boiling point of clean water or alcohol is lower than that of normal coolant mixture. And coolant alarm system of the car is set according to normal coolant mixture. Use of water or other unsuitable liquid mixture may result in engine overheat, but the alarm system will not sound an overheat alarm. The engine fires, which may burn you or others. Make sure to use liquid mixture of clean drinking water and suitable coolant at the ratio of 43/57. In cold days, water may cause freezing breakage of the engine,

radiator and other parts and components. Therefore, please use the recommended coolant and correct coolant mixture.

You may take off coolant expansion kettle cover after the cooling system, including coolant expansion kettle cover and radiator hose is cooled.

Add suitable liquid mixture into the coolant expansion kettle until hitting the upper limit sign of the expansion kettle. Wait for 5 minutes, and then check whether the liquid level is below the upper limit sign. If yes, continuously add some coolant to increase the liquid level to the upper limit sign. Repeat such step until the