

405
OPERATION. SAFETY. MAINTENANCE

pride **B**

Owner's manual



KIA MOTORS

How to Use This Manual

- Keep this manual in the glove box as a permanent and convenient reference.
- Throughout this manual you will find **WARNINGS**, **CAUTIONS** and **NOTES**. The **WARNING!**s remind you to be especially careful to avoid possible personal injury. The **CAUTIONS** are given to prevent you from making an error that could damage the vehicle or cause personal injury. The **NOTES** are suggestions that will help you make full use of your vehicle.
- The specifications and descriptions in this manual are accurate at the time of printing. Because improvement is a constant goal at Kia, we reserve the right to make changes in specifications at any time without notice and without incurring any obligation. Please note that this manual applies to all models in this series and explains all equipment, including options. You may therefore find explanations for equipment not installed on your vehicle.

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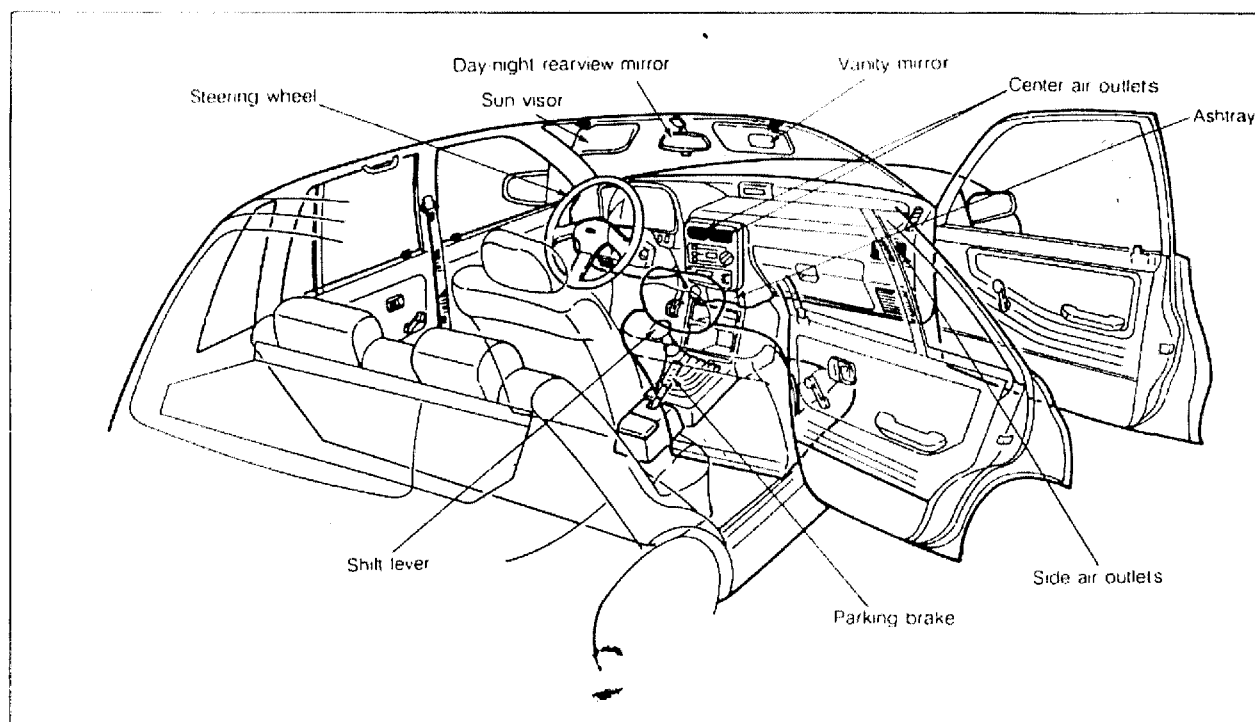
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YOUR VEHICLE AT A GLANCE

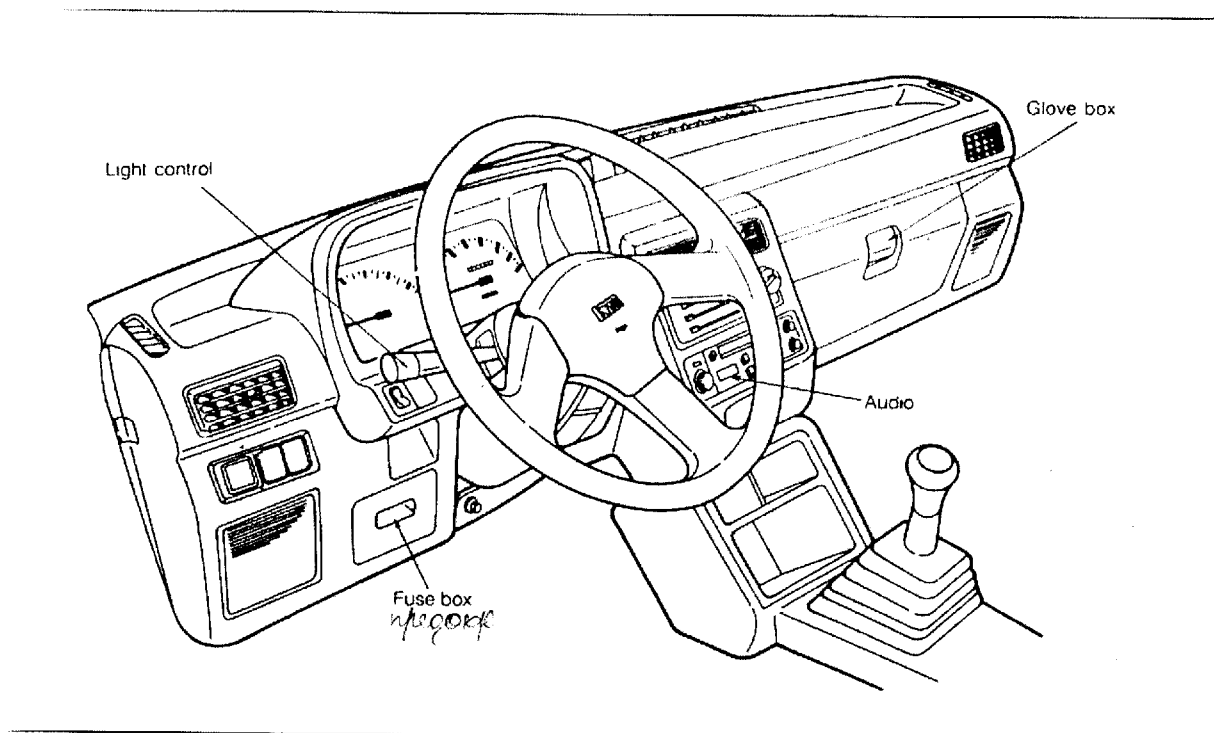
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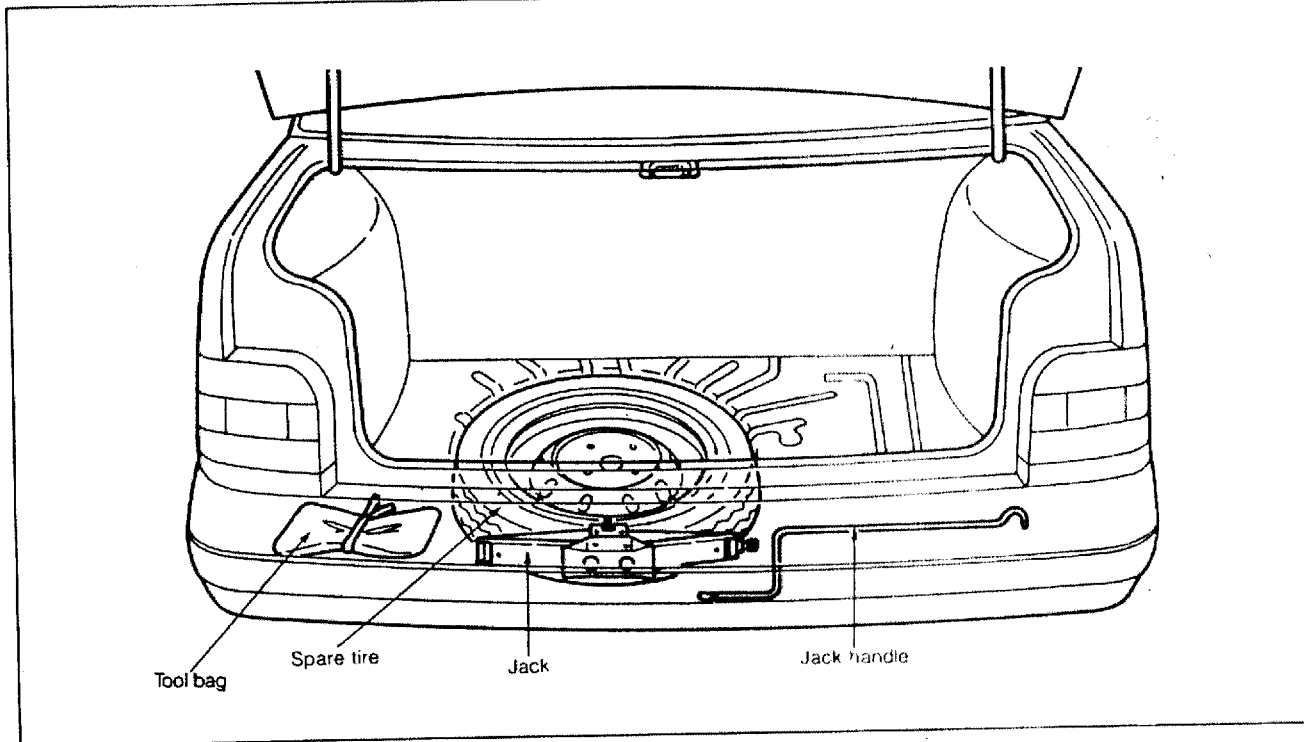
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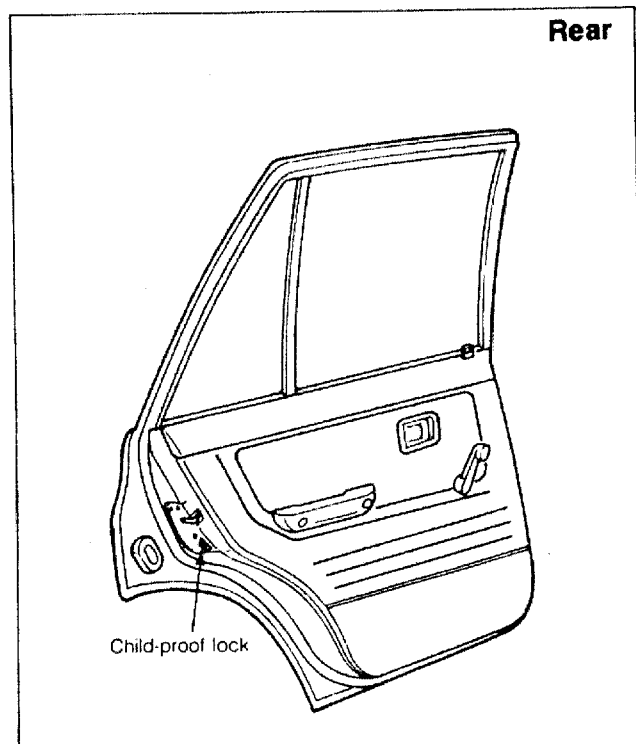
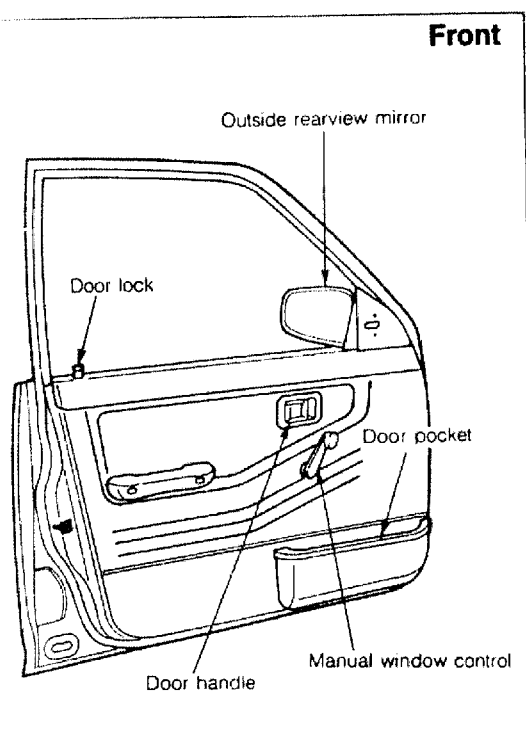
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1-4

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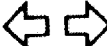
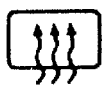
DOORS



1-5

GRAPHIC SYMBOLS

Some of the following symbols are used to identify controls and displays on your vehicle.

	 <i>help paper</i>					
LIGHTS	HEADLIGHT HIGH BEAM	ILLUMINATION CONTROL	TURN SIGNALS	HAZARD WARNING FLASHER	HOOD RELEASE	TRUNK/REAR TAILGATE
						
FUEL	ENGINE COOLANT TEMPERATURE	ENGINE OIL	BATTERY CHARGING SYSTEM	SEAT BELTS	BRAKE SYSTEM	VENTILATION
						
AIR RECIRCULATION	FRESH AIR	VENTILATION	BI-LEVEL	HEATER	HEATER & DEFROSTER	WINDSHIELD DEFROSTER
						
REAR WINDOW DEFROSTER	WINDSHIELD WIPER & WASHER	REAR WINDOW WIPER & WASHER	LIGHTER	HORN	WASHER FLUID	DOOR

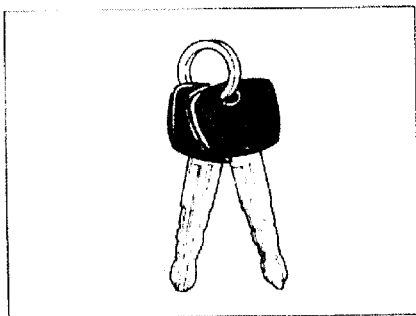
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Knowing Your Vehicle

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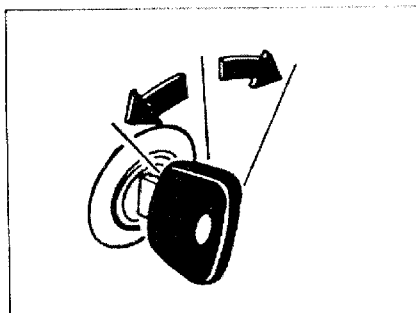
KEYS, DOOR LOCKS

Keys



The code number should be recorded and kept in a safe place for use in obtaining replacement keys if necessary.

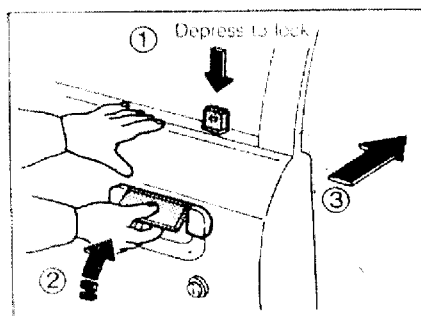
Door Locks



FROM OUTSIDE

With Key

- Either door can be locked or unlocked with the key.
- To open, pull the door handle upward



Without Key

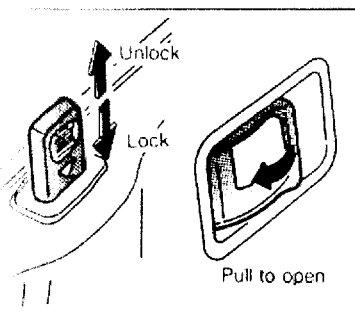
- To lock without the key, depress the inside lock button, hold the door handle up and close the door

CAUTION

Always remove the ignition key and lock all doors when leaving your vehicle unattended.

2-2

DOORS



FROM INSIDE

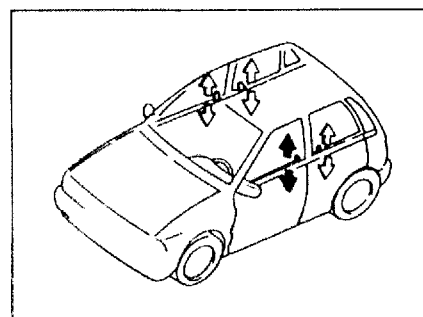
- To lock either door, depress the lock button.
- To unlock, pull the lock button up.
- To open, pull the door handle rearward.

WARNING!

- **The doors should always be locked while the vehicle is in motion to reduce the risk of personal injury in an accident and to prevent opening them by accident. Locked doors will also discourage intruders.**
- **Never leave children or animals unattended in the vehicle.**

NOTE

Squirt deicer or glycerine into the locks to keep them from freezing. To open a frozen lock, try heating the key before inserting it.



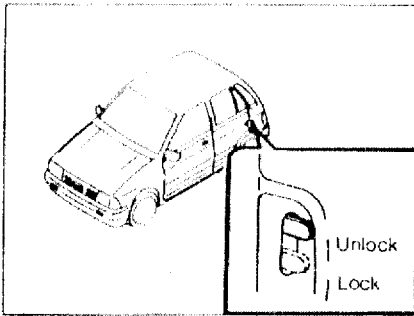
POWER DOOR LOCKS (Option)

All doors can be automatically locked or unlocked by depressing or lifting the driver's door lock knob.

2-3

DOORS, WINDOWS

Power Windows (Option)

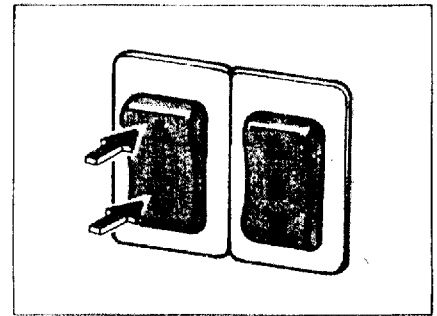
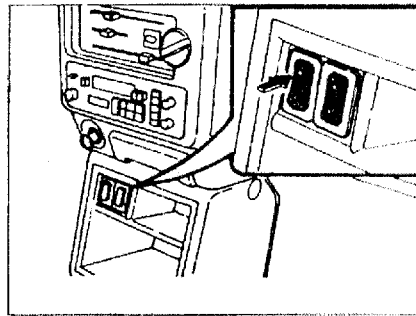


REAR DOOR CHILD-PROOF LOCK

To lock the rear door so that it can not be opened from the inside, push down on the child proof lock lever and then close the door.

To open, the inside door lock button must first be pulled up, then pull the outside door handle upward.

This safety feature should be used whenever small children are in the vehicle.



WARNING!

- Use caution when closing windows. Make sure all arms, hands, and other obstructions are safely out of the way.
- Do not allow children to play with the power windows. They may injure themselves, perhaps seriously.

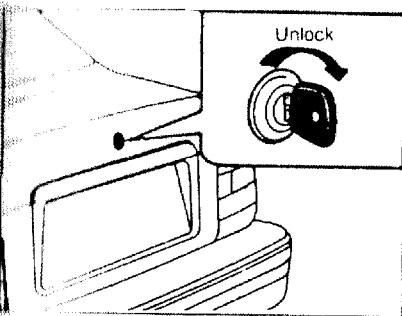
The ignition switch must be in the ON position for the power windows to operate.

To open or close the window, depress the switch.

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TRUNK LID, HOOD

Trunk Lid

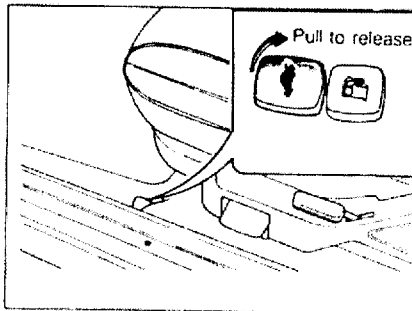


To open, insert the key into the key slot and turn it clockwise.

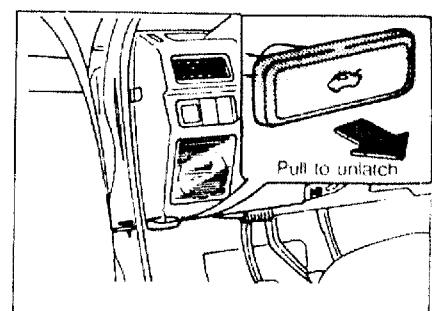
To close, use both hands to push the trunk lid down until the lock snaps shut. Do not slam it.

Then pull up on the trunk lid to make sure it is secure.

Remote Trunk Lid Release Hood Release (Option)



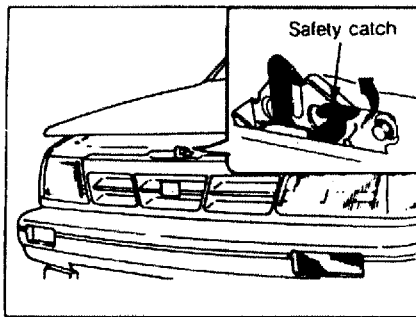
1. To release the trunk lid, pull the release lever up located next to the driver's seat.



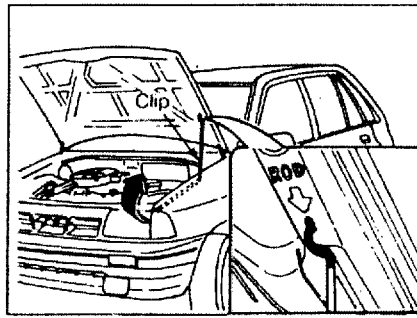
1. Pull the release knob to unlatch the hood.

WARNING!

To avoid drawing dangerous exhaust gases into the vehicle, do not drive with hatchback lid open.



2. Pull the safety catch lever up and lift the hood.



3. Hold the hood open with the support rod.

Before closing the hood, secure the support rod in its clip to prevent it from rattling.

To close the hood

- Check the underhood area to make certain all filter caps are in place and that all loose items have been removed.
- Close the hood firmly so that it latches securely. Do not slam it shut.

WARNING!

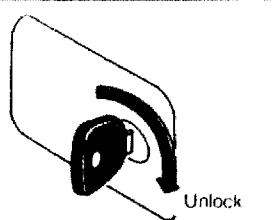
- Do not release the hood latch unless the ignition is first turned off, the gear selector lever is placed in (FIRST), and the parking brake is set fully.
- If it is necessary to check beneath the hood with the engine running, place the gear selector lever in N (NEUTRAL) and set the parking brake fully. Unexpected and possibly sudden vehicle movement may occur if these precautions are not taken.
- To avoid the possibility of personal injury, you should always turn off the ignition and remove the key before working under the hood unless the particular procedure specifically requires otherwise. If the procedure requires you to run the engine while working under the hood, do not permit any clothing, such as neckties or handkerchiefs, near the engine or radiator fan. They can become entangled in moving parts and result in personal injury and damage to the vehicle. Also remove watches, bracelets and rings.

2-6

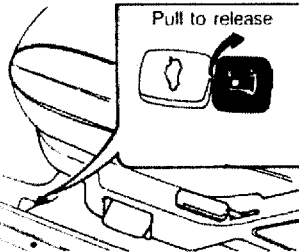
FUEL-FILLER CAP

Fuel-Filler Cap Release

Type A



Type B

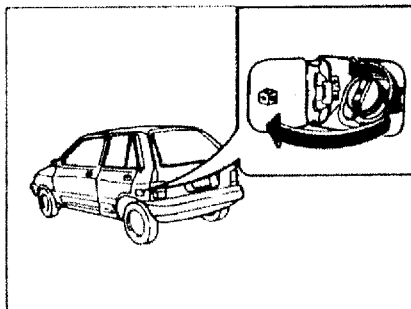


Type A

To open the fuel filler lid, insert the key and turn it clockwise.

Type B

To open the fuel filler lid, pull the remote fuel filler lid release knob up.



- To remove the cap, first turn it counter-clockwise.
- To install the cap, turn it clockwise until it clicks. This signals that the cap is securely tightened.

WARNING!

- Fuel may be under pressure. Always remove the fuel cap carefully and slowly. If the cap is venting fuel or if a hissing sound is heard, wait until the condition stops before removing the cap. If these precautions are not followed, fuel

may spray out and cause personal injury.

- Fuel vapor can be extremely hazardous. When refueling, always stop the engine and never allow sparks or open flames near the filler neck.

NOTE

- The fuel filler pipe is designed to prevent filling the fuel tank with any but unleaded fuel. (only for unleaded fuel vehicle)
- If the fuel tank cap requires replacement, use only a Genuine Kia cap or the equivalent specified for your vehicle. An incorrect fuel cap can result in a serious malfunction of the fuel system or emission control system. Correct replacement caps are available at authorized Kia Dealers.
- If the fuel-filler lid will not open in cold weather because the area around it is frozen, push or lightly tap the lid.

CAUTION

Do not spill fuel on the exterior surfaces of the vehicle. Any type of fuel if spilled on painted surfaces may dull or soften the paint.

2-7

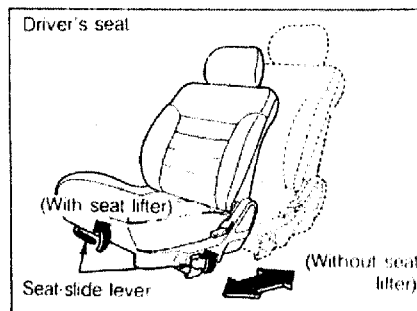
SEATS

Seat

Seat Adjustment

WARNING!

- Do not adjust the driver's seat while the vehicle is in motion. Doing so could cause loss of control, an accident, and personal injury.
- Do not allow packages or other objects to interfere with the normal position of a seat back. A seat back that is folded forward even slightly may not lock properly during a sudden stop or a collision.

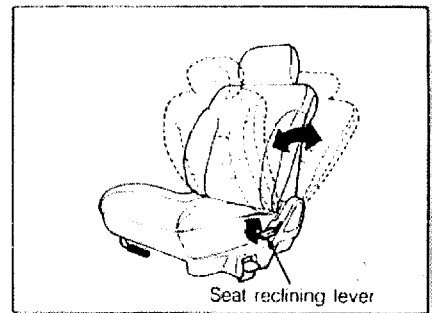


SEAT-SLIDE

To move the front seat forward or backward, move the lock lever up and hold it. Slide the seat to the desired position, and release the lever.

CAUTION

Place nothing under a seat. Loose objects might interfere with the seat-slide mechanism.



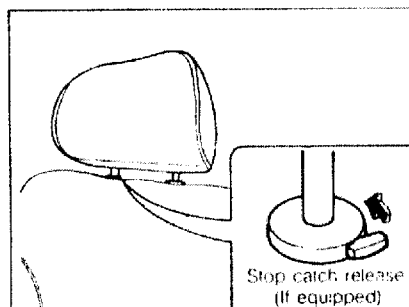
SEAT RECLINER

To change the seat-back angle, lean forward slightly and raise the lever. Then lean back to the desired angle and release the lever. After adjustment, make sure the lever is returned to its original position; otherwise, the seat back could unlatch while the vehicle is in motion, causing the driver to lose control of the vehicle.

SEATS

WARNING!

To reduce the risk of sliding under the lap belt and thereby suffering personal injury in the event of a collision, do not recline the seat back more than necessary for comfort. The seat belts are designed to provide optimum protection when the passenger and driver are sitting all back and upright in their seats. During a collision, especially a front-end collision, the risk of personal injury may increase with the increasing recline angle of the seat back because the passenger and driver may slide under the lap belt and the restraint forces applied directly to their abdominal areas. Therefore, try to keep the seatback in a fairly upright position whenever possible.



HEAD-RESTS

- To remove the headrest, press the stop catch release and pull the headrest straight up.
- When installing the headrest, push it all the way down and make sure it is securely in place.

WARNING!

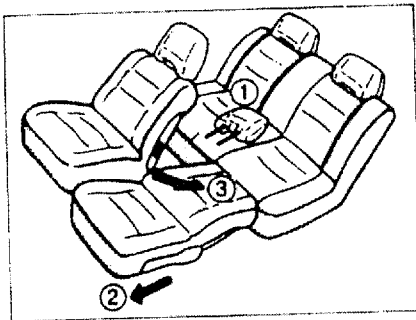
To reduce the risk of head and neck injuries, do not operate the vehicle with the head rests removed.

WARNING!

- If the seatback is not securely latched, passengers or objects could be thrown forward and injury could occur in the event of a sudden stop or collision.
- Luggage or other cargo should not be piled higher than the seatbacks, as they may become dangerous projectiles in the event of a sudden stop or collision.
- To help prevent serious injuries in the event of sudden acceleration, quick stops or collisions, passengers should not ride in the cargo area, nor sit or recline on the folded seatbacks while the vehicle is in motion.

NOTE

Check to make sure the seatback is securely locked.



FLAT FOLDING SEATS

If your vehicle's head rests have stoppers, you can fold the front and rear seats flat.

1. Remove the head rest.
2. Slide the front seats to the maximum forward position and the rear seats to the maximum backward position. Remove the luggage compartment cover.
3. Then lower the seatback to the full flat position.

Seat-Belt Restraint System

To help decrease the possibility or severity of injury during accidents and sudden stops, we recommend that the driver and your passenger be properly restrained at all times by using the seat belts provided. The lap/shoulder belts have retractors with inertia locks. The retractors keep the belts out of the way while passengers enter or exit the vehicle. Inertia locks allow the belts to remain slack on the passengers for comfort until a deceleration force occurs (such as a sudden stop or a collision). At that time, the belts will automatically lock in position, and the passengers will not be thrown forward.

WARNING!

- **Lap/shoulder-belt assemblies may be damaged when subjected to stress. Replace all belts, retractors, and hardware that was in use during any collision except a minor one.**
- **Replace all restraint systems and properly repair all anchorages that were in areas damaged by a collision.**
- **Persons who are not riding in a**

seat with a fastened seat belt are much more likely to suffer serious bodily injury during a collision.

Restraint of Pregnant Women

Pregnant women should wear lap/shoulder belt assemblies whenever possible according to specific recommendations by their doctors. The lap belt should be worn SNUGLY AND AS LOW AS POSSIBLE.

Restraint of Infants and Children

Small children and infants should be restrained by an approved child-restraint system. Never allow a child to stand or kneel on the seat of a moving vehicle, and never put the same seat belt around a child and yourself at the same time. Also, never hold a child on your lap or in your arms. Even a very strong person cannot hold onto a child in the event of a serious accident, and the released child may be injured as it hits parts of the vehicle or be crushed by an unrestrained passenger.

A child-restraint system can help protect small children and infants in a vehicle. Many companies manufacture safety seats for infants and small children. An acceptable child-restraint system should always satisfy local motor vehicle safety standards.

Moreover, it should be chosen to fit both the size of the child and the size of the vehicle seat. Be sure to follow any instructions provided by the manufacturer when installing the child-restraint system.

CHILDREN

A child who has outgrown the child-restraint system should use the belts provided in the vehicle. If seated, the child should be belted at both the lap and the shoulder. If the child is so small that the shoulder belt binds the neck or face, place the child toward the edge of the seat closer to the center of the vehicle.

NOTE

- All child-restraint systems are designed to be secured in vehicle seats by lap belts or the lap-belt portion of a lap/shoulder belt.
- Children could be endangered in a crash if their child restraints are not properly secured in the vehicle.

CAUTION

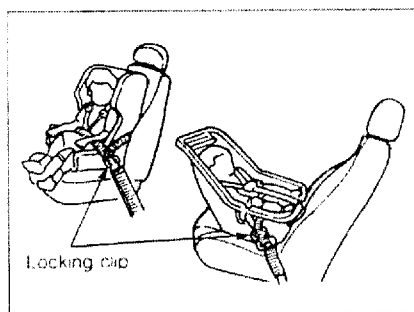
- Do not select a child-restraint system that requires an anchor because your vehicle is not equipped with one for this purpose.
- Since a safety belt or child-restraint system can become very hot in a closed vehicle during warm weather, be sure and check the seat cover and buckles before using either on a child.
- When the child-restraint system is not in use, remove it or fasten it with a safety belt so that it will not be thrown forward in the event of a sudden stop or an accident.

SEAT BELTS

INSTALLATION OF A CHILD-RESTRAINT SYSTEM

The installation of a child-restraint system requires a seat-belt locking clip. Secure the child-restraint system with the lap belt, as shown in the illustration.

The use of shoulder belts is not recommended for passengers under six years old or weighing less than 25kg (55 pounds), as this increases the chance of neck injury in an accident.



1. Slide the seat to the rearmost position.
2. Secure the system with the lap and shoulder belts.
3. Tighten the lap belt by pulling on the shoulder belt.

Seat Belts

WARNING!

- Never wear the shoulder belt under the arm.
- Never swing it around your neck and over the inside shoulder.
- Never use a single belt for more than one person at a time.
- Be sure the lap portion of the belt is fitted snugly around the hips, not the waist.
- Use the shoulder belt on the outside shoulder only.

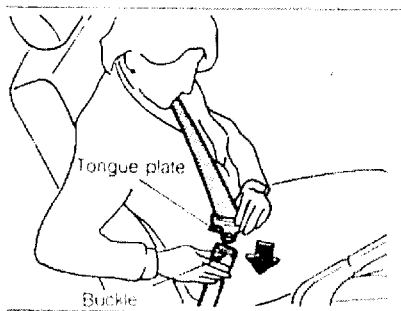
Failure to follow these precautions could increase the chance and severity of injury.

NOTE

If the belt locks when being pulled out, rewind it completely in the retractor, then pull it out to the desired length.

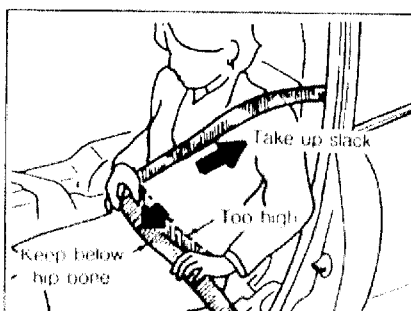
2-12

SEAT BELTS

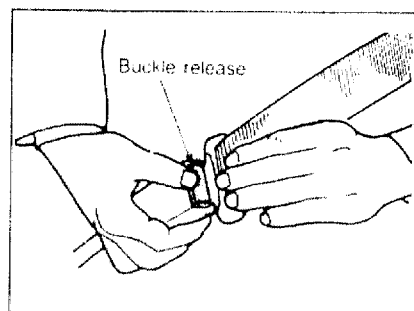


To fasten seat belt

1. Grasp the buckle and tongue plate.
2. Slowly pull out the lap/shoulder belt.
3. Insert the tongue plate into the open end of the buckle until an audible click is heard. An audible click will come out when the belt is securely locked.



Position the lap belt across your lap as LOW ON THE HIPS as possible to reduce the risk of sliding under it during an accident. Adjust the belt to a SNUG FIT by pulling it. The belt retractor is designed to take up excess webbing automatically and to maintain tension on the belt.

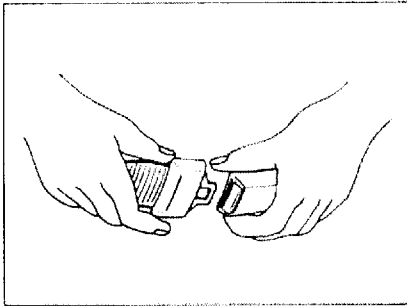


To unfasten seat belt

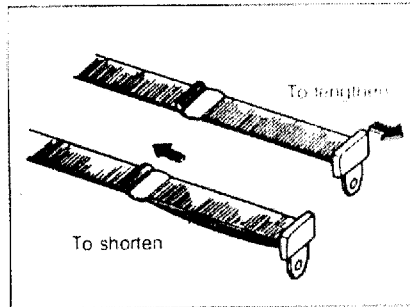
Depress the buckle release.

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SEAT BELTS



REAR SEAT BELTS (With retractor)
Use in the same manner as "FRONT SEAT BELTS".



(Without retractor)

To Fasten Seat Belt

Position the lap belt across your lap as **LOW ON THE HIPS** as possible.

If necessary, lengthen or shorten the lap belt. To adjust, hold the tongue at a right angle to the webbing and pull to lengthen, or pull then end of the belt webbing to shorten.

To Unfasten Seat Belt

To unfasten the belt, depress the buckle release button.

Proper Use and Care of Seat-Belt System

To gain maximum effectiveness from the seat-belt system, follow these suggestions:

- Use the belts as all times—even on short trips
- Never use the same belt for more than one person at a time.
- Avoid wearing twisted belts
- Keep sharp edges and damaging objects away from the belts and other parts of the restraint system
- Periodically inspect belt webbing, anchors, buckles, and all other parts for signs of wear, damage, and weakness. Replace questionable parts immediately.
- To clean the belt webbing, use any mild soap solution recommended for cleaning upholstery or carpets; follow the instructions provided with the soap. Do not bleach or redye the webbing because this may weaken it.
- No modifications or additions should be made by the user.
- After wearing a seat belt, make sure it is not caught on the adjusting levers or elsewhere.

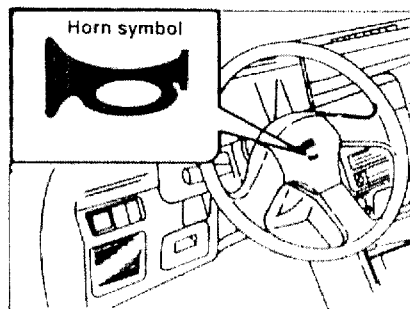
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SEAT BELTS AND STEERING WHEEL

Horn Control

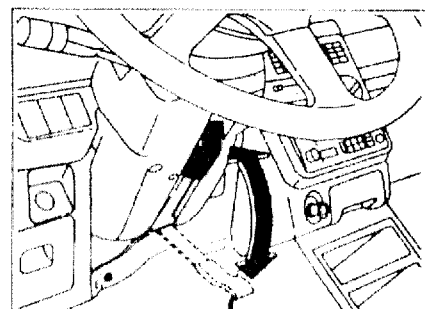
WARNING!

All seat-belt assemblies, including retractors and attaching harness, should be inspected after any collision. We recommended that all seat-belt assemblies in use during a collision be replaced unless the collision was minor and the seat belts show no damage and continue to operate properly. Seat-belt assemblies not in use during a collision should also be inspected and replaced if damage or improper operation is noted.



Push the horn button marked with the horn symbol to sound the horn. Check the horn regularly for proper operation.

TILT STEERING WHEEL (Option)



To change the steering wheel angle, pull down on the lock-release lever located under the steering column. Tilt the steering wheel to the desired angle while holding the lever fully down and push up on the lock-release lever. After adjusting, push up and down against the steering wheel to be certain it is locked in position.

WARNING!

Never adjust the tilt position of the steering wheel while the vehicle is moving.

2-15

MIRRORS

Outside Rearview Mirrors

Be sure to adjust mirror angles before driving.

WARNING!

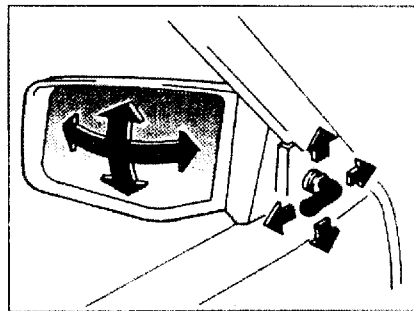
Because the outside rearview mirror on the passenger's side is convex, objects seen in the mirror appear to be farther away than they actually are.

The mirror should be used carefully to estimate distances of following vehicles when changing lanes.

Use your inside rearview mirror to determine the size and distance of objects seen in the convex mirror.

CAUTION

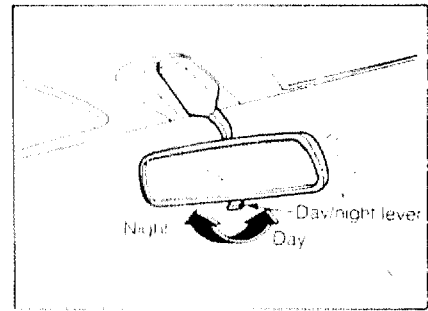
Do not scrape ice off the mirror face; this may damage the surface of the glass. If ice should restrict movement of the mirror, do not force the mirror to adjust it. To remove any ice, use a deicer (spray or blower, for example), sponge, or soft cloth.



REMOTE CONTROLLED OUTSIDE REARVIEW MIRROR

To adjust the mirror, move the control lever as shown in the figure.

Day-Night Rearview Mirror (Option)



Adjust the mirror to center on the view. Make this adjustment while the day/night lever is in the day position.

Pull the day/night lever toward you to reduce glare from the headlights of vehicle behind you during night driving.

NOTE

Remember that you lose some rearview clarity in the night position.

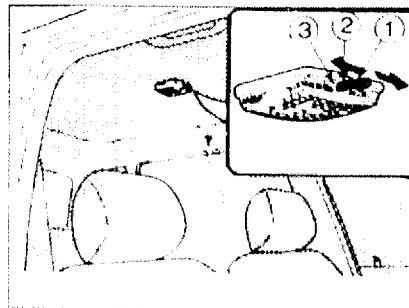
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INTERIOR LAMP

Interior Lamps

WARNING!

Do not put large objects on the flat area behind the rear seat, as they may obscure vision and could become dangerous projectiles in the event of a sudden stop or collision.



The interior lamp switch has three positions:

- | | |
|--------|-----------------------------|
| 1 OFF | Lights off |
| 2 DOOR | Lights on when door is open |
| 3 ON | Lights on |

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BEFORE DRIVING, BREAK-IN

Before Driving

BEFORE ENTERING VEHICLE

- Be sure that all windows, outside mirror(s), and outside lights are clean.
- Check the condition of the tires.
- Check under the vehicle for any sign of leaks.
- Be sure no one and no obstacle is at the rear of the vehicle if you intend to back up.

Necessary Inspections

Fluid levels, such as engine oil, engine coolant, brake fluid, clutch fluid, and washer fluid, should be checked daily, weekly, or whenever you refuel, depending on the fluid. Further details are provided in Maintenance, Section 6.

BEFORE STARTING

- Close and lock all doors.
- Position the seat so that all controls are easily reached.
- Adjust the inside and outside rearview mirrors.
- Fasten seat belts of occupied seats.
- Be sure that all lights work.
- Check all gauges.
- Check the operation of warning lamps when the ignition switch is turned to the ON position.
- Release the parking brake and make sure the brake warning lamp goes out.

For safe operation, be sure you are familiar with your vehicle and its equipment.

Break-in

No special break-in period is needed. But by following a few simple precautions for the first 600 miles (1,000 km), you may add to the performance, economy, and life of your vehicle.

- Do not race the engine.
- Do not maintain a single speed for long, either fast or slow.
- Avoid hard stops, except in emergencies, to allow the brakes to seat properly.
- Avoid full-throttle starts.

Suggestions for Economical Operation

Your vehicle's fuel economy is mainly dependent on your style of driving: How you drive, where you drive, and when you drive. These have an effect on how many kilometers (miles) you can get from a liter (gallon) of fuel. To operate your vehicle as economically as possible, use the following driving suggestions to help save money in both fuel and repairs:

- Avoid lengthy warm up idling. Once the engine is running smoothly, begin driving—but gently. Remember, though, that on cold winter days, warm up may take a little longer.
- You can save fuel by avoiding fast starts.
- Keep the engine in tune and follow the recommended periodic maintenance schedule. This will increase the life of all parts and lower operating costs.
- Use the air conditioner only when necessary.
- Slow down when driving on rough roads.
- For longer tire life and better fuel economy, always keep the tires inflated to the recommended pressure.

- Maintain a safe distance from other vehicles to avoid sudden stops. This will reduce wear on brake pads and save fuel because extra fuel is required to accelerate back to driving speed.
- Do not carry unnecessary weight in the vehicle.
- Do not rest your foot on the brake pedal while driving. This can cause needless wear, possible damage to the brakes, and poor fuel economy.
- Improper wheel alignment causes the tires to roll at excessive angles, which results in faster tire wear. It takes more power to overcome this improper alignment, which wastes fuel.

Keeping a vehicle in good operating condition is important both for economy and safety. Therefore, have an Authorized Kia Dealer perform scheduled inspections and maintenance.

CAUTION

Never turn off the engine to coast down hills. The power steering and power

brakes will not function without the engine running. Instead, downshift to an appropriate gear for engine braking effect.

3-3

SPECIAL DRIVING CONDITIONS

Hazardous Driving

When hazardous driving is encountered because of water, snow, ice, mud, sand, or similar hazard, follow these suggestions:

- Drive cautiously and allow extra distance for braking.
- Avoid sudden movements in braking or steering.
- When braking, depress the brake pedal with a light up-and-down motion until the vehicle is stopped.
- If stalled in snow, mud, or sand, use 2 (Second) gear and accelerate slowly. 1 (First) gear may be used, if necessary. Accelerate slowly to avoid spinning the rear wheels.
- Use sand, rock salt, tire chains, or other nonslip material under the front wheels to provide traction when stalled in ice, snow, or mud.

WARNING!

On slippery surfaces, do not downshift into 1 (First). This may cause skidding.

Rocking the Vehicle

If it is necessary to rock the vehicle to free it from snow, sand, or mud, move the shift lever from 1 (First) to R (Reverse) in a repeat pattern while depressing the accelerator gently. Do not race the engine. If you are still stuck after a minute or two of rocking, have the vehicle pulled out to avoid engine overheating and possible damage to the transmission.

CAUTION

Prolonged rocking may cause engine overheating, transmission damage or failure, and tire damage.

WARNING!

Do not overspeed the engine and/or spin the wheels in excess of an indicated 56 km/h (35 mph). Spinning wheels at speeds above 56 km/h (35 mph) while the vehicle is stationary could cause a tire to disintegrate with explosive force, which could result in injury to a bystander or vehicle occupant.

Winter Driving

- Depending on where you are driving, we recommend you carry emergency equipment. Some things you might include are tire chains, a window scraper, bag of sand or salt, flares, a small shovel, and jumper cables.
- Make sure you have a sufficient ethyleneglycol coolant in the radiator.
- Check the battery condition and cables. Cold temperatures reduce the capacity of any battery, so it must be in top shape to provide enough winter starting power.
- Make sure the engine oil viscosity is suitable for cold weather.
- Check the ignition system for loose connections and damage.
- Use antifreeze-formulated washer fluid. (Do not use engine coolant/anti-freeze.)
- Do not use parking brake when it might freeze. When parking, shift to 1 (First) or R (Reverse) and block the front wheels.

SNOW TIRES

When snow tires are used, select the size and construction specified on the tire pressure chart label. It is strongly recommended that snow tires be used on all four wheels, or poor handling may result. Snow tires should not be operated at speeds exceeding 120 km/h (75 mph). These tires should be inflated 0.3 kgf/cm (4psi, 28kpa) above the recommended pressures shown on the tire pressure chart, but inflation should never exceed the maximum cold-tire pressure shown on tire sidewalls.

WARNING!

Snow tires should be equivalent in size and type to the vehicle's standard tires. Otherwise, the safety and handling of your vehicle may be adversely affected.

NOTE

Do not install studded tires without first checking local regulations for possible restrictions.

TIRE CHAINS

Tire Chain Selection

Regulations regarding the use of tire chains vary according to location or type of road so always check them before installing chains.

Chain Installation

When installing chains on your tires, carefully follow the instructions of the chain manufacturer.

The chain bands will scratch the wheel covers. Remove the covers before installing the chains.

Install the chains on the rear tires as tightly as possible. The use of chains on the front tires is not recommended. Retighten the chains after driving 0.5—1.0 km (1/4—1/2 mile).

CAUTION

- The use of chains may adversely affect vehicle handling.
- Do not exceed 50 km/h (30 mph) or the chain manufacturer's recommended speed limit, whichever is lower.

- Drive carefully and avoid bumps, holes, and sharp turns, which may cause the vehicle to bounce.
- Avoid sharp turns or locked-wheel braking.
- Do not attempt to use a tire chain on the temporary spare tire because it may result in damage to the vehicle and to the tire.

3-5

SPECIAL DRIVING CONDITIONS, TRAILER TOWING, OVERLOADING

Driving in Flooded Areas

Avoid driving through flooded areas unless you are sure the water is no higher than the bottom of the wheel rims. Drive through any water slowly. Allow adequate stopping distance because wet brakes do not grip well. After driving through water, dry the brakes by gently applying several times while the vehicle is moving slowly.

Trailer Towing

We do not recommend using this vehicle for trailer towing.

Overloading

WARNING!

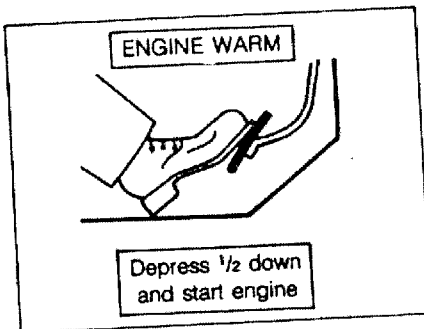
Never exceed either the gross axle weight rating (GAWR front and rear) or the gross vehicle weight rating (GVWR) (page 8-2). These ratings are shown on the Motor Vehicle Safety Standard Label (next page). Overloading can cause vehicle breakdown and damage and possible personal injury.

IGNITION SWITCH	4-2
STARTING	4-3
MANUAL TRANSAXLE	4-4
AUTOMATIC TRANSAXLE	4-5
BRAKE SYSTEM	4-7
INSTRUMENT PANEL	4-10
GAUGES	4-11
WARNINGS AND INDICATORS	4-12
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INTERIOR FEATURES	4-18
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4-1

STARTING, MANUAL TRANSAXLE

Manual Transaxle Operation

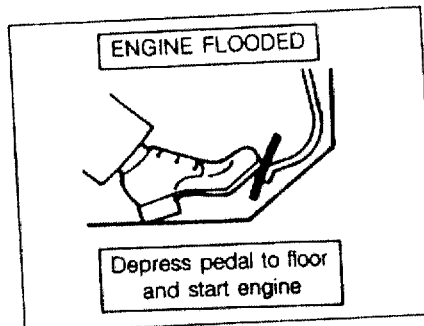


ENGINE WARM

1. Depress the accelerator pedal ABOUT HALF WAY AND HOLD IT.
- Do not pump.**
2. Turn the ignition key to the "START" position until the engine starts.
 3. When the engine starts, release the ignition key and accelerator pedal.

CAUTION

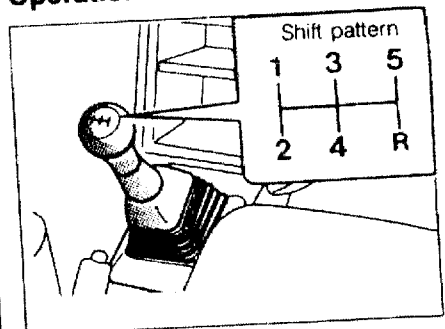
Extended high speed idling (5 minutes or more) could produce an excessive exhaust system temperature that can damage your vehicle.



ENGINE FLOODED

If the engine is hot and won't start, it may be flooded—wait half a minute or more before attempting to restart.

1. Depress the accelerator pedal to the floor and hold it while cranking the engine.
- Do not pump.**
2. Turn the ignition key to the "START" position until the engine starts.
 3. When the engine starts, release the ignition key and accelerator pedal.



The shift pattern is conventional, as shown above.

Press the clutch pedal down fully while shifting, then release it slowly.

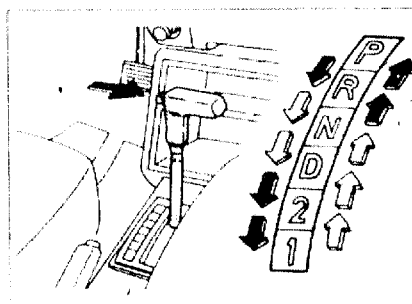
A special safety feature prevents inadvertent shifting from 5 (Fifth) to R (Reverse). The gearshift lever must be returned to the Neutral position (as shown) before shifting into R (Reverse).

NOTE

Make sure the vehicle is completely stopped before shifting into R (Reverse).

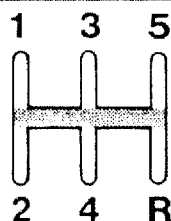
AUTOMATIC TRANSAXLE OPERATION

All normal driving is done with selector in the "D" position.



Push the button located on the end of the selector lever when engaging "R" and "P" and when shifting from "D" to "2" and "2" to "1", as indicated by the arrow "→".

The selector lever can be shifted freely into any positions indicated by the arrow "↔".



Neutral position

SHIFT POINT RECOMMENDATIONS

For normal acceleration, the following shift points are recommended:

1 to 2	19 km/h (12 mph)
2 to 3	32 km/h (20 mph)
3 to 4	50 km/h (31 mph)
4 to 5	87 km/h (54 mph)

Downshifting

When you must slow down in heavy traffic or while driving up steep hills, downshift before the engine starts to labor. Downshifting reduces the chance of stalling and gives better acceleration when you need to increase your speed. When the vehicle is in motion down steep hills, downshifting helps maintain safe speed and prolongs brake life.

CAUTION

- To avoid premature clutch wear and damage, do not drive with your foot resting on the clutch pedal; do not use the clutch to hold the vehicle stopped on an upgrade, as when waiting for a traffic light.
- To avoid possible damage to the clutch, do not shift to 1 (First) when moving in excess of 16 km/h (10 mph).

4-5

AUTOMATIC TRANSAXLE

NOTE

For smooth operation, depress the brake pedal when shifting from NEUTRAL or PARK to a forward or reverse gear.

CAUTION

- Shift into "R" and "P" only when the vehicle has come to a complete stop.
- Do not accelerate the engine in reverse or any of the forward positions with the brakes on.
- When stopped on an upgrade, do not hold the vehicle with the engine power. Use the service brake.
- Do not shift from "N" or "P" into "1", "2", "D" or "R" when the engine is above idle speed.

Engine starting

You must use the "P" or "N" position, otherwise the starter will not engage.

P (Park)

Use only when the vehicle is completely stopped.

WARNING!

Do not use the P (PARK) position in

place of the parking brake. Always make sure the gearshift selector lever is latched in P (PARK) so that it can not be moved unless the push button is pushed in AND set the parking brake fully.

Turn off the ignition when you leave the vehicle, even momentarily. Never leave the vehicle unattended while the engine is running. Unexpected and possibly sudden vehicle movement may occur if these precautions are not taken.

R (Reverse)

For backing vehicle from stop.

N (Neutral)

For standing (brakes applied).

D (Drive)

This is the normal driving position, and the transaxle will automatically shift through a three-gear sequence, giving best economy and power.

2 (Second Gear)

Manually shift the selector lever to this position for driving in heavy, slow-moving traffic; for more power when climbing hills; for braking assist when going down hills; or for starting on slick surfaces and other situations where gentle acceleration may be necessary. Do not exceed 108 km/h (68 mph) in the "2" position.

1 (Low Gear)

Shift the selector lever to low gear for maximum power in hardpulling situations, or for climbing and descending very steep grades. Do not exceed 60 km/h (38 mph) in low gear.

PASSING ("D" position only)

For extra power when passing another vehicle or pulling steep grades, depress the accelerator pedal fully to the floor, at which time the transaxle will shift down into the lower gear.

Power Brakes

MOVING UP A STEEP GRADE FROM A STANDING START

Depress the brake pedal with your left foot, shift the selector lever to "D" or "1", depending on load weight and steepness of the grade, and release the parking brake. Depress the accelerator pedal gradually with your right foot, while simultaneously releasing the foot brake.

Your vehicle has power brakes. They adjust automatically through normal usage. In the event power assist is lost because of a stalled engine or some other reason, you can still stop your vehicle by applying greater force to the brake pedal than you normally would with the power assist. The stopping distance, however, will be longer. When the engine is not running, the reserve brake power is partially depleted each time the brake pedal is applied. Do not pump the brake pedal when the power assist has been interrupted, except when necessary to maintain steering control on slippery surfaces.

Service Brake

If the service brakes should fail to operate while the vehicle is in motion, you can make an emergency stop with the parking brake. The stopping distance, however, will be much greater than normal.

WARNING!

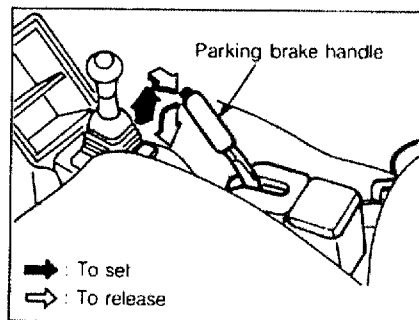
- **Do not drive with your foot resting on the brake pedal. This will create abnormally high brake temperatures, excessive brake pad wear, and increased stopping distances.**
- **When descending a long or steep hill, shift to a lower gear and avoid continuous application of the brakes. Continuous brake application will cause the brakes to overheat, resulting in a temporary loss of braking performance.**
- **Driving through water deep enough to wet the brakes may adversely affect brake performance. The vehicle may not slow down at the usual rate and may pull to one side when the brakes are applied.**
(cont'd)

4-7

BRAKE SYSTEM

Parking Brake

Applying the brakes lightly will indicate whether they have been affected in this way. To dry the brakes, apply them lightly while maintaining a safe forward speed until brake performance returns to normal.



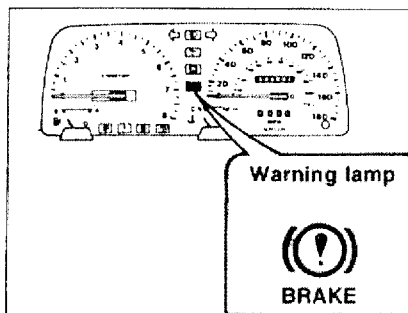
- To set the parking brake, apply the service brake while pulling the parking brake handle fully and firmly upward.
- To release the parking brake, pull the handle upward and push the button. Then lower the handle to the released position while holding the button in.

WARNING!

- **Do not use the gearshift lever in place of the parking brake. Always set the parking brake fully AND make sure the gearshift lever is securely latched in 1 (First).**

- **Turn the ignition switch off when you leave the vehicle, even momentarily. Never leave the vehicle unattended while the engine is running.**
- **Unexpected and possibly sudden vehicle movement may occur if these precautions are not taken.**
- **Do not drive with the parking brake on. This will cause abnormally high brake temperatures, excessive brake pad wear, and increased stopping distances.**

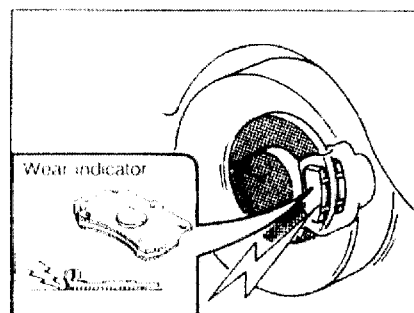
Brake System Warning



Always check the brake warning lamp each time you start the engine. This warning will be illuminated when the engine is running and the parking brake is set. Before driving, be sure the parking brake is fully released and the brake warning is off.

If the brake warning lamp remains on after the parking brake is fully released, there may be a malfunction in the brake system. For more information, refer to Warnings and indicators (page 4-12).

Brake Pad Wear Indicator (front disc brake pads)



When the disc brake pads become worn, the built-in wear indicators will contact the disc plates, causing a screeching noise to warn the driver that the brake pads should be replaced.

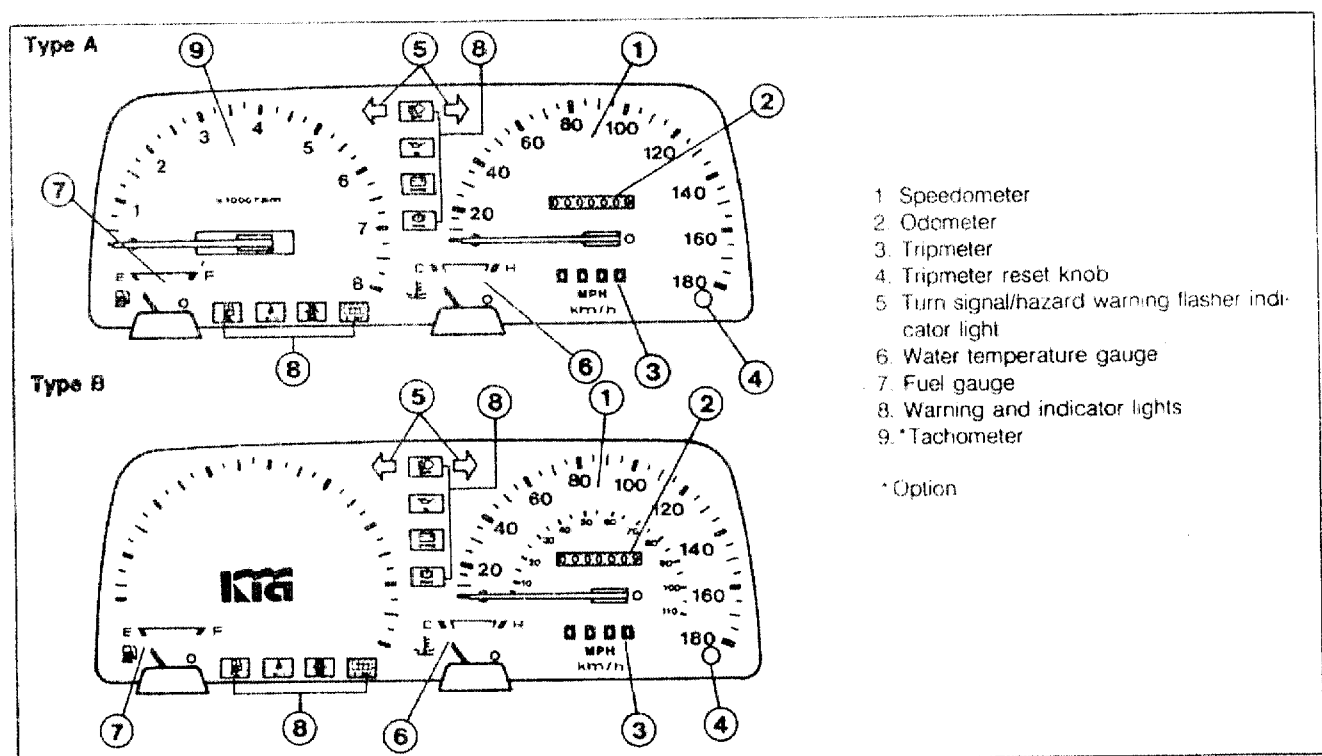
If you hear a squealing or scraping noise while driving, have the brake pads checked and if necessary replaced by an Authorized KIA Dealer as soon as possible.

WARNING!

Failure to replace the disc pads may result in damage to the brake system and adversely affect brake performance.

4-9

INSTRUMENT PANEL



4-10

SPEEDOMETER

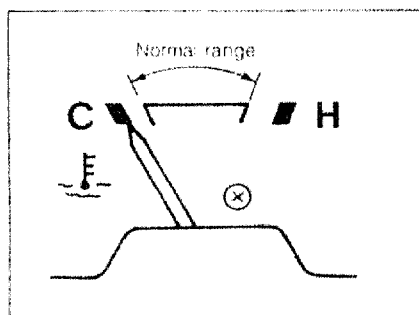
The speedometer indicates the forward speed of the vehicle.

ODOMETER

The odometer indicates the total distance the vehicle has been driven.

TRIP METER

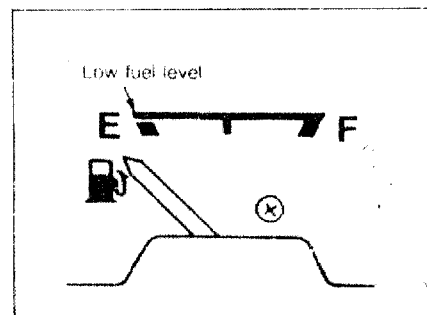
The trip meter logs the distance on each trip. It is returned to zero by pushing in the reset button. Use it also for checking fuel consumption.

**ENGINE TEMPERATURE GAUGE**

The engine temperature gauge indicates the temperature of the engine coolant when the ignition switch is ON.

If the needle moves beyond the normal range area toward the H position, it indicates overheating that may damage the engine.

Do not continue driving with an overheated engine. If your vehicle overheats, refer to Overheating (page 5-2).

**FUEL GAUGE**

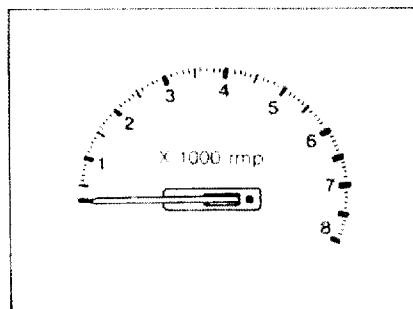
The fuel gauge indicates how much fuel is in the tank.

Tank capacity:
38 liters (10.0 US gal, 8.4 Imp gal)

NOTE

When the fuel gauge pointer indicates "Low fuel level", there is still 3—4 liters of fuel left in the tank. Nevertheless, you should stop at a service station to refuel as soon as possible.

4-11

GAUGES, WARNING AND INDICATORS**Warning Lamps****TACHOMETER (Option)**

The tachometer indicates engine speed in thousands of revolutions per minute (rpm).

CAUTION

Do not operate the engine within the tachometer's "RED ZONE". This may cause severe engine damage.

CHECKING OPERATION

The warning lamps are checked by the turning the ignition switch ON (do not start the engine). Any lamp that does not come on should be checked by an Authorized Kia Dealer.

BRAKE SYSTEM WARNING

This warning has two functions:

Parking Brake Warning

This warning lights when the parking brake is applied and the ignition switch is at START or ON. The warning should go out when the parking brake is released.

**Low Brake Fluid Level Warning**

If the warning lamp remains on, it may indicate that the brake fluid level in the reservoir is low.

If the Warning Lamp Remains on:

1. Be sure the parking brake is released.

If the lamp still remains On:

2. Drive safely to the side of the road and carefully stop the vehicle.
3. With the engine stopped, check the brake fluid level immediately and add fluid as required (page 6-15). All brake components should also be checked immediately for fluid leaks.
4. If any leaks are found, if the warning remains on, or if the brakes do not operate properly, do not drive the vehicle. Have it towed to an Authorized Kia Dealer for a brake system inspection and necessary repairs.

WARNING!

Driving the vehicle with a warning lamp on is dangerous. If the brake warning remains on, have the brakes checked and repaired immediately.

NOTE

To check for bulb operation, the warning lamp will illuminate when the ignition switch is at START.

ENGINE OIL PRESSURE WARNING

This warning light indicates that the engine oil pressure is low.



If the warning light comes on while driving:

1. Pull safely off the road and stop your vehicle.
2. Check the engine oil level. If the oil level is low, add oil as required or...
3. Tow your vehicle to the nearest repair station or an Authorized Kia Dealer to add oil.

CAUTION

There is the possibility that your vehicle's engine could suffer damage if you continue driving while the warning light is on. Therefore, you should stop the engine immediately.

ALTERNATOR WARNING

The warning light indicates a malfunction of either the alternator or electrical wiring system.



If the warning light comes on while the vehicle is in motion:

1. Drive safely to the side of the road and stop your vehicle.
2. With the engine stopped, inspect the alternator drive belt for looseness or breakage.
3. If the belt is operating properly, a problem exists somewhere in the charging system. It should be found and corrected as soon as possible, by an Authorized Kia Dealer.

HEADLIGHT HIGH BEAM INDICATOR

This indicator light comes on when the headlights are on and in the highbeam position.



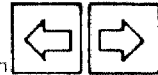
REAR WINDOW DEFROSTER INDICATOR (Option)

The indicator light glows when the rear window defroster is operating.



HAZARD WARNING FLASHER INDICATOR

This indicator light comes on when the hazard warning flasher switch is switched on.



LOW FUEL LEVEL WARNING

This warning light indicates that the fuel will soon be exhausted. The warning light will come on when the fuel level has dropped to approximately 5 liters (1.3 us gal, 1.1 Imp gal).



DOOR AJAR WARNING

This warning light comes on when a door is not closed securely, while the engine is running and the parking brake is released.



SEAT-BELT WARNING

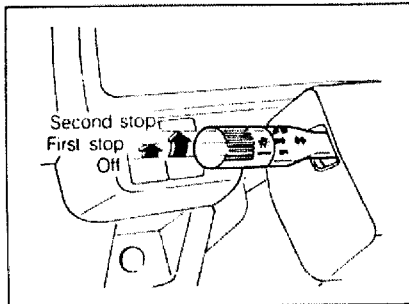
As a reminder to driver and passenger, the warning lamp will continue on for about 6 seconds each time you turn the ignition switch to ON. If the system does not operate as described, see an Authorized Kia Dealer for assistance.



4-13

LIGHTING

Lighting Control



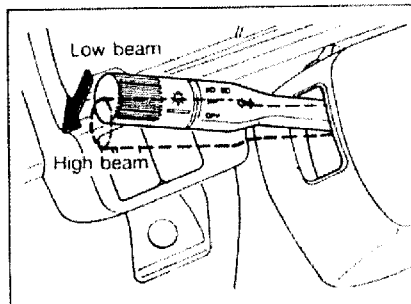
To turn the lights on, twist the knob on the end of the control lever.

First stop

Tail, parking, license, and side-marker lights and instrument panel lamps ON.

Second stop

Head, tail, parking, license, and side-marker lights and instrument panel lamps ON.

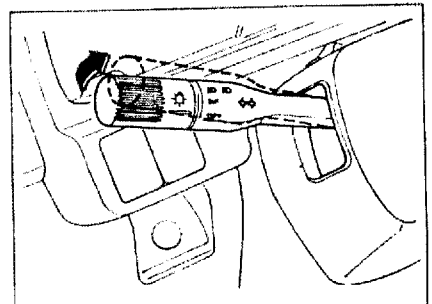


Push the lever forward for high beams. Pull it back for low beams.

The high-beam indicator illuminates in blue when the headlight high beams are switched on.

NOTE

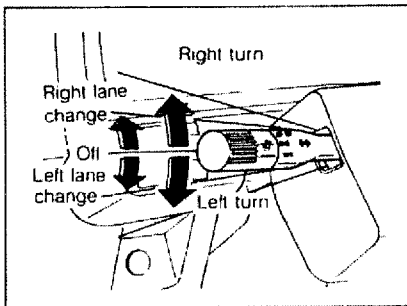
To prevent the battery from being discharged, do not leave the lights on for a long period while the engine is not running.



FLASHING HEADLIGHTS

To flash the headlights, pull the lever fully toward you. The lever will return to the normal position when it is released. The headlight switch does not need to be "ON" to use this feature.

Turn Signals



The ignition switch must be ON.

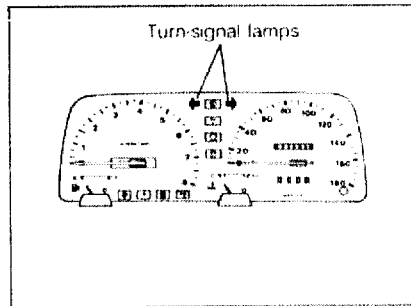
TURN SIGNALS

Move the lever up or down to the stop position to engage the turn signals. They will self-cancel after the turn is completed.

If the indicator continues to flash after making a turn, manually return the lever to the OFF (center) position.

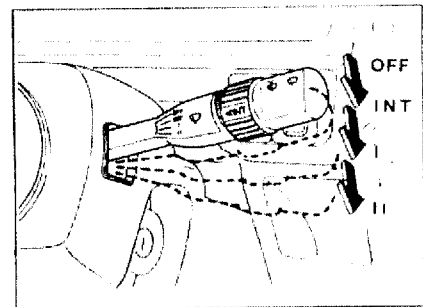
LANE-CHANGE SIGNALS

Move the lever partway and hold it there. The lever will return to the OFF (center) position when released.



Green indicators on the instrument panel indicate which turn signal is working. If an indicator stays on and does not flash or if it flashes abnormally, one of the turn-signal bulbs may be burned out and will require replacement.

Windshield Wipers



The ignition switch must be at ON. To turn the wipers on, pull the lever down as illustrated.

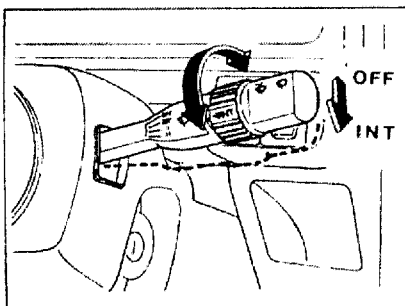
INT—Intermittent wiper operation

I —Normal wiper speed

II —Fast wiper speed

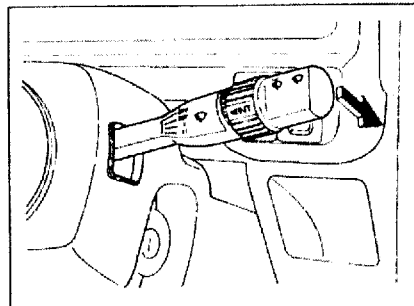
4-15

WIPERS



VARIABLE-SPEED INTERMITTENT WIPER (Option)

Set the lever to the "INT" position, and choose the desired speed of the wiper by turning the "INT" knob.



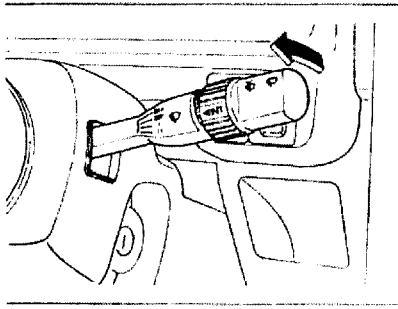
ONE-TOUCH WIPER

For a single wiping cycle, push the lever forward and release it with the lever in the OFF position.

CAUTION

- To prevent possible damage to the wipers or windshield, do not operate the wipers when the windshield is dry.
- To prevent damage to the wiper blades, do not use gasoline, kerosene, paint thinner, or other solvents on or near them.
- To prevent damage to the wiper arms or other components, do not attempt to move the wipers manually.

Windshield Washer



The ignition switch must be at ON. To clean the windshield, pull the lever toward you and hold it. Washer fluid is sprayed and the wipers are activated until the lever is released.

If the washer does not work, check the washer fluid level, which may be low. If the fluid level is sufficient, consult an Authorized Dealer.

WARNING!

Do not use the washer in freezing weather without first warming the windshield with the defrosters; the washer solution may freeze on the windshield and obscure your vision.

CAUTION

To prevent possible damage to the washer pump, do not operate the washer when the fluid reservoir is empty.

Digital Electric Clock (Option)

HOW EACH BUTTON WORKS:

When the ignition switch is in the "ACC" or "ON" position—

RESET: To clear away minutes, press the "RESET" button. When you release the button, the clock will be set precisely on the hour.

As an example, if the "RESET" button is pressed while the time is between 9:01 and 9:29, the display will be reset to 9:00. If pressed while it is between 9:30 and 9:59, the display will be reset to 10:00.

9:01—9:29→9:00

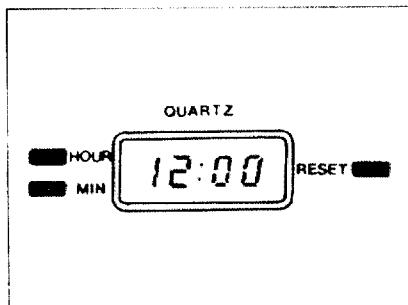
9:30—9:59→10:00

This procedure is useful when you want to set the clock, for example, against a radio broadcast time signal.

4-17

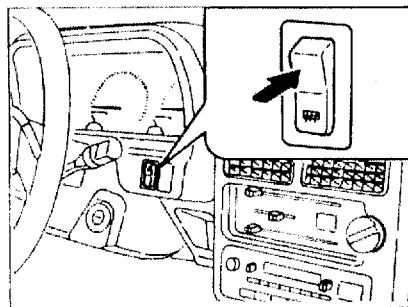
INTERIOR FEATURES

Rear Window Defroster (If equipped)



HOUR: To change hour digits, press the "HOUR" button.

MIN: To change minute digits, press the "MIN" button.



This defroster clears frost, fog, or thin ice from the interior and exterior of the rear window.

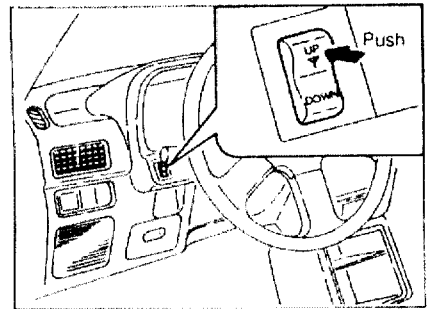
Start the engine before operating the defroster and if there is a heavy accumulation of snow on the rear window, brush it off. Depress the rocker to operate rear window defroster.

To prevent damage to the conductors, which are bonded to the interior surface of the rear window, never use sharp instruments or window cleaners containing abrasives to clean the interior surface of your rear window.

NOTE

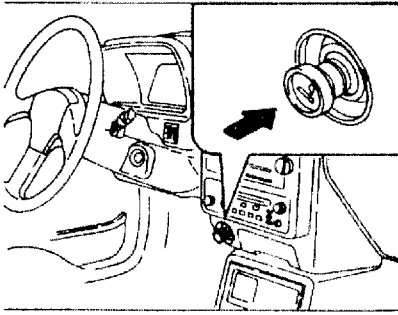
The indicator light illuminates when the rear window defroster is operating.

Power Antenna (If equipped)



Push the top part of the switch and hold to raise antenna; push the bottom part of the switch and hold to lower antenna.

Cigarette Lighter



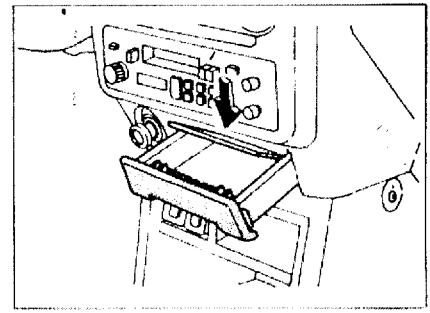
To operate the cigarette lighter, press it in and release it. When it is heated, it automatically pops out ready for use. If the engine is not running, the ignition switch must be at ACC for the lighter to operate.

CAUTION

Do not hold the lighter in manually because it will become overheated. Only a Genuine Kia lighter or equivalent should be used in the cigarette lighter socket. The use of plug-in accessories (shavers and coffee-pots, for example) may damage the socket or cause electrical failure.

- If the lighter does not pop out within 30 seconds, remove the lighter to prevent excessive heat.

Ash Tray



To remove the ashtray, open it to the normal position, push down on the lock spring plate and pull the ashtray all the way out. After using the ashtray, push it completely back in.

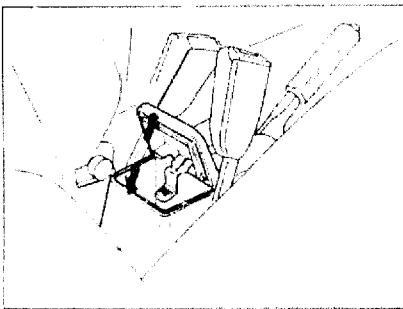
WARNING!

Do not use the vehicle ashtray as a waste receptacle if it is also used for cigarettes.

4-19

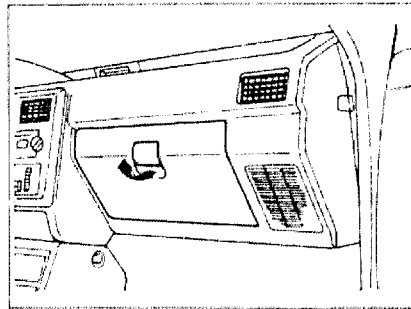
INTERIOR FEATURES

Glove Box



REAR ASHTRAY

To remove, open the ashtray cover and pull it upward.

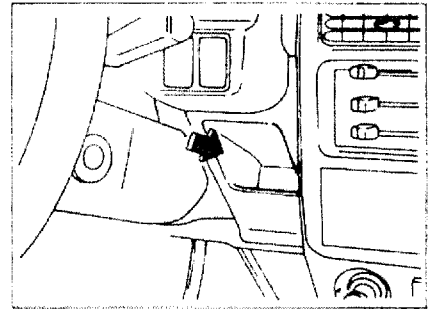


To open the lid, pull the glove box latch toward you.

WARNING!

To reduce the chance of injury in case of an accident or a sudden stop, always keep the glove box lid closed while driving.

Coin Box

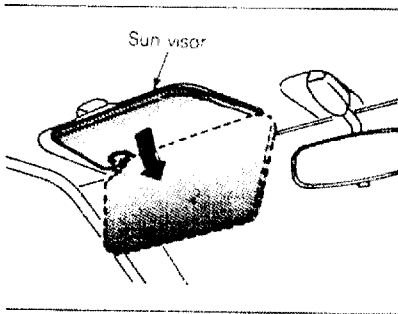


CAUTION

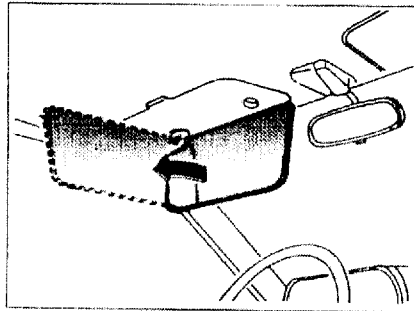
Do not use the coin box as an ashtray.

Sun Visors

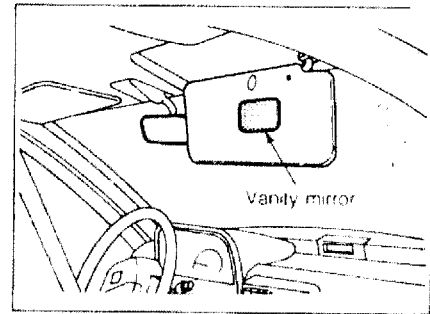
Vanity Mirror (Option)



To use a sun visor, pull it downward.



To use a sun visor at a side window, pull it downward and swing it to the side.

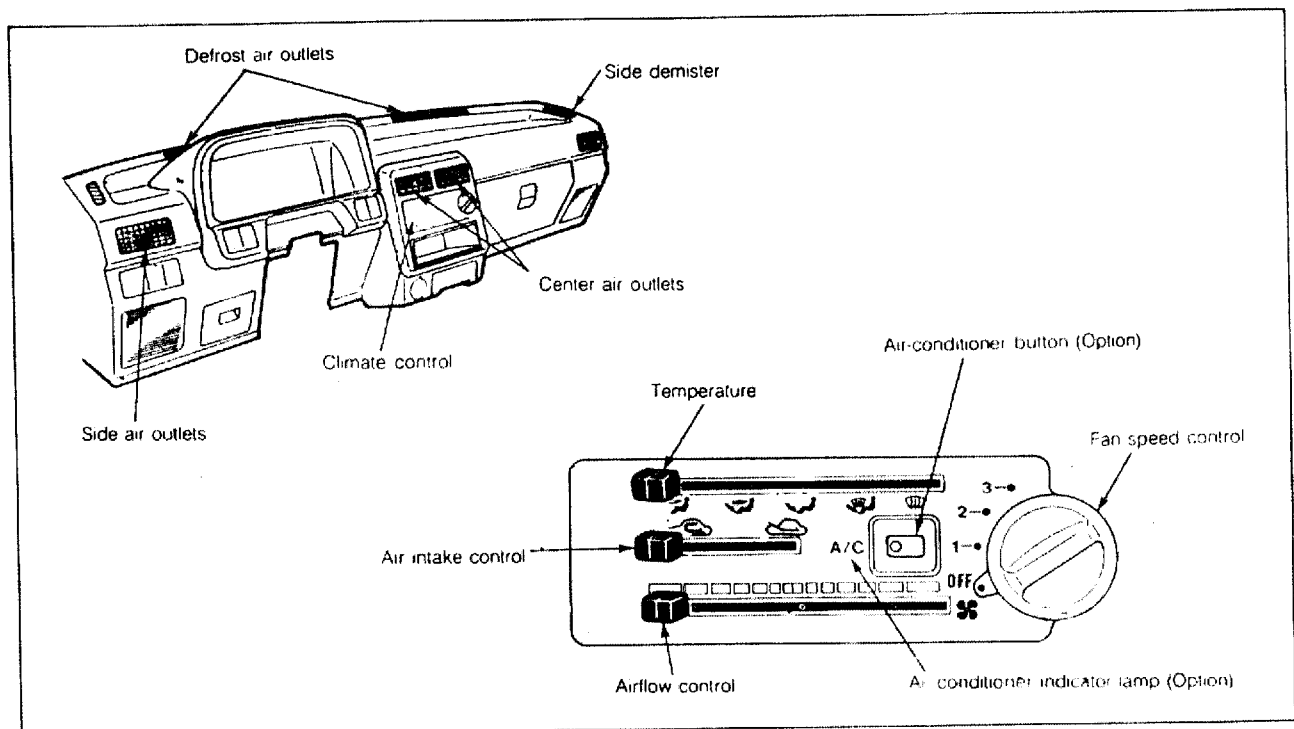


To use the vanity mirror, pull down the sun visor on the passenger's side.

4-21

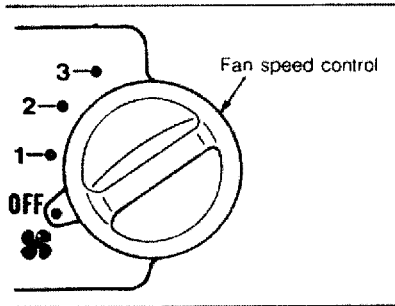
CLIMATE CONTROL SYSTEM

Climate Control Features



4-22

Controls and Functions

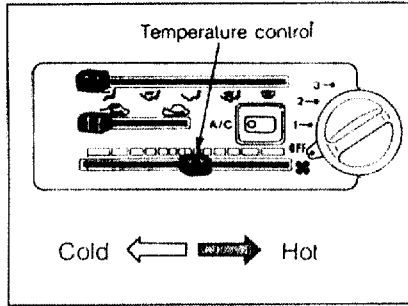


FAN SPEED CONTROL

The fan speed control allows variable fan speeds.

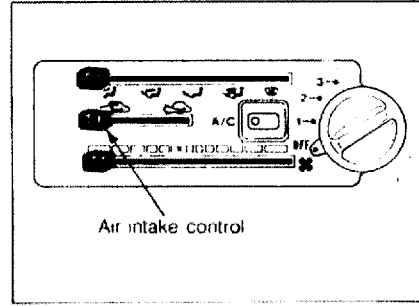
OFF—Fan off

- 1 —Low speed
- 2 —Medium speed
- 3 —High speed



TEMPERATURE CONTROL

Select the desired air temperature by sliding the control lever either to the right for hot or to the left for cold.



AIR INTAKE CONTROL

Select the desired intake air by sliding the control lever.

(Recirculated air) position

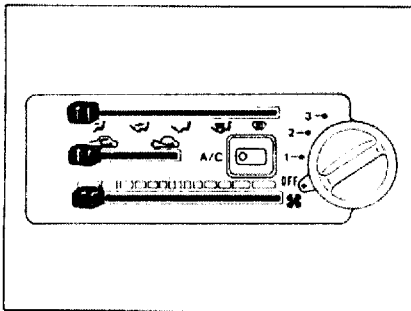
Outside air is shut off and the air inside the vehicle is recirculated.

(Outside air) position

Outside air is delivered to the vehicle.

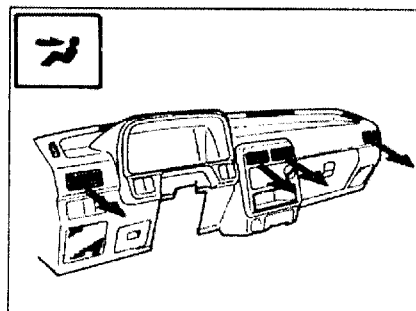
4-23

CLIMATE CONTROL SYSTEM



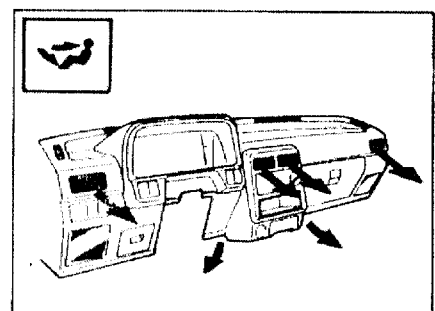
AIRFLOW CONTROL

The airflow control lever is used to select the flow of air from particular vents. Select the desired vent by moving the lever.



Ventilation Position

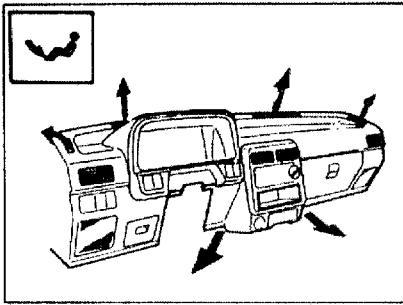
In this position, the air is delivered toward the face.



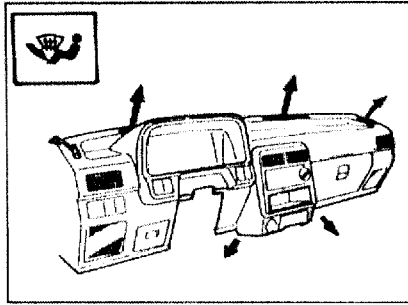
BI-level Position

In this position the air is delivered toward the face and the floor.

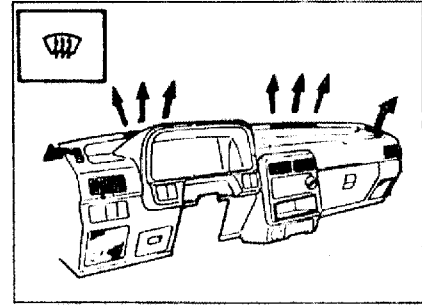
The air to the floor is warmer than to the face (except when the temperature control is set at the extreme left position).

**Heating Position**

In this position, most of the air is delivered to the floor, and a small amount is delivered to the windshield and side windows.

**Heating and Defrosting Position**

In this position, most of the air is delivered to the floor and the windshield, and a small amount is delivered to the side windows.

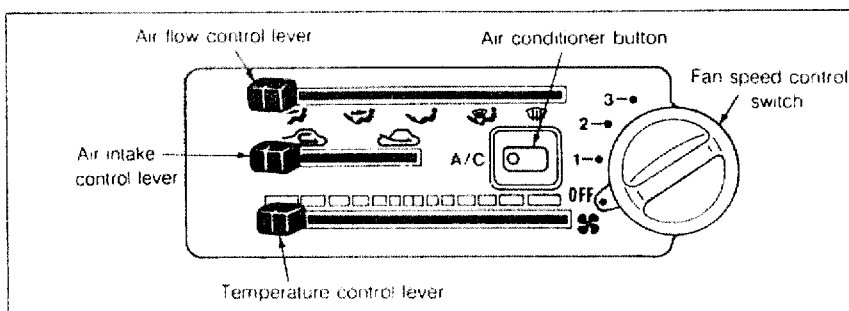
**Defrosting and Defogging Windshield Position**

In this position, most of the air is delivered to the windshield, and a small amount is delivered to the side windows and the floor.

4-25

CLIMATE CONTROL SYSTEM

System Operation

**AIR-CONDITIONING (Option)
Air-Conditioner Button**

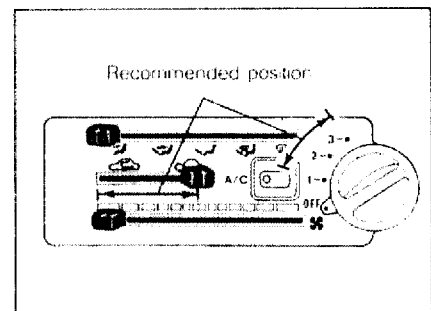
Push the button to turn the air conditioner on. An indicator lamp will illuminate. Push the button once again to turn the air conditioner off.

To Operate the Air Conditioner

1. Set the temperature control to the desired position.
2. Start the engine. Turn on the air conditioner and set the fan speed as desired.

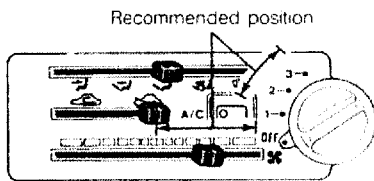
Operating Tips for Air-Conditioner System

- If the vehicle has been parked in direct sunlight, open the windows to let warm air escape before operating the air conditioner.
- To clean misted windows on rainy days, decrease the humidity inside the vehicle by operating the air conditioner

**VENTILATION**

1. Set the temperature control to the recommended position.
2. Set the air intake control to the position.
3. Set the airflow control to the position.
4. Set the fan speed control to the recommended position.

4-26



HEATING

1. Set the temperature control to the recommended position.
2. Set the air intake control to the outside air position.
3. Set the airflow control to the face level position.

NOTE

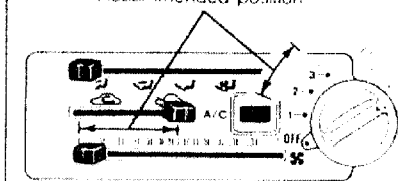
- If cooler air is desired at face level for bi-level operation, set the airflow control to the floor level position.
- If the windshield fogs up easily, set the airflow control to the face level position.

4. Set the fan speed control to the recommended position.

NOTE

To warm up the interior quickly, set the air intake control to the outside air position. However, if the windshield becomes foggy, set the air intake control to the recirculate position.

5. If dehumidified heating is desired, turn on the air conditioner.



COOLING

1. Set the temperature control to the recommended position.
2. Set the air intake control to the outside air position.
3. Start the engine. Turn on the air conditioner.
4. Set the airflow control to the face level position.

NOTE

If warmer air is desired at floor level for bi-level operation, set the airflow control to the floor level position and set the temperature control to about mid position.

4-27

CLIMATE CONTROL SYSTEM

(Without Heater)

5. Set the fan speed control to the recommended position.

NOTE

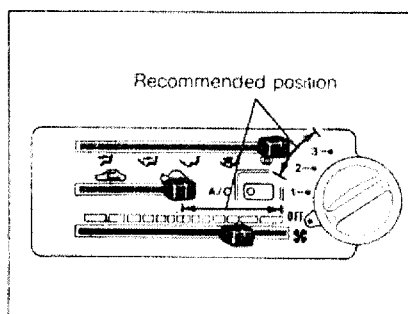
If maximum cooling is desired, set the temperature control to the extreme left position and set the air intake control to the outside air position; then set the fan speed control to position 3.

CAUTION

When using the air conditioner while driving up long hills or in heavy traffic, watch the engine temperature gauge. The air conditioner may cause engine overheating. If the gauge indicates this, turn the air conditioner off. (Refer to Overheating on page.)

WARNING!

Do not use the recirculate position during cool operation in extremely humid weather. The difference between outside air and the windshield temperatures could cause the outer surface of the windshield to fog up and restrict or block your view.

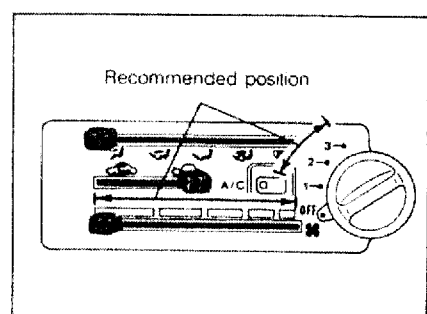


WINDSHIELD DEFROSTING AND DEFOGGING

1. Set the temperature control to the recommended position.
2. Set the air intake control to the outside air position.
3. Set the airflow control to the windshield position.

NOTE

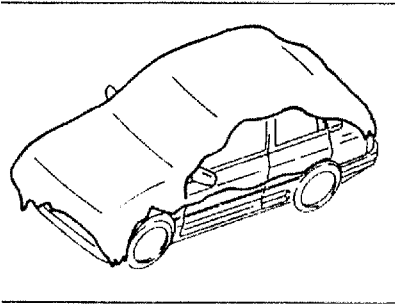
If warm air is desired at the floor level, set the airflow control to the floor level position.



4. Set the fan speed control to the recommended position.
5. If dehumidified heating is desired, turn on the air conditioner.

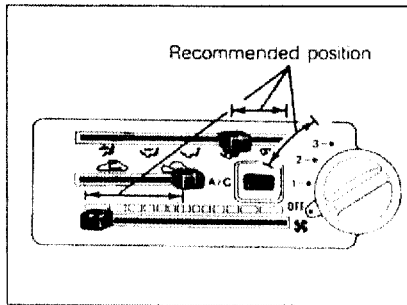
NOTE

For maximum defrosting, set the temperature control to the extreme right position and set the fan speed control to the position 3.



NOTE

- Clear windshield, rear window, outside rearview mirrors, and all side windows of ice and snow before driving the vehicle.
- Clean snow and ice from the hood and air inlet in the cowl grill to improve heater and defroster efficiency and to reduce the probability of fogging on the inside of the windshield.

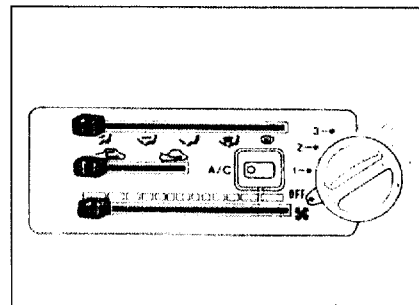


DEHUMIDIFYING

(with air-conditioning)

Operate the air conditioner in cool or cold weather to help defog the windshield and side windows.

1. Set the temperature control to a comfortable position.
2. Set the air intake control to the: position.
3. Start the engine. Turn on the air conditioner.
4. Select the desired airflow and fan speed position.



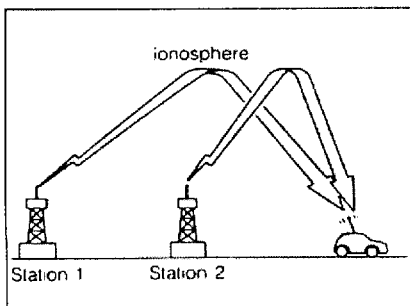
SHUT OFF OUTSIDE AIR

Set the air intake control to the position.

4-29

AUDIO

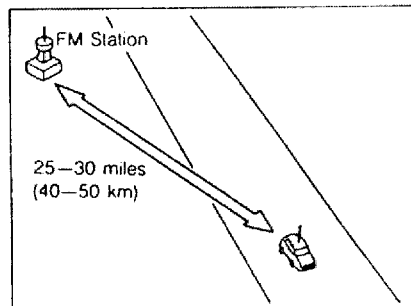
Radio Reception



AM (Amplitude Modulation) CHARACTERISTICS

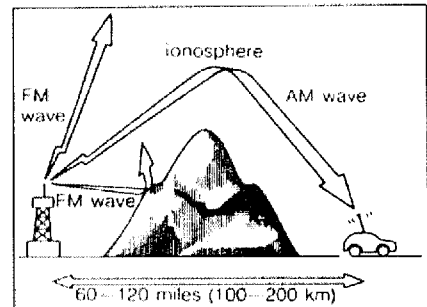
Station mixing

AM signals bend around such things as buildings or mountains and bounce off the ionosphere. Therefore, they can reach longer distances than FM signals. Because of this, two stations may sometimes be picked up on the same frequency at the same time.



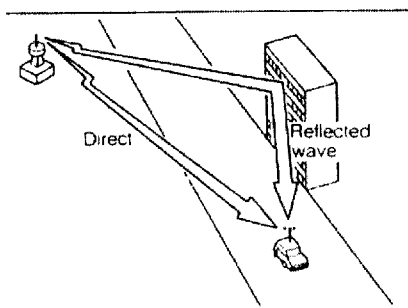
FM (Frequency Modulation) CHARACTERISTICS

An FM broadcast range is usually about 40-50 km (25-30 miles) from the source. Because of extra coding needed to break the sound into two channels, stereo FM has even less range than monaural (nonstereo) FM.



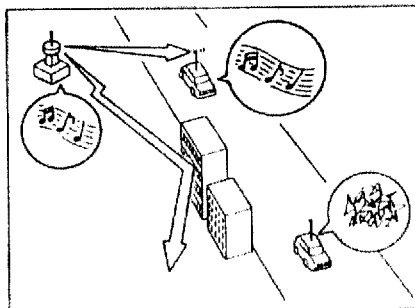
Signals from an FM transmitter are similar to beams of light because they do not bend around corners, but they do reflect. Unlike AM signals, FM signals cannot travel beyond the horizon. Therefore, FM stations cannot be received at the great distances possible with AM reception.

Atmospheric conditions can also affect FM reception. High humidity will cause poor reception. However, cloudy days may provide better reception than clear days.



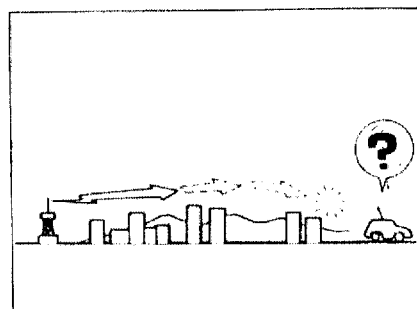
Multipath noise

Since FM signals can be reflected by obstructions, it is possible to receive both the direct signal and the reflected signal at the same time. This causes a slight delay in reception and may be heard as a broken sound or a distortion. This problem may also be encountered when in close proximity to the transmitter.



Flutter/Skip Noise

Signals from an FM transmitter move in straight lines and become weak in valleys between tall buildings, mountains, and other obstacles. When a vehicle passes through such an area, the reception conditions may change suddenly, resulting in annoying noise.

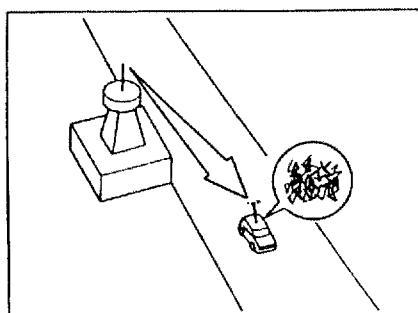


Weak Signal Noise

In suburban areas, broadcast signals become weak because of distance from the transmitter. Reception in such fringe areas is characterized by sound breakup.

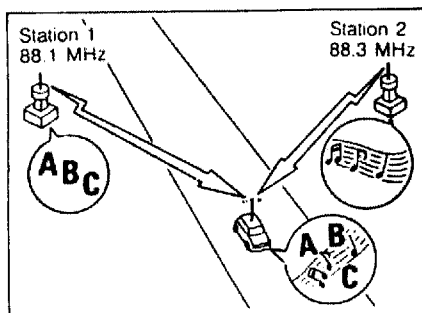
4-31

AUDIO



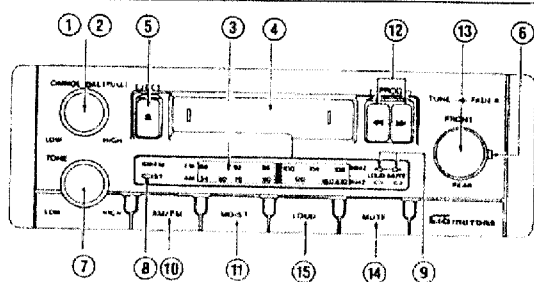
Strong signal noise

This occurs very close to a transmitter tower. The broadcast signals are extremely strong, so the result is noise and sound break-up at the radio receiver.



Station drift noise

When a vehicle reaches the area of two strong stations broadcasting at similar frequencies, the original station may be temporarily lost and the second station picked up. At this time there will be some noise from this disturbance.



ATR (OPTION)

Radio ON/OFF—volume

To turn on the radio, turn the control knob clockwise until the "click" sound heard. Rotate the control knob clockwise to increase the volume.

Balance control

This control adjusts the sound distribution between the right and left speakers. Pull and turn it counterclockwise to shift the sound to the left speaker; turn it clockwise to shift the sound to the right speaker.

TUNING SCALE

Pointer indicates frequency or station selected.

CASSETTE DOOR

Gently push the cassette through the cassette slot, open edge to the right. The unit will automatically change the switch from radio to tape operation. At the end of the tape the unit will automatically reverse the tape play.

EJECT BUTTON

The tape can be ejected during play by pressing EJECT.

FADER CONTROL KNOB

Rotate the knob clockwise to shift the sound to the rear speakers. Rotate the knob counterclockwise to shift the sound to the front. Rotate volume control knob clockwise to increase the volume.

TONE CONTROL KNOB

Turn the knob to control the lower tonal qualities. If your listening preference is for higher-pitched tones, turn the control clockwise; for lower-pitched tones, turn it counterclockwise.

STEREO INDICATOR

Illuminates when receiving a stereo radio signal.

TAPE PLAY INDICATOR

Illuminates when cassette player is in use and shows direction tape is playing.

4-33

AUDIO

AM/FM BUTTON

Press AM/FM to choose AM or FM reception. Each time this button is pushed, AM and FM bands are switched.

MO/ST BUTTON

Press MO/ST for the FM stereo reception. The stereo indicator will be lit and ST will be displayed. Press the button again for the MONAURAL.

F.F/REWIND BUTTON

F.F and rewind button together at the same time, tape channel and direction will be change automatically. Push the rewind button(◀◀) & Fast forward button(▶▶) to send tape rapidly to the left & to the right.

PROGRAM BUTTON

Push number⑦ Button to change tape channel, then tape channel and direction will be changed automatically.

TUNING CONTROL KNOB

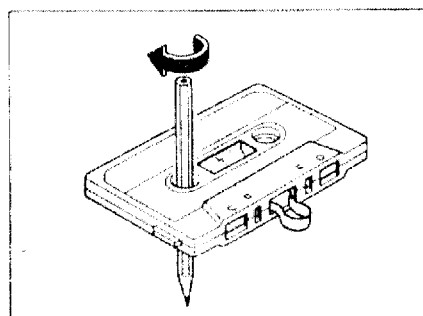
To tune in the desired station, turn the manual tuning knob clockwise or counterclockwise.

FM MUTE BUTTON

Push this knob on FM broadcasting, noise is reduced.

LOUDNESS SWITCH

Automatically adjusts the tone to compensate for low volume levels. The bass and treble are attenuated when the control is not activated.



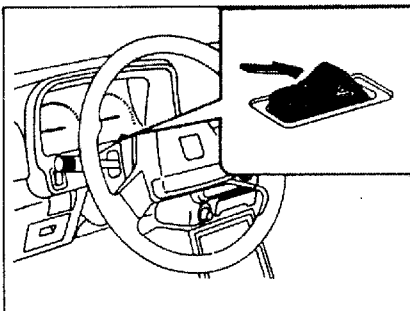
TAPE AND TAPE PLAYER CARE

- If the tape is loose it may produce poor sound or performance during playback. Use a pencil or other thin instrument to remove any slack.
- Only cassette tapes that play no longer than 90 minutes should be used. Tapes exceeding 90 minutes are thin and may easily break.
- Do not leave a tape cassette in the tape player slow when not in use. Remove it completely to permit the slot door to close and to protect the mechanism from dust.

ROAD WARNING	5- 2
OVERHEATING	5- 2
EMERGENCY STARTING	5- 3
ELECTRIC CIRCUIT PROTECTION	5- 5
TOWING	5- 8
IF YOU HAVE A FLAT TIRE	5-10

ROAD WARNING, OVERHEATING

Hazard Warning Flasher



The hazard warning flasher serves as a warning to other drivers to exercise extreme caution when approaching, overtaking, or passing your vehicle. It should be used whenever emergency repairs are being made or when your vehicle is stopped near the edge of a roadway.

Depress the flasher switch with the ignition switch in any position, and all turn-signal lights will flash simultaneously.

NOTE

- The turn signals do not work when the hazard flasher is on.
- Care must be taken when using the hazard warning flasher while the vehicle is being towed. Local regulations may prohibit using it in this manner.

Overheating

If your temperature gauge indicated overheating, if you experience a loss of power, or if you hear a loud knocking or pinging noise, the engine has probably overheated. You should follow this procedure:

1. Drive safely to the side of the road and stop your vehicle; shift to neutral and apply the parking brake.
2. Make sure the air conditioner is off.
3. **If coolant or steam is boiling out of the radiator**, stop the engine. Then turn the ignition switch to the ON position, but do not start the engine. The radiator cooling fans will automatically operate with the ignition switch in the ON position. If the cooling fans do not operate, call an Authorized Kia Dealer for assistance. **If coolant is not boiling out**, allow the engine to idle and open the hood to permit the engine to cool gradually. If the temperature does not go down with the engine idling, stop the engine and allow sufficient time for it to cool.

Jump-Starting

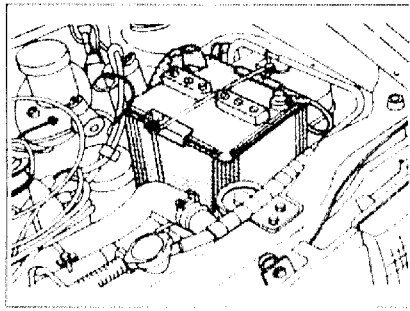
The coolant level should then be checked. If the level in the reservoir is low, look for leaks at the radiator hoses and connections, heater hoses and connections, radiator and water pump. If you find a major leak or another problem that may have caused the engine to overheat, do not run the engine until these problems have been corrected. Call an Authorized Kia Dealer for assistance. If you do not find a leak or other problem carefully add coolant to the reservoir (page 6-15).

WARNING!

Do not remove the radiator cap when the engine and radiator are hot. Scalding hot coolant and steam may blow out under pressure. This could cause serious injury.

CAUTION

If the engine frequently overheats, have the cooling system checked and repaired.



Jump-starting can be dangerous if done incorrectly. Therefore, to avoid harm to yourself or damage to your vehicle or battery, follow jump-starting procedures. If in doubt, we strongly recommend that you have a competent mechanic or a road service business do any jump-starting of your vehicle.

CAUTION

Use only a 12-volt jumper system. You can damage a 12-volt starting motor, ignition system, and other electrical parts beyond repair by use of a 24-volt power supply (two 12-volt batteries in series or a 24-volt motor generator set).

WARNING!

• **Keep all flames away from the battery, and avoid creating any sparks near the battery.**

Gas that can be exploded by a flame or a spark is produced during normal battery operation.

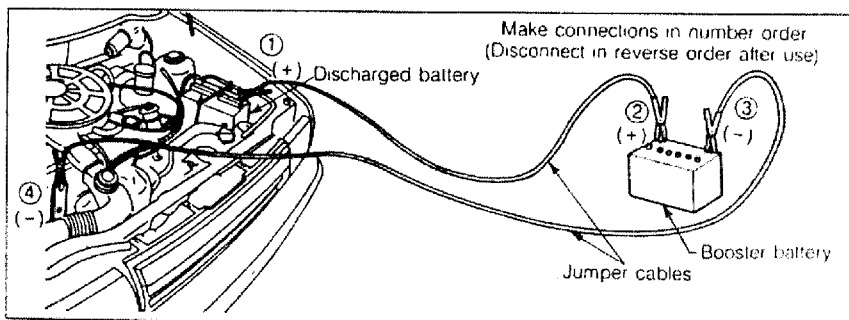
• **Do not attempt a jump-start if the discharged battery is frozen; the battery may rupture or explode.**

(cont'd)

5-3

EMERGENCY STARTING

Push Starting



A vehicle should not be push-started because it might damage the emission control system. Follow the directions on the previous page for jump-starting.

CAUTION

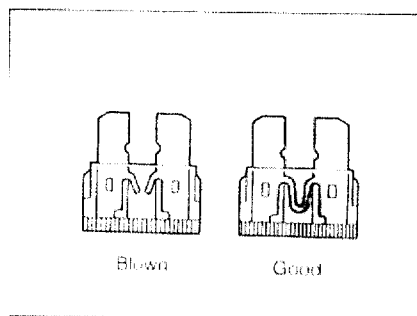
Never tow a vehicle to start it because the sudden surge forward when the engine starts could cause a collision with the tow vehicle.

JUMP-STARTING PROCEDURE

1. Make sure the booster battery is 12-volt and that its negative terminal is grounded.
2. If the booster battery is in another vehicle, do not allow the vehicles to touch.
3. Turn off all unnecessary electrical loads.
4. Connect the jumper cables in the exact sequence in the illustration. First connect one end of a jumper cable to the positive terminal of the discharged battery and the other end to the positive terminal on the booster battery. Next connect one end of the other jumper cable to the negative terminal of the booster battery and the other end to a solid, stationary, metallic point away from the battery. **NOT TO THE BATTERY NEGATIVE (-) TERMINAL**, being careful that the clamps of one cable do not touch the clamps on the other cable or any metal on either vehicle. Do not lean over the battery when making connections.
5. Start the engine of the vehicle with the booster battery, and let it run a few minutes. Then start the engine of the vehicle with the discharged battery.
6. Carefully disconnect the cables in the exact reverse order described in step 4.

5-4

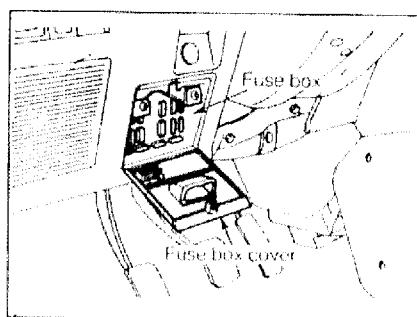
Fuses



If any of your vehicle's lights, accessories, or controls does not work, check the fuses. If a fuse has blown, the wire inside it will be broken from burning.

Always replace a blown fuse with one of the same specified rating.

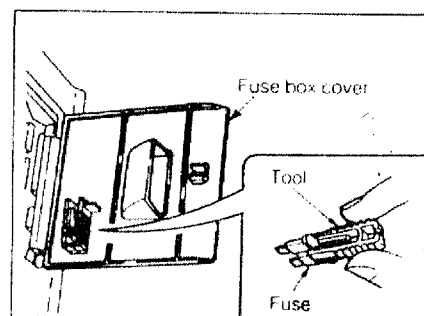
If the same fuse blows again, avoid using the system involved and immediately consult an Authorized Kia Dealer.



Fuse Replacement

CAUTION

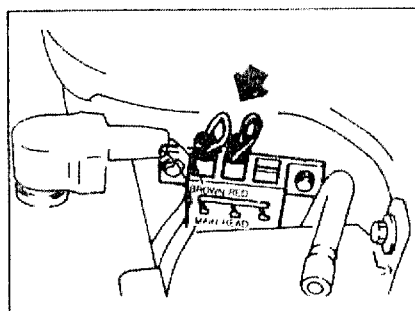
- Never replace a fuse with anything but another fuse of the same or lower rating. A higher capacity fuse could cause damage and even start a fire.
- Never install a wire instead of the proper fuse—even for a temporary repair. It may cause extensive wiring damage and possibly a fire.
- Do not use a screwdriver or any other metal object to remove fuses because it may cause a short circuit and damage the system.



1. Turn off the ignition switch and all other switches.
 2. Pull the suspected fuse straight out with the removal tool provided on the fuse box cover.
 3. Check the removed fuse; replace if it is blown.
 4. Push in a new fuse of the same rating, and make sure it fits tightly in the clips. If it fits loosely, have an Authorized Kia Dealer fix it. If you do not have a spare, use a fuse of the same rating (or lower) from a circuit you may not need.
- (cont'd)

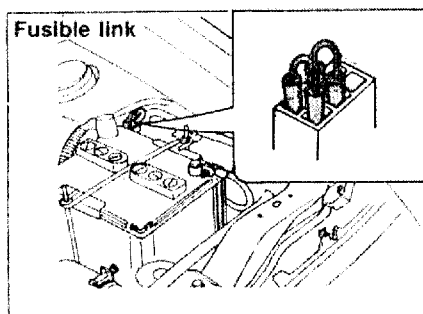
5-5

ELECTRIC CIRCUIT PROTECTION



Fusible Link

If the headlights or other electrical components do not work and the fuses are all right, check the fusible link. If the fusible link is melted, it must be replaced.



Fusible Link

POSITION		DESCRIPTION	COLOR	CIRCUIT PROTECTED
1	HEAD	0.3 Sq	BROWN	Head lights
2	MAIN	0.85 Sq	RED	For protection of all circuits

Fuse box									

Fuse box

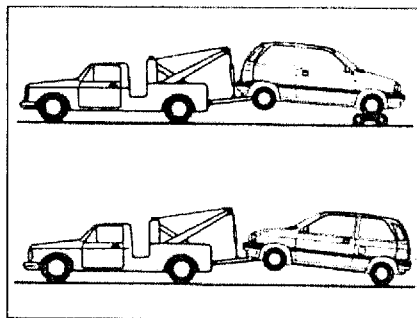
POSITION	DESCRIPTION	CIRCUIT PROTECTED	COLOR	
A	WIPER	15A	Wipers, Washer	Blue
B	—	—	—	—
C	HEATER	15A	Blower, Air conditioner, Heater	Blue
D	COOLING FAN	20A	Cooling fan, Air conditioner	Yellow
E	ENGINE	10A	Emission control unit, Alternator	Red
F	METER	10A	Gauges, Warning lamps, Turn signal lights	Red
G	DEFOG	15A	Rear window defroster	Blue
H	STOP	15A	Horn, Stop lights	Blue
I	HAZARD	15A	Hazard warning lights, clock, Combination light	Blue
J	ROOM	10A	Audio system, Interior lamps, Luggage and Compartment light	Red
K	TAIL	15A	Front turn signal lights, Tail lights, Clock, Licence lights, position lights	Blue
L	—	—	—	—
M	CIGAR	15A	Cigarette lighter, Clock, Power-Antenna, Audio system, Remote control mirror	Blue
N	DOOR LOCK	30A	Door locks	Green
O	P/W	30A	Power window	Green
P	SPARE	15A	Spare	Blue

5-7

TOWING

Towing

If towing is necessary, we recommend having it done by an Authorized Kia Dealer or a commercial tow-truck service. Proper lifting and towing procedures are necessary to prevent damage to the vehicle. State and local laws applicable to vehicles in tow must be followed.



As a general rule, towed vehicles should be pulled with the driving (front) wheels off the ground.

If excessive damage or other conditions prevent towing the vehicle with the driving (front) wheels off the ground, use wheel dollies.

1. Set the ignition switch in the ACC position.
2. Place the shift lever in Neutral.
3. Release the parking brake.

If the transmission, rear axle and steering system are not damaged, the vehicle may be towed on all four wheels. If these components are damaged, use wheel dollies.

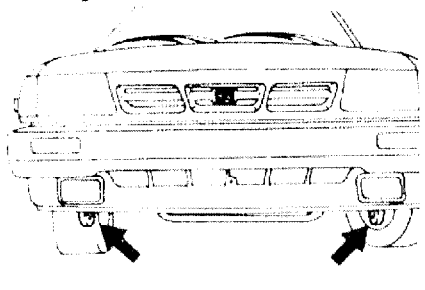
The following points are important when towing a vehicle with all wheels on the ground.

1. Set the ignition switch in the ACC position.
2. Place the shift lever in Neutral.
3. Release the parking brake.
4. Do not exceed 56 km/h (35 mph) and/or a distance of 80 km (50 miles).

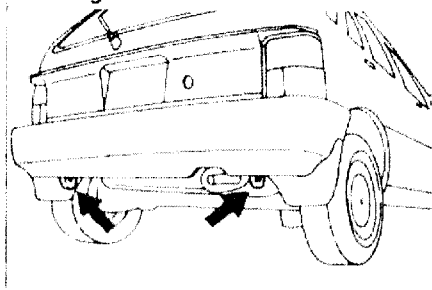
CAUTION

Remember that the power assist for the brakes and steering will not be available when the engine is inoperative.

Towing hook—front



Towing hook—rear

**CAUTION**

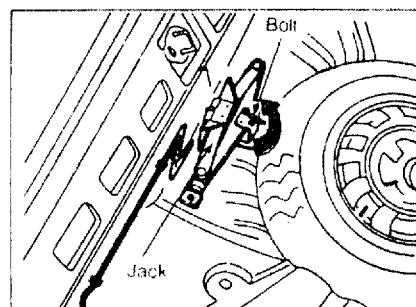
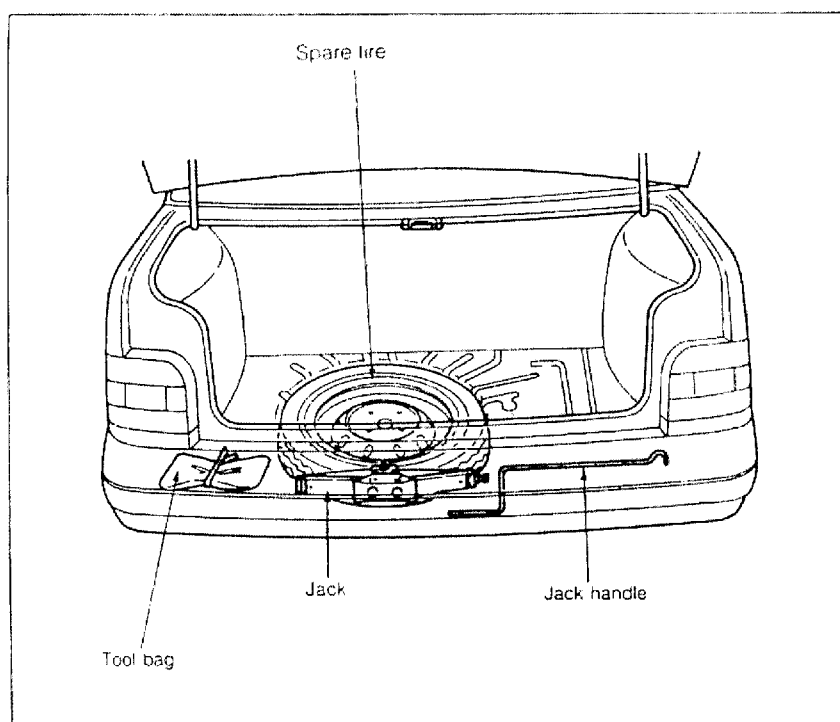
The towing hook should be used only in an emergency situation, (e.g., to pull the vehicle out of a ditch, a snow bank or mud).

When the towing hook is used, always pull the cable or chain in a straight direction with respect to the hook. Do not apply force to the hook in a side direction. To prevent damage, do not take up slack in the cable or chain too quickly.

5-9

IF YOU HAVE A FLAT TIRE

Spare Tire, Tool Bag, Jack, and Jack Handle

**To remove the jack**

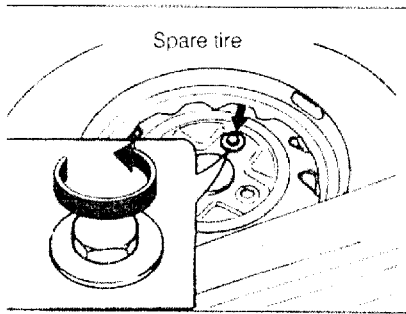
1. Turn the bolt counterclockwise and remove it.
2. Remove the jack.

NOTE

To prevent the jack from rattling while the vehicle is in motion, store it properly.

5-10

Changing a Tire



To remove the spare tire

1. Loosen the bolt counterclockwise by lug wrench and remove it
2. Remove the spare tire

NOTE

To prevent the spare tire from rattling while the vehicle is in motion, store it properly.

JACKING INSTRUCTIONS

The jack is provided for emergency tire changing only. Follow jacking instructions to reduce the possibility of personal injury.

WARNING!

- **Never attempt vehicle repairs in the traffic lanes of a public road or highway. Always move the vehicle completely off the road and onto the shoulder before trying to change a tire. If you cannot find a firm, level place off the road, call a road service company for assistance.**
- **Do not exceed the jack's maximum permissible load, which is 500kg (1,100 lbs).**
- **Be sure to use the correct front and rear jacking positions on the vehicle; never use the bumpers or any other part of the vehicle for jack support.**
- **Never get beneath the vehicle while using the jack.**
- **Do not start or run the engine while the vehicle is on the jack.**

TIRE REPLACEMENT

1. Park on a level surface and set the parking brake firmly
2. Shift into R (Reverse)

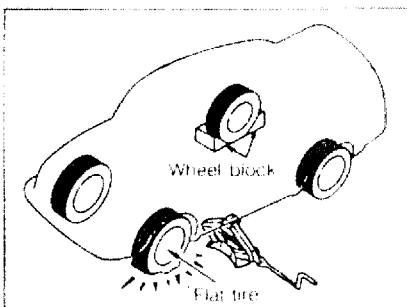
WARNING!

When one front wheel is lifted off the ground, 1 (First) position will prevent the vehicle from moving and possibly slipping off the jack, even if these positions are properly engaged. To prevent vehicle movement while changing a tire, always set the parking brake fully, and always block the wheel diagonally opposite the wheel being changed.

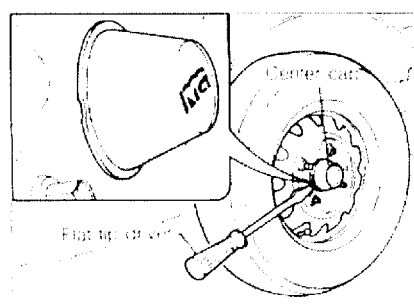
3. Activate the hazard warning flasher
4. Remove the lug wrench, jack, jack handle, and spare tire from the vehicle.

5-11

IF YOU HAVE A FLAT TIRE



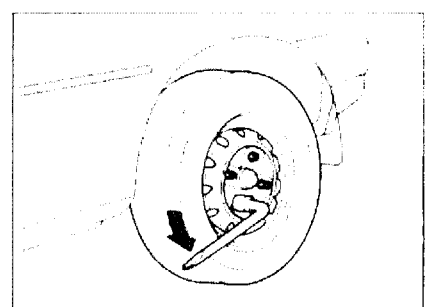
5. Block both the front and rear of the wheel that is diagonally opposite the jacking position



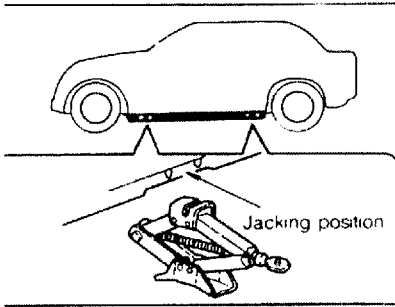
6. Pry off the center cap with the beveled end of a flat tip driver

NOTE

When removing the center cap (if equipped) firmly force in the beveled end of the lug wrench between the wheel and cap. Failure to insert the lug wrench fully into the space will make removal of the center cap difficult.



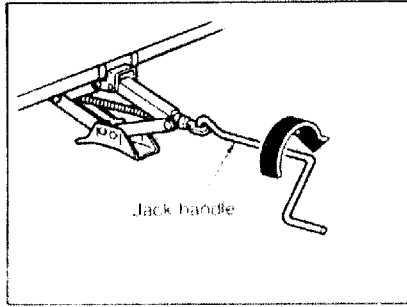
7. Loosen the lug nuts counterclockwise one turn each, but do not remove any nut until the tire has been raised off the ground



Place the jack at the front or rear jacking position closest to the tire you are changing. Place the jack under the side sill.

WARNING!

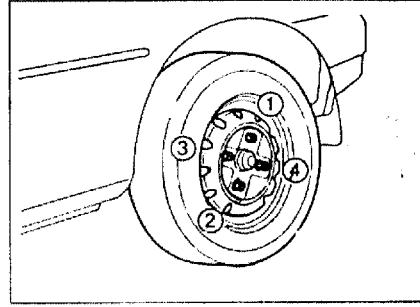
To reduce the possibility of injury, be sure to use only the jack provided with the vehicle and the correct jacking position; never use any other part of the vehicle for jack support.



9. Insert the jack handle into the jack and turn it clockwise until the tire just clears the ground, less than 30mm (1.2 in). Before removing the lug nuts, make sure the vehicle is stable and that there is no chance for it to slip or move.

10. Remove the lug nuts by turning them counterclockwise, and then remove the wheel.

11. Mount the spare tire into position and tighten the lug nuts by hand.



12. Turn the jack handle and lower the vehicle to the ground. Tighten the lug nuts firmly in an X pattern.

If you are unsure of the tightness of the lug nuts, have them checked at the nearest service station. The specified tightening torque is 9.0 to 12.0 m·kg (65 to 87 ft·lb, 90 to 120 N·m).

5-13

MAINTENANCE SERVICES

Maintenance Services

You should exercise the utmost care to prevent damage to your vehicle and injury to yourself whenever using this manual for maintenance or inspection.

Should you have any doubts concerning the inspection or servicing of your vehicle, we strongly recommend that you have a reliable and qualified service shop perform this work, preferably an Authorized Kia Dealer. An Authorized Kia Dealer has factory-trained technicians and genuine Kia parts to service your vehicle properly. For expert advice and quality service, see an Authorized Kia Dealer.

Inadequate, incomplete, or insufficient servicing may result in operational problems with your vehicle that could even lead to vehicle damage, an accident, or personal injury.

Owner's Responsibility

Maintenance Services and Record Retention are the owner's responsibility.

You should retain evidence that proper maintenance has been performed on your vehicle in accordance with the scheduled maintenance services chart starting on the following page.

Detailed warranty information is provided with your Kia vehicle.

Claims made during the warranty term will not qualify under any warranty if they result from lack of maintenance and not from defective material or workmanship. We recommend that such maintenance be performed by an Authorized Kia Dealer using genuine Kia parts. **However such maintenance may be performed by any automotive repair establishment using automotive parts equivalent to those with which your vehicle or engine was originally equipped.**

MAINTENANCE SERVICES

MAINTENANCE SCHEDULE

	NUMBER OF MONTHS OR KM (MILES), WHICHEVER COMES FIRST																	
MAINTENANCE ITEM / MAINTENANCE INTERVAL	MONTHS					12					24				36			48
	X 1000 KMS	10	05	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
	X 1000 MILES	06	03	06	20	12	15	18	21	24	27	30	33	36	39	42	45	48

ENGINE

ENGINE VALVE CLEARANCE	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
INTAKE & EXHAUST MANIFOLD BOLTS & NUTS	T					T				T				T				T
DRIVE BELTS*	A		I		I/R			A		A		I/R		A		I/R		A
ENGINE TIMING BELTS**	REPLACE EVERY 100,000 KMS																	
ENGINE OIL **	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
OIL FILTER**	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
COOLING SYSTEM (INCLUDING COOLANT LEVEL ADJ.)						I				I				I				I
ENGINE COOLANT (INCLUDING RESERVOIR)	REPLACE EVERY 1 YEAR																	

FUEL SYSTEM

DLE SPEED	A	I/A	I/A	I/A	I/A	I/A	I/A	I/A	I/A	I/A	I/A	I/A	I/A	I/A	I/A	I/A	I/A	I/A
DLE MIXTURE	I					A				A				A				A
CHOKE SYSTEM						I				I				I				I
AIR CLEANER ELEMENT*	CLEAN EVERY 3,000 KMS. REPLACE EVERY 15,000 KMS (AND/OR NECESSARY)																	
FUEL FILTER					R					R				R				R
FUEL LINES & HOSES					I					I				I				I

See footnote on page 6-6 for explanation of asterisk followed by number (e.g. *1) and letter codes used in this chart.

6-3

MAINTENANCE SERVICES

SCHEDULED MAINTENANCE SERVICES (cont'd)

MAINTENANCE ITEM / MAINTENANCE INTERVAL	MONTHS																	
						12					24					36		48
	X 1000 KMS	1.0	05	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
X 1000 MILES	0.6	03	06	20	12	15	18	21	24	27	30	33	36	39	42	45	48	

IGNITION SYSTEM

INITIAL IGNITION TIMING	I/A	I/A	I/A	I/A	I/A	I/A	I/A	I/A	I/A	I/A	I/A	I/A	I/A	I/A	I/A	I/A	I/A	I/A
SPARK PLUG	I	I	I	R	I	I	R	I	I	R	I	I	R	I	I	R	I	I

ELECTRICAL SYSTEM

BATTERY ELECTROLYTE LEVEL & SPECIFIC GRAVITY						A						A						A
ALL ELECTRICAL SYSTEM **		I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
HEAD LAMP ALIGNMENT						A						A						A

See footnote on page 6-6 for explanation of asterisk followed by number (e.g. *1) and letter codes used in this chart.

MAINTENANCE SERVICES

Chart symbols:

- I:** Inspect Visual examination and/or functional measurement of a system's operation or performance
A: Adjust Examination resulting in adjustment or replacement
R: Replace or change
T: Tighten

Remarks:

- After 20,000 km or 12 months, continue to follow the described scheduled maintenance items periodically
- As for * marked items in this maintenance chart, please pay attention to the following points
- *1 Major service interval at 12 months/20,000 km
Lubrication service based on distance only 10,000 km not time
- *2 Adjust alternator and water pump drive belt
- *3 Replacement of timing belt is required at every 100,000 km. Failure to replace timing belt, may result in damage to the engine.
- *4 If the vehicle is operated under the following conditions, it is suggested that the engine oil and oil filter be changed more often than at usual recommended intervals.
 - a) Driving in dusty conditions
 - b) Extended periods of idling or low speed operation.
 - c) Driving for a prolonged period in cold temperatures or driving only short distance regularly.
- *5 If the vehicle is operated in very dusty or sandy areas, inspect and, if necessary, replace more often than at usual recommended intervals
- *6 This is a full function check of all electrical systems, i.e., all lights, washers (including condition of blades), sun roof, horn, etc.
- *7 Replace every two years
If there has been continuous hard driving, mountain driving, or if the brakes are used extensively or the vehicle is operated in extremely humid climates, the brake fluid should be changed annually.

Emission control and related systems:

The ignition and fuel systems are vitally important to the proper operation of the emissions control and related systems, as well as for efficient engine operation.

It is strongly recommended that all servicing related to these systems be done by your Authorized Kia Dealer.

6-6

MAINTENANCE SERVICES

Owner Maintenance Services

The listed vehicle checks and inspections should be performed by the owner or a qualified service technician at the intervals indicated to ensure safe, dependable vehicle operation.

Any adverse conditions or problems should be brought to the attention of an Authorized Kia Dealer or qualified service technician for service advice as soon as possible.

WHEN REFUELING

- **Engine Oil Level**
(page 6-11)
- **Engine Coolant Level**
(page 6-13)
- **Brake Fluid Level**
(page 6-15)
- **Washer Fluid Level**
(page 6-19)

AT LEAST MONTHLY

- **Brake Pedal and Parking Brake**
(page 6-16)
- **Belt Tension**
(page 6-23)
- **Tire Inflation Pressure**
(page 6-26)

AT LEAST TWICE A YEAR

(For example, every spring and fall)

AT LEAST ONCE A YEAR

- **Power Brake Unit**
(page 6-17)

The following items are some of the scheduled maintenance items. However, you can easily do them if you have a little mechanical ability and a few basic automotive tools.

- **Engine Oil and Oil Filter**
(page 6-11)
- **Cooling System**
(page 6-13)
- **Manual Transmission Oil**
(page 6-18)
- **Air Cleaner**
(page 6-19)
- **Spark Plugs**
(page 6-25)

MAINTENANCE SERVICES

Owner Maintenance Service Precautions

When performing any inspection or maintenance work on your vehicle, always exercise care to reduce the risk of personal injury or damage of the vehicle.

Here are some general precautions that should be closely observed in carrying out any service operation.

- Do not work on the engine while it is hot. Always turn it off and allow it to cool.
- If you must work with the engine running, make sure that no article of clothing, including ties and handkerchiefs, can become entangled by any moving parts. Remove watches, bracelets, rings, necklaces, and similar items. Keep hands, clothing, hair, and tools away from moving fans and drive belts.
- Never get under the vehicle while it is supported by a jack. If it is necessary to work under the vehicle, use safety stands.
- Keep smoking materials, flames, and sparks away from the battery and all fuel and fuel-related parts.
- Never connect or disconnect either the battery or any transistorized component while the ignition switch is ON.

- When connecting the battery cables, pay special attention to their polarities. Never connect a positive cable to a negative terminal or a negative cable to a positive terminal.
- Remember that the battery, ignition cables, and vehicle wiring carry high currents or voltage. Be careful not to cause a short circuit.
- When performing any checks in an enclosed space with the engine running, such as in a garage, be sure there is proper ventilation.

You should be aware that improper or incomplete service may result in operating problems. This section gives instructions only for those items that are easy for an owner to perform. As explained in Scheduled Maintenance, several items must be done by a qualified service technician with special tools. Improper performance of owner maintenance during the warranty period may affect the warranty coverage. Read the separate Kia Warranty statement for details. If in doubt about any service operation, have it done by an Authorized Kia Dealer.

WARNING!

- **Do not release the hood latch unless the ignition switch is first turned off, the shift lever is placed in 1 (First), and the parking brake is firmly set.**
- **If it necessary to check beneath the hood with the engine running, place the shift lever in NEUTRAL and set the parking brake firmly. Unexpected and possibly sudden vehicle movement may occur if these precautions are not taken.**
- **To avoid the possibility of personal injury, you should always turn off the ignition switch and remove the key before working under the hood unless the procedure specifically requires otherwise. If it requires running the engine while working under the hood, do not permit any clothing, such as neckties or handkerchiefs, near the engine or cooling fan. They can become entangled in moving parts and result in**

(cont'd)

6-8

MAINTENANCE SERVICES

personal injury and damage to the vehicle. Also remove watches, bracelets, and rings for safety.

ENGINE COOLING FAN

WARNING!

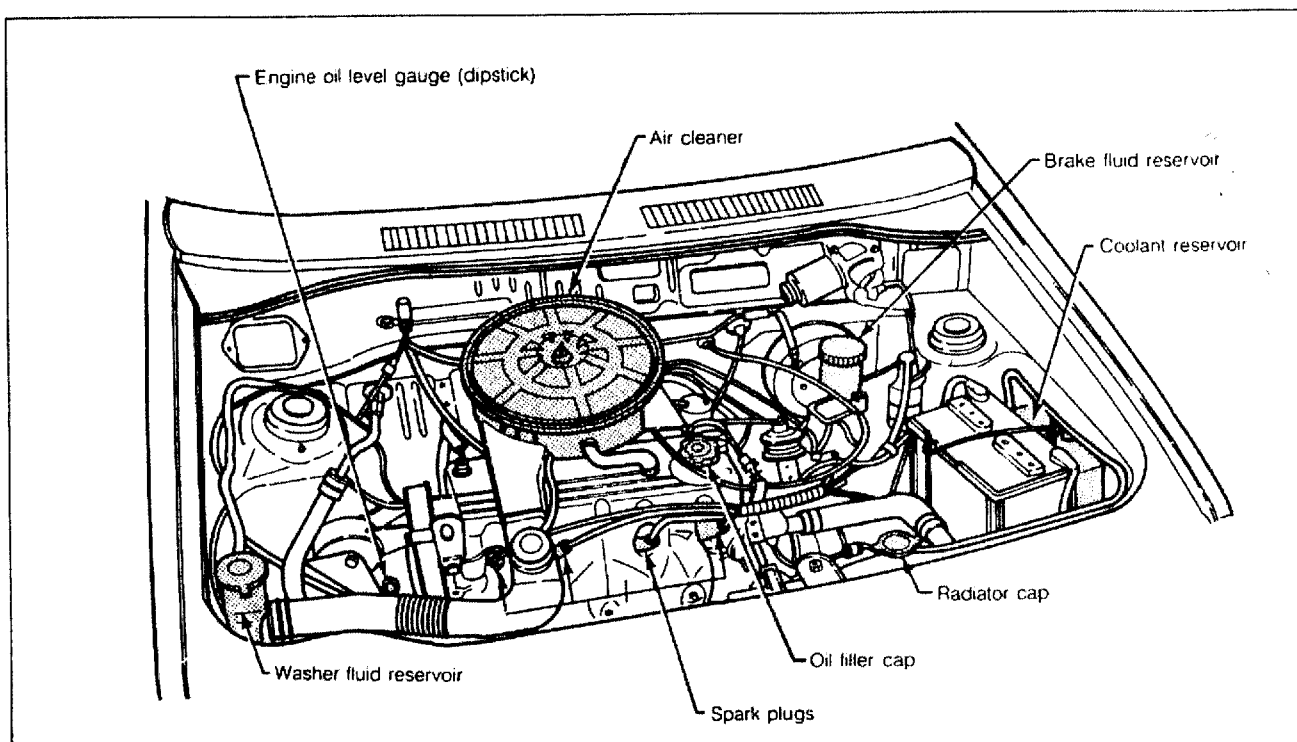
The engine cooling fan is electrically controlled. To prevent injury, be certain the ignition switch is off before beginning any maintenance. The cooling fan will automatically operate if the ignition switch is turned on and if

- **The air conditioner is turned on;**
- **The engine coolant temperature is high.**

6-9

ENGINE COMPARTMENT

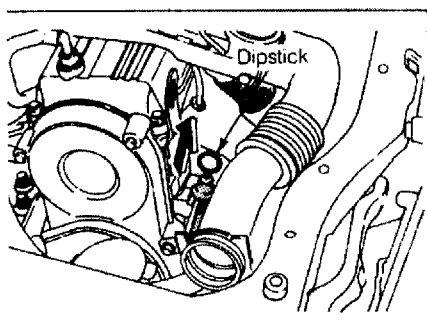
Engine Compartment Overview



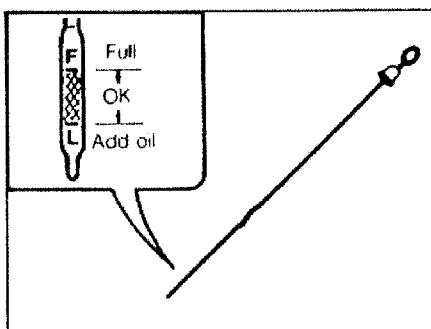
6-10

ENGINE OIL AND OIL FILTER

Checking Engine Oil Level



1. Be sure the vehicle is on level ground.
2. Warm up the engine to the normal operating temperature.
3. Turn off the engine and wait 5 minutes for the oil to return to the oil pan.
4. Pull out the dipstick, wipe it clean, and reinsert it fully.



5. Pull the dipstick out again and check the level. If the level is between F and L, it is adequate. If it is near or at L, add enough oil to bring the level to F.
Do not overfill.

NOTE

The distance between L and F on the dipstick represents 1.0 liter (1.05us qt. 0.87 imp qt.).

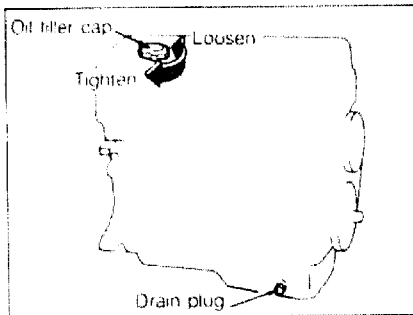
Changing Engine Oil and Filter

Change engine oil and filter according to the Scheduled Maintenance Services on pages 6-3 through 6-6.

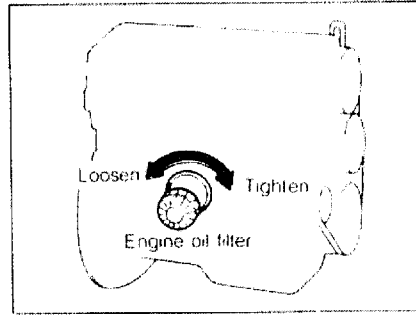
WARNING!

Continuous contact with USED Engine oil has caused skin cancer in laboratory Mice. Protect your skin by washing with soap and water. Keep out of the reach of children.

ENGINE OIL AND OIL FILTER



1. Warm up the engine for a few minutes and then turn it off. Remove the oil filler cap.
2. Drain the oil into a suitable container after removing the oil filler cap and drain plug.
Both the oil and the engine are hot. Do not burn yourself.



3. Remove the engine oil filter with an oil-filter wrench.
4. Use a clean rag to clean the mounting surface on the engine.
5. Apply a small amount of engine oil to the rubber seal of a new oil filter.
6. Install the oil filter and tighten it. (Please refer to oil filter caution label for tightening instructions).
7. Replace the drain plug tightly after the oil has thoroughly drained.
8. Refill the engine with new oil to the F mark on the dipstick.
Do not overfill.
9. Refit the oil filler cap securely.

10. Start the engine and inspect around the oil filter seal for leaks. Stop the engine.

Check the oil level and fill to the F mark if necessary.

Oil capacity
3.4 liters (3.6us qt, 3.0 Imp qt)

NOTE

Use only specified engine oil (refer to chart on page 6-37).

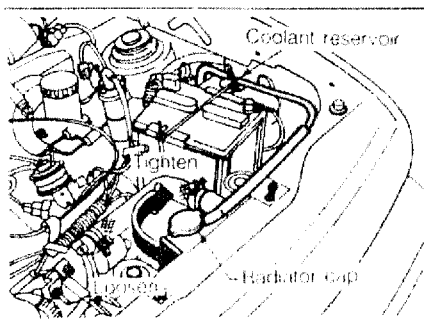
CAUTION

- Follow these instructions carefully. An improper oil filter installation can cause oil leakage and engine damage.
- Although oil filters may have the same external appearance, their internal designs differ significantly. These filters are not interchangeable. To avoid potential engine damage, use only the specified filter for each application.

6 12

ENGINE COOLING SYSTEM

Enging Cooling System



The cooling system is a high-pressure type with a see-through coolant reservoir and is filled with year-round antifreeze coolant at the factory.

Check the antifreeze protection and coolant level at least once a year—at the beginning of the winter season—and before traveling to a colder climate.

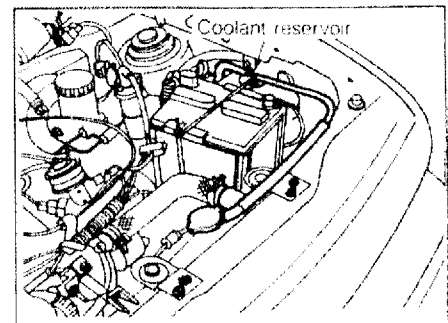
WARNING!

- Never attempt to remove the radiator cap while the engine is operating. Doing so might lead to cooling system and engine damage

and could result in serious personal injury from escaping hot coolant or steam.

Turn off the engine and wait until it has cooled. Even then, use extreme care when removing the radiator cap. Wrap a thick cloth around it, and turn it counter-clockwise slowly to the first stop. Step back while the pressure is released from the cooling system. When you are sure all the pressure has been released, press down on the cap—still using a cloth—turn it, and remove it.

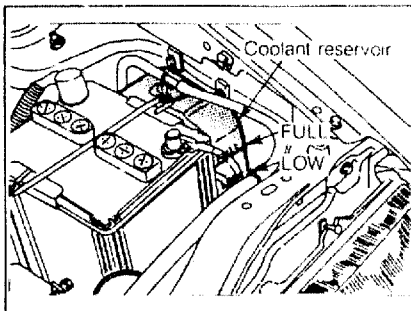
- Even if the engine is not operating, do not remove the radiator cap while the engine and radiator are hot. Scalding hot coolant and steam may still blow out under pressure; this could cause serious injury.



Check the condition and connections of all cooling system hoses and heater hoses. Replace any swollen or deteriorated hose.

ENGINE COOLING SYSTEM

Changing Coolant



The coolant level should be full in the radiator and between FULL and LOW on the coolant reservoir when the engine is cool.

If the level is near or at LOW, add enough specified coolant to provide protection against freezing and corrosion and to bring the level to FULL. **Do not overfill.** If frequent additions are required, see an Authorized Kia Dealer for a cooling system inspection.

Change coolant according to the Scheduled Maintenance Services on pages 6-3 through 6-6.

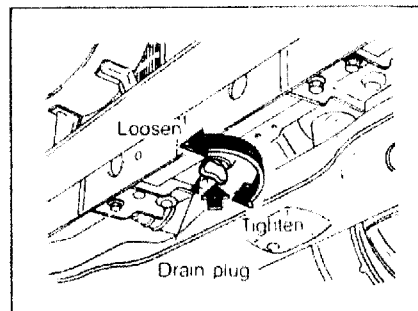
CAUTION

- Use only soft (demineralized) water in the coolant mixture.
- The engine in your vehicle has aluminum engine parts and must be protected by an ethylene glycol based coolant to prevent corrosion and freezing.

DO NOT USE alcohol or methanol antifreeze or mix them with the specified coolant.

NOTE

Use a solution that contains 30 percent to 55 percent antifreeze.



WARNING!

To prevent burning yourself, do not remove the radiator cap or loosen the drain plug if the engine is hot.

1. Turn the radiator cap counterclockwise and remove it.
2. Loosen the radiator drain plug and drain the coolant into a suitable container.
3. With the drain plug loose, flush out the system with running water.

(cont'd)

6-14

ENGINE COOLING SYSTEM, BRAKES

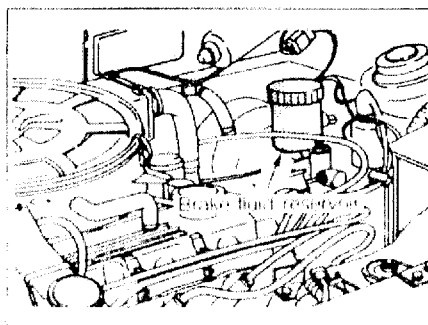
Checking Brake Fluid Level

Drain the system completely and retighten the drain plug. Add the necessary amount of ethylene glycol based coolant and water to provide the required protection against freezing and corrosion. In extremely cold climates, add the necessary amount of ethylene glycol based coolant in accordance with the instructions of the coolant manufacturer. Run the engine at idle with the radiator cap off. Slowly add additional coolant if necessary.

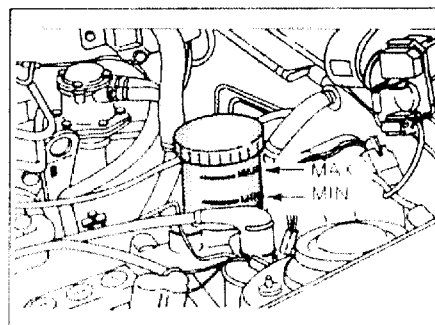
At this point, wait until the engine reaches normal operating temperature. Depress the accelerator two or three times, then add coolant if required.

Be careful not to burn yourself.

Install the radiator cap. Inspect all connections for leaks and recheck the coolant level in the reservoir.



Check the fluid level in the brake fluid reservoir periodically. It should be between MAX and MIN on the reservoir. Before adding fluid, clean the area around the reservoir cap thoroughly to prevent brake fluid contamination. If the level is low, add fluid to the MAX level. The level will fall with accumulated mileage. If the fluid level is excessively low, have the brake system checked by an Authorized Kia Dealer.

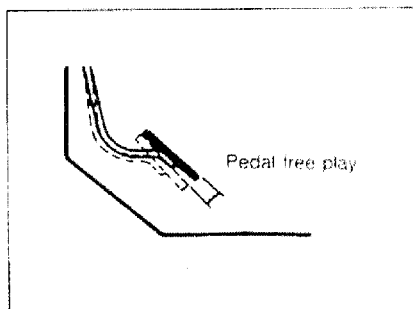


CAUTION

- Use only specified brake fluid. (Refer to chart on page 6-37.)
- Do not mix different types of fluid.
- In the event the brake system requires frequent supplies of fluid, the vehicle should be inspected by an Authorized Kia Dealer.

BRAKES

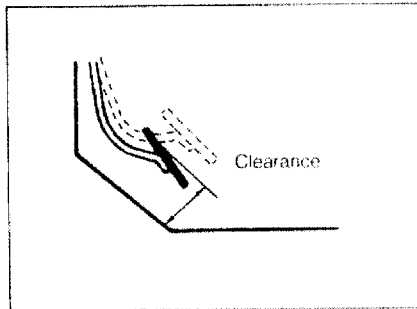
Checking Brake Pedal



CHECKING PEDAL FREE PLAY

Turn off the engine and depress the brake pedal several times to deplete the vacuum in the power brake unit. Gently depress the brake pedal by hand and measure the distance it moves until slight resistance is felt. If the free play is more or less than specified, have the brakes adjusted by an Authorized Kia Dealer.

Pedal free play:
203—213mm (8.19—8.39in)



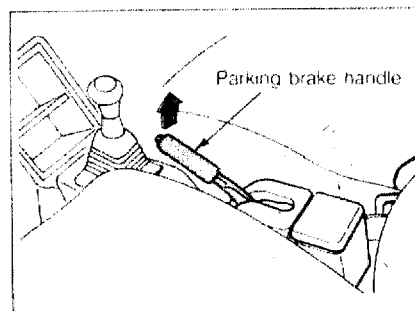
CHECKING PEDAL CLEARANCE

Start the engine and check the brake pedal for smooth operation and proper clearance when it is fully depressed (approximately 60 kg (132lb, 589N)). The clearance is measured between the center of the upper surface of the brake pedal pad and the floorboard without the carpet.

If it is less than about 61mm (2.4in), have the brakes adjusted by an Authorized Kia Dealer.

Clearance: about 61mm (2.4in) min

Checking Parking Brake



Check the stroke of the parking brake by counting the number of clicks heard while fully applying it from the released position. Also, the parking brake alone should securely hold the vehicle on a fairly steep grade. If the number of clicks is more or less than specified, have the parking brake adjusted by an Authorized Kia Dealer.

Stroke:
6—8 clicks at a force of 10 kg (22 lb, 98 N)

6-16

BRAKES, CLUTCH

Checking Power Brakes

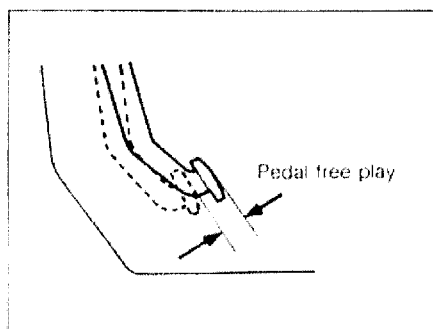
Check the power brakes for proper operation.

Depress the brake pedal a few times and then hold it down. Start the engine and the pedal should drop slightly. Depress the brake pedal, stop the engine, and hold the pedal down for about 30 seconds. The pedal should neither drop nor rise.

Restart the engine, let it run for about a minute, and turn it off. Then firmly depress the brake pedal several times. The pedal travel should decrease with each subsequent stroke.

If the brakes do not operate properly, have the brake system checked by an Authorized Kia Dealer.

Checking Clutch Pedal

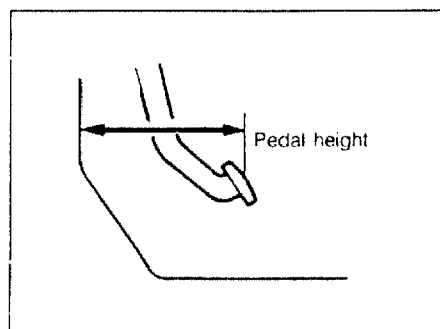


CHECKING PEDAL FREE PLAY

Depress the pedal by hand until clutch resistance is felt, ensure that it is within specification.

If the free play is more or less than specified, have the clutch or linkage adjusted by an Authorized Kia Dealer.

Pedal free play:
9—15mm (0.35—0.59in)



CHECKING PEDAL HEIGHT

Measure the distance from the upper center of the pedal pad to the carpet and ensure that it is within specification.

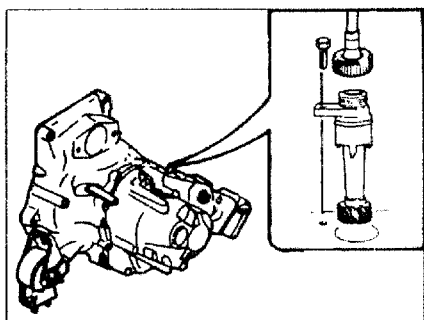
If the height is more or less than specified, have it adjusted by an Authorized Kia Dealer.

Pedal height:
208—213mm (8.19—8.39in)

6-17

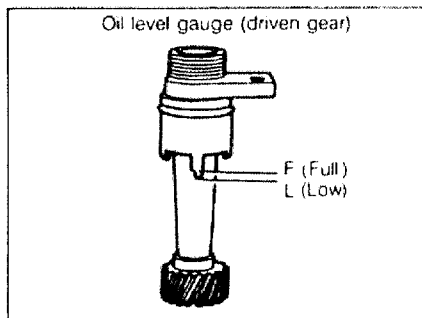
MANUAL TRANSAXLE, OTHER LUBRICANTS AND FLUIDS

Checking Manual Transaxle Oil Level



1. Remove the speedometer cable and driven gear from the transaxle case.
2. Wipe the driven gear clean and reinsert it.
3. Pull it out again. The oil level should be between the "L" and "F" on the gauge as in the illustration.

Changing Manual Transaxle Oil



1. Remove the speedometer cable and driven gear from the transaxle case.
2. Remove the drain plug at bottom of the transaxle case.
3. After the oil has drained completely, install and retighten the drain plug.
4. Add lubricant through the speedometer driven gear hole until it reaches the specified level.
5. Reinstall the speedometer cable and driven gear in the transaxle case.

WHEEL BEARINGS

The wheel bearings have a slightly loose feel when properly adjusted. Never over-tighten. Consult your Authorized Kia Dealer for proper detailed adjustment procedures and specifications.

STEERING LINKAGE

If the vehicle is used in very dusty or sandy areas, have this inspection done frequently. The steering linkage should be inspected at each service for proper operation.

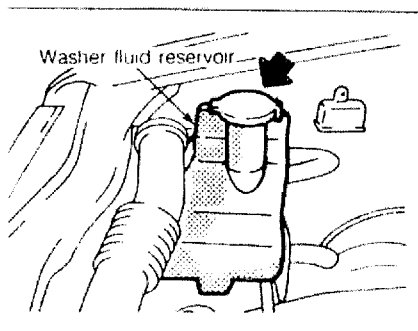
BODY LUBRICATION

All moving points of the vehicle body, such as door and bonnet hinges, locks, etc., should be lubricated each time the engine oil is changed. Use an anti-freeze lubrication on locks during cold weather.

6-18

OTHER LUBRICANTS AND FLUIDS, AIR CLEANER, WIPER BLADES

Checking Washer Fluid Level

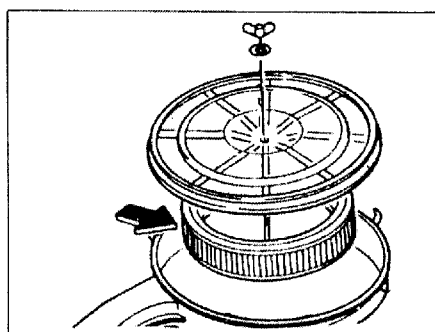


Check fluid level in the washer fluid reservoir and add fluid if necessary. Rain water may be used if washer fluid is not available. However, Use washer solution in cold climates to prevent freezing.

WARNING!

Do not use radiator coolant or anti-freeze in the washer fluid reservoir. Radiator coolant can severely affect visibility when sprayed on the windshield and may cause damage to paint and body trim.

Air Cleaner



A paper air cleaner filter is specially treated. It might be cleaned and reused but replaced when necessary. When replacing the filter, wipe the inside of the air cleaner housing and cover with a damp cloth. If the vehicle is operated in extremely dusty or sandy areas, replace this element more often than at the usual recommended intervals.

Wiper Blades

WIPER BLADE MAINTENANCE

CAUTION

Commercial hot waxes applied by automatic car washes have been known to affect the cleanability of the window.

Contamination of either the window or the wiper blades with foreign matter can reduce the effectiveness of the window wipers. Common sources of contamination are insects, tree sap, and hot wax treatments used by some commercial car washes. If the blades are not wiping properly, clean both the window and the blades with a good cleaner or mild detergent and rinse thoroughly with clear water. Repeat if necessary.

CAUTION

To prevent damage to wiper blades, do not use gasoline, kerosene, paint thinner, or other solvents on or near them.

6-19

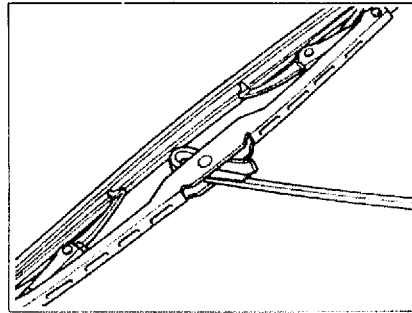
WIPER BLADES

WINDSHIELD WIPER BLADE REPLACEMENT

When the wipers no longer clean adequately, the wiper blades may be worn or cracked, requiring replacement.

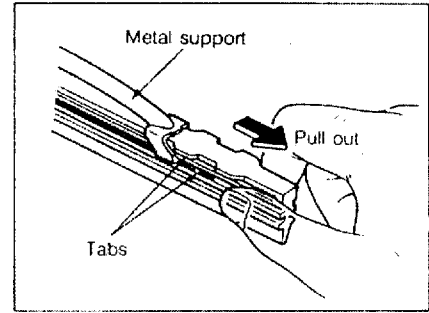
CAUTION

To prevent damage to the wiper arms or other components, do not attempt to move the wipers manually.



FRONT

1. Raise the wiper arm and slide the blade assembly sideward with the steel lever compressed; then take it off the arm.



2. Firmly grasp the end of the blade rubber and pull until the tabs are free of the metal support.

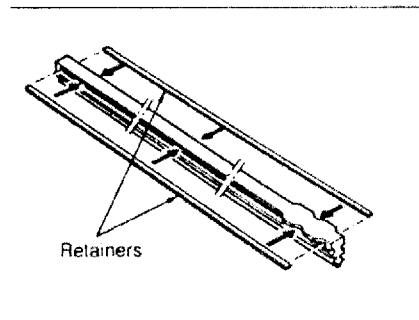
CAUTION

Do not allow the wiper arm to fall against the windshield.

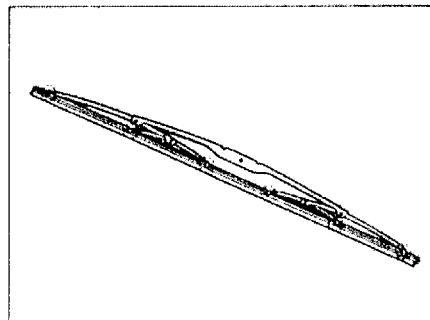
6-20

WIPER BLADES AND BATTERY

Battery



3. Remove the metal retainers from the removed blade rubber and install them in new blade rubber.



4. Carefully insert a new blade rubber and install the blade assembly in the reverse order of removal.

CAUTION

Do not bend the metal retainers.

WARNING!

- Keep lighted cigarettes and all other flames or sparks away from the battery. Hydrogen, which is a highly combustible gas, is always present in battery cells.
- Keep batteries out of the reach of children because they contain **SULFURIC ACID**. Prevent its contact with skin, eyes, clothing, or the vehicle.
- If electrolyte gets into your eyes, flush them with clean water for at least 15 minutes and get immediate medical attention. If possible, continue to apply water with a sponge or cloth while en route to the medical office.
- If electrolyte gets on your skin, thoroughly wash the contacted area. If you feel a pain or burn, get medical attention immediately.
- When charging or working near a battery, always shield your eyes. Always provide ventilation.

BATTERY

When lifting a plastic-cased battery, lift with a battery carrier or with your hands on opposite corners.

- *Never attempt to charge the battery when the negative (–) cable lead is connected.*

MAINTENANCE

For best battery service

- Keep battery securely mounted
- Keep battery top clean and dry
- Keep terminals and connections clean, tight, and coated with petroleum jelly or terminal grease
- Rinse any spilled electrolyte immediately with a solution of water and baking soda
- If the vehicle is not going to be used for an extended time, disconnect the cables

BATTERY RECHARGING

Your vehicle has a Maintenance-Free (MF) calcium-based battery.

- When using a normal-type battery charger (constant current or semiconstant voltage charger), recharge the battery for 12 hours with electric current equal to 1/10 of the battery capacity.
- When using a rapid-type battery charger, recharge in the same way as a regular battery. **Read carefully the instructions provided in the battery charger manual, and make sure you do not overcharge the battery.**

6-22

BATTERY

Checking Belt Tensions

Apply moderate thumb pressure (approximately 10 kg, 22 lbs, 98N) midway between pulleys, and check the deflection.

WARNING!

- **Before checking belt tension, remove the key from the ignition switch for safety.**
- **Keep hair, loose clothing, neckties, necklaces, and similar articles away from drive belts, especially when the engine is running. ALWAYS REMOVE ALL TOOLS from the engine compartment before attempting to start the engine. Any of the above items could become entangled in the belts and cause severe personal injury or damage to the vehicle, or both.**

NOTE

If the drive belt becomes worn, cracked, or frayed, it should be replaced.

CAUTION

When recharging the battery according to the procedures described above, observe the following precautions.

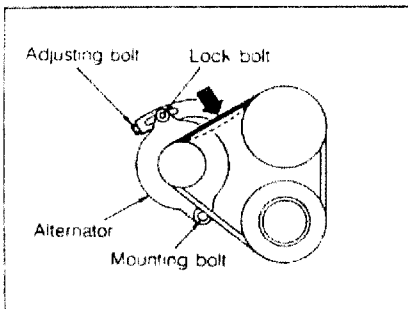
- The battery must be removed from the vehicle and put in an airy place.
- Do not bring anything like a fire, cigarettes, sparks, or flame near the battery.
- Disconnect the battery charger in the following order.
 - 1) Turn off the battery charger main switch.
 - 2) Unhook the negative clamp from the negative terminal.
 - 3) Unhook the positive clamp from the positive terminal.

NOTE

- Before performing maintenance or recharging the battery, turn off all accessories and stop the engine.
- The negative (–) cable must be removed first and installed last.

BELT TENSIONS AND SPARK PLUGS

Spark Plugs

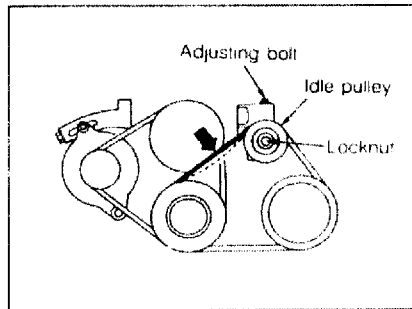


ALTERNATOR DRIVE BELT

Deflection	
New	Used
8—9mm (0.31—0.35 in)	9—10mm (0.35—0.39 in)

Adjustment

1. Loosen the alternator mounting bolt and lock bolt.
2. Turn the adjusting bolt until the correct tension is obtained.
3. Tighten the bolts and recheck the deflection.

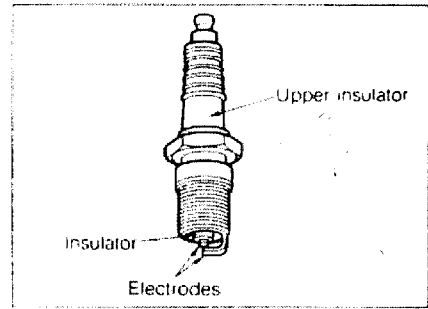


AIR-CONDITIONER (A/C) DRIVE BELT

Deflection	
New	Used
7—9mm (0.28—0.35 in)	9—11mm (0.35—0.43 in)

Adjustment

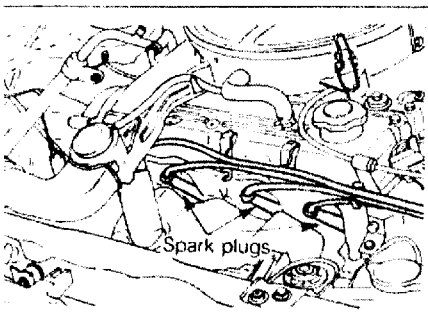
1. Loosen the idler pulley locknut.
2. Turn the idler pulley adjusting bolt until the correct tension is obtained.
3. Tighten the locknut and recheck the deflection.



If necessary, clean the electrodes with a fine wire brush and carefully scrape the carbon off the insulator with a small file. The spark plugs should then be blown clean with compressed air and the upper insulator wiped clean. Replace the spark plugs according to the Scheduled Maintenance Services on pages 6-3 through 6-6.

6-24

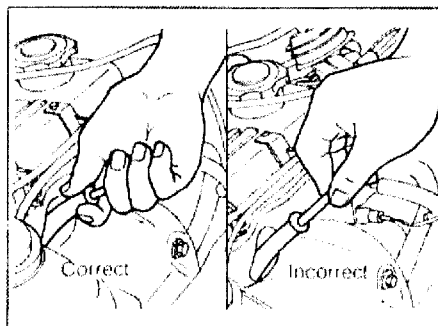
SPARK PLUGS



REPLACING SPARK PLUGS

NOTE

- When removing or unfastening the spark plug cable leads, pull the boot, not the lead itself.
 - When installing the plugs, use a small amount of anti-seize compound or molybdenum-based thread lubricant on the first few threads.
- Clean any dirt from around the spark plug base of each spark plug.



2. Unfasten the spark plug cables by pulling on the boot, and then remove the plugs with a spark plug wrench.
3. Install each new plug by hand as far as it will go. If necessary, a spark plug wrench may be used for an extension. If a plug does not turn in smoothly, remove it and try again to ensure the correct engagement of the threads on the spark plug with the threads in the cylinder head.
4. Tighten the plugs with a spark plug wrench. Do not overtighten.
5. Make sure the spark plug leads are installed in the correct order. Fasten the boot squarely over the end of each plug.

WARNING!

The spark plugs may be hot. Be careful not to burn yourself.

CAUTION

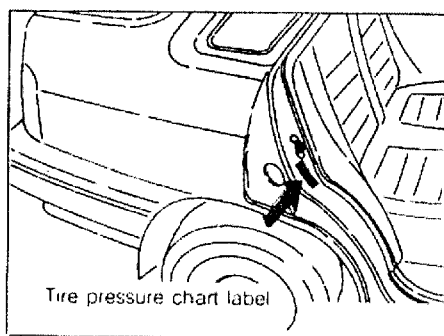
The spark plugs must be securely tightened, but not overtightened. A plug that's too loose can get very hot and possibly damage the engine; one that's too tight could damage the threads in the cylinder head.

Never use spark plugs with an improper heat range; they will adversely affect engine performance and durability.

TIRES

Tire Care

For proper performance, safety, and maximum fuel economy, you must always maintain recommended tire inflation pressures and stay within the load limits and weight distribution recommended for your vehicle.



INFLATION PRESSURES

All tire pressures (including the spare) should be checked monthly when the tires are cold. Recommended pressures must be maintained for the best ride, top vehicle handling, and minimum tire wear.

NOTE

- Warm tires normally exceed recommended pressures. Do not release air from warm tires to adjust the pressure.

- Underinflation results in excessive wear, poor handling, reduced fuel economy, and the possibility of blowouts of overheated tires. Also, low tire pressure can cause poor sealing of the tire bead. If the tire pressure is excessively low, wheel deformation and/or tire separation are possible. So keep your tire pressures at the proper levels. If a tire frequently needs refilling, have it checked by an Authorized K Dealer or a tire shop.
- Overinflation produces a harsh ride, handling problems, excessive wear at the center of the tire tread, and a greater possibility of damage from road hazards.

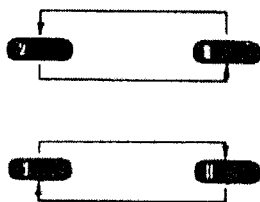
WARNING!

Overinflation or underinflation can reduce tire life, adversely affect vehicle handling, and lead to sudden tire failure. This could result in loss of vehicle control.

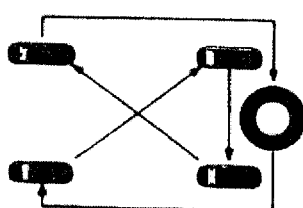
6-26

TIRES

4 wheel rotation



5 wheel rotation



Do not include "TEMPORARY USE ONLY" spare tire in rotation

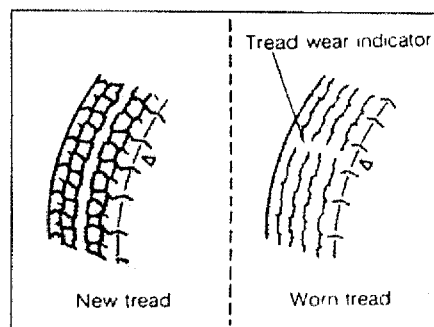
TIRE ROTATION

To equalize tread wear, it is recommended that the tires be rotated every 5,000 Km (100 miles km), or sooner if irregular wear develops. During rotation, check the tires for correct balance.

When rotating tires, check for uneven wear and damage. Abnormal wear is usually caused by incorrect tire pressure, improper wheel alignment, out-of-balance wheels, or severe braking. After rotation, be sure to bring front and rear tire pressures to specification and check lug nut tightness.

NOTE

Disc brake pads should be inspected for wear whenever tires are rotated.



TIRE REPLACEMENT

If the tire is worn evenly, a tread wear indicator will appear as a solid band across the tread. Replace the tire when this happens. Replacement of an unevenly worn tire may be necessary before an indicator band appears across the entire tread.

WARNING!

- When replacing tires, never mix radial, bias-belted, or bias-type tires. Use only the tire sizes listed on the tire label attached to your vehicle, on the Center pillar of the passenger's side. Make sure that

6-27

TIRES, WHEELS AND LIGHT BULBS

Wheels

all tires and wheels are the same size and have the same loadcarrying capacity. Use only tire and wheel combinations recommended on the tire label or by an Authorized Kia Dealer. Failure to follow these precautions can adversely affect the safety and handling of your vehicle.

- The use of any other tire size or type may seriously affect ride, handling, ground clearance, tire clearance, and speedometer calibration.
- Driving on worn-out tires is very hazardous and will reduce braking effectiveness, steering accuracy, and traction.

WHEEL REPLACEMENT

When replacing wheels for any reason, make sure the new wheels are equivalent to original factory units in diameter, rim width, and offset. Proper tire balancing provides the best riding comfort and helps reduce tire tread wear. Out-of-balance tires can cause annoying vibration and uneven tire wear, such as cupping and flat spots.

CAUTION

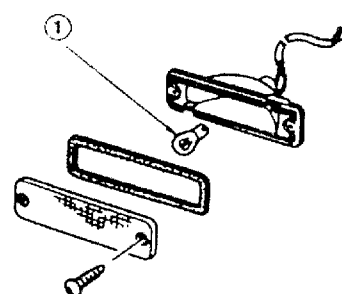
A wrong-size wheel may adversely affect wheel life and bearing life, braking and stopping abilities, handling characteristics, ground clearance, body-to-tire clearance, snow chain clearance, speedometer calibration, headlight aim, and bumper height.

LIGHT BULBS

FRONT

	Light-bulb	Wattage
1	Front turn signal light	21
2	Headlight	60/55
3	Side turn light	5
4	Position light	5

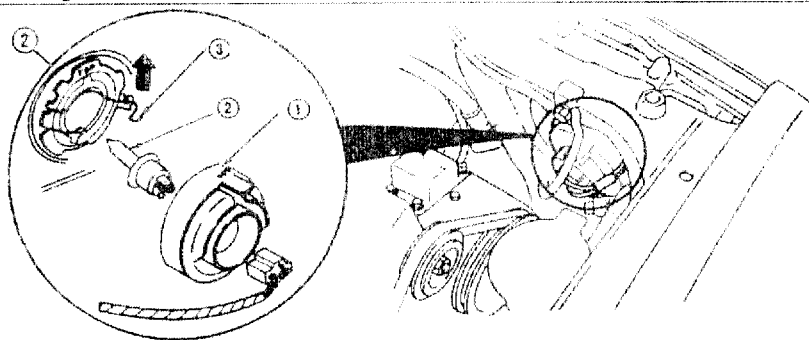
Front turn signal light



6-28

LIGHT BULBS

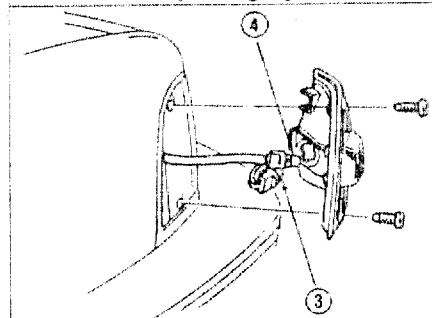
Headlight



Replacement of Halogen light bulb

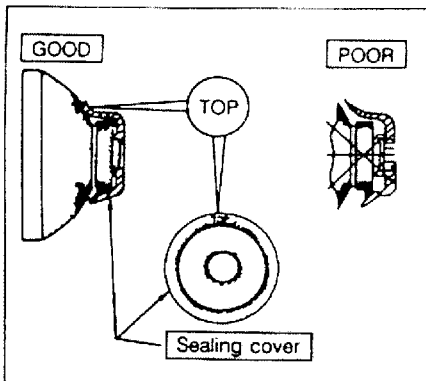
1. Disconnect the coupler "1".
2. Remove the sealing cover "2".
3. Unfasten the bulb retaining spring "3".
4. Remove the bulb.
5. Install the new bulb in the reverse order of removal.

Side turn light and parking light



6-29

LIGHT BULBS



CAUTION

Halogen bulbs contain pressurized gas which will produce flying pieces of glass if broken. Therefore, always handle carefully, and avoid scratching or abrasion of the bulbs, and if the bulbs are lit, avoid contact with liquids. The bulb should only be operated when installed in a headlamp.

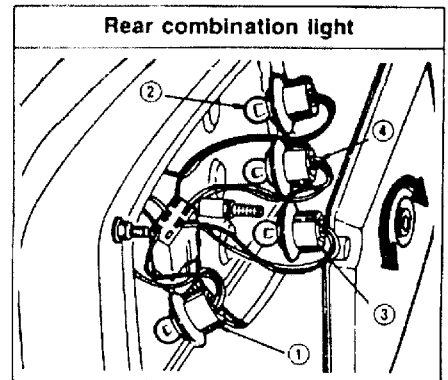
If a bulb becomes damaged or cracked, replace it immediately and carefully dispose of the damaged bulb. Keep bulbs out of the reach of children.

NOTE

- Always check headlight aim and adjust (if necessary) so as to conform with applicable regulations.
- Do not touch the bulb surface with bare fingers.
- Install the sealing cover properly as illustrated

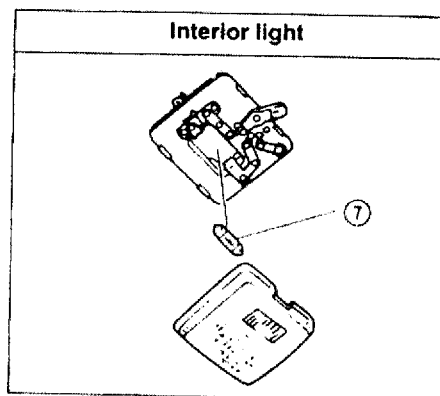
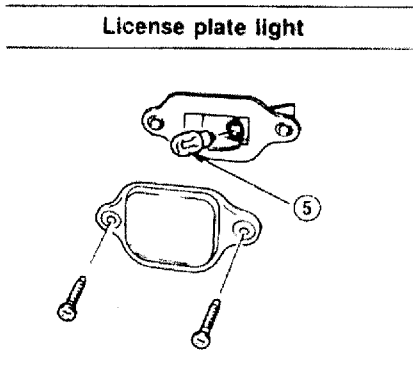
REAR

	Light bulb	Wattage
1	Rear turn signal light	21
2	Stop light	5
3	Tail light	5
4	Back up light	21
5	License plate light	5
6	Rear trunk light	5
7	Interior light	5



6-30

LIGHT BULBS



EXTERIOR CARE

Exterior General Caution

It is very important to follow label directions when using any chemical cleaner or polish. Read all warning and caution statements that appear on the label.

Finish Maintenance

WASHING

To help protect your vehicle's finish from rust and deterioration, wash it thoroughly and frequently at least once a month with lukewarm or cold water, paying special attention to the removal of any accumulation of salt, dirt, mud, and other foreign materials from the underside of the fenders. Make sure the drain holes in the lower edges of the doors and rocker panels are kept clear and clean. Insects, tar, tree sap, bird droppings, industrial fallout, and similar deposits can damage your vehicle's finish if not removed immediately. Even prompt washing with plain water may not completely remove all these deposits. A mild vehicle wash soap safe for use on painted surfaces, can be used.

CAUTION

Do not use strong soap, chemical detergents, or hot water, and do not wash the vehicle in direct sunlight or when the body of the vehicle is warm.

After soaping, rinse the vehicle thoroughly with lukewarm or cold water. Do not allow the soap to dry on the finish.

WAXING

Wax the vehicle when water will no longer bead on the paint. Always wash and dry the vehicle before waxing. Use a good-quality liquid or paste wax, and follow the manufacturer's instructions. Wax all the metal trim to maintain its luster.

NOTE

Removing oil, tar, and similar materials with a spot remover will usually strip the wax from the finish. Be sure to re wax these areas even if the rest of the vehicle does not yet need waxing.

WARNING!

After washing the vehicle, test the brakes while driving slowly to see if they have been affected by water.

CAUTION

- Wiping dust or dirt off the body with a dry cloth will scratch the finish.
- Do not use steel wool, abrasive cleaners, or strong detergents containing highly alkaline or caustic agents on

6-32

EXTERIOR CARE

Finish Damage Repair

chrome-plated or anodized aluminum parts. This may result in damage to the protective coating and cause discoloration or paint deterioration.

Deep scratches or stone chips in the painted surface must be repaired promptly because exposed metal will quickly rust and can cause a condition that may require major repair.

CAUTION

If your vehicle is damaged and requires any metal repair or replacement, be sure the body shop applies anticorrosion materials to the parts repaired or replaced.

Bright-Metal Maintenance

- Use tar remover and not knives or other sharp objects to remove road tar and insects.
- To protect the surfaces of bright-metal parts from corrosion, apply a coating of wax or chrome preservative and rub to a high luster.
- During winter weather or in coastal areas, cover the bright-metal parts with a heavier coating of wax or preservative. If necessary, coat the parts with noncorrosive petroleum jelly or other protective compound.

6-33

EXTERIOR CARE, INTERIOR CARE

Underbody Maintenance

Corrosive materials used for ice and snow removal and dust control may collect on the underbody. If these materials are not removed, accelerated rusting can occur on underbody parts, such as fuel lines, frame, floor pan, and exhaust system, even though they have been provided with rust protection. Thoroughly flush the underbody and wheel housing of your vehicle with lukewarm or cold water once a month and at the end of each winter. Pay special attention to these areas because it is difficult to see all the mud and dirt. It will do more harm than good to wet down the road grime without removing it. The lower edges of doors, rocker panels, and frame members have drain hole that should not be allowed to clog with dirt; trapped water in these areas can cause rusting.

WARNING!

After washing the vehicle, test the brakes while driving slowly to see if they have been affected by water.

Aluminum Wheel Maintenance (If equipped)

The aluminum wheels are coated with a clear protective finish.

NOTE

- Do not use any abrasive cleaner, polishing compound, solvent, or wire brushes on aluminum wheels. These may scratch or damage the finish.
- Use only a mild soap or neutral detergent, and rinse thoroughly with water. Also, be sure to clean aluminum wheels after driving on salted roads. This helps prevent corrosion.
- Avoid washing the wheels with high-speed car-wash brushes.

Interior General Precautions

Prevent caustic solutions such as perfume and cosmetic oil from contacting the dashboard because they may cause damage or discoloration. If they do contact the dashboard, wipe them off immediately.

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INTERIOR CARE

Upholstery and Interior Trim Cleaning

VINYL

Remove dust and loose dirt from vinyl with a soft broom or vacuum cleaner. Clean vinyl surfaces with a leather and vinyl cleaner.

LEATHER

Genuine leather is not uniform and may have scars, scratches, and wrinkles. Clean the surface with a leather and vinyl cleaner or with a mild soap solution. Wipe it clean with a damp soft cloth and dry and buff the surfaces with a dry soft cloth.

FABRIC

Remove dust and loose dirt from fabric with a soft broom or vacuum cleaner. Clean with a mild soap solution recommended for upholstery or carpets. Remove fresh spots immediately with a fabric spot cleaner. This fabric can be stained and its color can be affected. Also, its fire-resistant properties can be reduced if the materials are not properly taken care of.

CAUTION

Using any but recommended cleaners and procedures may affect the fabric's appearance and fire-resistant properties.

Lap/Shoulder Belt Webbing Cleaning

Clean the belt webbing with any mild soap solution recommended for cleaning upholstery or carpets; follow the instructions provided with the soap. Do not bleach or redye the webbing because this may weaken it.

Interior Window Glass Cleaning

If the interior glass surfaces of the vehicle become fogged (that is, covered with an oily, greasy, or waxy film), they should be cleaned with glass cleaner. Follow the directions on the container of cleaner.

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LUBRICANT SPECIFICATIONS

Recommended Lubricants

Lubricant	Classification
Engine Oil*	API Service SF or SG
Manual Transaxle Oil*	API Service GL-4, GL-5
Auto Transaxle Oil	ATF DEXRON II
Wheel bearing grease	NLGL NO. 2 (Lithium base)
Multi-Purpose grease	NLGL NO. 2 (Lithium base)
Brake/Clutch fluid	SAE J1703 or DOT-3, DOT 4

* Refer to the recommended SAE viscosity numbers on the next page.

To help achieve proper engine and powertrain performance and durability, use only lubricating oils of the proper quality. The correct oils also help promote engine efficiency that results in improved fuel economy. Engine oils labeled Energy Conserving Oil are now available. They contribute to fuel economy by reducing the amount of fuel necessary to overcome engine friction and in other ways. Often these improvements are difficult to measure in everyday driving, but in a year's time, they can offer significant cost and energy savings. These oils are recommended for use in conjunction with the recommended API classification.

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LUBRICANT SPECIFICATION

Recommended SAE Viscosity Numbers

Temperature	°C	-30	-20	-10	0	10	20	30	40	50
	(°F)	-20	0	20	40	60	80	100	120	
Engine oil		5W-30				30				
		5W-20		20W-20				40		
		10W-30								
		10W-40				10W-50				
		20W-40						20W-50		
Manual transaxle oil		75W-80 or ATF								

Engine oil viscosity (thickness) has an effect on fuel economy and cold-weather operation (starting and oil flow). Lower-viscosity engine oils can provide better fuel economy and cold-weather performance; however, higher-temperature weather conditions require higher-viscosity engine oils for satisfactory lubrication. Using oils of any viscosity other than those recommended could result in engine damage.

When choosing an oil, consider the range of temperature your vehicle will be operated in before the next oil change. Then select the recommended oil viscosity from the chart.

CAUTION BEFORE CHECKING LUBRICANTS

Always be sure to clean the area around any filler plug, drain plug, or dipstick before checking or draining any lubricant. This is especially important in dusty/sandy areas or when the vehicle is used on unpaved roads. Cleaning the plug and dipstick areas will prevent dirt and grit from entering the engine or other mechanism that could be damaged.

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CUSTOMER ASSISTANCE

Customer Assistance

Your complete and permanent satisfaction is of primary concern to Kia. All Authorized Kia Dealers have the knowledge and tools to keep your Kia vehicle in top condition.

If you have any questions or complaints regarding the service of your Kia vehicle or servicing by Kia Dealer personnel, we recommend you to take the following steps:

STEP 1

Discuss the matter with an Authorized Kia Dealer. This is the quickest and best way to resolve your problems. If it has already been reviewed with the SALES or SERVICE MANAGER, contact the GENERAL MANAGER of the dealership or the OWNER.

STEP 2

If you feel that you still need assistance after taking STEP 1, contact the Kia Distributor (listed on the next page) for your area. Your distributor will need the following information:

1. Your name, address, and telephone number
2. Year and model of vehicle
3. Vehicle Identification Number (17 digits, from the registration or title or from the plate on the dashboard)
4. Purchase date and current mileage
5. Your dealer's name and location
6. Your question

Add-on Electric Equipment

Workshop Manuals

The electric system of your vehicle is designed to perform under expected operating conditions. Before any additional electric equipment is installed on your vehicle, consult an Authorized Kia Dealer. Certain electric equipment or the way in which it is installed may adversely affect the operation of your vehicle, including such systems as the engine, control system, including the driver information system, the audio system, and the electrical charging system. We assume no responsibility for any expense you may incur or for any malfunctioning of your vehicle or any of its components or systems that may result from the installation of additional electric equipment that is not supplied by or recommended for installation by Kia.

INSTALLATION OF A MOBILE TWO-WAY RADIO SYSTEM

If a mobile two-way radio system is installed improperly or if an excessively powerful type of system is used, the fuel injection system, the cruise control system, and other electronic systems may be affected. To avoid damage to your vehicle, consult an Authorized Kia Dealer concerning the proper installation.

All vehicles need repairs during their lifetime. Genuine Kia service literature is available for owners who wish to do some of their own maintenance and repair.

If you wish to obtain original factory authorized service literature for your vehicle, please contact an Authorized Kia Dealer.

7-3

CONSUMER INFORMATION

Registering Your Vehicle in A Foreign Country

When planning to register your vehicle in a foreign country, before taking it there you should confirm whether it conforms to regulations in that country. Even if you successfully register the vehicle in a foreign country, you may still experience such problems as these in its actual use and should therefore consider the possibility of having to deal with them.

1. The fuel specified for your vehicle may be unavailable. If other than specified fuel is used, it could cause problems to the engine, the carburetor, and other fuel-related parts.

2. Because vehicles like yours may not be marketed in the new country of registration, parts, servicing techniques, and tools necessary to maintain and repair your vehicle may be unavailable. Even if vehicles like yours are sold there, mechanical specifications required by the government may vary enough from the country of purchase to cause similar problems. Further, you may experience difficulty in getting after-sales servicing for any one of several reasons.
3. There may be no Authorized Kia Dealer in the area in which you plan to register your vehicle.

We must therefore clearly state that when you leave the country in which you purchased your Kia as a new vehicle and register it in another country, troubles arising from the use of fuel other than specified fuel are not subject to manufacturer's warranty. Further, we cannot assume any responsibility for problems that result from unsatisfactory service or lack of service because of the reasons outlined above.

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SPECIFICATIONS

Specifications

The specifications given here are for information only. Before using them, see the CAUTIONS and other instructions throughout this manual. The index (page 9-2) may help you locate these items. For more information, you may purchase a Workshop Manual covering the chassis or body part in question. An Authorized Kia Dealer may also be able to help.

DIMENSIONS

Unit: mm (in)

ITEM	LENGTH
Overall length	3,935 (154.9)
Overall width	1,605 (63.2)
Overall height	1,455 (57.3)
Front tread	1,405 (55.3)
Rear tread	1,385 (54.5)
Wheelbase	2,345 (92.3)

WEIGHTS

5 DOOR MODEL

Unit: kg (lb)

Engine Type	Weight	Curb Weight	M.L.V.W
B:	Front	490 (1,078)	588 (1,293)
	Rear	325 (715)	559 (1,230)
	Total	815 (1,793)	1,147 (2,523)
B:	Front	480 (1,056)	578 (1,272)
	Rear	320 (704)	553 (1,216)
	Total	800 (1,760)	1,131 (2,488)

SPECIFICATIONS

ENGINE

Engine Model		1.1l	1.3l
Item			
Firing order		1-3-4-2	
Valve Clearance	Intake	0.3 mm (0.01 in)	
	Exhaust	0.3 mm (0.012 in)	
Ignition timing		2° ± 1° BTDC	
Idle Speed	Man. trans	800 — 850 rpm	
	Auto trans	850 — 900 rpm	

OIL CAPACITIES

Item	Unit	Us qt	Imp qt	Liter
Engine oil		3.6	3.0	3.4
Coolant		5.3	4.4	5.0
Manual transaxle oil		2.6	2.2	2.5
Auto transaxle oil		5.6	4.7	5.3
Fuel tank	US gal		Imp gal	Liter
		9.62	8.14	37

ELECTRIC SYSTEM

Unit: mm (in)

Battery	Maintenance-free, 12V—40Ah
Alternator	12V—45 amp
Starter	12V—0.85 kw
Spark plug gap	0.8 $\pm$ 0.5 (0.031 $\pm$ 0.02)

TIRES

Size	Inflation Pressure kg/cm ² (psi)	
	Front	Rear
165/65SR 13	1.9 (28)	

8-3

SPECIFICATIONS

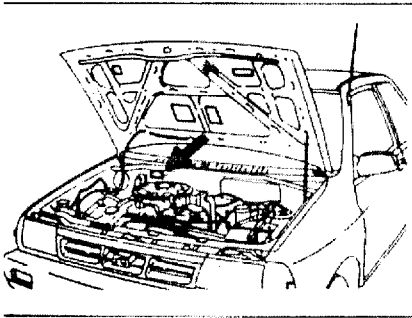
LIGHT BULBS

Light bulb	Wattage
Headlights	60/55
Front turn signal lights	21
Side turn signal/position lights	5/5
Stop lights	5
Rear turn signal lights	21
Tail lights	21
Back up lights	21
License plate lights	5
Rear cargo room light	5
Room light	10

FUSES Refer to page 5-6

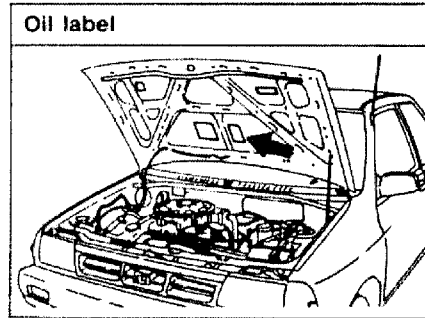
8-4

Label Information

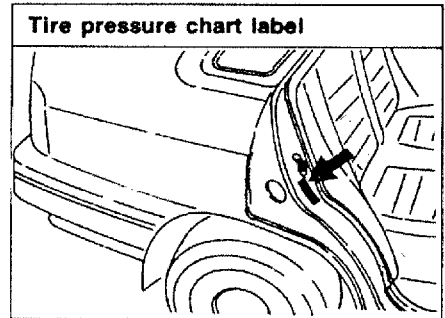


**VEHICLE IDENTIFICATION
NUMBER (VIN)**

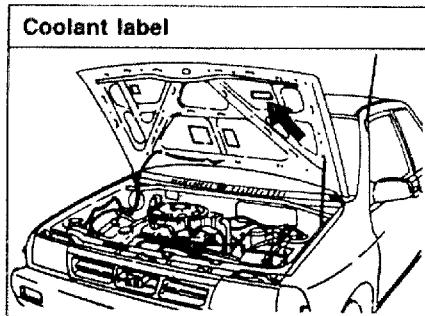
This is the legal identifier for your vehicle. It is stamped on the right top passenger's side portion of the inside dash panel. This stamp can be seen easily with the hood opened.



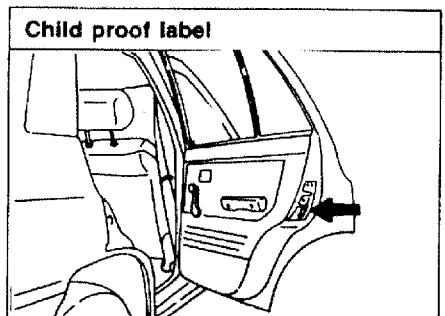
Oil label



Tire pressure chart label



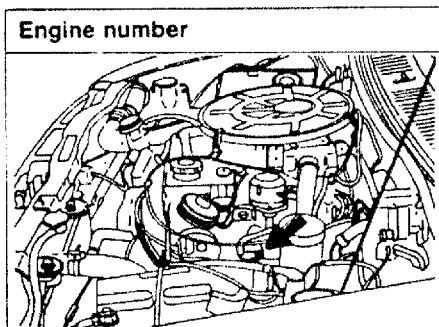
Coolant label



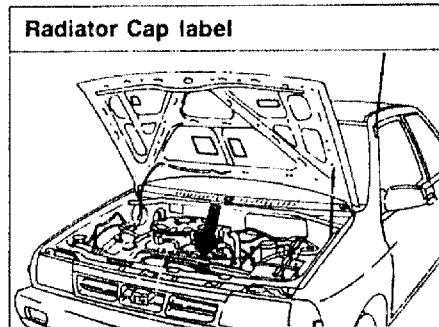
Child proof label

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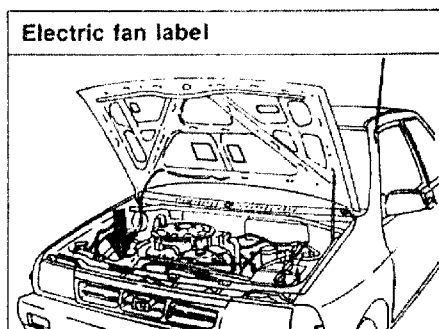
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Engine number



Radiator Cap label



Electric fan label

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