Recommended Fluids and Lubricants

Descriptions					Capacity	Specifications
Engine Oil				D20DT	≒ 7.5 ℓ	Quality class: Ssangyong genuine engine oil (Approved by MB Sheet 229.1 or 229.3) Viscosity: MB sheet No. 224.1
				G23D	≒ 7.5 ℓ	
Engine Coolant				D20DT	10.5 ~ 11.0 ℓ	Ssangyong genuine coolant (Anti-freeze:SYC-310, Anti-freeze:water = 50:50)
				G23D		
Automatic Transmission Fluid					≒ 9.5 ℓ	Ssangyong genuine oil (CASTROL TQ 95)
Manual Transmission Fluid				4WD	≒ 3.6 ℓ	Ssangyong genuine oil (ATF DEXRON II)
				2WD	≒ 3.4 ℓ	
Transfer Case Fluid					≒ 1.4 ℓ	Ssangyong genuine oil (ATF DEXRON III)
Axle Oil	Front	Automatic Transmission			≒ 1.4 ℓ	Ssangyong genuine oil (SAE 80W/90, API GL-5)
		Manual Transmission			≒ 1.4 ℓ	
	Rear	Solid Axle Suspension	ACTYON	2WD ALL, 4WD M/T	≒ 1.9 ℓ	Ssangyong genuine oil (SAE 80W/90, API GL-5)
				4WD A/T	≒ 2.0 ℓ	
			ACTYON SPORTS	2WD A/T	≒ 1.9 ℓ	
				4WD ALL, 2WD M/T	≒ 2.0 ℓ	
Brake / Clutch Fluid					As required	Ssangyong genuine oil (DOT4)
Power Steering Fluid					≒ 1.0 ℓ	Ssangyong genuine oil (ATF DEXRON II or III)

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FOREWORD

This manual has been prepared to acquaint you with the operation and maintenance of your **ACTYON/ACTYON SPORTS** and to provide important safety information. We urge you to read it carefully and follow the recommendations to help assure the most enjoyable, safe, and trouble-free operation of your vehicle.

When it comes to service, remember that your SSANGYONG dealer knows your vehicle best and is interested in your complete satisfaction.

We would like to take this opportunity to thank you for choosing **ACTYON/ACTYON SPORTS** and assure you of our continuing interest in your motoring pleasure and satisfaction.

This manual should be considered as a permanent part of your vehicle, and must remain with the vehicle at the time of resale.

SSANGYONG
PYUNGTAEK, KOREA

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IMPORTANT NOTICE

Please read this manual and follow the instructions carefully.

Signal words such as “WARNING”, “CAUTION” and “NOTE” have special meanings.

WARNING

WARNING

WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

CAUTION

CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury or property damage.

NOTE

NOTE

NOTE indicates information to assist maintenance and instructions.

For product design changes

For a highest level of safety and quality, we are innovating our vehicles through our continual research and development efforts. As a result, the specifications are subject to change for the purpose of improvement without any notice and you may find material in this manual that does not apply to your specific vehicle.

All information, illustrations and specifications in this manual are based on the latest product information available at the time of publication.

Ssangyong reserves the right to change specifications or design at any time without notice and without incurring any obligation whatsoever.

This vehicle may not comply with the standards or regulations of other countries. Before attempting to register this vehicle in any other country, check all applicable regulations and make any necessary modifications.

This manual describes options and trim levels available at the time of printing, and therefore, some of the items covered may not apply to your vehicle. If any doubt exists about any of the options or trim levels, please do not hesitate to contact your Ssangyong Distributor for information on the latest specifications.

* : This asterisk in this manual signifies that an item of equipment is not included in all vehicles (model variants, engine options, models specific to one country, optional equipment, etc.).

We would like to point out that non Ssangyong Genuine parts and accessories have not been examined and approved by Ssangyong, and in spite of continuous market product monitoring, we cannot certify the suitability nor the safety of such products whether they are installed or intended for fitment in our vehicles. Ssangyong is not liable for any damage caused by the use of non Ssangyong Genuine parts and accessories.

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General

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RECOMMENDED FLUIDS AND LUBRICANTS

Descriptions					Capacity	Specifications
Engine Oil				D20DT	≒ 7.5 ℓ	Quality class: Ssangyong genuine engine oil (Approved by MB Sheet 229.1 or 229.3) Viscosity: MB sheet No. 224.1
				G23D	≒ 7.5 ℓ	
Engine Coolant				D20DT	10.5 ~ 11.0 ℓ	Ssangyong genuine coolant (Anti-freeze:SYC-310, Anti-freeze:water = 50:50)
				G23D		
Automatic Transmission Fluid					≒ 9.5 ℓ	Ssangyong genuine oil (CASTROL TQ 95)
Manual Transmission Fluid				4WD	≒ 3.6 ℓ	Ssangyong genuine oil (ATF DEXRON II)
				2WD	≒ 3.4 ℓ	
Transfer Case Fluid					≒ 1.4 ℓ	Ssangyong genuine oil (ATF DEXRON III)
Axle Oil	Front	Automatic Transmission			≒ 1.4 ℓ	Ssangyong genuine oil
		Manual Transmission			≒ 1.4 ℓ	(SAE 80W/90, API GL-5)
	Rear	Solid Axle Suspension	ACTYON	2WD ALL, 4WD M/T	≒ 1.9 ℓ	Ssangyong genuine oil
				4WD A/T	≒ 2.0 ℓ	(SAE 80W/90, API GL-5)
			ACTYON	2WD A/T	≒ 1.9 ℓ	
			SPORTS	4WD ALL, 2WD M/T	≒ 2.0 ℓ	
Brake / Clutch Fluid					As required	Ssangyong genuine oil (DOT4)
Power Steering Fluid					≒ 1.0 ℓ	Ssangyong genuine oil (ATF DEXRON II or III)

WARNING

- Use only Ssangyong recommended fluids and lubricants.
- Do not mix any different types or brands of oils or fluids. This may cause damages.
- Keep the specified levels when adding or replacing the fluids.

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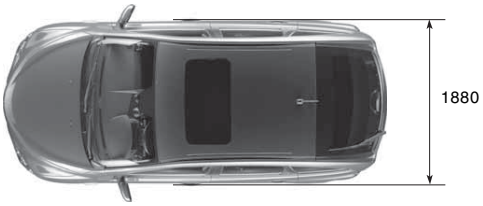
DIMENSIONS (ACTYON)

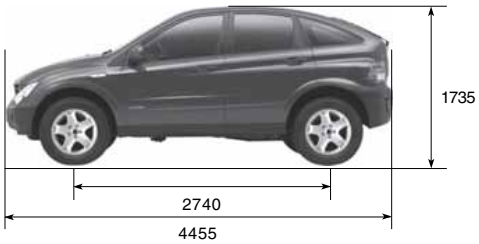
Unit: mm

Top View



Front View

Side View



Rear View

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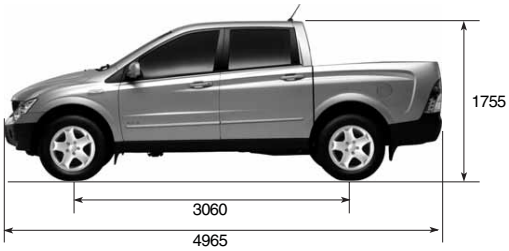
DIMENSIONS (ACTYON SPORTS)

Unit: mm

Top View

Front View

Side View



Rear View

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SPECIFICATIONS (I)

* ( ) Optional, [ ] 2WD

Descriptions			ACTYON		ACTYON SPORTS
			D20DT	G23D	D20DT
General	Overall length (mm)		4,455	←	4,965
	Overall width (mm)		1,880	←	1,900
	Overall height (mm)		1,735	←	1,755
	Gross vehicle weight (kg)	A/T	2,520	←	2,740 [2,640]
		M/T	2,520	←	2,740 [2,640]
	Curb vehicle weight (kg)	A/T	1,974 [1,865]	←	1,986 [1,877]
		M/T	1,952 [1,843]	←	1,963 [1,854]
	Fuel		Diesel	Gasoline	Diesel
	Fuel tank capacity (ℓ)		75	←	←
	Min. turning radius (m)		5.6	←	6.18
Engine	Numbers of cylinders/ Compression ratio		4 / 17.5:1	4 / 10.4 : 1	4 / 17.5:1
	Total displacement (cc)		1,998	2,295	1,998
	Camshaft arrangement		DOHC	←	←
	Max. power		141 PS / 4,000 rpm	150 PS / 5,500 rpm	141 PS / 4,000 rpm
	Max. torque		310 Nm / 1,800 ~ 2,700 rpm	214 Nm / 3,500 ~ 4,600 rpm	310 Nm / 1,800 ~ 2,700 rpm
	Idle speed		780 ± 50 rpm	750 ± 50 rpm	780 ± 50 rpm
	Cooling system		Water- cooled / forced circulation	←	←
	Coolant capacity (ℓ)		10.5 ~ 11.0	←	←
	Lubrication type		Gear pump, forced circulation	←	←
	Max. oil capacity (ℓ) **(when shipping)**		8.2	7.9	8.2
	Turbocharger and cooling type		Turbocharger, air-cooled	–	←

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SPECIFICATIONS (II)

* ( ) Optional, [ ] 2WD

Descriptions			ACTYON		ACTYON SPORTS
			D20DT	G23D	D20DT
Manual Transmission	Operating type		Semi- Remote control, floor change type	←	←
	Gear ratio	1st	4.315	←	←
		2nd	2.475	←	←
		3rd	1.536	←	←
		4th	1.000	←	←
		5th	0.807	←	←
		Reverse	3.919	←	←
Automatic Transmission	Model		Electronic, 4-speed	←	←
	Operating type		Floor change type	←	←
	Gear ratio	1st	2.741	←	←
		2nd	1.508	←	←
		3rd	1.000	←	←
		4th	0.708	←	←
		Reverse	2.429	←	←
Transfer Case	Model		2WD, Part-time	Part-time	←
	Type		Planetary gear type	←	←
	Gear ratio	High (4H)	1.000 : 1	←	←
		Low (4L)	2.483 : 1	←	–
Clutch (M/T)	Operating type		Hydraulic type	←	←
	Disc type		Dry single diaphragm type	←	←
Power Steering	Type		Rack and pinion	←	←
	Steering angle	Inner	35.7°	←	←
		Outer	32.1°	←	←

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SPECIFICATIONS (III)

* ( ) Optional, [ ] 2WD

Descriptions			ACTYON		ACTYON SPORTS
			D20DT	G23D	D20DT
Front Axle	Drive shaft type		Ball joint type	←	←
	Axle housing type		Build-up type	←	←
Rear Axle	Drive shaft type	Solid axle suspension	Semi-floating type	←	←
	Axle housing type		Build-up type	←	←
Brake	Master cylinder type		Tandem type	←	←
	Booster type		Vacuum assisted booster type	←	←
	Brake type	Front wheels	Disc type	←	←
		Rear wheels	Drum (disc)	←	←
	Parking brake		Cable type (internal expansion)	←	←
Suspension	Front suspension		Wishbone + coil spring	←	←
	Rear suspension	Solid axle suspension	5-link + coil spring	←	←
Air Conditioner	Refrigerant (capacity)		R-134a (650 ± 30g)	←	←
Electrical	Battery type / Capacity (V-AH)		MF / 12 - 90	←	←
	Starter capacity (V-kW)		12 - 2.2	12 - 1.2	12 - 2.2
	Alternator capacity (V-A)		12 - 115	←	←

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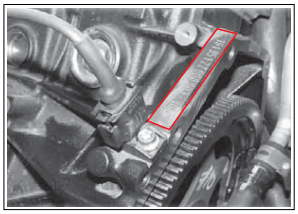
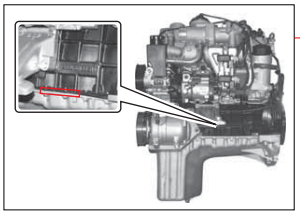
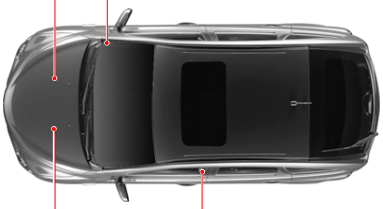
1. Engine Number



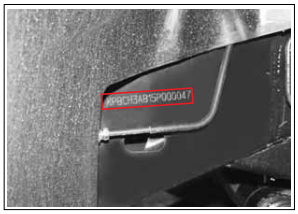
Gasoline Engine: The engine number is stamped on the upper rear left-hand side of the cylinder block.



Diesel Engine: The engine number is stamped on the lower area of cylinder block behind the Intake manifold.



2. Chassis Number



The chassis number is stamped on the frame behind the front right tire.

3. Certification Label

The certification label is located on the driver's door sill.

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Safety Precautions

1

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CHECK THE VEHICLE OUTSIDE

1. Check the tire inflation and wear.
2. Check the engine oil and other fluid/oil levels in the engine compartment.
3. Clean the windshield and rear glasses, side mirrors, and room mirrors.
4. Make sure that the engine hood and tailgate are properly closed.
5. Make sure that there are no obstacles in the danger area around the vehicle.

CHECK THE VEHICLE INSIDE

1. Make sure that all doors including the tailgate are properly closed.
2. Adjust the driver's seat for comfortable driving.
3. Adjust the outside and inside rear view mirrors.
4. Fasten the seat belts and be sure that all other occupants have fastened theirs properly.
5. Check operation of the parking brake.
6. Check that all appropriate warning lights are operating when turning the ignition key to the "ON" position.
7. Check the operations of the clutch pedal, accelerator pedal, and brake pedal.
8. Make sure that there are no obstacles in the danger area around the vehicle.

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FUEL RECOMMENDATION

Commercially available high-quality fuels are suitable. Fuel quality has a decisive influence on the power output, driveability and life of the engine. The additives contained in the fuel play an important role in this connection. You should therefore use only high-quality fuels.

Diesel Engine

Use diesel fuel at 50 cetane rating or higher.

Gasoline Engine

Fuel with too low an octane number can cause pre-ignition (detonation). Ssangyong can not be held liable for resultant damage.

CAUTION

For correct octane rating setting and other use of gasoline (ex. Leaded), consult your Ssangyong Dealer.

CAUTION

Engine and exhaust system will be damaged.

- Do not use leaded fuel to the vehicle for unleaded fuel.
- Use the fuel with specified or higher Research Octane Number recommended for your country by Ssangyong.

It is not covered by warranty.

Do not Use Methanol

Fuels containing methanol (wood alcohol) should not be used in your vehicle. This type of fuel can reduce vehicle performance and damage components of the fuel system.

NOTE

The warranty policy will not cover damage of the fuel system and any performance problems that are caused by the use of methanol or fuel containing methanol.

Operation in Foreign Countries

If you are going to drive your vehicle in another country, be sure to:

- Observe all regulations regarding registration and insurance.
- Check that a suitable fuel is available.

Vehicle Fueling from Drums or Storage Containers

For safety reasons (particularly when using noncommercial fueling systems) fuel containers, pumps and hoses must be properly earthed.

Static electricity build up can occur under certain atmospheric and fuel flow conditions if unearthed hoses, particularly plastic, are fitted to the fuel dispensing pump.

It is therefore recommended that earthed pumps with integrally earthed hoses be used, and that storage containers be properly earthed during all noncommercial fueling operations.

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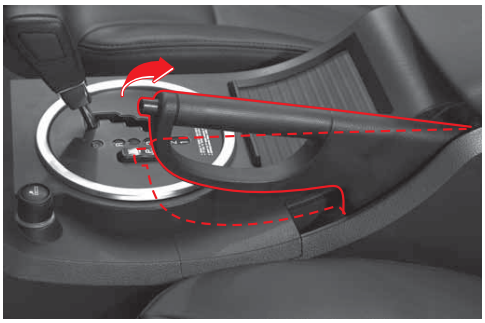
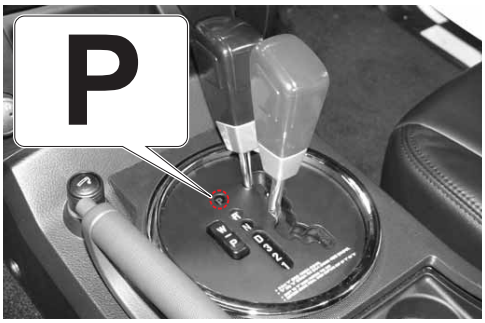


1. Apply the parking brake.
2. Make sure that there are no persons or obstacles in the dangerous area around the vehicle.

CAUTION

The engine with an automatic transmission equipped vehicle can be started only when the selector lever is at the **"P"** or **"N"** position. The engine with a manual transmission equipped in vehicle can be started only when the clutch pedal is fully depressed.

Do not turn the ignition key to the **"START"** position while the engine is running. It could result in serious start motor damage.



3. • **Automatic transmission equipped vehicle**

   Move the selector lever to the **"P"** position and depress the brake pedal.

   • **Manual transmission equipped vehicle**

   Move the gearshift lever to the Neutral position and fully depress the brake pedal and the clutch pedal.

WARNING

Depress the brake pedal when the selector lever is at the **"P"** position. Never depress the accelerator pedal.

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4. • **Diesel engine equipped vehicle:**

   Insert the ignition key into the key cylinder and turn it to the **"ON"** position without depressing the accelerator pedal. As soon as the glow indicator ( ) goes out, turn the key to the **"START"** position to start the engine.

   • **Gasoline engine equipped vehicle:**

   Turn the ignition key to **"ON"** position and check the appropriate warning lights are operating.

5. Release the key when the engine starts. If your vehicle is equipped with a manual transmission and is engaged at neutral (N), it is ok to release the clutch pedal when the engine runs.
6. Warm up the engine in idling speed. Do not warm up the engine excessively.

7. Make sure that there are no persons or obstacles in the danger area around the vehicle.
8. Release the parking brake.
9. • **Automatic transmission equipped vehicle**

   Keep the brake pedal depressed and shift into the **"D"** position. Make sure that the position indicators of **"D"** are coming on. Slowly release the brake pedal to begin moving.

   • **Manual transmission equipped vehicle**

   Keep the brake pedal and clutch pedal depressed and shift into the **"1"** position. Release the brake pedal and gradually depress the accelerator while slowly releasing the clutch to begin moving.

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SAFETY PRECAUTIONS (I)

Ignition Key/Remote Control Key

1. Never use any duplicated key not provided by Ssangyong. It may cause a fire due to an overload in the electric circuit.
2. If you lose your keys, you have to replace the whole key set to prevent from theft.
3. Avoid shock to the transmitter in the remote control key and do not get it wet.
4. Only use the batteries with the same specifications to replace the discharged battery. Do not reverse the polarity.

Turbocharger System

If the oil supply for the bearing assembly of the fast rotating turbo charger stops, the stop will cause the turbocharger to seize. Therefore, the following cares are necessary to prevent the seizure.

1. After starting the engine, let it run for approx. 2 minutes at idle speed (Avoid acceleration or driving off the vehicle).
2. After changing the engine oil and oil filter, start the engine and let it run for approx. 2 minutes at idle speed (Avoid acceleration or driving off the vehicle).
3. Do not stop the engine immediately after coming back from high load driving (such as high speed driving or driving on long slope). Let the engine run for approx. 2 minutes at idle speed to cool it down.

Air Bag

1. Never impact the air bag installations by hands or tools.
2. The air bag system serves as a supplement to the seat belt. Make sure that you and your passengers always fasten the seat belts properly even if the air bags are installed in the vehicle.
3. Do not place any objects on the air bag inflation location. You may be injured by those objects during deployment.
4. The air bag system should be inspected 10 years after installation regardless of its appearance and other conditions.
5. Repairs to the air bag system should be done only by a Ssangyong Dealer or Ssangyong Authorized Service Center.
6. Do not diagnose the circuit with a circuit tester. Do not attempt to modify any air bag components including the steering wheel, air bag mounting area, and harness.
7. Never install a child restraint in the front seat. The children on the restraint could be seriously injured by the air bag in a collision.
8. The deployed air bag unit should be removed from the vehicle and replaced with a new one.
9. When the air bag is deployed, the relevant components will be very hot, so do not touch them until they have cooled down.
10. A person who is smaller than 140 cm should sit in the rear.

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SAFETY PRECAUTIONS (II)

Hazardous Materials

Do not store any flammable items or disposable lighters in the console box or other spaces. In hot weather, they can explode and cause a fire.

Genuine Parts

Always use only Ssangyong genuine parts for replacement. Ssangyong is not liable for any damage caused by the use of non-Ssangyong genuine parts and accessories.

Tire

1. Be sure to use the same size and type of tires from the same manufacturer on all wheels. Otherwise, damage can be caused to the powertrain.
2. Keep the specified tire inflation pressure.
3. Make sure that the spare tire is ready for use at any time. After installing the spare tire on a wheel, do not drive for a long distance. Instead, visit a nearby dealer or tire shop to replace the spare tire with a regular tire for driving.
4. Always check the tire surface for damage and uneven wear before driving and replace it if needed.
5. Using tires of different specifications may cause high fuel consumption, long stopping distance, vehicle body vibration, heavy steering operation, and poor ABS operation.

Power Window

1. When you operate the rear windows from the driver's seat while a child sits in the rear, make sure that no body part of the child is between the window and the window frame.
2. When carrying children in the rear seat, press the rear door window lock switch to make the rear door switches inoperative.
3. Make sure that all passengers have their body parts such as hands inside the vehicle.
4. When closing the windows, be aware of safety conditions before operation.

Glass Care

1. Be careful not to damage the rear heated wire and diversity antenna when cleaning the rear glass.
2. Do not install any sunshield on the windshield glass and rear glass. It may adversely affect the rear heated wire and receiving sensitivity of the antenna.
3. The rain and automatic light sensors are installed on the upper middle front of the windshield (if equipped). If these sensors are contaminated or covered with various coating sprays, the automatic rain sensing wipers and lights may not work properly.

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SAFETY PRECAUTIONS (III)

Child Restraint

When transporting infants or small children, an appropriate child restraint system should always be used. The child restraint system should be appropriate for your child's weight and height and properly fit the car's seat. Accident statistics indicate that children are safer when properly restrained in the rear seat rather than in the front seat.

WARNING

- Infants and small children should always be restrained in an infant or child restraint.
- NEVER INSTALL A REAR-FACING CHILD RESTRAINT IN THE FRONT SEAT WITH FRONT PASSENGER AIR BAG.
- A child in a rear-facing child restraint installed in the front seat can be seriously injured if the front passenger air bag inflates. Secure a rear-facing child restraint in the rear seat.
- A front-facing child restraint should be secured in the rear seat whenever possible. If installed in the front passenger seat, adjust the seat as far back as it will go.
- When installing a child restraint system, follow the instructions provided by the manufacturer.
- When not in use, keep your child restraint system secured with a seat belt or remove it from the vehicle.
- Do not hold a child while riding in a vehicle.
- Never let a child stand or kneel on any seat.
- Do not allow a child in the cargo areas while the vehicle is moving.

WARNING

- Children who have outgrown child restraint systems should sit in the rear seat and be restrained with the seat belt. If child's seating position has a shoulder belt which is on or very close to the face or neck, move the child close to the center of the vehicle, slightly inboard of the shoulder belt, or move the child to a position without a shoulder belt if possible.
- Please note that the three point seat belt is designed for a person who is taller than 140 cm.

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SAFETY PRECAUTIONS (IV)

Starting the Engine

1. Turn the ignition key to the **"ON"** position and wait until the glow indicator goes out. After then, turn the ignition key to the **"START"** position and hold it until the engine starts.
2. Even if the engine does not start, do not hold the ignition key at the **"START"** position for more than 10 seconds.
3. If the engine does not start, wait 10 seconds before trying again.
4. If the engine fails to start, turn the key back to the **"LOCK"** position and wait for 10 seconds.
5. Do not turn the ignition key to the **"START"** position while the engine is running.
6. The engine in an automatic transmission equipped vehicle can be started only when the selector lever is at the **"P"** or **"N"** position.

   The engine in a manual transmission equipped vehicle can be started only when the clutch pedal is fully depressed.
7. Do not leave the ignition key at the **"ON"** or **"ACC"** position when the engine is not running. This could cause battery discharge.

Warming Up the Engine

1. Do not drive without warming up the engine. Driving immediately after starting the engine may decrease the engine's life expectancy. Warm up the engine before moving your vehicle.
2. Do not warm up the engine excessively. Warm up the engine just until the coolant temperature gauge begins to move.
3. Excessive engine warming increases the fuel consumption and air pollution. An optimized warming up time is approx. 2 minutes.

※ Do not accelerate the engine during the warming up period.

Driving the Automatic Transmission Equipped Vehicle

1. Keep the brake pedal depressed and shift the gear selection lever into the **"D"** position. Make sure that the **"D"** light is on the instrument cluster.
   Drive off the vehicle by releasing the brake pedal slowly.
2. To avoid any possible damage to the automatic transmission, do not abruptly drive off or accelerate the vehicle after shifting the gear selection lever into the **"D"** position. Especially on a hill, move the lever to the **"D"** position with the brake pedal depressed and wait for a couple of seconds until the position indicator of **"D"** is on the instrument cluster.
3. Your vehicle may move backward on a steep hill even if the shift lever is engaged into the **"D"** position. Therefore, always depress the brake pedal when you need to stop on such a hill.

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SAFETY PRECAUTIONS (V)

Cautions While Driving

1. Do not turn off the engine while the vehicle is in motion. The power steering function and the brake assist function will be deactivated.
2. Do not attempt to adjust the driver's seat, rear view mirrors, or steering wheel while driving. Adjustments should be done before driving.
3. While driving, do not depress the brake pedal when the accelerator pedal is depressed. Otherwise, the response from the accelerator pedal may be delayed. This symptom is the safety function to protect the vehicle's drive system. This symptom can be eliminated if you depress and release the accelerator pedal once when the brake pedal is not depressed.
4. Do not operate the steering wheel abruptly. This will cause unstable driving situations and can end with an unexpected accident.

Abrupt Start, Acceleration and Stop

1. Avoid abrupt starts, acceleration or stops. It may cause high fuel consumption or an accident.
2. Gently accelerate and decelerate the engine.

Engine Brake

When driving down a long slope, use the engine brake effect by downshifting the transmission in steps according to the driving conditions while using the service brake. An excessive operation of the service brake could result in a "Fade" or "Vapor Lock" effect.

Stopping and Parking the Vehicle

1. Never leave infants and children unattended in the vehicle with the doors locked. They can move the vehicle unexpectedly. They can be suffocated in especially hot weather.
2. When parking the vehicle on a hilly road, apply the parking brake and chock the blocks under the wheels. Place the gear selector lever to the "P" position (automatic transmission equipped vehicle).
3. If possible, do not stop and park the vehicle on the steep road.

Extinguisher

Keep it ready for use at any time. Be familiar with how to use it. For more information, read the label on the surface of the fire extinguisher.

Fade

Reduction or loss in braking force due to loss of friction between the brake pads and disc, caused by heat buildup through repeated or prolonged brake application.

Vapor Lock

When the brake is excessively applied on a downhill, some bubbles can be formed in the brake cylinder or in brake lines. Because of these bubbles, hydraulic braking pressure cannot be transferred to breaking units of the vehicle despite the fully depressed brake pedal.

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CAUTIONS FOR DIRECT INJECTION TYPE DIESEL ENGINE (I)

Direct Injection (DI) Type Diesel Engine

Compared to Indirect Injection (IDI) Type Diesel Engine that uses a mechanical fuel injection system, a Direct Injection (DI) Type Diesel Engine controls the amount of injected fuel and the fuel injection timing electronically. This advanced engine enhances the output power and reduces the noxious exhaust gas (CO, HC, NOx....). Because the Direct Injection Diesel Engine is operated by high pressure (1,600 bars), any removal, modification or service of the engine may contaminate the inside of the system and cause the system to malfunction. In that case, the malfunction and any related systems are not under warranty of this company.

Warning for Using Low Quality Fuel

The fuel system in a DI engine equipped vehicle has many precisely machined components. Using low quality fuel could result in serious damage to the engine due to the water or impurities in the fuel.

Never use the low quality fuel.

System Safety Mode

When the vehicle has a system error, the vehicle operates in safety mode to maintain minimum driving conditions and to prevent the system from being damaged. In this mode, the engine driving force may be decreased or the engine may stall. When this happens, have the system checked at a Ssangyong Dealer or Ssangyong Authorized Service Center.

Supplementary Heating Device

- FFH (Fuel Fired Heater)

This supplementary heater is a fuel burning type and improves the heating effect by increasing the engine coolant temperature.

- PTC (Positive Temperature Coefficient)

This supplementary heater is an electrical air heating type and installed on the heater outlet port. This device improves the heating effect by increasing the temperature of flowing air into the passenger room.

FFH Operation

The FFH system operates up to more than 2 minutes to burn the residual fuel inside the system when stopping the engine during its operation.

Therefore, a certain period of FFH operation after stopping the engine is not a malfunction.

In an initial operating stage, the fuel pump generates the operating sound and the FFH heater produces white smoke. These are normal states to fill the fuel into the FFH fuel line.

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CAUTIONS FOR DIRECT INJECTION TYPE DIESEL ENGINE (II)

Engine Check Indicator

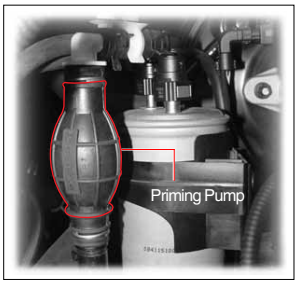
The Engine check indicator on the instrument cluster comes on when the fuel or major electronic systems of the engine are not working properly. As a result, the engine's power output may decrease or the engine may stall. If this happens, please visit the nearest Ssangyong dealer or authorized service operator.

Water Separator Warning Light

Can be performed when engine oil is changed

When the water level inside of the water drain in the fuel filter exceeds a certain level, this warning light and an alarming sound are activated. In addition, the driving force of the vehicle decreases. If this happens, immediately drain the water from the fuel filter. Please refer to Chapter 5 "How to drain the water from the fuel filter" in this manual.

Priming Pump Operating Conditions



1. When completely consumed the fuel
2. After draining the water from the fuel filter
3. After replacing the fuel filter

- If this happens, pump fuel until the priming pump is fully filled. Then, start the engine.

WARNING

- When engine check warning light comes on, immediately stop driving and have the engine system checked at a Ssangyong Dealer or Ssangyong Authorized Service Center.
- Drain the water from fuel filter & water separator immediately after the water separator warning light comes on.
- The fuel system in the engine may get seriously damaged if you keep driving while the warning light is on.

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PRECAUTIONS REGARDING UNAUTHORIZED MODIFICATION & ALTERATION (I)

Do not modify this vehicle.

If unauthorized modification is made on the vehicle, the company is not liable for repairing the modified parts even during the term of warranty. Other part problems caused by modification are also not covered.

The vehicle you bought is equipped with a large number of precision parts that have passed through countless experiments and tests. These parts are deeply and systematically interwoven. Therefore, if any part is modified or altered without authorization, said parts may be damaged from the decrease in performance or overloading, which can then cause critical damage to the vehicle and human life.

Do not modify without authorization the driving gear system, including the engine, just to upgrade the vehicle's performance and beauty.

- Prohibition of using unauthorized modification of the engine or parts for the exhaust

Changing without authorization the preset value in the fuel supply system and inlet, exhaust and electric systems, and changing or adding unauthorized parts is illegal and may cause serious problem with the vehicle's durability.

In particular, modifying your vehicle into the LPG vehicle might bring serious damage to the vehicle's performance and durability. Not only the engine but also the transmission and wheel alignment are excluded from the warranty.

If you install a wheel dust cover on the tires to enhance the beauty of tire parts, the heat caused by friction in braking might bring serious problems in performance, causing Vapor Lock and Fade phenomena.

Do not modify the car's audio system and install other additional electronic devices such as wireless communication equipment, rear view camera, LCD TV, and remote starting device.

This vehicle's electronic system contains electronic circuits and fuses for the installation of standard electric and electronic devices. If you add new devices or circuits using the several existing devices and circuits at a time, electric and electronic devices can be damaged from overloading and may ignite. In addition, when you do drilling work in installing devices such as an antenna may expose the vehicle to rusting.

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PRECAUTIONS REGARDING UNAUTHORIZED MODIFICATION & ALTERATION (II)

Do not use the nonstandard tires, wheels, and other related parts.

Installing nonstandard tires such as tires with greater width than prescribed can wear out the power delivery system or friction-damage related parts. In addition, other problems such as increase of fuel consumption and braking distance, vehicle's shudder, and decrease of steering power can all degrade the vehicle's performance. The speedometer and odometer can also become inaccurate. The vehicle with automatic transmission may have the shock in changing the speed.

Do not use duplicate key

A duplicate key might cause malfunction to the ignition key cylinder and deter the ignition motor to return to the original state. If so, electronic circuitry can be damaged and may ignite from the ignition motor's continuing rotation.

Do not equip the sunroof or color glasses at your discretion.

If you install a sunroof by cutting the vehicle's roof, rust and leakage may occur in the cut part. Installing color glasses to block ultraviolet rays and better appearance may cause leakage and other many problems.

Do not equip the vehicle with bumper guards sold in the market.

Installing bumper guard or other guard bars that are being sold in the market may cause problems in parking and stopping due to the extended length of vehicle, and increase in fuel cost due to additional vehicle weight, and rusting may occur in the holes for equipping the guards. And because of the absence of shock absorber in the bumper guard, even accidents during low-speed driving will be much serious compared with the damage that unmodified cars might sustain.

Do not modify or replace the vehicle flooring or the seats at your discretion.

- When replacing the interior flooring of vehicle with laminated paper

To improve the comfort of cushion and to facilitate the cleaning of the vehicle, some drivers replace the flooring with laminated paper after removing the seats. However, this may cause damage to the various electronic system control units and wiring. This also may hinder the function of the seat rail that enables for the seat to move forward and backward. In this case, the locking system to fix the location of seats may malfunction, which might lead to a serious accident if the loose seats tilt forward or backward during an uphill climb or downhill descent.

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PRECAUTIONS REGARDING UNAUTHORIZED MODIFICATION & ALTERATION (III)

- When exchanging the seats with new ones or equipping separate seat covers.

There are several types of seat covers according to role and function although with the same vehicle type. Replacing the seats with new ones may alter the wiring system or over-use the wires because a seat has various electric connections and wiring diagram. As mentioned earlier, this may damage the wiring and related equipment or cause fire due to the overloading on the rated capacity.

In addition, replacing the seat cover may damage the electronic equipment caused by cut or pressured wire. Such a situation may also cause ventilation problems, fire, or noise.

Do not equip with a separate accessory or assistant device on the vehicle operational device.

Making the selection lever longer or equipping with an accelerator pedal and brake pedal pad may make the driver prone to make a mistake while driving.

Do not install products that may decrease the driving resistance such as sticker, molding, air dam, or windproofing products.

The sticker's adhesives may damage the coated surface of the vehicle. If parts of the car are drilled to attach molding and other functional parts, the area near the holes will rust and other unfamiliar sound may occur while driving. Especially if the attached parts are not fixed well, it may damage the vehicle or even cause a fatal accident.

In using audio in the vehicle, do not use illegally copied CD and DVD, which violates relevant laws. Such discs can also cause malfunction of the audio head unit and changer. In addition, such discs may also not play properly.

When installing the vehicle with unauthorized parts or modifying it in ways including the cases mentioned previously, please keep in mind that the changed parts and related problems with changed auto parts shall not be covered by warranty.

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Ignition Key, Remote Control Key 2

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UNLOCK BUTTON/PANIC BUTTON*

1. Unlock (Press and hold)

If you press and hold this button for a certain period of time, all doors and the tailgate are unlocked and the theft deterrent mode is deactivated.

CAUTION

- The doors cannot be locked by the remote control key if they are not closed.
- If you lose your keys, you have to replace the whole key set to prevent from theft.

2. Panic button (operative only when the ignition key is inserted)

Sounds intermittent buzzer for about 27 seconds

WHEN A REMOTE CONTROL KEY IS LOST

When one of remote control keys is lost and a new remote control key is purchased, bring the duplicate of the old remote control key (dual REKES type) to the nearest Ssangyong Dealer or Ssangyong Authorized Service Center and have it recoded. Otherwise, the old key will not work.

DOOR LOCK

Lock (Briefly press)

If you press this button briefly, all doors and the tailgate are locked and the theft deterrent mode is activated.

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SIMULTANEOUS OPERATIONS OF ROOM LAMPS

The front and center room lamps come on for 30 seconds when the unlock button on the remote control is pressed and hold.

The lamps immediately go off when the remote lock button is pressed.

AUTOMATIC DOOR LOCKING

If a door is not opened within 30 seconds after unlocking the door with the remote control key, all the doors will be locked automatically.

NOTE

- Standard key does not have the remote control function.
- In case of the remote control key, some keys come with the immobilizer and battery as an optional package

FUNCTIONS OF IMMOBILIZER

Immobilizer Function

The immobilizer is designed to prevent the possibility of vehicle theft by allowing only authorized keys to start the engine. The same code is encrypted in the transponder inside of the key and in the Engine Control Unit (ECU). When the key is inserted and turned to the "ON" position, the ECU checks the code from the key and allows the engine to start only when the two codes are matched.

CAUTION

- The key and the immobilizer antenna coil should be avoided from any electronic or magnetic equipment which may interfere with the transponder. This may cause malfunctions of the immobilizer function of the key.

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PANIC BUTTON*

1. Panic Function

- If you are in your vehicle and feel threatened while the ignition key is inserted into the key switch, you may activate the alarm to call attention. If you press this button, the warning siren will sound for approx. 27 seconds.
- The siren will stop when any of the buttons on the remote control key is pressed.

NOTE

The alarm sounds only when the ignition key is inserted into the key switch hole.

CAUTION

- The doors cannot be locked by remote control if they are not closed.
- The electronic components inside the remote control are very sensitive to moisture or heat. Please do not expose them to moisture or heat.

DOOR LOCK/UNLOCK BUTTON

1. Lock (Briefly Press)

- If you press this button, all doors are locked and the theft deterrent mode is activated.
- When the theft deterrent mode is activated, the emergency hazard lights blink twice.

2. Unlock (Press and Hold)

- If you press and hold this button for about 1 seconds, it unlocks all doors and releases the theft deterrent mode.
- When the deterrent mode is deactivated, the emergency hazard lights blink once.
- The front and center room lamps come on for 30 seconds when the doors are unlocked with the remote control key.

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BATTERY REPLACEMENT

When the operational distance noticeably decreases or the remote control does not work occasionally, replace the battery with a new one.

Battery Specifications

Model	CR 2032 (Rekes key type)
	V 625U (without Rekes)
Amount	One

CAUTION

- Use only the specified battery.
- Make sure that the battery is installed in correct direction.

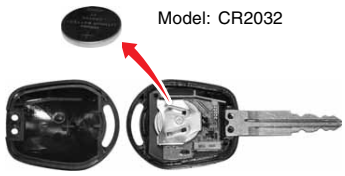
Battery Replacement (Without REKES)

To replace the battery in the key without REKES, open the cover.

Battery Replacement (With REKES)

1. Unscrew two screws from the rear cover.

2. Pry off the cover by using a small flat screwdriver.



3. Remove the battery and insert a new one.

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UNLOCK/PANIC BUTTON

1. Unlock Door and Tailgate (Briefly Press)

- Pressing this button briefly unlocks all doors and the tailgate and deactivates the theft deterrent mode.
- When the theft deterrent mode is deactivated, the emergency hazard lights blink once.

2. Panic Function (Press and Hold)

- Pressing and holding this button for over 2 seconds in the theft deterrent mode makes the emergency hazard lights blink and sets off the acoustic warning for approximately 27 seconds.
- Pressing any of the buttons on the remote control key deactivates the function.

CAUTION

- With the doors (except for the tailgate) open, they cannot be locked by the remote control key.
- The panic functions operate in the theft deterrent mode.
- The electronic components inside the remote control are very sensitive to moisture or heat. Please do not expose them to moisture or heat.
- After locking the doors using the remote control key, check again if they are locked to make sure the vehicle itself or your personal belongings in the vehicle will not be stolen.
- All doors and the engine hood (except for the tailgate) should be closed to the theft deterrent mode.

DOOR LOCK BUTTON

1. Lock Door and Tailgate (Briefly Press)

- Pressing this button locks all doors and the tailgate and theft deterrent mode.
- When the theft deterrent mode is activated, the emergency hazard lights blink twice.

PANIC BUTTON*

(operative only when the ignition key is inserted)

Sounds intermittent buzzer for about 27 seconds

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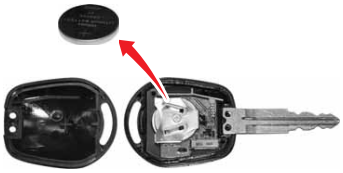
BATTERY REPLACEMENT (WITH REKES)

These procedures are both for general remote control or rechargeable keys.

1. Undo the two screws on the rear cover.

2. Pry off the cover using a small flat screwdriver.



3. Replace the used battery with a new one.

BATTERY REPLACEMENT (WITHOUT REKES)

To replace the battery in the key without REKES, open the cover.

WHEN A REMOTE CONTROL KEY IS LOST

When one of remote control keys is lost and a new remote control key is purchased, bring the duplicate of the old remote control key (dual REKES type) to the nearest Ssangyong Dealer or Ssangyong Authorized Service Center and have it recoded. Otherwise, the old key will not work.

BATTERY REPLACEMENT

When the operational range noticeably decreases or the remote control begins failing, replace the battery with a new one.

BATTERY SPECIFICATIONS

Model	CR 2032 (Rekes key type)
	V 625U (without Rekes)
Amount	One

CAUTION

- Use only the specified battery. Install the battery with the correct polarity.

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ACC Position

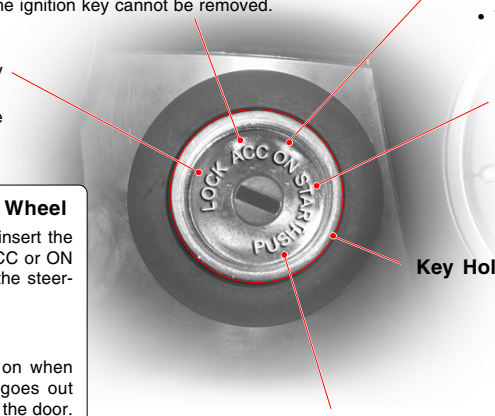
- Allows operation of some electrical accessories with the engine off.
- Unlock the steering wheel.
- The ignition key cannot be removed.

ON Position

- The engine runs and all electrical accessories can be used.
- The steering wheel is unlocked.

LOCK Position

- The ignition key can only be inserted or withdrawn.
- The steering wheel can be locked.



START Position

- Engages the starter. After the engine starts, release the key and it will automatically return to the "ON" position.

Key Hole Illumination

From ACC to LOCK Position:

Turn the key to LOCK position from ACC position while pressing the key.

Unlocking the Steering Wheel

To unlock the steering wheel, insert the key and gently turn it to the ACC or ON position while slightly moving the steering wheel right and left.

Key Hole Illumination*

The illumination lamp comes on when opening the door. This lamp goes out about 10 seconds after closing the door.

Key Reminder

The buzzer will sound if the driver's door is opened while the key is left in the ignition switch on the condition that the ignition key is in the ACC or ON position.

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CAUTIONS WHEN STARTING THE ENGINE

- To unlock the steering wheel, insert the key and gently turn it to the **"ACC"** position while slightly moving the steering wheel right and left.
- The engine in a manual transmission equipped vehicle can only be started when the clutch pedal is fully depressed.
- Diesel engine equipped vehicle: Turn the ignition key to the **"ON"** position and wait until the glow indicator goes out. After then, turn the ignition key to the **"START"** position and hold it until the engine starts. But do not hold the ignition key at the **"START"** position for more than 10 seconds.
- The engine in an automatic transmission equipped vehicle can be started only when the selector lever is at the **"P"** or **"N"** position.
- Keep the brake pedal depressed when starting the engine.
- If the engine fails to start, even if the engine does not start, turn the key back to the **"LOCK"** position and wait for 10 seconds. Then try again, before any attempt to start the engine.
- After starting the engine, let it run for approx. 2 minutes at idle speed. Do not accelerate the engine during the warming up period.
- A warning buzzer sounds when opening the driver's door with the key positioned at the **"ACC"** or **"LOCK"** position.
- Do not leave the key at the **"ACC"** or **"ON"** position when engine is not running. Otherwise, the battery could run down.
- Never press down the accelerator pedal while starting.
- Do not operate the starter for more than 10 seconds at a time. (The starter motor may be damaged.)
- To prevent any damage to the starter, restart the engine from the **"LOCK"** position after waiting at least 10 seconds.
- Never turn the key to the **"LOCK"** position or withdraw the ignition key from the ignition switch while driving. The steering wheel will be locked and you may end up with serious injuries.
- Never use any duplicated key not provided from Ssangyong.

  The duplicated key might not turn back to the **"ON"** position. It may cause a fire due to an overload in the electric circuit. In addition, the engine with the immobilizer system cannot be started with the duplicated key.

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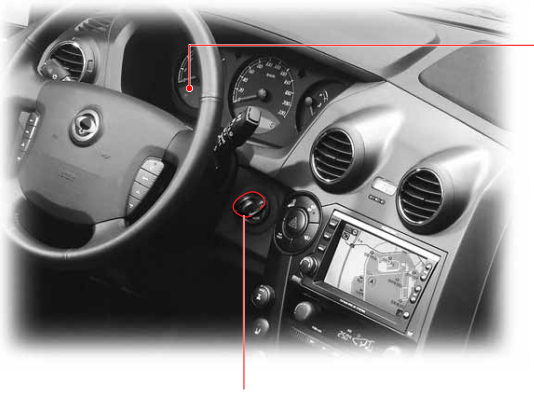
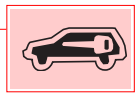
IMMOBILIZER SYSTEM*

The Immobilizer System provides an additional theft deterrent to the vehicle in which it is installed and prevents it from being started by unauthorized persons. The transponder integrated in the key and the engine control unit have the same code. When the ignition key with the integrated transponder is turned to the ON position, the ECU (Engine Control Unit) checks the crypto code of the key and, if correct, allows your vehicle to start the engine.



Immobilizer Indicator



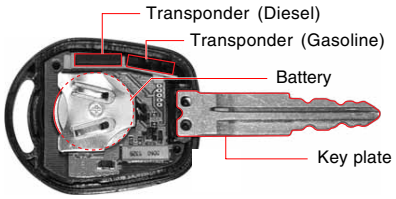
This indicator comes on when the ignition key is communicating with the engine control unit (during engine starting) and goes out after starting the engine. If this indicator blinks, it may indicate that there is something wrong in the immobilizer system. Have the system checked by a Ssangyong Dealer or Ssangyong Authorized Service Center.

NOTE

The time needed for communication between the immobilizer key and ECU can vary. When the time is very short, the immobilizer indicator does not come on.

Immobilizer Key

When the ignition key with the integrated transponder is turned to the ON position, the ECU (Engine Control Unit) checks the crypto code of the key and, if correct, allows your vehicle to start the engine.



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- **When the Transponder is Damaged**

  When the transponder is damaged, you must replace it with a new one and register a new code on the engine control unit at a Ssangyong Dealer or Ssangyong Authorized Service Center. Otherwise, the engine cannot be started.

- **When Your Key is Lost**

  When your key is lost, the encrypted code should be removed from the Engine Control Unit to avoid any vehicle theft. Please contact a Ssangyong Dealer or Ssangyong Authorized Service Center.

WARNING

- In any case, the immobilizer system cannot be removed from the vehicle. If you attempt to remove and damage the system, it is impossible to start the engine. So never attempt to remove, damage or modify it.
- In addition, any remote engine starter cannot be installed to the vehicle equipped with the immobilizer system. So never install any remote engine starter.

CAUTION

- When you modify your vehicle and install a remote engine starter, you may have some problems starting the engine or some fatal accidents.

In the following cases, you may be unable to start the vehicle with the immobilizer.

▶ When two or more immobilizer keys come into contact with (each) other(s).

▶ When the key is close to any device sending or receiving electromagnetic fields or waves.

▶ When the key is close to any electronic or electric devices such as lighting equipment, security keys or security cards.

▶ When the key is close to a magnetic or metal object or a battery.

CAUTION

- If the indicator remains blinking, have the immobilizer system checked by a Ssangyong Dealer or Ssangyong Authorized Service Center.
- Avoid impact to the transponder inside of the key. The transponder can be damaged.
- With a damaged transponder, the engine cannot be started.
- The immobilizer system should be inspected, replaced, serviced, or coded by only qualified service personnel in a Ssangyong Dealer or Ssangyong Authorized Service Center.
- When an old code should be replaced or another key is added, please observe the process personally.

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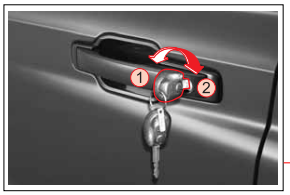


① Locking the door and the tailgate
② Unlocking the door and the tailgate

To Lock the Door:

Turn the key to the lock position (toward front of the vehicle) from driver's door or passenger's door. All doors and the tailgate will be locked.

To Unlock the Door:

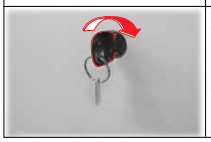
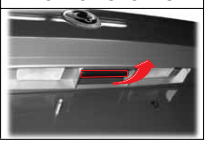
Turn the key to the unlock position (toward rear of the vehicle) from driver's door or passenger's door. All doors and the tailgate will be unlocked.

Automatic Door Unlocking:

All doors will be automatically unlocked when the engine is switched off.

CAUTION

- When you unlock the door with the ignition key after the door is locked with the remote control (the theft deterrent mode), a warning buzzer sounds. Stop the buzzer by pressing any button on the remote control.
- The tailgate for ACTYON SPORTS cannot be locked or unlocked using the starter key. Also, the theft deterrent mode operates regardless of opening and closing the tailgate. (By using only the remote control key, not the ignition key, it is possible to go into the theft deterrent mode.)

ACTYON	ACTYON SPORTS
	
If the starting key is turned to the arrow pointed direction, the tailgate will be opened.	Pulling the lever opens the tailgate.

NOTE

ACTYON SPORTS has no key hole on the tailgate to lock or unlock it.

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THEFT DETERRENT SYSTEM

ARMING THE THEFT DETERRENT SYSTEM

The theft deterrent system will be armed under the following conditions:

- When all doors are locked with the remote control key, the anti-theft mode will be activated. If the **"UNLOCK"** button on the remote control key is pressed and no door is opened within approximately 30 seconds, all doors are automatically locked again and the anti-theft mode will be activated.
- When the theft deterrent system is armed, the emergency hazard lights blink twice.

CAUTION

- To arm the theft deterrent system, the ignition key should be removed from the ignition switch, all doors including the tailgate and the hood should be closed completely.
- Activation of the theft deterrent system is confirmed by the emergency hazard lights blinking twice.

ACTIVATING THE THEFT DETERRENT SYSTEM

If somebody tries to open the door, the tailgate or the hood without using the remote control key, the alarm will be activated.

- When one of the doors or the tailgate is opened with the ignition key while the deterrent system is armed, the alarm will sound.
- The engine hood or the tailgate is opened from the outside while the deterrent system is armed, the alarm will be activated.
- When the alarm is activated, warning sound and the emergency hazard lights will be on and off every second for 27 seconds.

DISARMING THE THEFT DETERRENT SYSTEM

- Unlock the door by using the remote control key.
- To deactivate the theft deterrent mode at the alarming stage, unlock the door by using the remote control key.
- When the deterrent system is disarmed, the emergency hazard lights blink once.

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Opening and Closing

3

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- Fuel Filler Door 3-13

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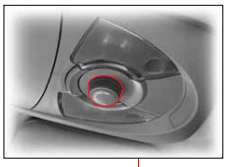
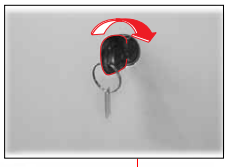
OPENING AND CLOSING DEVICES

Sunroof Controller

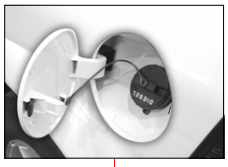


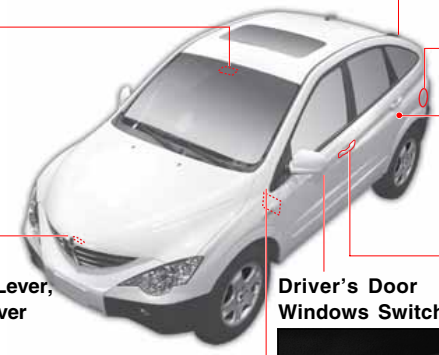
Tailgate Opening Switch

Tailgate Opening Key Hole

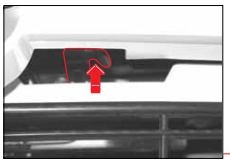


Fuel Filler Door

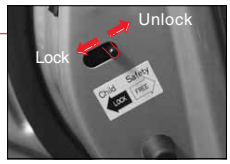




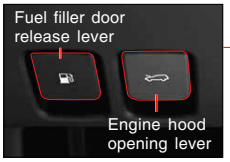
Engine Hood Safety Latch Lever



Child Safety Door Lock



Fuel Filler Door Release Lever, Engine Hood Opening Lever



Driver's Door Windows Switch

Door Opening Lever

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① Door Lock/Unlock Knob
② Door Opening Lever

Door Lock/Unlock Knob

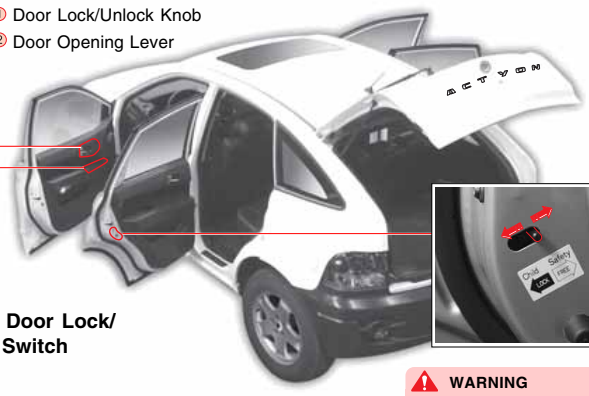
All doors will be locked/unlocked when moving the knob to the respective lock/unlock direction (only available at driver's and front passenger's door).

Door Opening Lever

Pull the door opening lever to open the door.

NOTE

- The passenger's door lock/unlock knob and lever have the same functions with those of the driver's door.
- The door lock/unlock knob on the rear right or rear left door can only lock or unlock its respective door.
- Even though the driver's door is locked, the door can be opened when the opening lever on the door is pulled.



Central Door Lock/ Unlock Switch

Child Safety Door Lock

Child safety door lock helps prevent from an accidental door open, especially when children are in the vehicle. When the child-safe lever is in the **"LOCK"** position, the rear door can be opened only from the outside.

WARNING

Children in rear seats can open rear doors. Move the child-safe lever to the **"LOCK"** position.

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CENTRAL DOOR LOCK/UNLOCK SWITCH

When the door lock/unlock switch is pressed while all doors including the tailgate are locked, all doors will be unlocked. When the switch is pressed again, all doors will be locked.

This switch is not available when any of doors are not fully closed and the vehicle is in theft deterrent mode.

Automatic Door Unlocking

When the airbag deploys while all doors are automatically locked by the Automatic Door Locking System, the doors will automatically be unlocked.

WARNING

When damage is done on a door or the body frame by an impact from an accident, the automatic door unlocking system may not work.

NOTE

- When any door is open, all doors can not be locked by using the door lock knob, the central door lock/unlock switch, or the remote control.
- When the engine is turned off, all doors become unlocked.

Automatic Door Locking

All doors will be automatically locked when you drive over 30 km/h while the doors are unlocked.

CAUTION

When you drive at 30 km/h or a higher speed and try to unlock all doors with the door lock/unlock knob or switch, all doors are automatically locked again.

Room Lamp Coupled Operation

The center room lamp is on or off depending on opening/closing of doors. When any door is open, the front and center room lamps come on. (However, the main switch of the front room lamp should be pressed.) When any door is closed, the lamp will go out.

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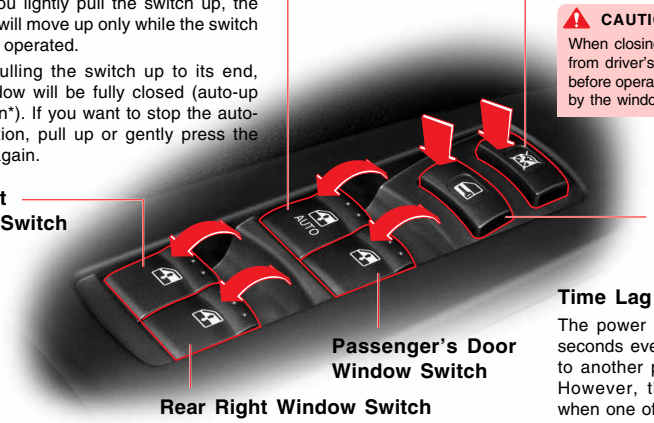
Driver's Door Window Switch

- When the front of the switch is lightly pressed, the window will be lowered while the switch is pressed.
- When pressed to its end, the window will open automatically until it is fully open. If you want to stop the window while automatic lowering, lightly press the switch again or pull the switch up.

▶ When closing the window

- When you lightly pull the switch up, the window will move up only while the switch is being operated.
- When pulling the switch up to its end, the window will be fully closed (auto-up operation*). If you want to stop the auto-up function, pull up or gently press the switch again.



Window Lock Switch

If the window lock switch is pressed down, passenger's and rear windows cannot be operated by their switches.

WARNING

When carrying children in the rear seat, press the window lock switch to make the rear window switches inoperative. Do not allow children to play with the power window switch and rear door window switches.

CAUTION

When closing the passenger's and rear windows from driver's seat, be aware of safety conditions before operation. Parts of the body can be trapped by the window.

Time Lag of Window Operation

The power window can be operated for 30 seconds even after the ignition key is turned to another position from the "ON" position. However, the function immediately stops when one of the front doors is opened.

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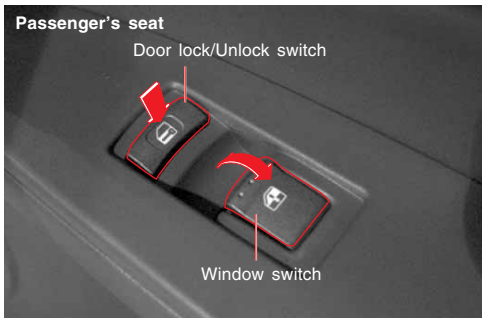
Anti-Trap System for Driver's Window*

The anti-trap system enables the driver's window to automatically reverse when something is caught in the window as it is closing. When the sensor detects an obstacle, the window will be lowered immediately.

CAUTION

- The anti-trap safety system is available only for the driver's window equipped with the automatic rolling up (Auto-up) function.
- The anti-trap safety system does not operate when the window is about to touch its window frame.

Passenger's and Rear Window Switch



To move windows up or down, pull up or press the corresponding switch for the window.

WARNING

- Before operating the power windows, make sure that nothing can be trapped (such as heads, hands, or fingers) in the window.
- Make sure that passengers do not stick out their hands or heads from the vehicle while driving.
- Do not allow children to play with any switch, door lever or the gear shift lever.

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* For your safety, never operate the sunroof when the vehicle is moving.

SUNROOF SLIDING OPERATION

▶ Open: 2-Step Opening

When the sunroof is closed, two thirds of the sunroof automatically opens if the sunroof open/close switch is turned to the “OPEN” direction (Clockwise).
When the switch is turned again to the “OPEN” direction, the sunroof completely opens.
When the switch is operated while the sunroof is moving, the sunroof stops sliding.

▶ Close

When the sunroof is open, turn the switch to the “CLOSE” direction (counterclockwise) to close it completely. To stop the closing sunroof, operate the switch to either direction.

SUNROOF TILTING OPERATION

▶ Tilt Up

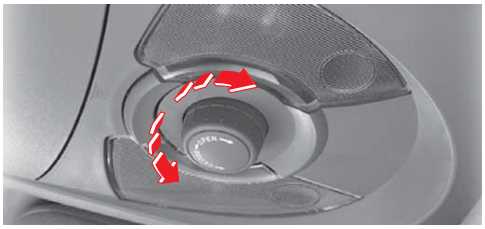
When the sunroof is closed, turn the switch to the “CLOSE” direction (counterclockwise) to tilt up the rear of the sunroof.

▶ Tilt Down

When the rear of the sunroof is tilted up, turn the switch to the “OPEN” position (clockwise) to close the sunroof.

WIND BUFFETING

When you drive this vehicle with the window or sunroof open at a certain position, you may feel some pressure upon your ears or hear some noises similar to those from a helicopter. This happens because of an influx in air through the window or sunroof and its resonance effect. If this happens, adjust by opening the window or sunroof.



SUNROOF OPEN WARNING BUZZER

If the driver’s door is opened after the ignition key is removed with the sunroof opened, the buzzer will sound to alert you that the sunroof is opened. The buzzer will automatically turn off when the door is closed. After this, the buzzer will not sound even though the door is opened again.

Anti-Pinch Function

To prevent any body parts from being trapped by the sliding sunroof, an Anti-Pinch Function automatically opens the sunroof when an object is trapped.

CAUTION

- This safety function is available for the sliding sunroof close.
- The anti-Pinch function is deactivated just before the sunroof closes.
- If the anti-pinch is operated 3 times in series, the system is changed to manual mode.

WARNING

- When operating the sunroof, be aware of safety conditions before operation. Parts of the body can be trapped.

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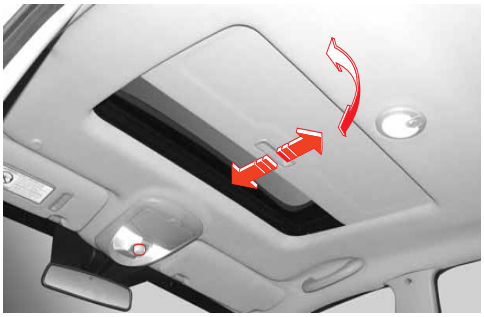

CAUTION

- Even though the sunroof can be operated when the ignition key is in the ON position (the engine is not running), operating the sunroof repeatedly with the engine turned off will run down the battery. Operate the sunroof while the engine is running.
- When a desired sunroof operation is completed, release the switch. If you keep pressing the switch, it could cause a malfunction.

  Especially in the winter, never operate the sunroof if moving areas are iced. Wait until the areas are deiced.
- When leaving the vehicle unattended, be sure to completely close the sunroof. Otherwise, there is a great risk of vehicle theft. Or, the interior of the vehicle will be wet when it rains or snows.
- When the sunroof is slid to its complete open position, the wind buffet phenomenon can increase. If this happens, adjust by opening the sunroof or only open two thirds of the sunroof by using only the first step of the opening system.

Battery Discharge or Power Failure while Operating Sunroof

If the sunroof is stopped midway due to a discharged battery or power failure, you need to re-calibrate the starting point of the sunroof. In addition, the following cases need the re-calibration.

- The sunroof does not completely close or open by operating the switch once.
- The sunroof slides back to close. But the operation does not stop even after a complete close and tilts up the sunroof.
- The opening gap remarkably decreases for the sliding open or tilt up.
- Operation of the sunroof switch does not do anything or work properly.

Re-calibrating the Sunroof Starting Point

- Turn the sunroof switch to the “CLOSE” direction to completely close the sunroof (sliding close).
- When the sunroof stops while the rear of the sunroof is a little open, turn the sunroof switch to the “CLOSE” direction to tilt it completely.

NOTE

When the sunroof is completely opened with the sunroof switch and the switch is turned to the “OPEN” direction for more than 5 seconds, the sunroof cannot completely be either closed or opened by operating the switch once. The sunroof will be moving only when the switch is being turned. When this happens, re-calibrate the beginning point of the sunroof to reactivate the one touch button.

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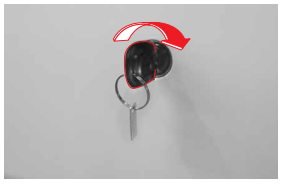
Tailgate Open Switch

When the tailgate is unlocked and your vehicle completely stops, press the tailgate open switch for a while to open the tailgate. When the door lock/unlock switch is engaged in the "LOCK" position, the tailgate will not be opened.

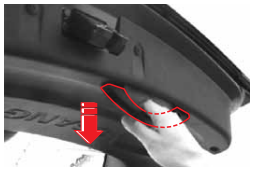
Opening the Tailgate with Ignition Key



When opening the tailgate

Turn the ignition key to the open position on the tailgate.

Tailgate Open/Close



After unlocking the tailgate with the tailgate open switch or the ignition key, lift up the tailgate to open the tailgate completely. To close the tailgate, pull down the tailgate handle to lower the gate. Then, push the tailgate to close it completely.

WARNING

Before closing the tailgate, ensure that none of your body parts are trapped. Also, because the tailgate is heavy, it might unexpectedly fall down and close. To prevent any injury, close the tailgate with caution.

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TAILGATE OPENING/CLOSING

To open the tailgate, pull the lever to unlock the tailgate and lower it slowly with both hands.

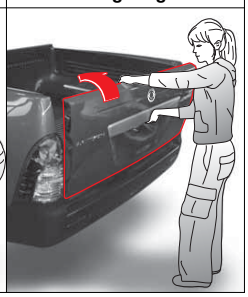
After loading, raise and close the tailgate.

ACTYON SPORTS has no key hole on the tailgate to lock or unlock it.

Locking or unlocking doors using the driver's or passenger's door opening knob or switch also locks or unlock the tailgate.

NOTE

The door ajar warning light does not come on when the tailgate is open. Make sure that the tailgate is closed before driving.

Opening Tailgate	Closing Tailgate
	

CAUTION

- To open the tailgate, hold the tailgate with both hands, and then lower it slowly. Failing to hold the tailgate with both hands makes it risky of being dropped, which may damage it or cause personal injury.
- To close the tailgate, hold the lever with one hand and raise the tailgate slowly with the other hand as illustrated.
- Before closing the tailgate, ensure that your body parts are completely out of its way. To prevent any injury, close the tailgate with caution.
- Do not let children or senior citizens open the tailgate. The heavy tailgate might unexpectedly fall down and cause injury.

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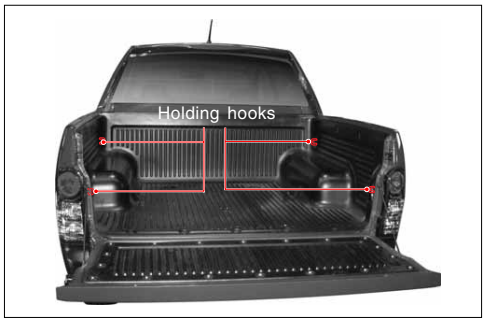
LOADING GOODS ON THE DECK



Maximum loading capacity	A/T	431kg (2WD: 440kg)
	M/T	453kg (2WD: 462kg)

After loading the goods on the deck, ensure they are firmly secured using the hooks on the side panels.

CAUTION

- Keep the deck away from direct sunlight, rain or snow when parking. Water or snow on the deck should be removed before driving.
- Tailgate, deck floor and tailgate hinges can be damaged or broken if you throw the goods or jump on the tailgate while the tailgate is open.
- When holding or tying down the goods using ropes or wires, never use the opening on the upper part of the deck cover. The cover and its painted surface can be damaged.

WARNING

- Never allow people to get on the deck. It should be used only for loading goods.
- To prevent your goods on the deck from being stolen, unload and store them in a safe place upon arriving at the destination.
- After loading, close and lock the tailgate. Make sure that the tailgate is locked securely by swaying it back and forth.
- Do not drive with the tailgate open.
- Never exceed the tailgate's loading capacity. Overloading may damage the tailgate, power train, suspension or relevant components, and may also impair the driving safety and place you at risk for an accident.
- Do not alter the cargo area by using canvas or other materials as roofing, or modify installed components. Any modifications or alterations to this vehicle could seriously affect its roadworthiness and safety, decrease the vehicle's fuel economy and cause the panels to rust. Moreover, alterations may increase the total weight of the vehicle and impair the driver's rearview, which may lead to an accident.
- Avoid loading goods taller than the side panels.
- Do not load metal bars, other sharp-edged materials or particularly voluminous goods that may block the rearview.

  During a hard braking, collision or accident, metal bars or other sharp-edged materials that exceed the deck's loading width or height may get through the rear window and may result in serious, sometimes fatal injury.

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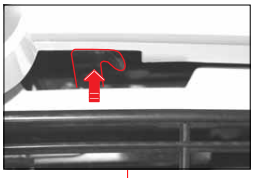
ENGINE HOOD

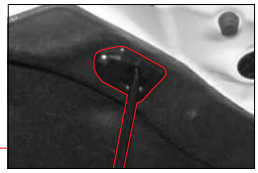
1. To open the engine hood, pull the release knob located on the lower left side of the steering wheel to unlatch the engine hood.



2. Slightly lift up the engine hood and raise up the safety latch lever with your fingers. Then, completely lift up the engine hood.

WARNING

- When you open the hood while the engine is running, extra caution is needed to avoid any injuries by the moving parts in the engine compartment.
- Before driving, try to pull up the front edge of the hood to check that the hood is securely latched.
- When it is windy, extra caution is needed to prevent personal injury. Wind might be able to lift up the hood and the prop rod may be disengaged from its slot. This may result in an unexpected closing of the hood.



3. After lifting up the hood, secure it with the prop rod. Insert the rod's free end into its slot on the hood to prevent the hood from suddenly closing.

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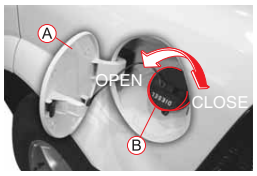
FUEL FILLER DOOR

1. Open the fuel filler door (Ⓐ) by pulling the release lever located on the lower left side of the steering wheel.



2. Open the fuel filler cap (Ⓑ) by turning it counterclockwise.
3. After refueling, tighten the fuel filler cap by turning it clockwise until you hear clicking sounds. Then close the fuel filler lid (Ⓐ) properly until it latches.

WARNING

- Always stop the engine when refueling. Use only the designated fuel and low sulfur diesel.
- When refueling,
  - No smoking.
  - No naked flame.
  - No sparking material.
- If you use inappropriate grade fuel or put improper fuel additives into the fuel tank, the engine and catalytic converter may seriously be damaged.
- Check the type of fuel before fueling your vehicle. If gasoline is fueled into a diesel-engine vehicle, this may have negative effects upon its fuel system and other vehicle systems and bring serious damage to your vehicle.

CAUTION

- Fuel damages paintwork. If fuel spills onto paintwork, immediately wash the affected area with cold water.
- The fuel filler door may not open in cold weather. Gently tap the fuel filler door to open.

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Gasoline Engine

Fuel with too low octane number can cause pre-ignition (detonation). Ssangyong can not be held liable for resultant damage.

WARNING

Gasoline vapor is highly flammable.

It burns violently and that can cause very bad injuries.

When refueling,

- Switch off engine.
- No smoking.
- No naked flame.
- No sparking material.

CAUTION

For correct octane rating setting and other use of gasoline (ex. Leaded), consult your Ssangyong Dealer.

CAUTION

Gasoline damages paintwork.

If gasoline spills onto paintwork, wash with cold water immediately.

CAUTION

Engine and exhaust system will be damaged.

- Do not use leaded fuel to the vehicle for unleaded fuel.
- Use the fuel with specified or higher Research Octane Number recommended for your country by Ssangyong. Otherwise, it is not covered by warranty.

CAUTIONS WHEN OPENING / CLOSING DOORS

- Do not allow children to play with any switch, door lever and the gear shift.
- Before operating the power windows, doors, sunroof, tailgate and fuel filler door, make sure that nothing can be trapped (such as heads, hands, or fingers).
- Make sure that the doors, sunroof, tailgate and fuel filler door are completely closed before driving.
- When a child is on board, use the child safety functions to avoid any unwanted and dangerous opening of doors or windows.
- Parts of the human body can be trapped in the window or sunroof and can be struck by passing objects. Do not stick hands, heads or anything else out of the openings.

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Interior Switches

4

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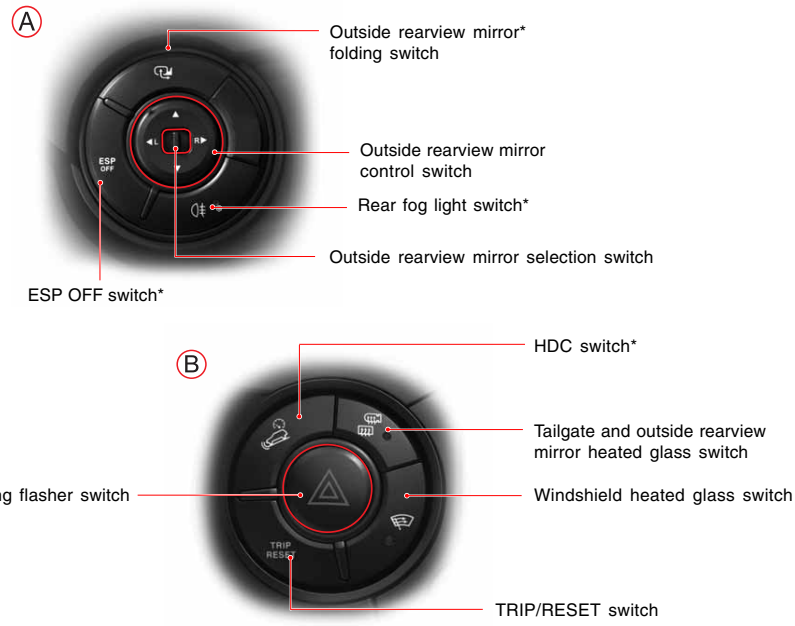

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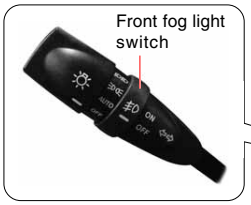
Light Switch



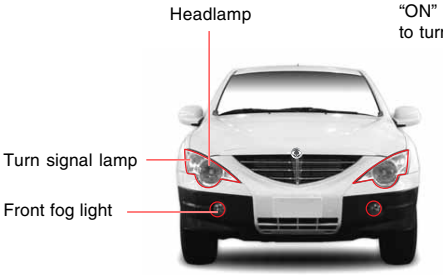
You can turn the lights on and off (headlamps, tail lights, position lamps, license plate lamp, turn signal lamps, fog lights) with this switch.

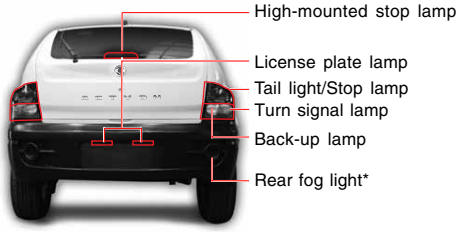
Automatic Light (Rain Sensor*)

This senses the ambient illumination intensity to determine the timing for turning the headlamps and tail lights on or off automatically when the light switch is set to **"AUTO"**.

Rear Fog Light Switch

When the front fog light switch is "ON" press the rear fog light switch to turn the lights on.





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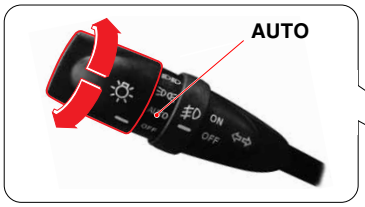
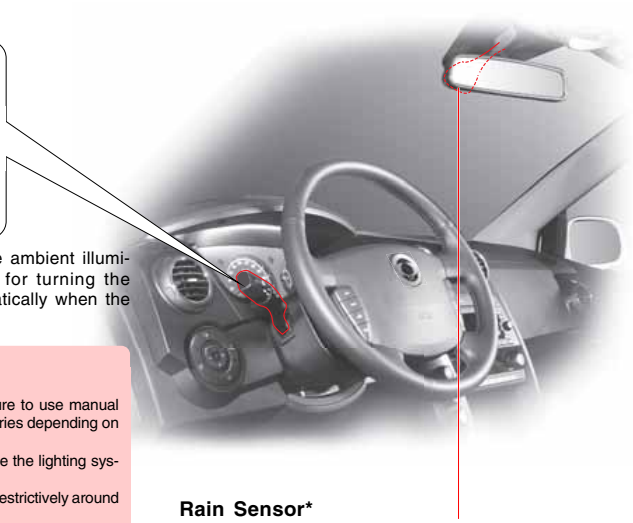
AUTOMATIC LIGHT*





The auto light and rain sensor senses the ambient illumination intensity to determine the timing for turning the headlamps and tail lights on or off automatically when the light switch is set to **"AUTO"**.

CAUTION

- Do not clean the sensor with detergent or wax.
- On a foggy, snowy, rainy, or cloudy day, be sure to use manual mode. The turning on or off time of the lamps varies depending on the climate, season, or circumstances.
- Any aftermarket tanning film or spray may cause the lighting system to malfunction.
- Ssangyong recommends you to use this device restrictively around only a sunrise or sunset.
- Usually turn the head or tail lights on or off manually.
- Turn on the headlamps when passing through a dark area such as a tunnel.
- On a gloomy day, do not rely on this automatic function. But turn the head or tail lights on or off manually.
- When the switch is turned to the "AUTO" position, room, tail, and head lights might blink for a very short time. It is a normal phenomenon recognizing the automatic setting.

Rain Sensor*

This senses the amount of rain to operate the windshield wiper automatically (For detailed information of wiper operation, refer to wiper and washer switch section).

CAUTION

Do not shake and impact the sensor. It may not work properly.

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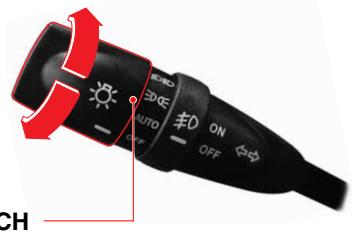
Battery Saver (Automatically turns off the lights)

- To avoid discharging the battery, if the tail lamps are on after the ignition key is removed, a buzzer will sound to alert the driver when the driver's door is opened. The tail lamps will automatically turn off when the door is closed.(With the light switch on, if the ignition key is removed and all doors are closed, the tail lamps are off due to the battery saver function. However, if you open a door and turn the light switch to the "OFF" position and then to the "ON" position, the tail lamps will stay on after the door is closed.)
- To turn the tail lamps on again, insert the ignition key into the ignition switch. Or, turn the light switch to the "OFF" position and then to the "ON" position.



LIGHT SWITCH

(Headlamps ON)

Head-, side-marker, tail, license plate, fog, and instrument cluster lamps come on.

(Tail lights ON)

Side-marker, tail, license plate, fog, and instrument cluster lamps come on.

AUTO **(Automatic light ON)**

Head- and tail lights automatically turn on or off based upon the intensity of the sunlight analyzed by the automatic light sensor.

OFF **(Lights OFF)**

All lights are off.

Headlight Leveling Switch

With the low beam switched on, adjust the aiming angle of headlights to suit the vehicle load.

- To lower the aiming angle, rotate the switch counter-clockwise.
- To raise the aiming angle, rotate the switch clockwise.

NOTE

According to load condition, adjust the aiming angle of headlights.

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Headlamp High Beam

To turn on the headlamp high beam, push the lever towards the instrument cluster with the headlamp low beam on. The headlamp high beam indicator (≣D) in the instrument cluster comes on when the headlamp high beam is turned on.

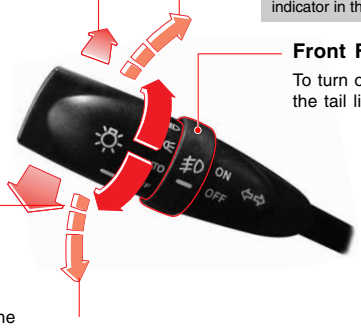
Right Turn Signal Switch

NOTE

While the turn signal lamp is turned on, the turn signal indicator in the instrument cluster blinks.

Front Fog Light Switch

To turn on the fog lights, turn this switch while the tail lights or headlamps are turned on.



DAYTIME RUNNING LIGHT (DRL): DRL Regulation Region Only

For vehicles equipped with the DRL, the tail lights automatically turn on when turning the starter key from ACC to ON.

The headlights turn on as the engine starts.

With the headlights automatically ON, turning the light switch from OFF to ON turns off the headlights but keeps the tail lights on. (Turning the light switch immediately deactivates the DRL function.)

Passing

Regardless of the position of the light switch, if you hold the lever toward the steering wheel, the headlights are on high beam during the hold. The high beam indicator also illuminates on the instrument cluster during the hold.

WARNING

Driving with high beam headlamps disturbs the approaching vehicle's visibility for safe driving. Use the high beam headlamp only during very dark situations when it is very hard to see the road.

Left Turn Signal Switch

REAR FOG LIGHT SWITCH*

To turn on the rear fog light, push the rear fog light switch while the front fog light switch is turned on. To turn it off, push the switch again. The rear fog lights are automatically turned off when turning off the light switch or the front fog light switch. Therefore, to turn on the rear fog lights, push the rear fog light switch again after turning on the light switch and the front fog light switch.

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FRONT WIPER SWITCH

MIST

The windshield wipers can be operated only when you hold the switch to the "MIST" position. The lever will return to the "OFF" position when released.

OFF

Stop the operation.

AUTO

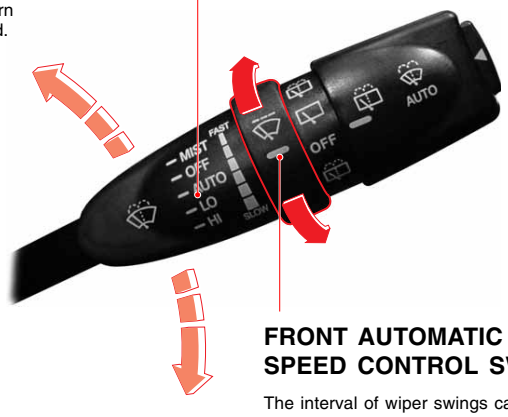
Operates automatically according to the vehicle speed or amount of rain.

LO

Continuous wipe, slow operation

HI

Continuous wipe, fast operation



FRONT AUTOMATIC WIPING SPEED CONTROL SWITCH

The interval of wiper swings can be adjusted by twisting the control knob upward or downward when the windshield wiper switch is in the AUTO position.

Fast: Fast interval

Slow: Slow interval

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REAR WIPER SWITCH (ACTYON ONLY)

There is no rear wiper switch in ACTYON SPORTS.

When the switch is fully turned, washer fluid will be sprayed onto the rear window glass and the wiper will also operate. When the switch is released, it will stop in the Rear Wiper Operation mode and only the wiper will keep operating.

Rear wiper operation

OFF

Rear wiper stops

When the switch is fully turned, washer fluid will be sprayed onto the rear window glass and the wiper will also operate. When the switch is released, it will return to the “OFF” position and turn off the wiper and washer.

FRONT AUTO WASHER SWITCH

When the front wiper switch is off and this switch is pressed, washer fluid will be sprayed and the wiper will automatically operate 4 times. Then, the fluid will be sprayed again and the wiper will automatically operate 3 times.

Wiper and Washer Coupled Operation

Pull the lever briefly (for less than 0.6 seconds): One wiping cycle with washer spray

Pull and hold the lever for more than 0.6 seconds: Three wiping cycles with washer spray

While being held down, the wiper and washer will keep working.

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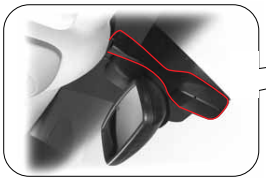
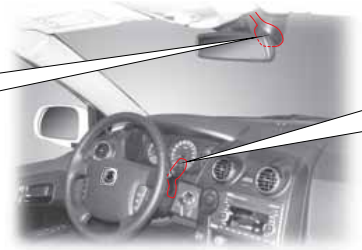
RAIN SENSING WIPER*

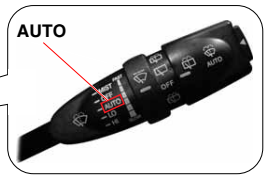
When the wiper switch is in the **"AUTO"** position, this sensor detects the amount of rain, turns on the wiper, and controls the intermittent wiper intervals.

Rain and Auto Light Sensor





Wiper AUTO Position



It controls the wiping speed by detecting the amount of rain drops.

CAUTION

- When the wiper switch is in the "AUTO" position, the wiper will operate once if the initial engine start is made. This may wear the wiper blades prematurely (especially in winter). Therefore, other than rainy days, set the switch to the "OFF" position. In winter, ensure that the wiper blades are not frozen and are not stuck to the windshield. Otherwise, this may cause some damage to the wiper motor.
- If you use only the wipers when the glass is dry, this could scratch the glass and wear the wiper blades prematurely. Use the wiper with the washer when the glass is dry.
- Turn the wiper switch to the "OFF" position before any car wash to avoid unwanted operation of the wipers.
- When it does not rain, turn the wiper switch into the "OFF" position.

WARNING

When you clean the windshield over the sensor with damp clothes, the wiper may operate suddenly. It could cause serious injury. Make sure to place the wiper switch and ignition switch to the "OFF" position when not in use.

NOTE

- When the light and wiper switches are in the "AUTO" position, head lights come on if the rain sensor detects any rain. The head lights stay on for 3 minutes after the rain stops.
- The speed of the wipers becomes a little faster when it is dark enough to turn on the automatic lights.
- When the ignition key is in the "ON" position, the wiper will automatically operate once if the wiper switch is turned from the "OFF" to the "AUTO" position. But the wiper will not operate again to prevent any damage to the window even though the wiper switch is turned from the "OFF" position to the "AUTO" position.

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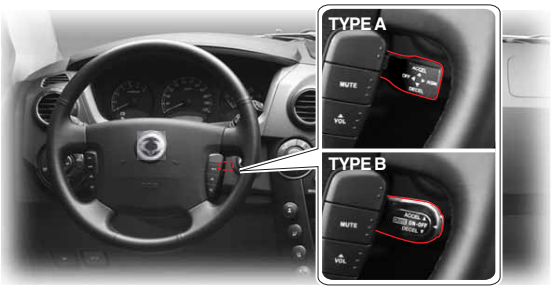
CRUISE CONTROL SWITCH (FOR AUTO T/M*)

CRUISE CONTROL



The cruise control is an automatic speed control system that maintains a desired driving speed without using the accelerator pedal.

The vehicle speed must be greater than 40 km/h to engage the cruise control. This feature is especially useful for motorway driving.

CAUTION

Improper use of the cruise control could be dangerous.

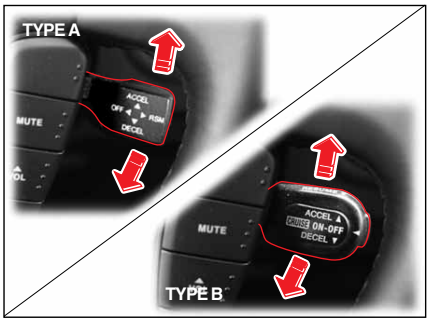
- Do not use on winding roads.
- Do not use in heavy traffic.
- Do not use on slippery, wet roads.

This could result in a loss of control, collision, and/or personal injuries.

NOTE

The described speed value may vary slightly depending on the road conditions.

Setting a Desired Speed



1. To operate the cruise control, accelerate to your desired speed using the accelerator pedal over 40 km/h.
2. When the desired speed is reached, push up the ACCEL switch of the cruise control lever or push down the DECEL switch for 1 second per one switching and then release the accelerator pedal slowly.
3. Now, the vehicle is cruised by this system with the set speed.
4. And you can set to other vehicle speeds again with above steps after an accelerator pedal intervention during the cruise control running.

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Accelerating with the Cruise Control System

- While the cruise control system is running

1. Push up the ACCEL switch of the cruise control lever and hold it until the desired speed is reached without an accelerator pedal intervention.
2. When the desired speed is reached, release the lever.

- While the cruise control system is not running

1. Accelerate using the accelerator pedal over 40 km/h.
2. Push up the ACCEL switch of the cruise control lever and hold it.
3. And then release the accelerator pedal slowly.
4. When the desired speed is reached, release the lever.

- Tap-up while the cruise control system is running

1. Push up the ACCEL switch of the cruise control lever less than 0.5 second per one switching while the cruise control system is running. This is a tap-up switching.
2. When you operate a tap-up switching, the vehicle is accelerated for 1 km/h over the previous set speed.
3. If you want to accelerate for 13 km/h, operate the tap-up switching 13 times without accelerating with the cruise control system.

Decelerating with the Cruise Control System

- While the cruise control system is running

1. Push down the DECEL switch of the cruise control lever and hold it until the desired speed is reached without a brake pedal intervention. But the cruise control system cannot maintain the cruise function at less than 35 km/h.
2. When the desired speed is reached, release the lever.

- When the cruise control system is not running

1. Push down the DECEL switch of the cruise control lever and hold it.
2. And then release the accelerator pedal slowly.
3. When the desired speed is reached, release the lever. But the cruise control system cannot maintain the cruise function at less than 35 km/h.

- Tap-down while the cruise control system is running

1. Push down the DECEL switch of the cruise control lever less than 0.5 second per one switching while the cruise control system is running. This is a tap-down switching.
2. When you operate a tap-down switching, the vehicle is decelerated for 1 km/h below the previous set speed.
3. If you want to decelerate for 10 km/h, operate the tap-down switching ten times without the brake pedal intervention.

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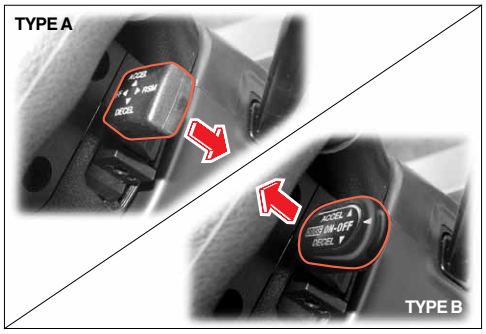
Recovery of Set Speed

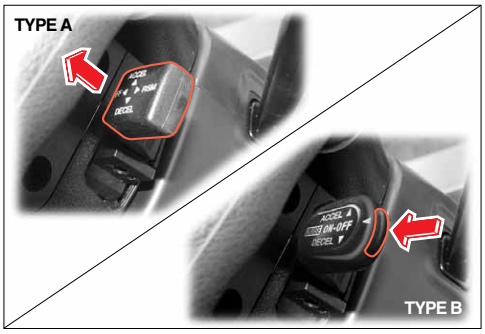


Even if the cruise control is cancelled, the previous set cruise speed can be recovered by pushing (Type A) or pulling (Type B) toward the cruise control lever when the current vehicle speed is over 60 km/h (Diesel D20DT only) or 40 km/h (Gasoline G23D only) without an acceleration intervention. But if you turn off the ignition switch, the memorized set speed is cleared and you cannot recover the previous set speed.

CAUTION

The resume position should only be used if the driver is fully aware of this speed and wishes to resume this particular speed.

Normal Cancellation of the Cruise Control



The cruise control system will be canceled when one or more items of the following conditions are applied;

1. When the brake pedal is depressed.
2. When the cruising speed is downed less than 35 km/h.
3. When the OFF switch is operated by pulling the cruise control lever (Type A) or by pushing the ON-OFF switch of the cruise control lever (Type B).
4. When ABD is activated.

And the cruise control system can be operated again in driving state.

CAUTION

Keep the main cruise control switch in the neutral position when not using the cruise control.

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Abnormal Cancellation of the Cruise Control

1. When the rapid deceleration is applied without braking.
2. When the rapid acceleration is applied without acceleration pedal intervention.
3. When the cruise control lever is failed.
4. When the brake switch and the brake light switch input signal are implausible.

And the cruise control system cannot be operated again in driving state. In this case, you should stop the vehicle, and turn off the ignition switch and then turn it on again. After you do that, you can use the cruise control system again. But if the cruise control system isn't recovered, you should contact a Ssangyong Dealer for diagnosis of the cruise control system.

CAUTION

Abnormal changes of the selector lever can damage the engine.

Do not move the shift lever to Neural while driving at the set speed.

Automatic transmission damage may result.

CAUTION

- The speed that has been set may not be maintained on uphill or downhill slopes.
- The speed may drop to less than the set speed on a steep uphill grade. The accelerator must be used if you want to maintain that speed.
- The speed may increase to more than the set speed on a steep downhill grade. When the speed increases too much, turn off the cruise control.

Using the Cruise Control on Hills

How well the cruise control works on hills depends on the speed, load, and the steepness of the hill.

When going up steep hills, you may have to depress the accelerator pedal to maintain your speed. When going downhill, you may have to brake or shift to a lower gear to keep your speed down.

Applying the brake takes you out of the cruise control.

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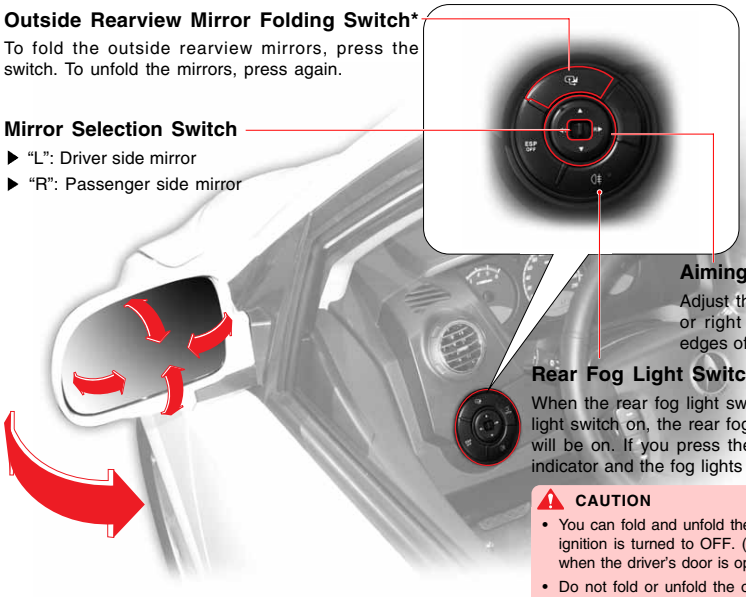
OUTSIDE REARVIEW MIRROR CONTROL SWITCH* AND REAR FOG LIGHT SWITCH*

Outside Rearview Mirror Folding Switch*

To fold the outside rearview mirrors, press the switch. To unfold the mirrors, press again.

Mirror Selection Switch

- ▶ "L": Driver side mirror
- ▶ "R": Passenger side mirror



Outside Rearview Mirror Control

1. Select the driver side mirror (L) or the passenger side mirror (R) with the mirror selection switch.
2. Adjust the outside rearview mirror by pushing the appropriate edge of the switch.

Aiming Switch

Adjust the selected mirror up, down, left, or right by pressing the corresponding edges of the switch to get a desired view.

Rear Fog Light Switch*

When the rear fog light switch is pressed with the front fog light switch on, the rear fog light indicator and the fog lights will be on. If you press the switch again, the rear fog light indicator and the fog lights will be off.

WARNING

Do not put any tinting film on the door glasses of the front seats. Otherwise, your visibility will decrease.

CAUTION

- You can fold and unfold the mirrors within 30 seconds after the ignition is turned to OFF. (However, this function is overridden when the driver's door is opened with the ignition switch OFF.)
- Do not fold or unfold the outside rearview mirrors manually. It may cause a malfunction of the mirror folding system.
- If you directly spray high-pressured water to the electric remote-controlled outside mirrors, this may cause some malfunctions in the mirror system.

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ESP$_{OFF}$ (ELECTRONIC STABILITY PROGRAM) SWITCH AND ESP SYSTEM*

ESP$_{OFF}$ Switch

If you press the ESP$_{OFF}$ switch, the ESP function stops and the indicator lamp in the instrument cluster comes on.

Press this switch again to resume the ESP function. At this time, the indicator lamp goes out.

ESP Warning Lamp

Blinking: When ESP is activated.

On: When ESP is deactivated (by pressing the ESP$_{OFF}$ switch).

When ESP system is defective.

When ESP is activated, the indicator light is blinking and a warning buzzer sounds. If this indicator illuminates in spite of an activated ESP, this means a malfunction of the ESP system.

Stopping ESP Function With ESP$_{OFF}$ Switch

If the driving wheels are slipping on snowy or icy roads, the engine rpm may not increase even when you depress the accelerator pedal, and accordingly, you may not be able to move your vehicle. In this case, stop the ESP function by pressing the ESP$_{OFF}$ switch. When the ESP$_{OFF}$ switch is pressed, the ESP function stops and the vehicle is driven independently from the sensor outputs.

Resuming ESP Function With ESP$_{OFF}$ Switch

If you push the ESP$_{OFF}$ switch again when the ESP function is deactivated (the ESP warning lamp is turned on), the system will be resumed and the ESP warning lamp on the instrument cluster goes out by resuming the ESP system.

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ESP (ELECTRONIC STABILITY PROGRAM) SYSTEM

The Electronic Vehicle Stability Control Program (ESP) is a supplementary driving safety system when your vehicle is unstably moving in a certain situation, such as during a sharp corner. The ESP applies brakes on a certain wheel (s) or controls the engine torque to compensate vehicle stability. These actions help your vehicle avoid dangerous situations. The ESP functions automatically, working only in very unstable conditions; it does not operate under normal driving conditions. If the ESP is engaged, the ESP warning light will flicker on the instrument cluster and a warning alarm will sound.

BAS (Brake Assist System) Function

A certain driver such as a female driver, aged driver, or a driver with a disability is unable to depress the brake pedal as hard as necessary. When the ESP system recognizes any emergency situations requiring hard braking, it automatically delivers an extra high braking pressure to the wheels.

ARP (Active Rollover Protection) Function

This function is a part of the ESP system. When your vehicle moves in an extremely unstable manner, this function helps the vehicle maintain normal stability.

CAUTION

The ARP system more powerfully controls the engine and each wheel than the ESP function. When the ARP is applied, a sudden decrease of vehicle speed or powerful braking force can make steering your vehicle difficult.

CAUTION

- If the ESP warning light comes on, the ESP related system is defective. Make sure to check the vehicle at the nearest Ssangyong Dealer or Ssangyong Authorized Service Center.
- The ESP system does not operate during reverse driving.
- The ESP system activates when the vehicle is unstable to correct the vehicle stability. When the ESP warning lamp and the warning alarm turn on, reduce the speed and pay extra attention to the road.
- The ESP system is only a supplementary device for the vehicle. When the vehicle exceeds its physical limits, it cannot be controlled. Do not rely on the system. Keep driving safely.
- When ESP is applied, you may feel some noise or vibration from the brake pedal or other relevant systems. They are caused by pressure changes in the relevant systems.

Driving Impression when ESP is Working

When ESP is applied in a certain situation (the indicator blinks and a warning buzzer sounds), such as during a sharp turn, you may feel that ESP controls each wheel and different levels of needed braking force are applied to wheels. You may hear some noise or feel some vibrations from the brake pedal or other systems. They are caused by pressure changes in relevant system. You may also notice the engine output decreases even when the accelerator pedal is being depressed.

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HDC (Hill Descent Control) Switch*

The green HDC indicator in the instrument cluster comes on when pressing this switch.

Tailgate and Outside Rearview Mirror* Heated Glass Switch*

Press this switch to turn on the tailgate and outside rearview mirror heated glasses. The heated glass indicator in the switch comes on.

Windshield Heated Glass Switch

Press this switch to turn on the windshield heated glass. The heated glass indicator in the switch comes on.

TRIP Switch

- Conversion between the trip meter and ODO meter
- Reset the trip meter

Hazard Warning Flasher Switch

To turn on the hazard warning flashers, push this switch. All turn signal lamps will flash simultaneously with the hazard warning indicators.

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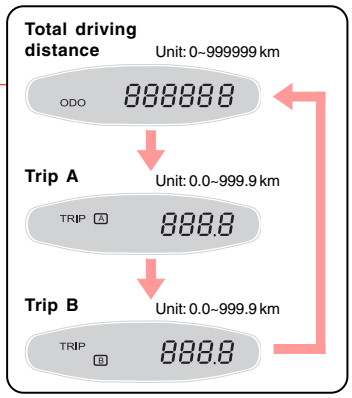
TRIP AND RESET SWITCH

TRIP/RESET Switch

TRIP/RESET switch is used for different displays: TRIP A, TRIP B and ODO (the total driving distance)



1. Changing the Driving Distance Display Mode

To choose a desired driving distance display mode, press the switch: Changing sequence: **ODO - TRIP A - TRIP B - ODO**

2. TRIP A and TRIP B Resetting Procedure

TRIP A/B display will be initialized to 0 km when the distance of an individual trip exceeds 999.9 km. If you press and hold the reset button for more than one second in TRIP A or TRIP B mode, trip meter resets to zero.

* If the meter cluster with “mile” unit is installed, trip/odo distance is displayed in “mile”.

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HDC (HILL DESCENT CONTROL) SWITCH*

HDC?

HDC stands for Hill Descent Control. When traveling down steep grades, this function allows you to travel at a low speed without any depression of the brake pedal. This convenient function is for only driving down steep grades. Therefore do not use this function for anything other than driving down steep hills.

HDC Switch

When this button is pressed once, HDC is ready for use. The green HDC indicator on the instrument cluster comes on. When the button is pressed again, HDC is deactivated and the indicator goes off.

The HDC Indicator

Green light on: HDC is ready for use (by pressing the HDC switch).

Green light blinking: HDC is being applied.

Red light on: the HDC system is overheated or malfunctioning.

When HDC is applied, the green HDC indicator blinks.

When the red HDC indicator is on, the HDC system is overheated or malfunctioning.

When the red HDC indicator is on, the HDC function does not work.

Depressing the Accelerator or Brake Pedal while HDC is being applied

If you depress the accelerator or brake pedal, the HDC function immediately stops and there will be more driving or braking force accordingly.

WARNING

- When driving down an extremely dangerous steep grade, HDC will still work even if the brake or accelerator pedal is depressed.

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HDC Operational Conditions

1. The HDC switch should be on (The green indicator on the instrument cluster comes on).
2. A certain steep grade.
3. Driving for about 7 ~ 50 km/h in the 2 wheel (2H) or 4 wheel high (4H) speed position. Or driving for about 3 ~ 25 km/h in the 4 wheel low position.
4. The automatic gear shift lever is in the “D” or “R” or “N” position. In case of the manual transmission, the gear shift is in the forwarding “1” or “Reverse” or “Neutral” position.
5. The accelerator or brake pedal is not depressed.
6. ESP (Electronic Stability Program, including BAS) is not activated.

Deactivation Conditions of HDC

1. The HDC switch is off (The green indicator on the instrument cluster is off too).
2. Less than required steep grade.
3. Vehicle’s speed is out of the operational ranges.
4. The accelerator or brake pedal is depressed.
5. ESP (including BAS) is applied.
6. Because of extended operation of HDC, the system is overheated (The red HDC indicator illuminates).

Operation of HDC

When all operational conditions are met, HDC is applied and the green HDC indicator blinks. HDC automatically decreases the vehicle speed to 7 km/h in the 2 wheel (2H) or 4 wheel high speed mode (4H) position. HDC automatically stops at speeds less than 7 km/h or when the slope descends slowly. It is normal to have strong vibrations and noise from the brake system when HDC is applied.

WARNING

- HDC is designed for driving on off-road steep grades.
- Unnecessary usage of HDC can cause malfunctions in the brake system or ESP. Do not use HDC when driving on normal roads.
- If driving on a level road with HDC on and ready for use, HDC may be applied during sharp cornering or passing over a speed bump. Therefore, do not activate HDC while driving on normal roads.
- If the red HDC indicator illuminates, HDC is overheated or malfunctioning. If the indicator is on even after the system has cooled down enough, have the nearest authorized dealer or service center check the system.
- It is normal to have strong vibrations and noise from the brake system when HDC is applied.
- In case of a manual transmission vehicle, the gear shift is in the forwarding “1” or “Reverse” position. If HDC is attempted in the “2” position, the engine may turn off.

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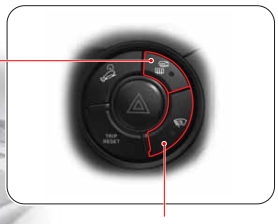
Tailgate and outside rearview mirror heated glass switch

- Press this switch to turn on the tailgate and outside rearview mirror heated glasses. It will operate for about 12 minutes.
- Press the switch again to stop the operation.
- This switch is designed to defrost or defog the tailgate glass and outside rearview mirrors.
- The heated glass will operate for about 6 minutes when the switch is pressed again within 10 minutes after completion of its first operation cycle.
- The indicator in the switch comes on when in use.



Windshield heated glass switch

- Press this switch to turn on the windshield heated glass. It will operate for about 12 minutes.
- Press the switch again to stop the operation.
- Use this to prevent the windshield wiper blades from being frozen.
- It will operate for approximately another 6 minutes if the switch is pressed again within 10 minutes after completing its 12-minute operation.
- The indicator in the switch comes on when in use.

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AUDIO REMOTE CONTROL SWITCHES ON STEERING WHEEL

* The audio system equipped in the vehicle can be controlled by the remote control switches on the steering wheel.

POWER

Audio power on/off when the button is pressed.

MODE

Audio mode changes when the button is pressed.

▲ SEEK / SEEK ▼

- In radio mode
  - Press briefly: Manual searching for a station. Move to a stored station.
  - Press and hold: Automatic searching for a station.
- In CD (DVD) player/Cassette tape mode
  - Press briefly: Replay the next/previous track.
  - Press and hold: Move forward/backward in the current tract.

MUTE

Stops audio output from the audio system. To resume the audio output, press the button again.

▲ VOL / VOL ▼

Increases/decreases volume

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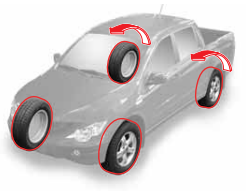
4-WHEEL DRIVE SYSTEM

The 4-wheel drive system automatically distributes torque to all four wheels using sophisticated electronic controls and ensures a more enhanced vehicle stability compared with that of the 2-wheel drive system.

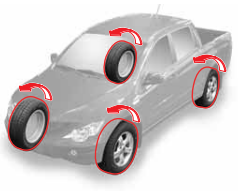
The 4-wheel drive system is mainly used for unpaved, snowy, and slippery roads where extra traction is needed and for having a little fun in the mud. For maximum traction, "4L" mode is available.

DRIVING MODE



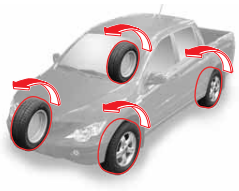
2H: 2-Wheel Drive, High

Rear-wheel drive mode. This is used under normal or high-speed driving conditions on public roads or highways.



4H: 4-Wheel Drive, High

This is used under sandy, muddy or snow-covered road conditions.



4L: 4-Wheel Drive, Low

This is used for maximum traction.

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4-WHEEL DRIVE SWITCH

Only for part time TC, not equpped with 2-wheel drive vehicle

Select a proper driving mode according to the road conditions.

CAUTION

- Do not drive your vehicle over 80 km/h in 4H mode.

2H : 2-Wheel Drive, High

Rear-wheel drive mode. This is used under normal or high-speed driving conditions on public roads or highways.

4H : 4-Wheel Drive, High

This is used under sandy, muddy or snow-covered road conditions.

4L : 4-Wheel Drive, Low

Use this position for maximun traction.

Driving Mode Change

2H ⇔ 4H

Shifting is possible while driving at the speed of 70 km/h or less.

4WD HIGH

- When shifting the driving mode to “4H”, this indicate comes on.
- When shifting the driving mode from “4L” to “4H”, the light blinks during shifting and comes on after completely shifting.

2H, 4H ⇔ 4L

- For vehicles equipped with automatic transmission, stop the vehicle on level ground and move the gear selector lever into the “N” position. Turn the switch to the desired position.
- For vehicle equipped with manual transmission, stop the vehicle on level ground and move the gear selector lever into the “N” position. Then turn the switch to the desired position while depressing the clutch pedal.

4WD LOW

Completely shifting to “4L” turns on the light. Light blinks during shifting to “4L”.

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4WD HIGH Indicator

4WD HIGH

- When shifting the driving mode from “2H” to “4H”, this indicator comes on.

4WD LOW Indicator*

4WD LOW

- When shifting the driving mode to “4L”, the light blinks during shifting and it will come on after completely shifting.
- The blinking indicator indicates that the mode is shifting to “4L”.

4WD CHECK Warning Indicator

4WD CHECK

This warning indicator comes on when the ignition switch is turned to “ON” and should go out if the system is normal. If the “4WD CHECK” warning indicator stays on, have the 4WD system checked by the nearest Ssangyong Authorized Service Center.

Tight Cornering

Some mechanical shocks and resistances in the vehicle’s drive train may occur when cornering in 4-wheel drive mode. This is just normal and is due to the internal resistance in the drive train when the 4-wheel drive is properly working. To avoid damaging the drive train, do not drive your vehicle at an excessively high speed on a sharply curved road.

CAUTIONS WHEN USING 4-WHEEL DRIVE MODE

- There could be mechanical noises and shocks during mode changes. However, these are normal conditions due to the mode changing operations.
- Use only the 2H mode on a normal paved surface. Do not drive your vehicle in the “4H” position on paved road surfaces. Doing so will result in damages to the drive train.
- Driving in a 4 wheel mode on a normal paved surface will cause unwanted noises, premature wear of tires, or increased fuel consumption.
- If the “4WD CHECK” warning light stays on, have the 4WD system checked by the nearest Ssangyong Dealer or Ssangyong Authorized Service Center.
- When cornering a curved road in a 4-wheel drive mode, there could be some mechanical shocks and resistances in vehicle’s drive train. These are normal conditions due to internal resistance in the drive train when the 4-wheel drive mode is properly working. To avoid damages to the drive train, do not drive your vehicle at an excessively high speed on a sharply curved road.

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LIMITED SLIP DIFFERENTIAL (LSD)*

LSD is a differential limiting of wheel which is spinned when one wheel is on a slipping surface like ice, snow or mud to help easy escaping from them. LSD is integrated in the rear axle and please keep eyes on following precautions.

NOTE

There is no switch or device to control the LSD in the vehicle. It is integrated in the rear axle and works when one wheel is spinning.

CAUTION

If you run the wheels with high speed while escaping mud or puddle, the limited slip differential (LSD) may badly be affected. Use other devices such as wood block while escaping depending on the situations.

WARNING

Limited slip differential (LSD) is integrated in the rear axle and operates when there are slippage differences between the left wheel and right wheel. So, in any cases, never start the engine if any wheel is jacked up.

Particularly, if you start the engine while one of rear wheels is jacked up, the wheel on the ground will run due to operation of the LSD, due to operation of the LSD, and make the vehicle move abruptly, so that you can be seriously injured. You can be seriously injured.

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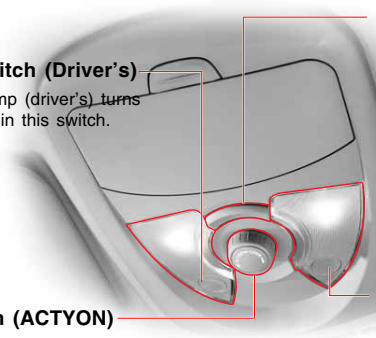


Spot Lamp Switch (Driver's)

The front room lamp (driver's) turns on when pressing in this switch.

Sunroof Switch (ACTYON)

By turning this switch to either the clockwise or counterclockwise direction, the sunroof can be open or closed. For more information, refer to Chapter 2.

Main Room Lamp Switch

When this switch is pressed, the front and center room lamps are coupled with doors. (The center room lamp is coupled only if the center room lamp switch is in the door coupled operation.) When pressed again, the lamps go out.

If switches of the spots and center room lamps are turned on, the lamps do not go out in spite of repressing the switch. To turn them off, check the switches.

* When a door is opened, the front and center room lamps are turned on. In this case, you cannot turn off the lamps with the main room lamp switch. However, if the door is closed, the lamp will go out.

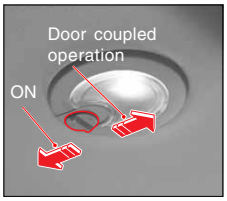
Spot Lamp Switch (passenger's)

The front room lamp (passenger's) turns on when pressing in this switch.

CAUTION

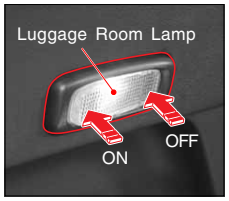
If your vehicle is left unattended while the front main, spot, or center room switch is turned on, the battery may be discharged.

CENTER ROOM LAMP



Switching to ON lights up the center room lamp. If the switch is placed to the door coupled position, the lamp goes out. If any door is opened when the door coupled position is selected, the center room lamp comes on (However, the lamp is coupled with the doors only when the main switch of the front room lamp is pressed). However, if the door is closed, the lamp will go out.

LUGGAGE ROOM LAMP (ACTYON)



If the ON position is pressed, the lamp will come on; if the OFF position is pressed, it will go out.

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MEMO

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Instrument Cluster

5

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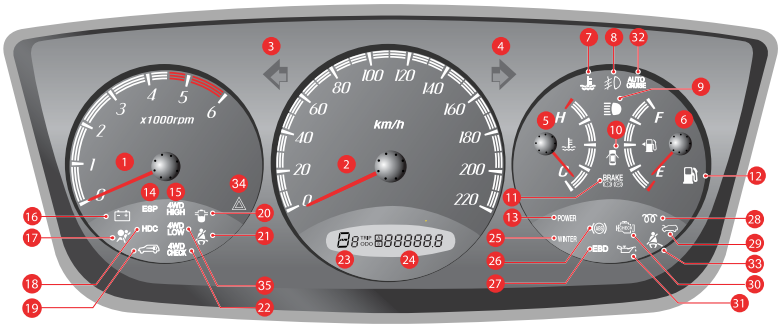
16



1. Tachometer
2. Speedometer
3. Left turn signal indicator
4. Right turn signal indicator
5. Engine coolant temperature gauge
6. Fuel gauge
7. Engine overheat warning light
8. Fog light indicator
9. High beam indicator
10. Door ajar warning light
11. Brake warning light
12. Low fuel level warning light
13. Power mode indicator
14. ESP warning light
15. 4WD HIGH indicator
16. Battery charge warning light
17. Air bag warning light
18. HDC indicator
19. Immobilizer indicator
20. Water separator warning light
21. Seat belt reminder (driver's seat)
22. 4WD CHECK warning light
23. Auto shift indicator (for automatic transmission)
24. ODOmeter/ Trip odometer
25. Winter mode indicator
26. ABS warning light
27. EBD warning light
28. Glow indicator
29. Engine hood open warning light
30. Engine check warning light
31. Engine oil pressure warning light
32. Auto cruise indicator
33. Seat belt reminder (passenger's seat)
34. Hazard warning light (Eastern Europe only)
35. 4WD LOW indicator

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TACHOMETER

Diesel

Gasoline

The tachometer indicates engine speed in revolutions per minute. Multiply 1,000 to the current number, then it will be the current number of engine revolutions.

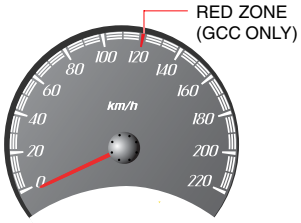
Specified idle rpm

Diesel	780 ± 50 rpm
Gasoline	750 ± 50 rpm

WARNING

Do not let engine reach excessive speed, indicated by the pointer being in the red zone.

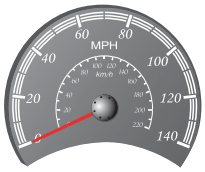
SPEEDOMETER



The speedometer indicates the vehicle speed in kilometers per hour (km/h).

NOTE

Speedometer-KPH (MPH)



Speedometer-MPH (KPH)

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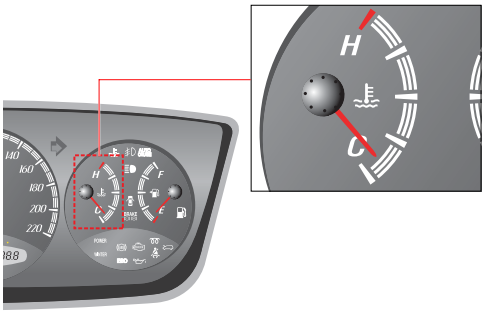
COOLANT TEMPERATURE GAUGE



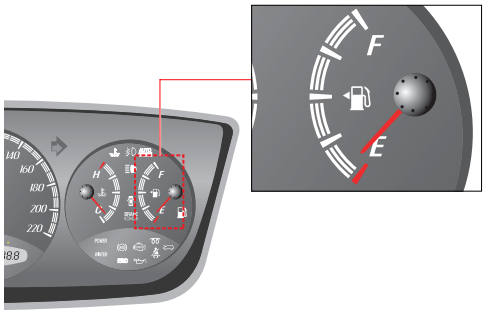
The temperature gauge indicates the temperature of the engine coolant.

CAUTION

The engine can overheat.

- If the pointer reaches the red zone, stop the vehicle.
- Allow engine to cool.
  If the engine is overheated, continued operation of the vehicle may seriously damage the engine.

FUEL GAUGE



This gauge indicates the level of fuel remaining in the fuel tank. Fill up the fuel tank before the needle reaches **"E"**.

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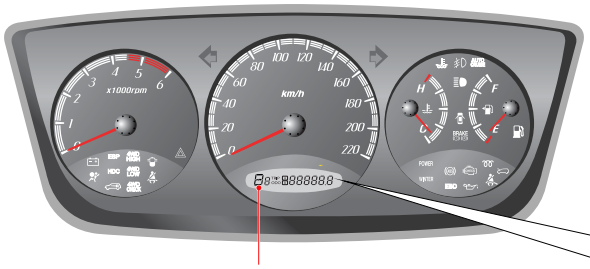
DISPLAY



Auto Shift Indicator (for automatic transmission)

This indicator shows the automatic transmission selector lever position as below.

P R N D4 3 2 1

Gear Shifting

When the shift lever is engaged in the "D" position, the actual gear number is displayed in a small font next to the "D" letter.

D_1 D_2 D_3 D_4

NOTE

When a lower gear is needed to secure stabilized driving conditions, sometimes the "D_3" can directly be shifted into the "D_1" position, without lowering into the "D_2" position.

Odometer and Trip Odometer Display

Each time the TRIP/RESET switch on the center panel is pressed lightly, the indicators are changed. To reset the trip meter, press and hold the switch.

Total driving distance Unit: 0~999999 km

ODO 888888

Trip A Unit: 0.0~999.9 km

TRIP A 888.8

Trip B Unit: 0.0~999.9 km

TRIP B 888.8

* If the meter cluster with "mile" unit is installed, trip/odo distance is displayed in "mile".

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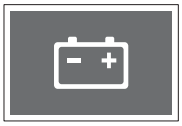
BATTERY CHARGE WARNING LIGHT



This warning light comes on when the ignition switch is turned on and it goes off when the engine is started.

If this light doesn't go off after engine starting or comes on while driving, it means there is a malfunction in the system. Have the charging system checked by a Ssangyong Dealer or Ssangyong Authorized Service Center.

AIR BAG WARNING LIGHT

When the ignition is switched on, this warning light illuminates and then should go off, to confirm that the air bag is operational.

If it does not come on, or if it does not go off, or if it flashes or illuminates continuously while driving, it means that there is a malfunction in the system. Have the air bag system checked without delay by a Ssangyong Dealer or Ssangyong Authorized Service Center.

NOTE

For more detailed information, refer to the "Seat Belt and Air Bag" section.

ESP WARNING LIGHT

If you press the ESP$_{OFF}$ switch, the ESP function stops and the indicator lamp in the instrument cluster comes on. If the ESP function operates, the indicator lamp flickers.

If the ESP warning light is on without any deactivation of the system, there are some malfunctions in the system. Take the vehicle to an authorized dealer or service operation.

For more information about ESP (Electronic Stability Program), refer to Chapter 4.

HDC INDICATOR

When the HDC switch is pressed once, HDC is ready for use. The green HDC indicator in the instrument cluster comes on. When the button is pressed again, HDC is deactivated and the indicator goes off.

When HDC is applied, the green HDC indicator blinks.

When the red HDC indicator is on, the HDC system is overheated or malfunctioning. For more information, refer to Chapter 4, HDC Switch.

CAUTION

If the red HDC indicator illuminates, HDC is overheated or malfunctioning. If the indicator is on even after the system has cooled down enough, have the nearest authorized dealer or service center check the system.

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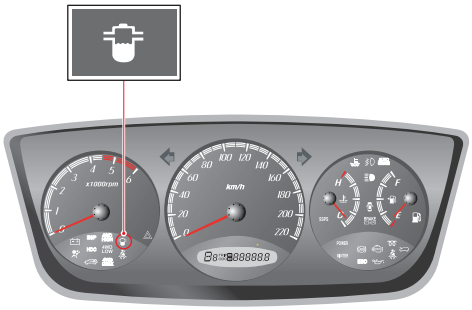
WATER SEPARATOR WARNING LIGHT



CAUTIONS

- The fuel system in the engine may get serious damage if you keep driving while the warning light is on. Prompt correction should be necessary.
- Using low quality fuel could result in serious damage to the engine due to the water or impurities in fuel. Never use low quality fuel.
- After removing any water in the fuel filter, pump fuel until the priming pump is fully filled before starting the engine.
- When the water level inside the water separator in the fuel filter exceeds a certain level, this warning light comes on and a buzzer sounds. Also, the driving force of the vehicle decreases. If these conditions occur, immediately drain the water from fuel filter. If the above conditions still exist after draining the water, have the system checked by a Ssangyong Dealer or Ssangyong Authorized Service Center.

Water Separator Warning Light (Without Additional Water Separator)

When the water level inside the water separator in the fuel filter exceeds a certain level, this warning light comes on and a buzzer sounds. Also, the driving force of the vehicle decreases. If these conditions occur, immediately drain the water from the fuel filter.

For the draining procedures, please refer to “How to drain the water from the fuel filter (without additional water separator)” on the next page.

This warning light goes off when the draining is completed.

Water Separator Warning Light (With Additional Water Separator)

When the water level inside the water separator exceeds a certain level, this warning light comes on and a buzzer sounds. Also, the driving force of the vehicle decreases. If these conditions occur, immediately drain the water from the fuel filter & water separator.

For the draining procedures, refer to “How to drain the water from the fuel filter (with additional water separator)” on page 5-10.

This warning light goes off when the draining is completed.

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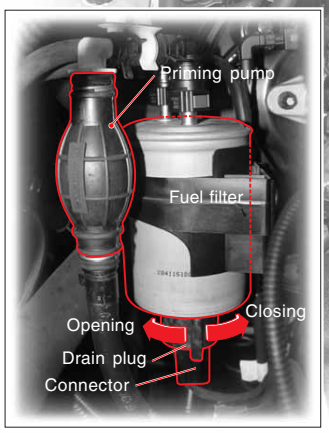
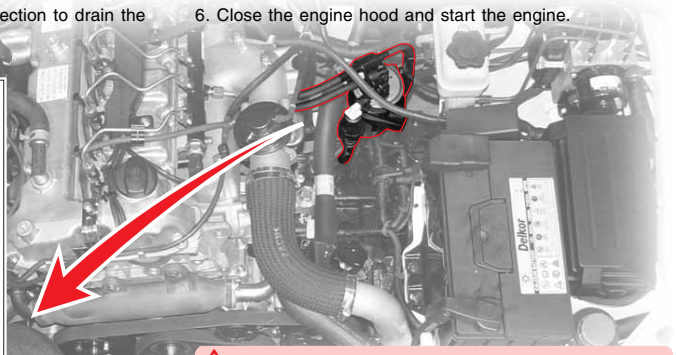
HOW TO DRAIN THE WATER FROM THE FUEL FILTER (Without Additional Water Separator)

1. Locate the fuel filter in the engine compartment and place a water container under it.
2. Disconnect the connector under the drain plug of the water separator.
3. Turn the drain plug to the opening direction to drain the water.
4. Wait until a certain amount of fuel gets out from the port, then turn the drain plug to the closing direction to tighten it.
5. Engage the connector under the drain plug and press the priming pump until it becomes rigid.
6. Close the engine hood and start the engine.





WARNING

If the priming pump is not properly operated, air may get into the fuel line. It may cause a starting problem or fuel system problem. Make sure to perform the job in step 5.

CAUTION

Be careful not to be injured by surrounding equipment during the working procedures.

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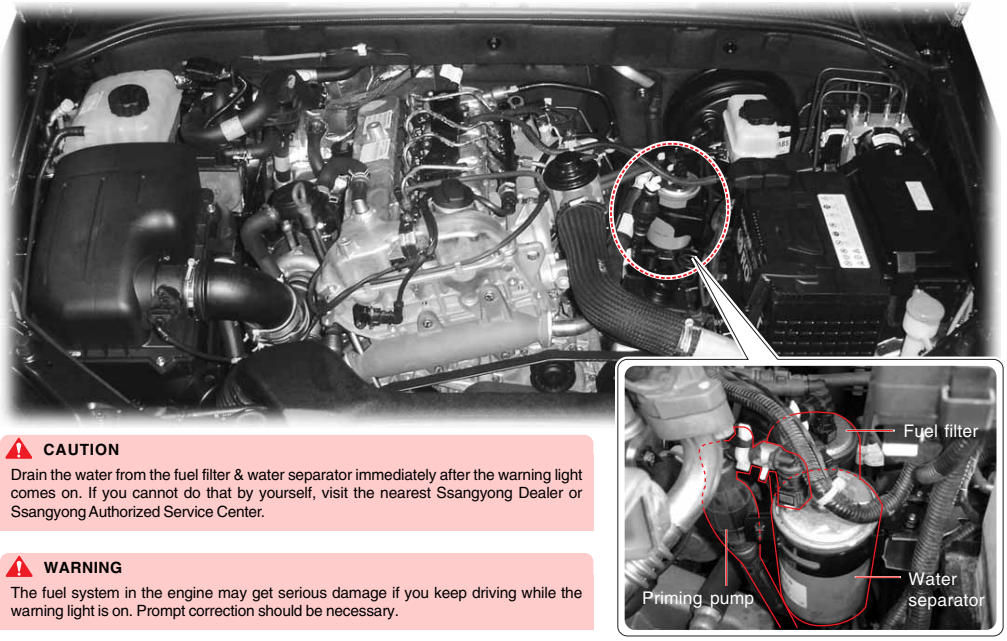
HOW TO DRAIN THE WATER FROM THE FUEL FILTER (With Additional Water Separator)



CAUTION

Drain the water from the fuel filter & water separator immediately after the warning light comes on. If you cannot do that by yourself, visit the nearest Ssangyong Dealer or Ssangyong Authorized Service Center.

WARNING

The fuel system in the engine may get serious damage if you keep driving while the warning light is on. Prompt correction should be necessary.

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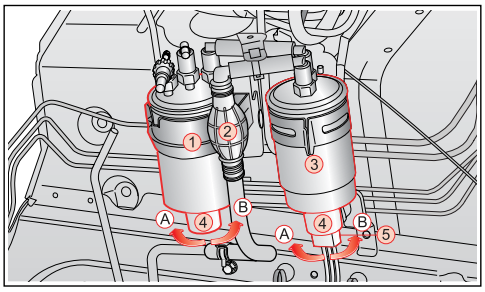

1. Fuel filter
2. Priming pump
3. Water separator
4. Drain plug
5. Connector

A. Opening direction of drain plug
B. Closing direction of drain plug

1. Locate the fuel filter (①) & water separator (③) in the engine compartment.
2. Place the water container under the fuel filter & water separator.
3. Disconnect the connector under the drain plug (④) of the water separator.
4. Turn two drain plugs to the "Ⓐ" direction to drain the water.
5. Press the priming pump until all water is drained. After draining, turn the drain plug until the gasket contact to the threaded plug hole, then tighten ("Ⓑ" direction) it 1/2 turns by hand.

CAUTION

Be careful not to be injured by surrounding equipment during the working procedures.

6. Engage the connector under the drain plug and press the priming pump (②) until it becomes rigid.
7. Close the engine hood and start the engine.

WARNING

If the priming pump is not properly operated, air may get into the fuel line. It may cause a starting problem or a fuel system problem. Make sure to perform the job in step 6.

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IMMOBILIZER INDICATOR

This indicator comes on when the ignition key is communicating with the engine control unit (during engine starting) for 0.5 seconds.

The time needed for communication between the immobilizer key and ECU can vary. When the time is very short, the immobilizer indicator does not come on.

CAUTION

If this indicator blinks, it may indicate that there is something wrong in the immobilizer system. Have the system checked by a Ssangyong Dealer or Ssangyong Authorized Service Center.

SEAT BELT REMINDER

When the ignition switch is turned to the "ON" position and the driver's seat belt is not fastened, the reminder light will come on and the seat belt warning chime will sound for 6 seconds. This reminding operation stops when the driver fastens the seat belt even during its operation period.

This seat belt reminder for passenger's seat operates in the same manner with the driver's.

4WD INDICATORS

4WD High Indicator

This light comes on when shifting into the four wheel driving mode (4H) is completed.

4WD LOW Indicator*

After completely shifting to "4L", the indicator comes on.

4WD Check Warning Light

This warning light comes on when the ignition switch is turned to "ON" and should go out if the system is normal. If the "4WD CHECK" warning light stays on, have the 4WD system checked by a Ssangyong Dealer or Ssangyong Authorized Service Center.

CAUTION

- If the "4WD CHECK" warning light stays on, have the 4WD system checked.
- Do not drive your vehicle over 80 km/h in 4H mode.

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ENGINE OVERHEAT WARNING LIGHT

When the engine coolant temperate is abnormally hot, the engine overheat warning light blinks and a warning buzzer sounds. When this happens, stop the vehicle in a safe place and let the engine cool down. For more information, refer to Chapter 12 "When the engine is overheating."

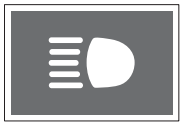
CAUTION

If you keep driving the vehicle with the warning light and buzzer on, the engine can be damaged. After completely cooling down the engine have an authorized dealer or service center check the vehicle.

FRONT FOG LIGHT INDICATOR

When the tail or head lights are on, the fog lights come on if the fog light switch is turned to the "ON" position. Then, the fog light indicator in the instrument cluster comes on.

HIGH BEAM INDICATOR



This indicator illuminates when the high beam headlamp is switched on.

WARNING

Driving with high beam headlamp disturbs the approaching vehicle's visibility. For safe driving, use the high beam headlamp only when it is very hard to see the road.

DOOR AJAR WARNING LIGHT

This light comes on when a door or the tailgate is either opened or not closed completely.

WARNING

Driving with the door open can cause injury to people inside and outside the vehicle.

- Before driving off, close all doors.
- Check whether or not the light is off.

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BRAKE WARNING LIGHT

This warning light comes on when the parking brake is applied and/or the brake fluid level is lower than a specified level.

CAUTION

If the vehicle is driven for over 2 seconds (over 10 km/h) while the parking brake is applied, the parking brake warning light comes on and a warning buzzer sounds. If it occurs, immediately stop the vehicle and release the parking brake.

WARNING

Driving the vehicle with the brake fluid warning light on is dangerous.

If the parking brake light stays on, you must immediately have your vehicle checked and serviced by Ssangyong Dealer or Ssangyong Authorized Service Center.

WINTER MODE INDICATOR

The indicator comes on when the Winter mode (W) switch near the gear selector lever is pressed.

Use this mode to drive off smoothly on an icy and slippery road.

LOW FUEL LEVEL WARNING LIGHT

This warning light indicates that the fuel will soon be exhausted. The time it takes to turn on, however, varies according to the vehicle operation or road conditions. Do not wait until this light is on to refuel the vehicle. It is recommended that fuel should be added as soon as this light comes on.

CAUTION

While driving on steep hills or rough roads, this warning light may come on if the remaining fuel level is low.

POWER MODE INDICATOR

The power mode switch is located next to the gear shift lever. When the power mode switch is pressed, the power mode is activated and its indicator comes on.

With the power mode, automatic shifting of gears happens when your vehicle's driving force reaches its maximum. Use this mode when you need an extra driving force in certain situations, such as accelerating to pass by another vehicle or ascend a steep hill.

CAUTION

When the transmission is overheated, the power mode indicator will flicker. If this happens, stop your vehicle and cool it down.

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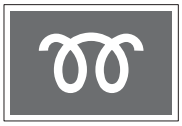
GLOW INDICATOR (DIESEL ONLY)



When the ignition switch is turned to "ON", this indicator comes on and stays for a short time or may go off right away. When the glow plugs are sufficiently heated, the light will go out. In the vehicle equipped with a direct injection type engine, this indicator may come on very shortly or may not even come on.

CAUTION

When the glow indicator comes on while driving or the engine cannot be started properly, have the glow plug system checked by a Ssangyong Dealer or Ssangyong Authorized Service Center.

EBD WARNING LIGHT

When the ignition switch is turned to "ON", this warning light comes on and goes out if the system is normal. If the EBD system is abnormal, the EBD warning light stays on.

WARNING

If the EBD warning light stays on, have the system checked by a Ssangyong Dealer or Ssangyong Authorized Service Center.

ABS WARNING LIGHT

When the ignition switch is turned "ON", this warning light comes on and goes out if the system is normal.

WARNING

- If this light doesn't come on when the ignition is switched to "ON" or if this light doesn't go out, contact your nearest Ssangyong Dealer or Ssangyong Authorized Service Center. If this light illuminates while driving, a malfunction of ABS is indicated. In this case the brake system performs its regular function but without the anti-locking capability. Have the system checked by a Ssangyong Dealer or Ssangyong Authorized Service Center as soon as possible if this condition occurs.
- ABS is a device that prevents wheels from locking during braking to allow steering. However, the ABS system does not shorten the stopping distance.

CAUTION

When the engine starts and the vehicle starts to move, ABS performs self diagnosis by transferring hydraulic pressure to the braking units. This may cause some noise and vibrations. This means ABS is properly functioning.

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ENGINE HOOD OPEN WARNING LIGHT

This warning light comes on when the engine hood is open.

CAUTION

Do not operate the vehicle unless the engine hood is completely locked. Otherwise, the hood may be lifted by a strong wind, block driver's visibility, and cause an accident.

ENGINE OIL PRESSURE WARNING LIGHT

This warning light comes on when the ignition is switched on and should go out when the engine is started.

CAUTION

If this light does not go off after engine starting or comes on while driving, it means there is a malfunction in the system. Running the engine with the oil pressure warning light on can cause serious damage to the engine. Have the lubricating system checked by a Ssangyong Dealer or Ssangyong Authorized Service Center.

ENGINE CHECK WARNING LIGHT

If the light stays on or comes on while driving, some of the engine control components including sensors and devices are defective.

WARNING

If the engine halts due to a completely empty fuel tank and the engine check light comes on even after refueling, the engine's power output may decrease within a certain driving distance (about 30 km).

CAUTION

When this warning light comes on, the vehicle operates in safety mode to maintain minimum driving conditions and to prevent the system from being damaged. In this mode, the engine driving force may be decreased or the engine may stall. When this happens, have the system checked at the nearest Ssangyong Dealer or Ssangyong Authorized Service Center.

CRUISE CONTROL INDICATOR

This indicator comes on when the cruise control is switched on.

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MEMO

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Transmission and Brake System 6

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- Shift Lever in Manual Transmission 6-2
- Gear Selector Lever in Automatic Transmission 6-3
- Driving Tips for Automatic Transmission ... 6-4
- Gear Selector Lever Positions 6-6
- Winter (W) / Power (P) / Normal Mode 6-11
- Parking Aid System 6-12
- Brake System 6-14
- Parking Brake Operation 6-19

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SHIFT LEVER IN MANUAL TRANSMISSION

The manual transmission in your vehicle has 5 forward gears and 1 reverse gear. To change gears, fully depress the clutch pedal. Then, move the gearshift lever into a desire gear. After shifting, release the clutch slowly.

3rd Gear

For low- or mid-speed driving. Be careful to avoid any unwanted shift from the 2nd gear into the 5th gear, rather than the 3rd gear.

1st Gear

Position for driving off and high traction force

Depress the clutch pedal to its deepest point and move the shift lever to “1”. Then, slowly release the clutch pedal while gently depressing the accelerator pedal to drive off.

Neutral Position

Position for engine start, vehicle stop, and parking

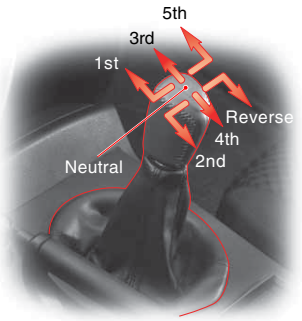
5th Gear

Position for very high speed driving on a highway

Be careful to avoid any unwanted shift from the 5th gear into the 2nd gear, rather than the 4th gear.

Reverse Gear

Position for reverse driving



2nd Gear

Position for low speed driving

4th Gear

Position for normal and high speed driving

CAUTION

- You should stop your vehicle and fully depress the clutch pedal before you shift into the reverse position.
- If the clutch pedal is frequently half-depressed, the clutch disk will be easily worn out. Use only as needed.
- Do not put your foot on the clutch pedal if not shifting gears.
- When shifting from a high gear into a lower gear, ensure that the RPM gauge pointer does not go into the red zone on the gauge. Especially, when shifting from the 5th to the 4th gear, moving the gear shift lever to the left too much may result in shifting into the 2nd gear. This will cause a sudden increase of the engine speed and may damage the engine and the transmission.
- When the temperature of the transmission oil is very low on a cold day, you may have some difficulty for shifting gears. This is a normal phenomenon.
- When you have difficulty for shifting into the 1st or reserve gear, put the gear shift lever into the neural position and release the clutch pedal. Then, depress the pedal again and shift into the intended gear.
- While your vehicle is moving, do not put your hand on the shift lever except to shift gears. Otherwise, the gear may be disengaged from the transmission and the internal transmission components may be damaged.
- Do not shift into the second next higher gear from a lower gear. Also, while the engine is rotating fast, do not shift into a lower gear.

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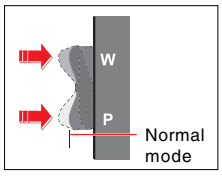
Mode Switch

- **W** : Winter mode
- **P** : Power mode

Use the normal mode in normal driving conditions.



P : Park
R : Reverse
N : Neutral
D : Driving (1-4 Gear Shifting)
3 : Upto 3rd Gear
2 : Upto 2nd Gear
1 : Upto 1st Gear

To shift into any other position, depress the brake pedal. (The ignition switch should be in "ON".)

The shift lever moves only when the brake pedal is depressed.

The shift lever moves without depressing the brake pedal, however for safety reasons, the brake pedal should also be depressed.

Shift lever moves without depressing the brake pedal.

WARNING

- When beginning to drive from a complete stop, depress the brake pedal for your safety before shifting gears.
- Never depress the accelerator pedal when moving the gear selector lever.
- If you have to stop on a hill, depress the brake pedal securely.

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STARTING AND DRIVING OFF

1. Always start the engine while the selector lever is in **"P"** and the brake pedal is depressed. For your safety, avoid starting the engine from **"N"** even though you can do so.
2. Check whether or not the engine speed is in a normal operating range (below 1,000 rpm). Keep the brake pedal depressed and shift into **"D"** or **"R"**.
3. Do not drive off or sharply accelerate the vehicle after shifting into the **"D"** position. Wait for a while several seconds before driving off with the brake pedal depressed.
4. To move the vehicle, release the brake pedal and depress the accelerator pedal gradually.

AUTOMATIC TRANSMISSION SAFETY MODE

When the transmission has electric or mechanical fault, the transmission operates in safety mode to maintain minimum driving conditions and to prevent the transmission from being damaged.

If the transmission operates in safety mode, it is hold in 3rd gear or other gear according to the type of the defect.

WARNING

If the gear is stuck into the 3rd position, or any another position, have your vehicle checked and serviced at Ssangyong Dealer or Ssangyong Authorized Service Center.

Creep Phenomenon

Without any depression of the accelerator pedal, your vehicle can move slowly if the selector lever is in any position other than **"P"** or **"N"**. This is called the creep effect. You can control your vehicle's movement by only applying the brake in heavy traffic or narrow areas.

CAUTION

- On a steep decline or incline, your vehicle may move in the opposite direction of the intended direction in spite of the creep effect. When stopping on a steep hill, always depress the brake pedal.
- When the parking brake is released while the engine is running at a high rpm, your vehicle may abruptly move. Therefore, wait until the engine speed becomes stable. Also, the transmission may be damaged due to lack of lubrication. Never shift into the **"N"** position while driving.
- When starting the engine with the accelerator depressed, your vehicle may abruptly move and cause an accident.
- A high engine speed can cause your vehicle to move abruptly from the parked position. To avoid this, wait until the engine rpm becomes stable.
- Do not abruptly drive off or sharply accelerate the vehicle after shifting into **"D"**. Otherwise the transmission will be damaged. Especially, when you start off on a hill after stopping and parking the vehicle, wait for a while until the **"D"** shift indicator comes on for several seconds with the brake pedal depressed.

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Kickdown Function

If you need to accelerate rapidly, depress the accelerator pedal completely to the floor. Then, a one- or two-lever gear will automatically be engaged. This is called the Kickdown function.

CAUTION

- Do not use the kickdown operation while driving on slippery or sharply curved roads.
- If you use the kickdown function too frequently, the durability and fuel economy of the vehicle will get worse.
- Do not excessively apply the brake pedal while going down a long hill. The brake system will overheat, experience vapor lock or the fade phenomenon, and lose the braking force.

Engine Brake

When the accelerator pedal is released while the vehicle is in motion, the engine speed decreases. This decreased engine speed creates an extra braking force. On a down hill, engaging a lower gear can generate a slower engine speed and eventually slow down the vehicle speed. By using this engine brake, you can decrease your vehicle speed without excessively using the brake system. The lower gear, the more braking force.

CAUTION

- Extended use of the brake pedal on a downward hill without using the engine brake may significantly reduce the braking effect of your vehicle due to the "vapor lock" or "fade" phenomenon.
- Be aware that the engine brake does not work when the gear selector lever is in the **"N"** position.
- Avoid any abrupt engine braking on slippery roads, or the tires may slip.

CAUTION

- When driving on a down hill, never shift the selector lever to **"N"**. If you try to shift the lever to **"D"** from **"N"**, a sudden gear engagement can damage the driving train.
- Even though your can start the engine with the selector lever in both **"P"** or **"N"**, for your safety, always start the engine with the selector lever in **"P"**.
- To avoid any mechanical damages or accidents, never shift into **"P"** or **"N"** while the vehicle is in motion.
- Never shift into **"R"** when the vehicle is moving.
- When driving at a high speed, any sudden attempt to shift from a higher to a lower gear can severely damage the vehicle. In addition, your vehicle may lose its stability and be at a high risk.

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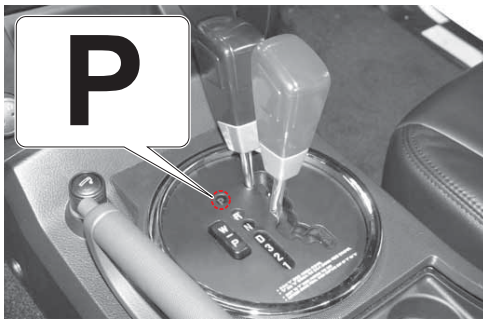
P: PARK POSITION



Use this position to park your vehicle, warm up the engine, or stay in a location for an extended length of time.

To shift into any other position, depress the brake pedal.

WARNING

- Never shift into **"P"** when the vehicle is moving, or the transmission will be damaged.
- Stop the vehicle completely before shifting into **"P"**.
- To shift from the **"P"** position to another position, the ignition switch must be turned to "ON" and the brake pedal should be depressed. Any forcible attempts to move the selector lever from **"P"** without the two procedures may damage the selector lever.

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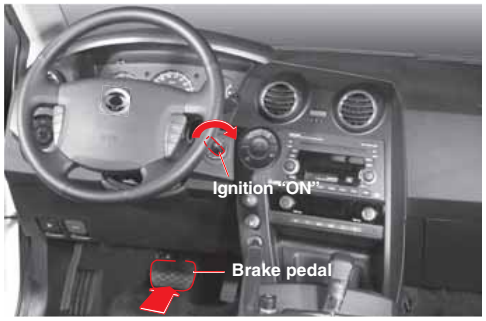
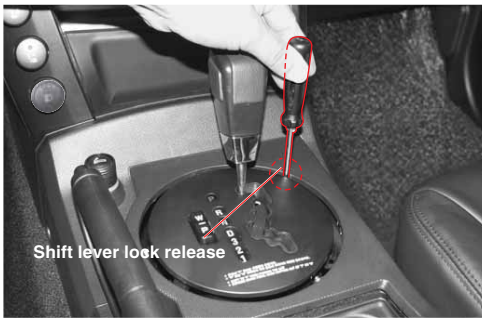
SHIFT LEVER LOCK RELEASE



To shift from **"P"**, the ignition switch must be turned to **ON** and the brake pedal must be depressed.

If you cannot shift out of **"P"**, check the followings:

- The ignition key is in "ON".
- The brake pedal is depressed.



If you cannot shift out of **"P"** with the ignition switch in **ON**, and the brake pedal depressed:

1. Apply the parking brake firmly and turn the ignition off.
2. Depress the brake pedal and push down the shift lock release lever with a stick such as a pen. Then, shift the lever to **"N"**.
3. Start the engine, release the parking brake, and place the selector lever at **"D"**.

WARNING

If this happens, have your vehicle repaired by the nearest Ssangyong dealer or Ssangyong Authorized Service Center as soon as possible.

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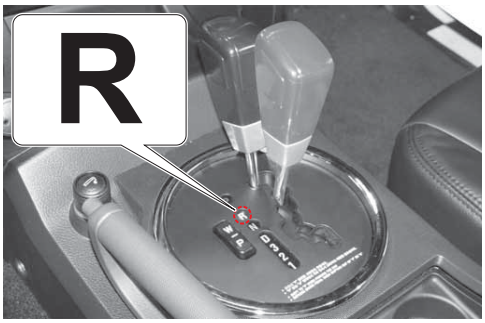
R: REVERSE POSITION

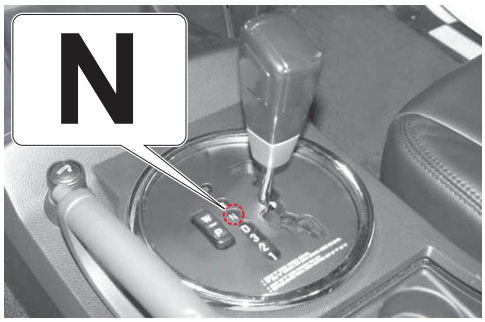


- Use this position to reverse the vehicle.
  To shift into **"R"** from **"P"** or **"N"**, completely stop the vehicle and depress the brake pedal. When the shift lever is in **"R"** and parking aid system will be activated (optional*).

WARNING

- Never shift into **"R"** when the vehicle is moving.
- Please note that the vehicle may slowly move rearward when the selector lever is at **"R"**.

N: NEUTRAL POSITION



At this position, the engine does not transfer power to the wheels and the vehicle will not move. However, for safety, apply the brake while at rest.

To shift into **"D"** or **"R"** from the **"N"** position after stopping the vehicle, you have to depress the brake pedal.

WARNING

- Never shift into **"N"** from the **"D"** position or vice versa when the vehicle is moving, or the transmission will be damaged.
- If you have to stop on a hill and would like to use this neutral position, depress the brake pedal firmly.
- Never attempt to move the gear selector lever to **"N"** when the vehicle is in motion.

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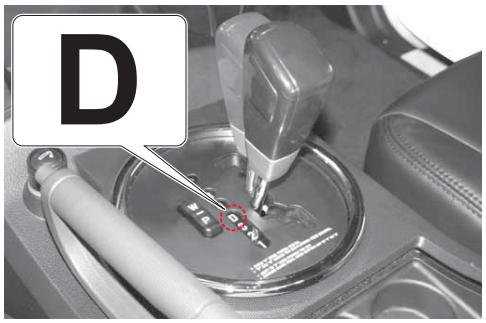
D: DRIVE POSITION



- This is for normal driving on a public road or highway.
- When the **"D"** position is engaged, automatic shifting into one of the 1st through 4th gears will happen based upon the vehicle speed and how much the accelerator pedal is depressed.

CAUTION

- When the shift lever is engaged in one of the **"D"**, **"3"**, **"2"**, or **"1"** positions, your vehicle can move forward without the accelerator depressed. Extra caution is needed.
- When the shift lever is put into the **"D"** position from the **"N"** position or vice versa, you may feel some impact upon the vehicle. This is a normal phenomenon caused by power transfers from the engine to the transmission. Especially on a steep hill, this can be more noticeable.

CAUTION

Please note that the vehicle may slowly move forward on level ground when the selector lever is in **"D"**.

WARNING

- Do not abruptly drive off or sharply accelerate the vehicle after shifting into **"D"**, or the transmission will be damaged. Especially, when you start off on a hill after stopping and parking the vehicle, wait for a while until the **"D"** shift indicator comes on with the brake pedal depressed.
- Even while the gear is in **"D"**, the vehicle can roll down an uphill according to the gradients, so you have to depress the brake pedal.
- If you touch the selector lever unexpectedly while driving, the shiftable gear may be changed. It can make the vehicle unstable. Be careful not to touch the selector lever while driving (especially during the winter season).
- Do not downshift abruptly (3, 2, or 1) when the vehicle speed is high (D or 4). You could lose control and hit people or objects (especially on a slippery road).
- If low-range maximum speeds are exceeded when the selector lever is in low gears, the transmission can be damaged.

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ADJUSTMENT FOR THE SHIFTABLE

CAUTION

When moving up a steep hill or driving off road with a heavy load or trailer, shift into the **"1"** position.

If driving for an extended period of time with the **"D"** or **"2"** engaged, constant gear shifting happens and the temperature of the transmission oil will increase.

WARNING

- Even the gear is in **D, 3, 2, 1** position, your vehicle can be back on the uphill according to gradients, so you have to depress the brake pedal.
- When shifting into a lower gear on a slippery surface, the engine RPM suddenly changes and you may lose control of your vehicle.
- Do not depress the accelerator pedal while shifting.

1

- In this position, you can only use the 1st gear in the transmission. Use this position on long mountainous terrains, steep hills, and rough off-road. This also provides the engine brake effect on steep downhills.

2

- The drive position prevents the transmission from shifting into the third or fourth gear. Select drive range 2 for more power when climbing hills, for the engine braking effects when driving down steep hills.

3

- At this position, the transmission is automatically shifted from the 1st gear up to the 3rd gear according to the vehicle speed. You can get the engine brake effect when using this position during downhill driving.

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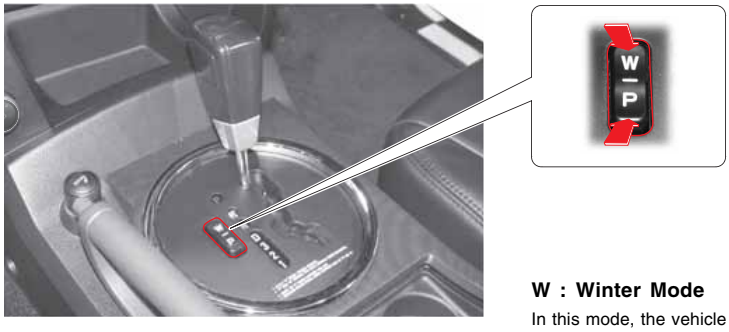
WINTER (W) / POWER (P) / NORMAL MODE

MODE SWITCH



When driving on a slippery road, push the **"W"** section on the switch. This activates the winter mode and you will be able to drive off more gently. When an extra driving power is needed for a certain situation such as driving up a steep hill or passing by other vehicles, push the **"P"** section of the switch to activate the power mode. For normal driving, select the normal mode.

P : Power Mode

- When the **P** section of the mode switch is pressed, the power mode will be activated and the power mode indicator (POWER) will come on the instrument cluster.
- For increased power, improved acceleration or driving up long slopes, press the "P" portion of the mode switch.

  The transmission will shift into the power driving pattern. The transmission will shift at higher engine revolutions, allowing more powerful acceleration.
- When the **W** section of the mode switch is pressed, the power mode and its function will be deactivated.

W : Winter Mode

In this mode, the vehicle starts from 2nd gear.

Press the "W" portion of the mode switch to select "WINTER" driving mode and "WINTER" indicator lamp will be displayed on the instrument cluster.

Use this mode in the event of starting-off or driving difficulties on slippery roads.

Normal

Use this mode for your normal driving.

This driving mode can be selected when both "W" and "P" portions are not pressed.

CAUTION

After driving at the winter mode, select the normal mode when your vehicle reaches a certain speed.

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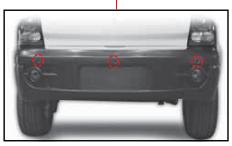
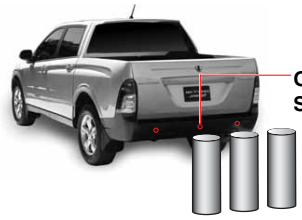
PARKING AID SYSTEM

When the gear selector lever is shifted into **"R"**, the parking aid system is activated and the sensors in the rear bumper detect the distance to any obstacle. You can figure out the distance from the obstacle to your vehicle by the alarming sound. The alarm interval becomes faster as your vehicle approaches the object.



Obstacle Detecting Sensor

When you move the gear selector lever to **"R"**, the alarm sounds according to the distance from obstacle to vehicle.



Obstacle Detecting Sensor

CAUTION

- The alarm does not sound if the distance between sensor and obstacle is less than 25 cm. However, if the sensor detects the obvious obstacle, the alarm stays on.
- Do not rely on the parking aid system while gear selector lever is in "R" position. Drive backward while checking the rear side of your vehicle.
- If the buzzer sounds abnormally or sounds for over 3 seconds when placing the gear selector lever to "R" position, the parking aid system is defective. Have the system checked at Ssangyong Dealer or Ssangyong Authorized Service center.

ACTYON

Distance	Alarm interval
over 1.2 m	no alarm
80 cm ~ 1.2 m	approx. 2.6 sec
51 cm ~ 80 cm	approx. 1.3 sec
25 cm ~ 50 cm	alarm stays on

ACTYON SPORTS

Distance	Alarm interval
over 1.2 m	no alarm
90 cm ~ 1.2 m	approx. 2 sec
60 cm ~ 90 cm	approx. 0.7 sec
25 cm ~ 60 cm	alarm stays on

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CAUTION

You should continue to utilize the mirrors or turning your head. When reversing, adhere to the common precautions.

- The parking aid system is a supplementary system to help your parking. It is not intended to replace the driver's attentiveness.
- Do not press or shock the sensors by hitting or using a high-pressure water gun while washing. The sensors could be damaged.
- Normally, when you select the **"R"** position with the ignition "ON", the alarm sounds "beep" once.
- If the alarm sounds for 3 seconds when you select the **"R"** position with the engine running or the ignition "ON", it means that there is a malfunction in the system. Have the parking aid system checked by a Ssangyong Dealer or Ssangyong Authorized Service Center. Do not confuse this with the alarm sound, which is activated when an obstacle is within the 50cm perimeter of your vehicle.

In the parking lot as shown in the figure, the upper portion of the vehicle can be hit before the sensor operation, so check with the outside rearview mirrors or by turning your head during parking.

The alarm interval becomes faster as your vehicle approaches the obstacle.

▶ Certain obstacles that sensors cannot detect

- Thin and narrow objects, such as wires, ropes, or chains
- Cotton, sponge, clothes, snow that absorb ultrasonic waves.
- Obstacles lower than the bumper: Drainage or puddle

▶ Sensor cannot detect

- When the sensing portion is frozen.
- When the sensing portion is covered by rain, water drops, snow or mud.

▶ Weak sensing scopes

- When they are partially covered by snow or mud.
- When the ambient temperature is too high or too low.

▶ Not defective but improperly working

- When driving on rough roads, gravel roads, hills, or grass.
- When the bumper height is changed due to a heavy load.
- When receiving other ultrasonic signals (metal sounds or air braking noises from heavy commercial vehicles).
- When a high-power radio is turned on.
- When the sensor is hindered by improperly fitted accessories.

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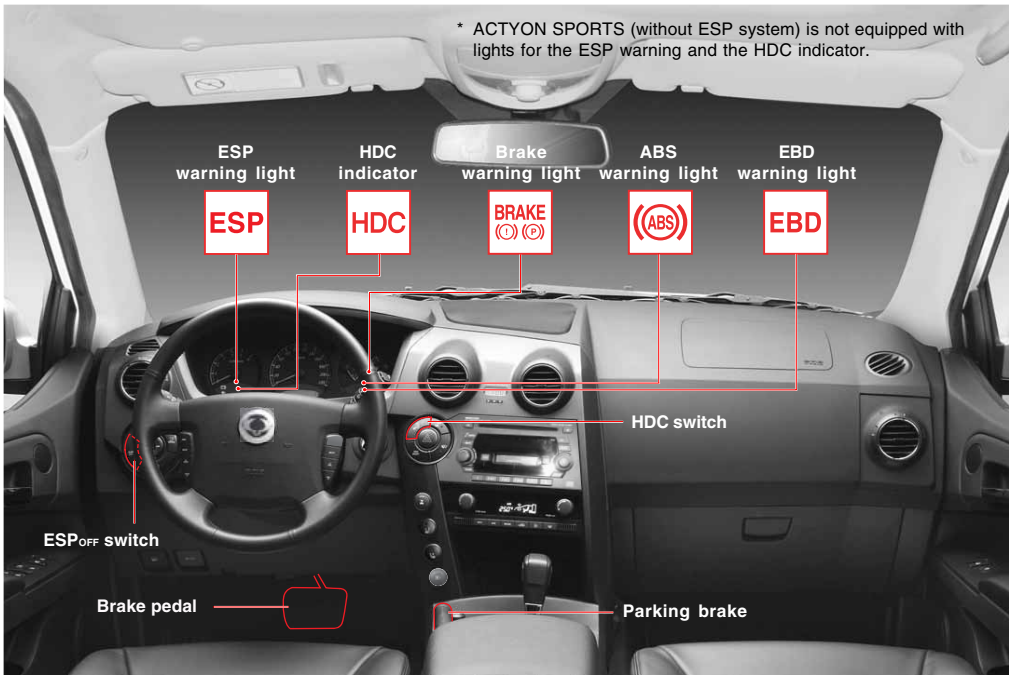

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BRAKE PEDAL (FOOT BRAKE)

The brake pedal (foot brake) is designed to decrease the vehicle speed and stop the vehicle. Do not excessively apply the brake pedal while going down a long hill. The brake system will overheat causing the vapor lock or fade phenomenon thus losing braking force. Use the foot brake along with the engine braking effects by selecting lower gears.

CAUTION

Avoid abrupt engine braking on slippery roads, or the tires may slip.

Engine brake?

A system that allows for the slowing of a vehicle that is independent of the conventional braking systems. A driver would normally down-shift to slow the driver's descent of a hill, using engine compression. The engine brake increases the effectiveness of this regarding force.

Fade?

Reduction or loss in braking force due to loss of friction between brake pads and disc.

Vapor Lock?

When the brake system is overheated, the fluid in the brake lines will boil and form bubbles. Only the bubbles will be compressed when the brake pedal is depressed. So the brakes cannot work properly due to loss of braking force.

BRAKE WARNING LIGHT

Illuminating

This warning light comes on when the parking brake is applied and/or the brake fluid level is lower than a specified level.

Flashing

If the vehicle is driven for over 2 seconds (at a speed of 10 km/h or higher) while the parking brake is applied, the parking brake warning light flickers and the warning buzzer sounds. If it occurs, immediately stop the vehicle and release the parking brake.

Drive System Safety Function

While driving, do not depress the brake pedal when the accelerator pedal is depressed. Otherwise, the response from the accelerator pedal may be delayed. This symptom is the safety function to protect the vehicle's drive system. This symptom can be eliminated if you depress and release the accelerator pedal one time when the brake pedal is not depressed.

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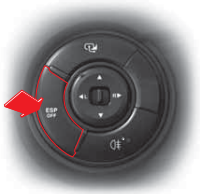
ESP$_{OFF}$ SWITCH*



Stopping ESP Function

If the driving wheels slip on snowy or icy roads, the engine rpm may not be increased even when you depress the accelerator pedal, and accordingly, you may not be able to move your vehicle. In this case, stop the ESP function by pressing the ESP$_{OFF}$ switch. When the ESP$_{OFF}$ switch is pressed, the ESP function stops and the vehicle is driven independently from the sensor outputs.

Resuming ESP Function

When the ESP warning lamp is on, push the ESP$_{OFF}$ switch again to re-activate ESP. The system will be resumed and the ESP warning lamp on the instrument cluster goes out.

ESP SYSTEM?

The ESP system is an electronic vehicle stability control and safe driving system and driving safety supplementary system that helps to avoid dangerous situations by controlling the brakes on the wheels or the engine torque to compensate vehicle stability when it is extremely unstable under conditions such as sharp cornering.

ESP WARNING LIGHT

Turning on of ESP Warning Lamp

If you press the ESP$_{OFF}$ switch, the ESP function stops and the indicator lamp in the instrument cluster comes on. Press this switch again to resume the ESP function. At this time, the indicator lamp goes out.

ESP Warning Lamp Flickering

If the ESP function operates while driving, the indicator lamp flickers and the alarm sounds.

WARNING

If the ESP warning light comes on, the ESP related system is defective. Make sure to check the vehicle at the nearest Ssangyong Dealer or Ssangyong Authorized Service Center.

CAUTION

The vehicle equipped with ABS or ESP performs self-diagnosis on the system when the engine is started and drives off. During the diagnosis, brake pedal vibration and noise may be noticeable when the motor discharges the hydraulic pressure from the internal hydraulic device. This means that ABS or ESP is properly functioning.

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HDC SWITCH*

When this button is pressed once, HDC is ready for use. The green HDC indicator in the instrument cluster comes on. When the button is pressed again, HDC is deactivated and the indicator goes off.

HDC Operation

When HDC is activated and all operational conditions are met, HDC is applied and the green HDC indicator blinks. HDC automatically decreases the vehicle speed to 7 km/h. HDC automatically stops at speeds less than 7 km/h or it is normal to have strong vibrations and noise from the brake system when HDC is applied.

NOTE

For more information about HDC operation and deactivation conditions and how to use the accelerator and brake pedals, refer to Chapter 4 "HDC Switch."

HDC INDICATOR*

Green light on: HDC is ready for use (by pressing the HDC switch).

Green light blinking: HDC is being applied.

Red light on: the HDC system is overheated or malfunctioning.

CAUTION

- Unnecessary usage of HDC can cause malfunctions in the brake system or ESP. Do not use HDC when driving on normal roads.
- If driving on a level road with HDC on and ready for use, HDC may be applied during sharp cornering or passing over a speed bump. Therefore, do not activate HDC while driving on normal roads.
- If the red HDC indicator illuminates, HDC is overheated or malfunctioning. If the indicator is on even after the system has cooled down enough, have the nearest authorized dealer or service center check the system.
- It is normal to have strong vibrations and noise from the brake system when HDC is applied.
- When driving down an extremely dangerous steep grade, HDC will still work even if the brake or accelerator pedal is depressed.

HDC (Hill Descent Control)?

HDC stands for Hill Descent Control. When traveling down steep grades, this function allows you to travel at a low speed without depressing the brake pedal. This convenient function is only for driving down steep grades. Therefore do not use this function for anything other than driving down steep hills.

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ABS WARNING LIGHT*

When the ignition switch is turned “ON”, this warning light comes on and goes out if the system is normal.

WARNING

- If this light doesn’t come on when the ignition is switched on or if this light doesn’t go out, contact your nearest Ssangyong Dealer or Ssangyong Authorized Service Center. If this light illuminates while driving, a malfunction of ABS is indicated.
- ABS is a device that prevents wheels from locking during braking to allow steering. However, the ABS system does not shorten the stopping distance.
- Even though your vehicle is equipped with ABS, your vehicle may need normal braking distances like conventional brake vehicles or could be longer according to road conditions, so keep the safety distance.

CAUTION

When the engine starts and the vehicle starts to move, ABS performs self diagnosis by transferring hydraulic pressure to the braking units. This may cause some noise and vibrations. This means ABS is properly functioning.

ABS (Anti-Lock Brake System)?

When braking suddenly or braking on slippery roads, the vehicle keeps moving forward but the wheels are locking and not rotating. If these happen, your vehicle may lose stability or rotate resulting in an accident. ABS helps to maintain directional stability and control of the vehicle.

EBD WARNING LIGHT*

When the ignition switch is turned to “ON”, this warning light comes on and goes out if the system is normal.

CAUTION

If the EBD warning light stays on, have the system checked at the Ssangyong Dealer or Ssangyong Authorized Service Center.

EBD (Electronic Brake-force Distribution)?

When the brake pedal is applied, it controls the braking pressure electronically to effectively distribute the braking forces to the front wheels and rear wheels. EBD operates when the speed differences between the most fast front wheel and the rear wheel are over 1 km/h. If ABS is engaged, it does not operate.

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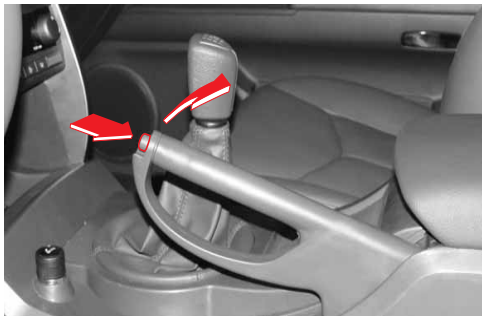

Parking Brake Operation

Park your vehicle at a safe place and pull up the parking brake lever. Then, the parking brake warning light (BRAKE) comes on.

Parking Brake Release

Lift up the brake lever a little and press the release button at the end of the lever. Then, push down the lever.

Make sure the indicator goes out when the parking brake is released.

Warning Light and Warning Sound When Driving While the Parking Brake is Engaged

If you drive the vehicle without releasing the parking brake, the brake warning light blinks and the buzzer sounds to warn the driver when the vehicle speed exceeds 10 km/h for more than 2 seconds. When this happens, stop the vehicle immediately and release the parking brake.

CAUTION

- Before driving off, be sure to check that the brake warning light is turned off.
- Driving with the parking brake applied could damage the rear brake system. Before driving, fully release the parking brake.
- If the brake warning light (BRAKE) doesn't go out after releasing the parking brake, have the brake system checked by a Ssangyong Dealer or Ssangyong Authorized Service Center.

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Seats

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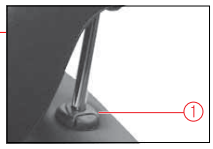
DRIVER'S SEAT (POWER SEAT)*

WARNING

Do not adjust the driver's seat when the vehicle is moving. Control of the vehicle can be lost.

Head Restraint Adjustment



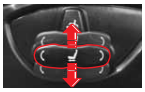
To raise the head restraint, pull it up without pressing the release button. To lower the head restraint, press the release button ① on top of the seatback and push the head restraint down.

WARNING

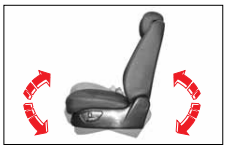
Removed or improperly adjusted head restraints can result in serious head and neck injuries in case of a collision.

Seat Slide Adjustment

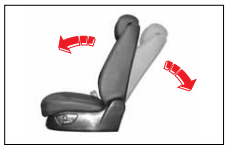
Seat Height Adjustment



Seat Tilt Adjustment



Seatback Reclining Adjustment



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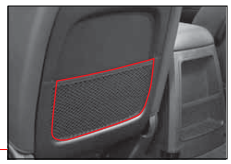
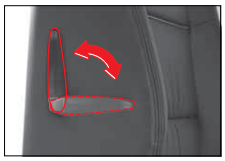
Seatback Pocket



There is a storage pocket for storing small items.

Lumbar Support (Driver's Seat)



Turn the lever forward to increase the amount of lumbar support. To decrease it, turn the lever backward.

Seat Heater*

By operating the seat heater switch, you can heat the seat cushion and seatback.

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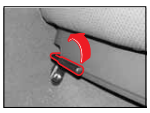
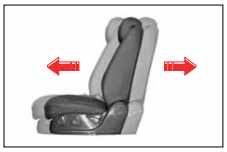
Seat Slide Adjustment



To move the seat forward or backward, pull and hold the seat slide lever up and move the seat as desired. Then, release the lever.



Head Restraint Adjustment

Same as that of the power seat

Lumbar Support

Same as that of the power seat

Seatback Pocket

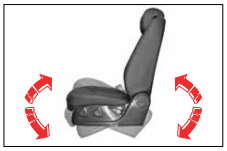
Same as that of the power seat

Seat Heater*

Same as that of the power seat

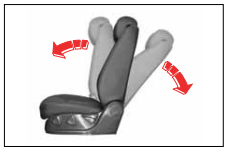
Seat Height Adjustment

You can adjust the angle and height of the front or rear section of the seat cushion by rotating the adjustment knob on the side of the seat clockwise or counterclockwise.



Seatback Reclining Adjustment

To change the seatback angle, lean forward slightly and raise the lever. Then, lean back to the desired angle and release the lever. After adjusting, make sure the lever is returned to its original position and the seatback is locked.



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Power Seat*

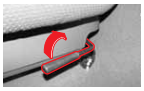
Seatback Reclining Adjustment

Seat Slide Adjustment

Manual Seat

Seatback Reclin-ing Adjustment

Seat Slide Adjustment



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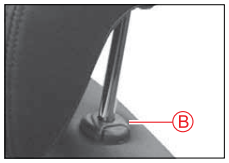
REAR SEAT (ACTYON)

Head Restraint Adjustment

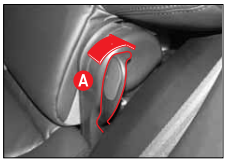


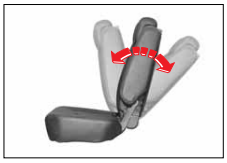
To raise the head restraint, pull it up without pressing the release button. To lower the head restraint, press the release button (B) on top of seatback and push the head restraint down.

WARNING

Removed or improperly adjusted head restraints can result in serious head and neck injuries in case of a collision.

Seatback Reclining Adjustment





To adjust the seatback angle, push the seatback release lever (A) toward the rear side of vehicle. The lever is attached to the side of the seatback.

WARNING

Releasing the seatback from its holding latch allows you to completely fold it. Ensure that your body parts are out of its way.

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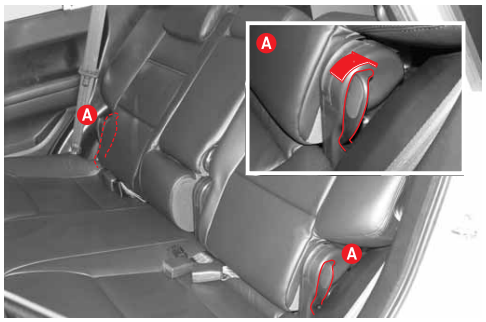
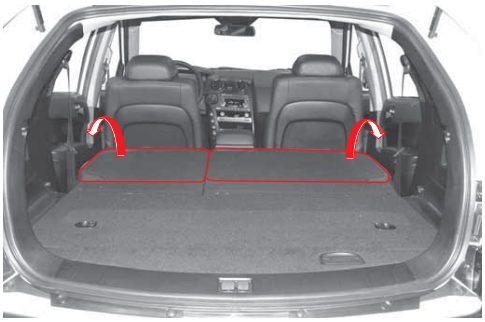
FULL FLATTING THE SEAT



1. Push back the second row seatback folding lever (A).



2. After unlocking the seatbacks, fold them down toward the front side of vehicle. Ensure that the seatback in rear seat is completely folded and locked.
3. To unfold the seatbacks, push the release lever (A) toward the rear side of vehicle and raise the seatback up.

CAUTION

- Putting sharp or heavy objects on the seatback's backboard may damage the seatbacks or even the seats.
- Without completely lowering the second row head restraints or with excessively tilted front seatbacks, folding the second row seats may damage the head restraints or the center console.

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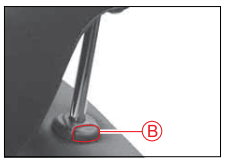
REAR SEAT (ACTYON SPORTS)

Head Restraint Adjustment

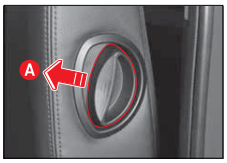


To raise the head restraint, pull it up without pressing the release button. To lower the head restraint, press the release button (B) on top of seatback and push the head restraint down.

WARNING

Removed or improperly adjusted head restraints can result in serious head and neck injuries in case of a collision.

Seatback Release Lever



WARNING

Releasing the seatback from its holding latch allows you to completely fold it. Ensure that your body parts are out of its way.

To fold down the seatback, push the seatback release lever (A) toward the front of vehicle. The lever is attached to the side of the seatback.

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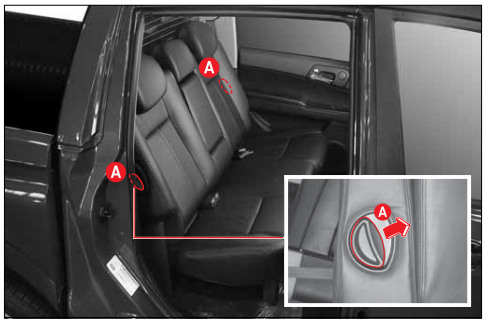
FULL FLATTING THE SEAT



1. Push forward the second row seatback release lever (A).

CAUTION

- Putting sharp or heavy objects on the seatback's backboard may damage the seatbacks or even the seats.
- Without completely lowering the second row head restraints or with excessively tilted front seatbacks, folding the second row seats may damage the head restraints or the center console.

2. After unlocking the seatbacks, fold them down toward the front side of vehicle.
3. To unfold the seatbacks, lower the head restraints completely and raise the seatbacks up so that they are secured.

CAUTION

If the seatbacks are raised up with head restraints not lowered, the head restraints may hit and break the tailgate glass.

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SEAT HEATING SYSTEM*

Heated cushions and seatbacks create a pleasant driving environment by expelling chilliness on the surface of the seats.

Driver's Seat Heating Switch

Passenger's Seat Heating Switch

Press the switch to heat the seat and press again to stop the seat heating. During heating, the indicator light on the switch comes on.

WARNING

- Do not operate the seat heater for a long time when the passenger is an infant, child, old or handicapped person, person with sensitive skin, person under the influence of alcohol, or excessively fatigued person. They might receive minor burns.
- If your skin is in contact with the heated seat for a long time, you might get low temperature burns. Be careful.
- Do not put anything on the seat that insulates heat, such as a blanket, cushion or seat cover.
- If the temperature continues to rise, turn the switch off and have the system checked by a Ssangyong Dealer or Ssangyong Authorized Service Center.
- In the case of the driver's seat, an excessive usage of the heated seat might make you sleepy and could negatively affect your safety.
- Do not place anything sharp on the seat. This may cause damage to the seat heater.

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WARNING AND CAUTION

WARNING

- All necessary driver's seat adjustments should be made before any driving.
- Make sure that your seat is completely locked after adjusting.
- Any object that might damage the seat should not be placed on the seat.
- Front seats are equipped with heated lines. If the following types of persons sit on the heated seats, they might receive minor burns. Extra caution is needed for them: children, elderly persons, ill persons, persons with sensitive skin, excessively fatigued persons, persons under the influence of alcohol or sleep-inducing medication such as cold medicine or sleeping pills.
- Do not put anything on the seat that insulates heat, such as a blanket, cushion or seat cover.
- Removed or improperly adjusted head restraints can result in serious head and neck injuries in case of a collision. Make sure that the head restraints are in place and adjusted before driving.
- Do not recline the seatback more than needed for comfort while vehicle is in motion. The seat belt is the most effective when the passenger sits back and straight up in the seat. If the seatback is reclined too much, then the risks of sliding under the lap belt and getting injured are increased.

CAUTION

- Power seats will be operated even when the ignition switch is turned to the "OFF" position. However, to prevent battery discharge, operate your seats when the engine is running.
- Do not use two or more seat adjustment buttons simultaneously. It can damage the motor. Be sure to operate the electric seat button one by one.
- When cleaning leather seats, never use oil-based solvents such as benzene, alcohol, gasoline, or thinner. Or they will cause discoloration and dull the surface of the seats.
- Do not forcibly operate any power adjustment switch if the seat comes in contact with other object and cannot be adjusted anymore.
- If the power seats are not operational, the seats should be checked and fixed before any driving.

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Seat Belt and Air Bag

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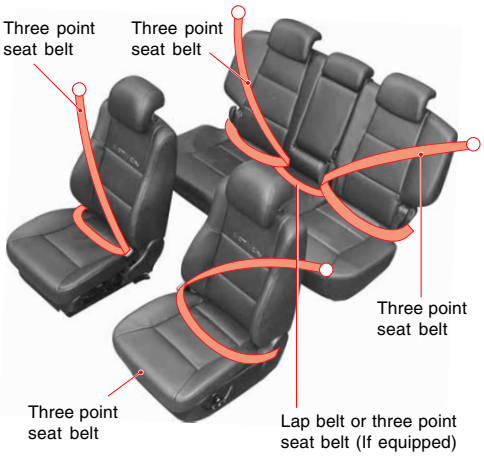
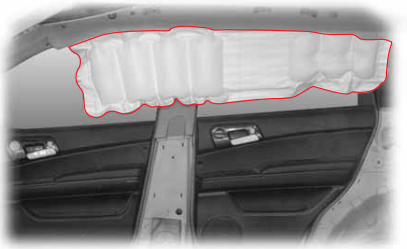
To protect you and your passengers in the event of an accident, it is highly recommended that the seat belts should be used by all occupants inside of your vehicle.



Front Air Bags

Curtain Air Bag



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The Restraint Systems Include:

- Air bags
- Seat belts
- Seat belt pretensioners (For Front Seat)

As independent systems, their protective functions complement one another.

Fastening the Seat Belt

When seat belts are not used or improperly worn, they may not only work as designed, but also cause some injuries to occupants. In addition, air bags can protect occupants when the occupants are wearing their seat belts. Air bags may cause injuries to occupants if they do not wear or inappropriately use their seat belts.

WARNING

- Before driving, all occupants should fasten their seat belts. If not, the occupants can seriously be injured in a collision or sudden maneuvering of the vehicle.
- Each seat belt should be used by only one occupant at a time.
- Seat belts and air bags can significantly minimize possible injury to occupants. But they cannot perfectly protect occupants from fatal collisions or injury.
- Modifications and improper maintenance for the safety systems could cause serious injury. The safety systems including seat belts should be checked and repaired by only a Ssangyong Dealer or Ssangyong Authorized Service Center.
- An infant or small child should always be restrained in an infant or child restraint.

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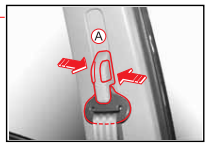
SEAT BELT IN FRONT SEATS

Seat Belt Height Adjustment

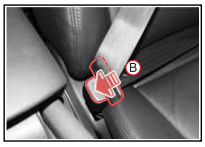


- To raise the seat belt, slide the seat belt height adjustor up.
- To lower the seat belt, press the Ⓐ button and slide it down.

WARNING

- Adjust the seat belt height before driving.
- Shoulder belt should be positioned midway over the shoulder, never across the neck.

Fastening the Seat Belt



- Insert the metal latch plate into the buckle until it clicks.
- To unfasten the seat belt, press the button Ⓑ on the buckle.

Pretensioner (for Front Seat)*

When a severe frontal impact occurs, seat belt pretensioners rewind the seat belts immediately to restrain the occupants to their seats. It helps the effective operation of the seat belts and airbags.

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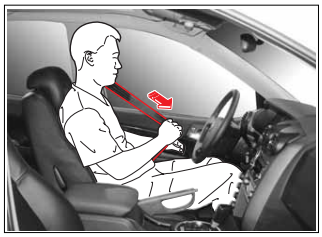
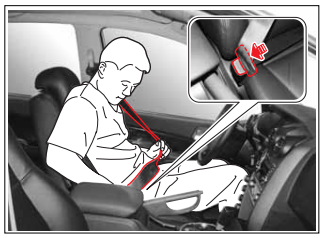
HOW TO FASTEN THE THREE POINT SEAT BELT



1. Pull out the latch plate from the retractor. If the seat belt is locked when being pulled out, rewind it completely in the retractor, then pull it out to the desired length.

CAUTION

Sometimes you have to forcefully pull the belt out.



2. Position the shoulder belt across the body and the lap belt as low as possible across the hips. Insert the latch plate into the buckle until it clicks.
3. Adjust the seat belt height as needed.

CAUTION

Sit back in the seat with the seatback in an upright position and wear the seat belt.

WARNING

Make sure that the seat belt webbing is not twisted.

4. Pull the latch plate to make sure it is securely locked. A slack belt will greatly reduce the protection afforded to the wearer.
5. To unfasten the seat belt, press the red button on the buckle.

WARNING

Improperly worn seat belts could cause serious injury or death.

- Put the lap belt as low as possible across the hips. Do not put it across the waist. In an accident, the belt may apply pressure to your abdomen. This may cause internal injuries.
- The shoulder belt should be positioned midway over the shoulder, never across the neck.

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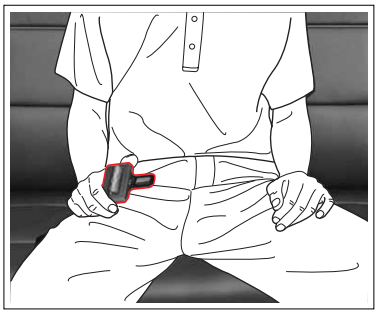
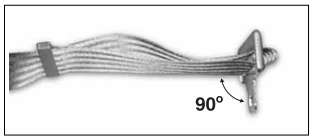
LAP BELT (GENERAL)



1. Pull out the latch plate at the right of the seat.

WARNING

Put the lap belt as low as possible across the hips. Do not put it across waist. In an accident, the belt may apply pressure to your abdomen. This may cause serious internal injuries.



To lengthen, hold the metal latch plate at a right angle to the belt and pull the belt. To shorten, pull the free end of the belt away from the latch plate, then pull the belt clip to take up the slack.

2. Insert the metal latch plate into the buckle until it clicks. Position the belt as low as possible across your hips, not across your abdomen.

3. If the belt is too tight or slack on your hips, readjust the belt.
4. To unfasten the seat belt, press the red button on the buckle.

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REAR THREE POINT SEAT BELT (CENTER SEAT)

1. Pull out the smaller latch plate (B) from upper retractor (1).
2. Insert it into the black buckle (3) until it clicks.
3. Pull out the bigger latch plate (A) and position the seat belt across your shoulder, chest and hips.
4. Insert it into the buckle (2) until it clicks.

WARNING

- Make sure to fasten the seat belt according to the order as described so that it functions properly.
- To prevent the seat belt from bumping against the rear glass, unfasten the seat belt while holding it.
- This seat belt is designed only for a passenger who sits on the center seat in the rear seat.
- Tug on the seat belt to make sure that the latch plate is securely locked.
- Make sure that the seat belt is not twisted.
- Improper wearing of seat belts increases the chance of injury or death in case of a collision.
- Position the seat belt away from your neck and abdomen.

CAUTION

Stow the seat belt into the console when it is not in use.

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PREGNANT WOMEN

We recommend that pregnant women use the seat belts throughout their pregnancy. Keeping the mother safe is the best way to keep the baby safe.

WARNING

- Pregnant women should wear the lap part of the belt across the thighs and as sung across the hips as possible.
- Keep the belt low so that it does not come across the abdomen. That way the strong bones of the hips will take the force if there is a collision.

CHILD RESTRAINTS

When transporting infants or small children, an appropriate child restraint system should always be used. The child restraint system should be appropriate for your child's weight and height and properly fit the car's seat. Accident statistics indicate that children are safer when properly restrained in the rear seat rather than in the front seat.

WARNING

- Infants and tiny children should always be restrained in an infant or child restraint.
- NEVER INSTALL A REAR-FACING CHILD RESTRAINT IN THE FRONT SEAT WITH FRONT PASSENGER AIR BAG.
- A child in a rear-facing child restraint installed in the front seat can be seriously injured if the front passenger air bag inflates. Secure a rear-facing child restraint in the rear seat.
- A front-facing child restraint should be secured in the rear seat whenever possible. If installed in the front passenger seat, adjust the seat as far back as it will go.
- When installing a child restraint system, follow the instructions provided by the manufacturer.
- When your child restraint is not in use, secure it in the vehicle with the seat belt or remove it from the vehicle.
- In a collision an unrestrained child, even a tiny baby, can become a missile inside the vehicle. The force required to hold even an infant on your lap can become so great that you could not hold the child, no matter how strong you are.
- Do not allow a child in the cargo areas while the vehicle is moving.
- If the shoulder belt contacts the face or neck, move the child closer to the center of the vehicle. Never allow a child to put the shoulder belt under an arm or behind their back.
- Please note that the three point seat belt is designed for a person who is taller than 140 cm.

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INFANT AND CHILD SAFETY

Child Seat

Children that are too small to use the seat belts must be properly secured in a child restraint system.

WARNING

- Do not place a child restraint system in the front seat. The infant or child could be severely injured by an air bag inflation in case of an accident.
- Use only the qualified child restraint systems. Follow the manufacturer's instructions for installation and use of the child restraint systems.
- Do not carry your child on your lap while driving. You cannot resist against the impact pressure in an accident. The child could be crushed between you and the parts of vehicle.
- Remember that a child restraint seat left in a concealed vehicle can cause it to be very hot. Check the seating surface before putting your child in the child restraint.
- When your child restraint is not in use, store it in the trunk or keep it secured with a seat belt to prevent it from being thrown forward in case of a sudden stop or an accident.
- Never leave children or old persons unattended in a concealed vehicle. When the inside temperature increases very high, they may be in danger.
- When installing a child restraint, do not let the seat belts come across the child's neck.

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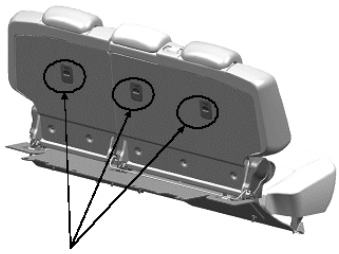
ISOFIX system is a standardised method of fitting child seats that eliminates the need to use the stadard adult seatbelt to secure the seat in the vehicle.

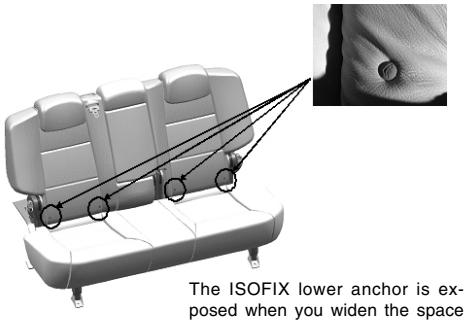
This enables a much more secure and positive location with the added benefit of easier and qucker installation. An ISOFIX-seat can only be installed if it has vehicle-specific approval in accordance with the requirements of ECE-R44

Locations of ISOFIX Lower Anchors and Top Tether



Top tether

1. Two ISOFIX lower anchors seat are installed at bottom of seatback at each side seat as shown in the figure.
2. The ISOFIX lower anchors can be identified by the symbol (13 mm of diameter) attached on the top surface.
3. Three ISOFIX top tethers are installed at the upper side of seatback.



The ISOFIX lower anchor is exposed when you widen the space between seatback and cushion.

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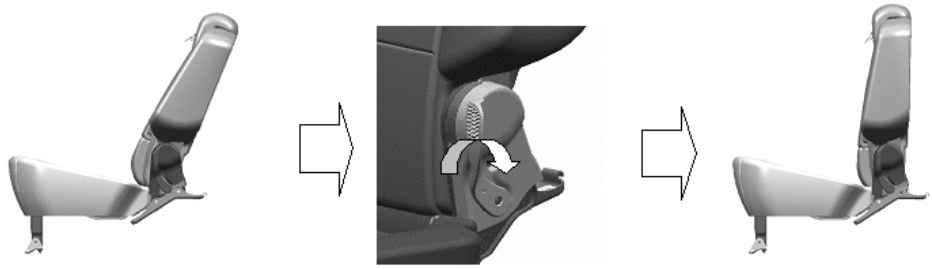
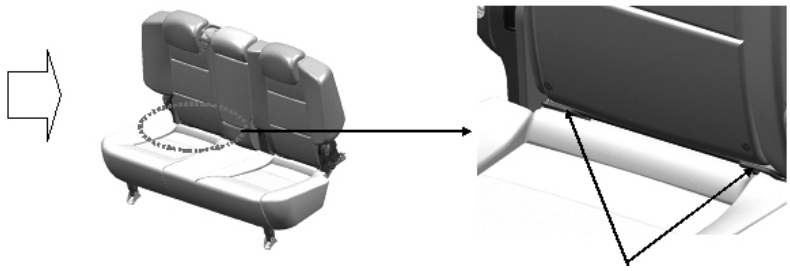
How to use ISOFIX Lower Anchor



1. Pull up the seatback folding lever of second row seat and make the seatback in upright position.



2. Now, you can see the ISOFIX lower anchors.

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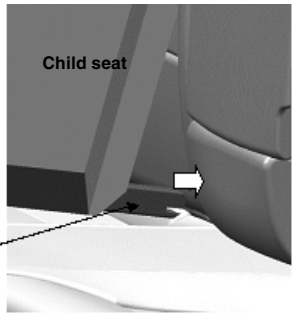


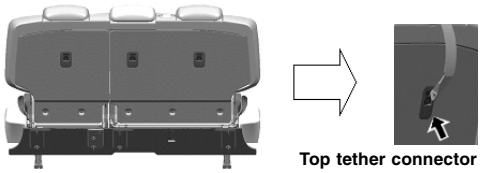
3. Insert the child restraint attachments into the ISOFIX lower anchors until you hear click sound.
4. Adjust the seatback angle as desired.

WARNING

- When using the ISOFIX lower anchor, make sure that no interference are around the bar and the seat belt is not stuck.
- Rock the child restraint to check if it is securely installed. Refer to instructions provided by the manufacturer of the child restraint.
- Do not install the child restraint if it hinders the operations of front seat.

How to use Top Tether

1. Remove the head restraint from the second row seat.



2. Connect the top tether connector in child restraint to the top tether on the seatback of the second row seat.
3. Securely tighten the child restraint by adjusting the webbing of top tether connector.

WARNING

After removing the head restraint, store it in luggage compartment or properly secure it. In a collision or sudden stop, it may cause personal injury.

When the child restraint is not in use, make sure to install the head restraint in the place.

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ISOFIX Child Restraint Systems Installation Suitability for Various ISOFIX Positions

Mass Group	Size Class	Fixture	Vehicle ISOFIX Positions		
			Frt Passenger	Rear Centre	Rear Out Board
CARRYCOT	F	ISO/L1	X	X	IUF
	G	ISO/L2	X	X	IUF
GROUP 0 UP TO 10KG	E	ISO/R1	X	X	IUF
GROUP 0+ UP TO 13KG	E	ISO/R1	X	X	IUF
	D	ISO/R2	X	X	IUF
	C	ISO/R3	X	X	IUF
GROUP I 9 TO 18KG	D	ISO/R2	X	X	IUF
	C	ISO/R3	X	X	IUF
	B	ISO/F2	X	X	IUF
	B1	ISO/F2X	X	X	IUF
	A	ISO/F3	X	X	X

IUF: Suitable for ISOFIX forward child restraints systems of universal category approved for use in this mass group.

IL: Suitable for particular ISOFIX child restraint systems (CRS) given in attached list.
These ISOFIX CRS are those of the “specific vehicle”, “restricted” or “semi-universal” categories.

X: ISOFIX position not suitable ISOFIX child restraint systems in this mass group and/or this size class.

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WARNING FOR CHILD RESTRAINT

- **Use only the officially approved child restraint.**
  Ssangyong is not responsible for the personal injury and property damage due to the defect of child restraint.
- **Use only the child restraint with proper type and size for your baby.**
- **Use only the child restraint at proper location.**
- **Child restraint has 5 categories based on the weight as below:**
  GROUP 0: 0 ~ 10KG
  GROUP 0+: 0 ~ 13KG
  GROUP I: 9 ~ 18KG
  GROUP II: 15 ~ 25KG
  GROUP III: 22 ~ 36KG
- **Group 0 & 0+**
  Rear facing child restraint fitted on the rear seat
- **Group I**
  Forward facing child restraint fitted on the rear seat
- **Group II & III**
  Booster seat fitted on the rear seat with seat belt fastened
  Always follow the installation and use instructions provided by the manufacturer of the booster seat.

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Child Restraint System Installation Suitability For Various Seating Positions

Mass Group	Restraint Device Figure	Front Passenger	Rear Centre	Rear Out Board	Mounting Method of Vehicle
GROUP 0 UP TO 10KG	Rear facing child seat	X	X	U	3-point belt rear-facing
GROUP 0+ UP TO 13KG	Rear facing child seat	X	X	U	3-point belt rear-facing
GROUP I 9 TO 18KG	Forward facing child seat	UF	UF	U	2-or 3-point belt
GROUP II 15 TO 25KG	Booster seat	UF	UF	U	3-point belt
GROUP III 22 TO 36KG	Booster seat	UF	UF	U	3-point belt

U: Suitable for “universal” category restraints approved for use in this mass group.
UF: Suitable for forward-facing “universal” category restraints approved for use in this mass group.
L: Suitable for particular child restraints given on attached list. These restraints may be of the “semi-universal” categories.
X: Seat position not suitable for children in this mass group.

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WARNINGS FOR SEAT BELT

- Always put on your shoulder belt over the shoulder and across the chest. Do not put the shoulder belt across your neck.
- Put the lap belt as low as possible across the hips. Do not put it across the waist. In an accident, the belt may apply pressure to your abdomen.
- Do not wear the shoulder belt under the arm. It increases the danger of sliding out of the belt and can cause serious injury or even death. The belt may also tighten the chest which is not as strong as the shoulders. This may also result in serious internal injuries.
- Do not lock the seat belt with a clip or a clamp. If the seat belt is too loose, it may not protect your body from injury or death in an accident.
- Before driving, all occupants should wear the seat belts. Otherwise, occupants could be seriously injured in collisions or sudden maneuvers. In many countries, there are regulations regarding the use of the seat belts. Please observe local laws and regulations.
- Do not buck up two or more persons with one seat belt.
- Do not wear the seat belt over any hard or breakable objects in pockets or on clothes.
- An infant and tiny child must be restrained in a child restraint system. Note that the three point seat belt is designed for a person who is taller than 140 cm.
- Periodically check that the seat belt and its components work properly. A damaged seat belt can cause serious injuries. Repair or replace the damaged seat belt immediately at a Ssangyong Dealer or Ssangyong Authorized Service Center.
- The warning light comes on whenever the ignition is switched on. The light goes out when the driver's seat belt is securely fastened. If the light does not go off after fastening the seat belt, it means that there is a malfunction in the system. Have the seat belt system checked by a Ssangyong Dealer or Ssangyong Authorized Service Center.
- Additional devices or accessories on the seat belt may result in improper operation. Do not add any adjusting devices which restrict the seat belt operation.
- Periodically inspect all parts of the belt and have the damaged parts replaced. The belt that has been overstretched in an accident must be replaced with a new one. Ssangyong recommends replacing all component parts of the seat belt after a collision. No replacement is required after a minor collision if a Ssangyong Dealer or Ssangyong Authorized Service Center finds that no damage has occurred and everything is in proper working order. The seat belt components that were not used during a collision must also be inspected and replaced if they show signs of damage or faulty operation.

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WARNINGS FOR SEAT BELT

- Replace the entire seat belt assembly after a severe impact even if the damage is not obvious.
- Never modify the seat belt.
- Always keep the seat belts clean and dry. Care should be taken to avoid contamination of the webbing with polishes, oil and chemicals, and particularly battery acid. Use mild soap and water for cleaning. The seat belt must be replaced if webbing becomes frayed, contaminated or damaged.
- Adjust the seat properly before wearing the seat belt.
- Sit back in the seat with the seatback in an upright position and wear the seat belt. If the seat belt is positioned too high or fastened too loose, it may not protect your body from an injury or death in the event of a collision.
- Do not recline the seatback more than needed for comfort while vehicle is in use. Seat belt is the most effective when the passenger sits back and straight up in the seat. If the seatback is reclined too much, then the risks of sliding under the lap belt and getting injured are increased.
- If the latch plate is inserted into a wrong buckle, the belt may exert pressure on your abdomen instead of your pelvis. This may cause serious internal injury.
- If the seat belt is twisted, there will not be enough contact of the belt to spread the impact pressure.
- Make sure that the latch plate is securely locked.
- When pregnant women use the seat belt, consult with a doctor for specific recommendations.
- Keep the buckle clean.
- Seat belts are designed to bear upon the bony structure of the body, and should be worn low across the front of the pelvis or the hips, chest and shoulders, as applicable; wearing the lap section of the belt across the abdominal area must be avoided.
- Seat belts should be adjusted as firmly as possible, consistent with comfort, to provide the protection for which they have been designed. A slack belt will greatly reduce the protection afforded to the wearer.
- Care should be taken to avoid contamination of the webbing with polishes, oils and chemicals, and particularly battery acid. Cleaning may safely be carried out using mild soap and water. The belt should be replaced if webbing becomes frayed, contaminated or damaged.
- It is essential to replace the entire assembly after it has been worn in a severe impact even if damage to the assembly is not obvious.
- Belts should not be worn with straps twisted.
- Each belt assembly must only be used by one occupant; it is dangerous to put a belt around a child being carried on the occupant's lap.

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WARNINGS FOR SEAT BELT

- No modifications or additions should be made by the user which will either prevent the seat belt adjusting devices from operating to remove slack, or prevent the seat belt assembly from being adjusted to remove slack.
- Do not install a child restraint at the centre of the rear seat using the vehicle's ISOFIX anchors. The ISOFIX anchors are only provided for the left and right outboard rear seating positions. Do not misuse the ISOFIX anchors by attempting to attach a child restraint seat in the center of the rear seat to the ISOFIX anchors. In a crash, the child restraint seat ISOFIX attachements may not be strong enough to secure the child restraint properly in the center of the rear seat and may break, causing serious injury or death.
- Do not install more than one child restraint lower anchorage point. The improperly increased load may cause the anchorage points or tether to break, causing serious injury or death.
- Attach the ISOFIX or ISOFIX compatible child restraint only to the appropriate locations shown in the figure.
- Always follow the installation and use instructions provided by the manufacturer of the child restraint.

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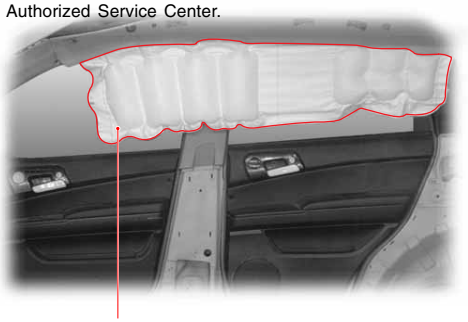
AIR BAG

The air bag Supplemental Restraint System (SRS) can provide additional protection for the driver and passenger in the event of a collision.

Air Bag Warning Light

If this lamp does not go out after engine starting or comes on while driving, it means that there is a malfunction in the system. Have the air bag system checked immediately by a Ssangyong Dealer or Ssangyong Authorized Service Center.



Driver's Air Bag

The driver's air bag is located at center of the steering wheel.

Passenger's Air Bag*

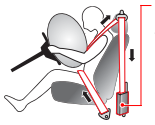
The front passenger's air bag is located on the dashboard.

Side Curtain Air Bag* (ACTYON)

The side curtain air bags are contained between right above the front and rear doors and the end of the vehicle roof. The side curtain air bag is designed to inflate only in an impact to the side of the vehicle and protect occupants' heads.

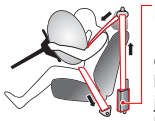
Pretensioner (for Front Seat)*

When a severe frontal impact occurs, seat belt pretensioners rewind the seat belts immediately to restrain the occupants to their seats. It helps the effective operation of the seat belts and airbags.



Pretensioner Activation

The seat belt pretensioners remove slack from the driver and passenger front seat belts during a frontal impact.



Load Limiter Activation

Immediately after a collision, they loose the belts to prevent from injuring the body from the belt's pressure.

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SRS AIR BAG

The Supplemental Restraint System air bag is designed to supplement the seat belts and provide the driver and front passenger with protection against head, chest, and other injuries in the event of a collision. For maximum protection, seat belts should always be worn by all occupants. Therefore, the SRS is not a substitute for the seat belts, but supplemental.

WARNING

- The air bag system serves as a supplement to the seat belt. Make sure you and your passengers always wear seat belts properly, even if air bags are installed in the vehicle.
- Depending on the severity or the angle of impact, the air bag may not deploy.
- The driver's and front passenger's air bags simultaneously deploy.

CAUTION

If you see "SRS" on a certain area, the air bag is contained underneath it. Therefore, do not apply any impact upon it and never place any accessories or objects on the area. And avoid any direct contact with the area.

AIR BAG INSPECTION

The air bag system should be inspected 10 years from its installation regardless of its appearance and other conditions.

Locations of Air Bag Warning Labels

WARNING

As a reminder of possible dangers of the air bag, air bag warning labels are affixed on the driver's and front passenger's sun visors.

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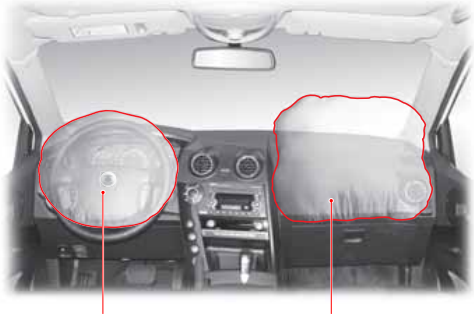
FRONT AIR BAGS



Driver's Air Bag

The driver's air bag is located at center of the steering wheel.

Passenger's Air Bag*

The front passenger's air bag is located on the dashboard.

Pretensioner (for Front Seat)*

When front air bags deploy, the seat belt pretensioners simultaneously work too.

Air Bag Operation

▶ **The air bag inflates when:**

- In response to a severe frontal impact, the driver's and front passenger's air bags deploy at the same time to supplement the seat belts to prevent or reduce any personal injuries.

▶ **The air bag can inflate when:**

- Underbody impact from the road surface; impact against the curb at a very high speed; dropping impact onto the road surface with a large angle

▶ **The air bag does not inflate when:**

- Rollover, side impact or rear impact
- If the severity of impact to the vehicle is not significant.

▶ **The air bag seldom inflates when:**

- Oblique impact, rollover
- Weak impact in which the sensor is unable to detect (under the inflation requirements)
- Impact against narrow objects such as a utility pole or a tree
- The vehicle falls into a drainage or a puddle
- The front of the vehicle crashes into a high impact point vehicle such as a truck
- Impact on the hood by falling stones
- The air bag warning lamp is on
- Moderate or severe impact to the middle of the vehicle body's side structure. In that case, only the side curtain air bags deploy.

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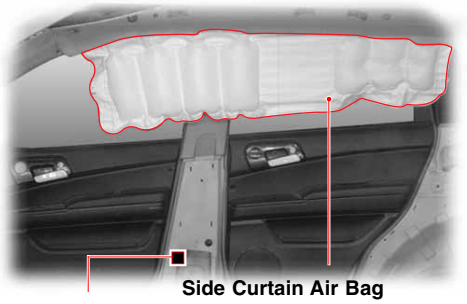
CURTAIN AIR BAG*



Curtain Air Bag Sensor

This is located at the bottom of the B pillar.

Side Curtain Air Bag

The side curtain air bags are contained between right above the front and rear doors and the end of the vehicle roof. The side curtain air bag is designed to inflate only in an impact to the side of the vehicle and protect occupants' heads.

WARNING

- Do not apply any impact on the side curtain sensor. The air bag might deploy.
- Depending on the severity or the angle of impact, the side air bag may not deploy.
- Do not bang the door. The side air bag might deploy.
- Even though the front air bags and the pretensioners work at the same time, the side curtain air bags only deploy in a moderate to severe impact to the middle of the vehicle body's side structure.

Curtain Air Bag Operation

▶ The air bag inflates when:

- A moderate to severe impact to the middle of the vehicle body's side structure.

▶ The air bag can inflate when:

- Vehicle rolls onto its side and causes a severe side impact.

▶ The air bag does not inflate when:

- Frontal collision while vehicle stops or is moving at a low speed.
- Rear end collision
- If the severity of impact to the vehicle is not significant.

▶ The air bag seldom inflates when:

- Oblique impact (diagonal direction)
- Frontal impact or rear impact
- Rollover but without a severe impact
- The air bag warning lamp is on

AIR BAG INSPECTION

The air bag system should be inspected 10 years from its installation regardless of its appearance and other conditions.

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WARNINGS FOR AIR BAG (I)

- Do not diagnose the circuit with a circuit tester. Do not attempt to modify any air bag components including the steering wheel, air bag mounting area, and harness.
- Incorrect air bag inspection can be dangerous and cause injuries. The air bag system must be disposed only by a Ssangyong Dealer or Ssangyong Authorized Service Center.
- Replace the steering wheel with only Ssangyong genuine parts.
- When the engine starts, the air bag warning lamp comes on for a system check. It goes out after 6 seconds when the system is normal. If this warning lamp stays on then the system may be defective. Have the air bag system checked immediately by a Ssangyong Dealer or Ssangyong Authorized Service Center.
- Never let small children or infants sit in the front passenger seat or be held in your arms. When the front air bags deploy, they could be seriously injured or killed.
- The child restraint system should be installed in the rear seat.
- The child restraint system must not be placed on the front seat. The infant or child can severely be injured by an air bag inflation in case of an accident.
- The seat belt and air bags are the most effective when you sit well back and upright in the seat.
- Do not move your seat too close to the steering wheel or dashboard. If you lower your head, the air bag can hit your head during inflation and can cause severe injury or even death.
- Do not impact any air bag components including the steering wheel, air bag mounting area, and harness by hand or tools. You may get injured by sudden deployment.
- The air bag contains explosive materials, so contact a Ssangyong Dealer or Ssangyong Authorized Service Center when trashing or replacing it.
- The air bag components will be very hot after deployment. Do not touch them.
- Once the air bag system is triggered, the triggered air bag assembly should be removed from the vehicle and replaced with a new one.
- Do not attach any objects such as a sticker, scent bottle, or phone holder on the steering wheel pad and to the dashboard.
- Do not lean against the window or door or do not stretch your arm through the window frame. If the side curtain air bag deploys, you will be at great risk.
- Do not place any objects between the side curtain air bags and occupants. The object may prevent the air bag from deploying or can be shot at you.

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WARNINGS FOR AIR BAG (II)

- Do not bang the door. The front or side curtain air bags might deploy.
- Hold only the outer rim of the steering so that the air bag can inflate without any hindrance.
- Do not hold and operate the steering wheel by crossing your arms. You could get seriously injured when the air bag deploys.
- Do not place your face or chest near the steering wheel and dashboard. Also, do not allow anyone to place their hands, leg or face on the dashboard. The air bag cannot work properly.
- When the air bag inflates, it makes a loud noise and smoke. However, the smoke is a non-toxic nitrogen gas.
- When the air bag deploys, non-toxic gas will come out. This gas may cause skin, eyes or nose irritation. Wash it out with cold and clean water and consult your doctor if irritation continues.
- The windshield glass may be broken when the passenger's air bag deploys.
- When any repairs are needed for the steering wheel, or when an accident occurred without the air bag deployment, have the air bag system checked by a Ssangyong Dealer or Ssangyong Authorized Service Center.
- You could suffer secondary injuries caused by an inflated air bag such as an abrasion, a burn or injuries by broken glass. Non-toxic gas will come out when the air bag is inflated.
- If the severity of impact to the vehicle is not significant and the seat belts are enough to protect occupants, the air bags do not deploy to prevent any secondary injuries such as cuts, abrasions, or burns.
- The air bag system should be inspected 10 years from its installation regardless of its appearance and conditions.

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Ventilation, Heating, and Air Conditioning System

9

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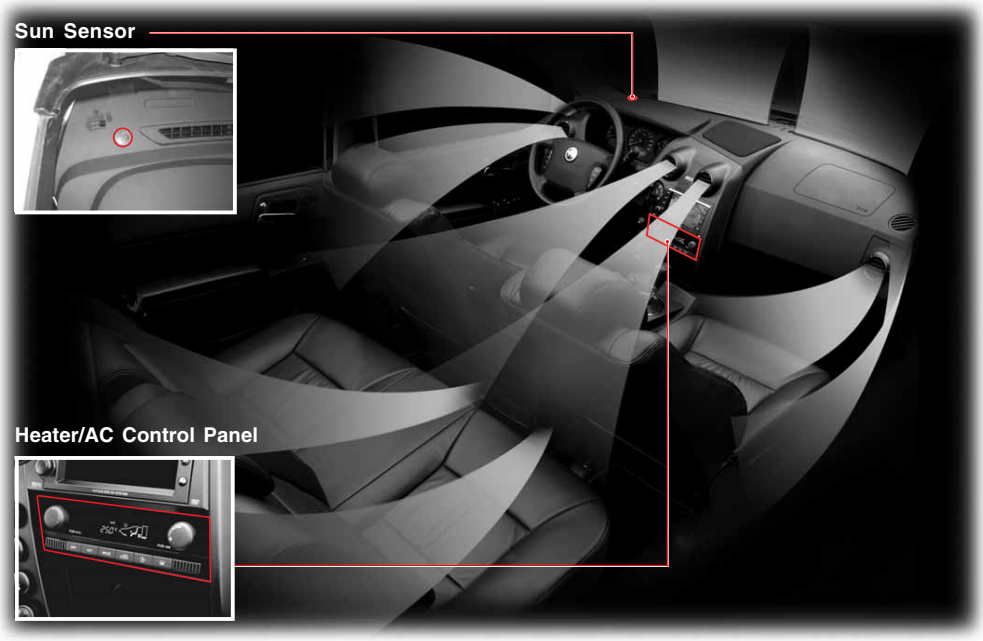

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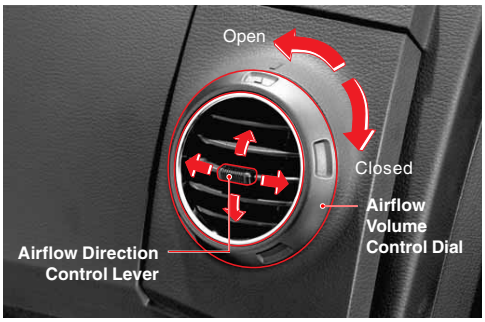
Front Center Vent

You can adjust the direction of the airflow by moving the knob horizontally or vertically.

Front Side Vent



You can adjust the direction of the airflow by moving the airflow direction control lever on the air outlet.

You can adjust the volume of the airflow by rotating the airflow volume control dial clockwise or counterclockwise.

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Refrigerant Specification & Capacity

Item	
Specification	R134a
Capacity	650 ± 30g

WARNING

- If you sleep while the air conditioner or heater is on, with all windows closed, you may suffocate to death.
- Continued operation in the recirculation mode may cause the interior to become stuffy and windows to fog. Use the recirculation mode for a short period of time.
- If exhaust gas comes in, there is danger of carbon monoxide poisoning. Use the recirculation mode for a short period of time when driving through an area of smoke or fumes. Be sure to switch back to fresh air mode after passing through an area of smoke or fumes.
- If you sleep while operating the air conditioner or heater with all the windows closed, you may suffocate to death due to lack of ventilation. When you operate the air conditioner or heater, ventilate frequently.
- Never leave a child or a handicapped person alone in the vehicle with the air conditioner or heater on in hot or cold weather. The child or handicapped person can be in serious danger by the heat and lack of oxygen.

CAUTION

- If your vehicle has been parked in direct sunlight, open all windows to extract heat before turning on the air conditioning (A/C).
- Operating the air conditioning (A/C) for a long time while the vehicle is parked may cause the engine to overheat.
- When driving up a long hill for an extended period of time, turn on and off the air conditioner every 3 to 5 minutes.
- To prevent battery discharge, do not run the fan for an extended period of time when the engine is not running.
- To maintain the system at its optimum state and to keep the lubrication of the air conditioner compressor and related components, run the air conditioner at low speed once a week.
- Do not stop the engine when the air conditioner is operating. It may produce an unpleasant odor trapped in the duct. Turn the fan off and wait for a few minutes in the fresh air mode before stopping the engine.
- If you start the engine with the air conditioner on, the engine may not start easily and the engine idling can be unstable causing the vehicle to vibrate. Be sure to turn off electrical systems such as the fan.
- When the air conditioner is not used in periods, odors will come out. Run the air conditioner for 20 ~ 30 minutes with the doors opened and you could remove the odors.
- During the winter when the air conditioner is not used regularly, run the air conditioner once or twice every month for 5 ~ 10 minutes.
- If the air conditioner is not used regularly, the lubricant in the A/C compressor will not circulate causing the A/C to malfunction. Be sure to turn the air conditioner at low speed.
- When a sudden acceleration is attempted while the air conditioner is on, you may hear a clicking sound from the magnetic clutch in compressor. This is a normal operation to lower internal pressure of the compressor and to protect the air conditioning system.

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SUPPLEMENTARY HEATING DEVICE

- The vehicle equiped with the DI engine has the supplementary heating devices to increase the heating effect before the engine coolant fully warms up. The supplementary heating devices are as follows:
  - **FFH*** (Fuel Fired Heater)
  - **PTC** (Positive Temperature Coefficient)

FFH*	PTC
This supplementary heater is a fuel burning type and improves the heating effect by increasing the engine coolant temperature. Compared to PTC, FFH cannot be operated or stopped by the driver. The FFH is automatically operated, depending on conditions of the coolant temperature and the ambient temperature.	This supplementary heater is an electrical air heating type and installed on the heater outlet port. This device improves the heating effect by increasing the temperature of flowing air into the passenger room. This device is operational/non-operational when the engine control unit supplies/cuts off the voltage to the PTC according to the coolant temperature and the ambient temperature.
▶ **FFH Operation** • The FFH system operates up to more than 2 minutes to burn the residual fuel inside the system when stopping the engine during its operation. Therefore, a certain period of FFH operation after stopping the engine is not a malfunction. • In initial operating stage, the fuel pump generates the operating sound and the FFH heater produces white smoke. These are normal states to fill the fuel into the FFH fuel line.	▶ **Operational Condition** This device is activated when the blower switch is at any position other than the “OFF” position and the coolant temperature and the ambient temperature is within a specified range. ▶ **Non-operational Condition** • The blower switch is at the “OFF” position • Defective ambient temperature sensor • During engine cranking • Battery voltage is too low • During pre-glowing process (indicator ON)

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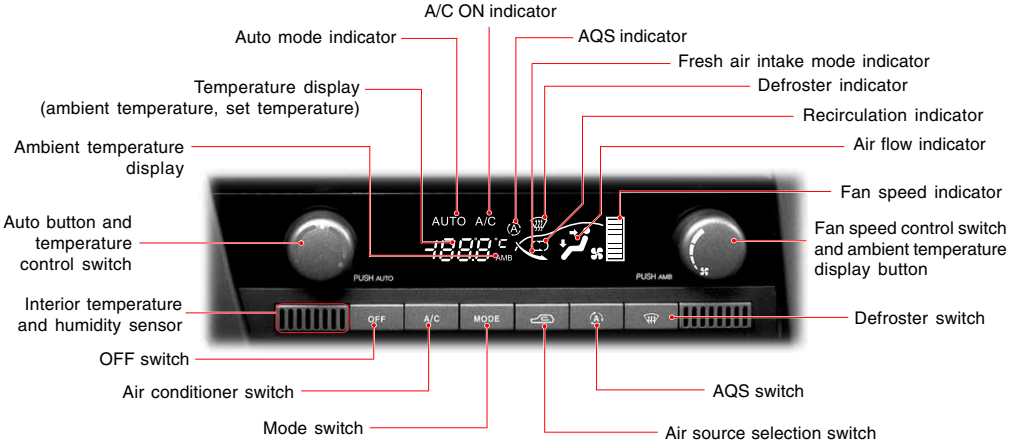
AUTOMATIC HEATER / AIR CONDITIONER*

If the Auto button is pressed, the temperature of the passenger compartment is automatically maintained according to the set temperature. By operating the relevant switch of the automatic air conditioner, you may also manually control the air conditioner operation, air flow direction, fan speed and air source. To turn off the air conditioner and heater, press the “OFF” button. The desired room temperate can be set up by turning the temperature control switch.



Auto Operation Mode

When you press the Auto button, the “AUTO” indicator is displayed on the VFD and the temperature of the passenger compartment is automatically maintained according to the set temperature.

When you press the Auto button during the manual operation mode, the system is changed to the Auto operation mode.

Manual Operation Mode

When you use the fan speed control switch, air conditioner switch, recirculation switch or mode switch during the auto operation mode, the “AUTO” indicator on the VFD goes out and the air conditioner system can be controlled manually.

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Temperature Control Switch

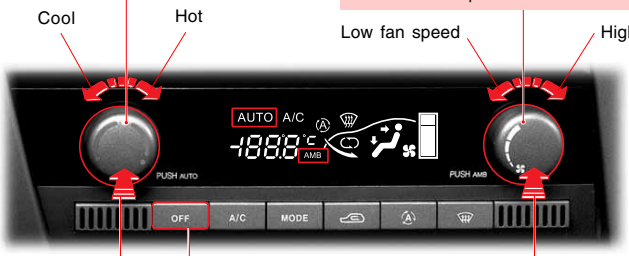
To adjust the temperature turn the switch as required.

Fan Speed Control Switch

To control the fan speed, turn this switch. When turning this switch in the Auto mode, the “AUTO” indicator goes out and the system is changed to the manual mode.

CAUTION

If the air conditioner switch is turned off, the air conditioner does not work even when the fan switch is operated. However, the air flows due to fan operation.



Auto Button

When you press the Auto button, the “AUTO” indicator is displayed on the VFD and the temperature of the passenger compartment is automatically maintained according to the set temperature. When you press the Auto button during manual operation mode, the system is changed to the auto operation mode.

OFF Switch

To stop the air conditioner / heater operation, press this switch.

Ambient Temperature Display Button

When you press this button, the “AMB” indicator appears and the ambient temperature is displayed on the VFD for about 5 seconds.

CAUTION

The actual ambient temperature may not be displayed correctly due to engine heat or ground heat.

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Air Conditioner Switch

When you press this switch, the (A/C) indicator comes on and the air conditioner starts to operate, however, the "AUTO" indicator goes out. When you press the switch again, the air conditioner stops operation and the indicator goes out.

Defroster Switch

Use this switch for quick defrosting.

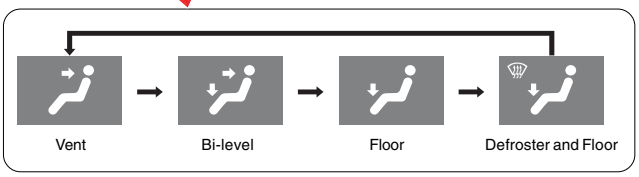
When you press this switch, the airflow direction will be changed to the windshield and door glasses, the air conditioner operates automatically, and outside air comes in.

At this moment, the (A/C), ( ), and ( ) indicators come on. If you press the switch again during its operation, the indicator AUTO goes off. When the defrosting is complete, press the switch to return to normal operations.

Mode Switch

When you press this switch each time, the air flow mode will be changed to another mode and displayed as shown in the figure.

When you press this switch in the auto air conditioner operation (the "AUTO" indicator appears), the system is changed to the manual air conditioner mode (the "AUTO" indicator disappears).



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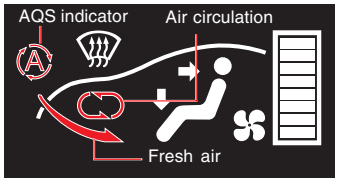
Air Source Selection Switch

By pressing the switch, the fresh air intake mode and recirculation mode change alternatively.

WARNING

- Use of the recirculation mode for a long period of time can cause stuffiness, headache, drowsiness, or fogged window.
- If exhaust gas comes in, there is danger of carbon monoxide poisoning. Set to the fresh air intake mode after passing through a dusty or polluted area.



AQS (Air Quality System) Switch

When you press this button, the AQS indicator comes on and harmful gases will be blocked from creeping into the interior. Once pressed again, the indicator goes off and the system stops. For details, refer to the AQS section.

Automatic Selection of the Fresh or Air Recirculation Mode

1. AQS automatically adjusts from the fresh air mode to the recirculation mode when polluted air is detected by the AQS sensor.
2. When the defroster switch ( ) is pressed, outside air automatically comes in. When the switch is pressed again, the previous mode will be restored.

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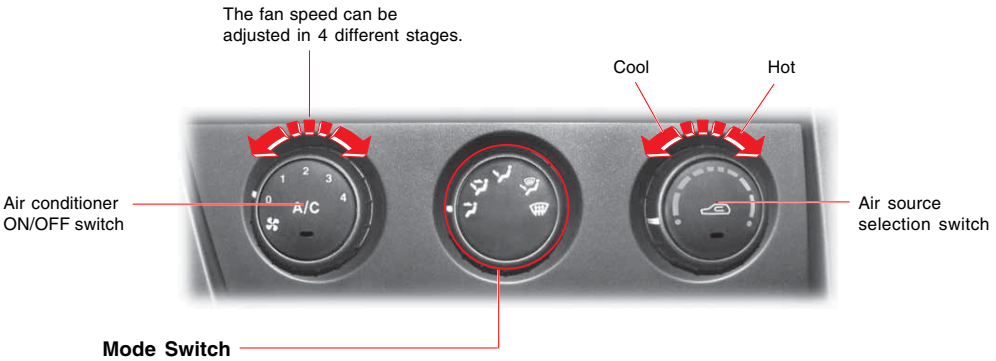
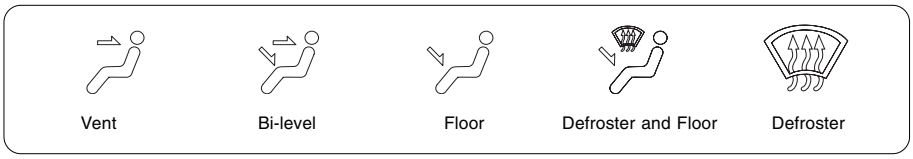
MANUAL HEATER / AIR CONDITIONER

You can have a pleasant interior temperature by manually turning on or off the air conditioning or heating system, controlling the fan speed ranging from 1 to 4 and the temperature of air, and adjusting the direction of air flow.



By pressing these switches, the air flow mode changes. When each mode is selected, its indicator will come on.



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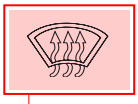

Defroster Switch

Use this switch for quick defrosting.

When you press this switch, the airflow direction will be changed to the windshield and door glasses, the air conditioner operates automatically, outside air comes in, and the indicator on the switch comes on. When the switch is pressed again, the previous mode will be restored.

When the defrosting is completed, press the switch to return to normal operations.

Fan Control Switch

Turn the switch clockwise or counterclockwise to increase or decrease the fan speed.

When the switch is turned to “0”, the fan stops.

CAUTION

If the air conditioner switch is turned off, the air conditioner does not work even when the fan switch is operated. However, the air flows due to fan operation.

Temperature Control Switch

Adjust the temperature of flowing air by turning the dial.

Red direction: Hot

Blue direction: Cool

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Air Conditioner ON/OFF Switch

To turn on the air conditioner, press this switch when the fan speed switch is in any position except “0” position. Then, the indicator in the switch comes on.

To turn off the air conditioner, press the switch again.

Air conditioner ON indicator

Air circulation indicator

Air Source Selection Switch

By pressing the switch, the fresh air intake mode and recirculation mode change alternatively. When the recirculation mode is selected, the indicator in the switch comes on. When it rains or is humid, turn the air fresh air intake mode and direct the air flow to the windshield to defog.

WARNING

- Use of the recirculation mode for a long period of time can cause stuffiness, headache, drowsiness, or fogged window.
- If exhaust gas comes in, there is danger of carbon monoxide poisoning. Set to the fresh air intake mode after passing through a dusty or polluted area.

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DEFOGGING AND DEFROSTING

Inside of the Windshield

1. Press the defroster switch.
2. Adjust the fan speed with the fan speed control.
3. To quickly remove the fog on the glass, set the fan speed switch at a high speed position.
4. To prevent fog from forming on the glass, setting the air source selection switch to the fresh air intake mode is recommended.

Outside of the Windshield

1. Press the defroster switch.
2. Adjust the fan speed with the fan speed control.
3. To quickly remove the fog on the glass, set the switch to a high speed position.
4. Set the temperature control switch to a hot position.

WARNING

- When it rains and is very humid, you may have fog on the windshield and windows. The fog will block your view through all windows and can create a dangerous situation. To prevent any fog on the glass, setting the air source selection switch to the fresh air intake mode is recommended.

NOTE

- When you press this defrost switch, the air conditioner turns on automatically and the system selects the fresh air intake mode.

Automatic Air Conditioner

Defroster switch

Manual Air Conditioner

CAUTION

- An extended air conditioner operation in the bi-level mode or defrost mode may cause the outside glass to fog due to the high temperature difference between the inside and the outside of the vehicle. In this case, change the air flow to the fresh air intake mode and set the fan at a low speed.
- Especially in winter or summer, to avoid glass fogging, remove any obstacles such as snow or leaves on the air inlets.

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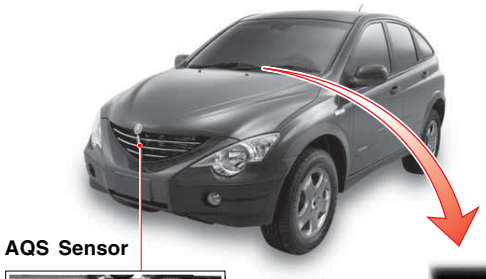
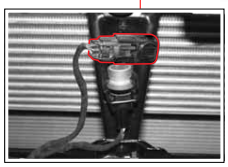


AQS Sensor



CAUTION

- If the outside air contains harmful gases, this system prevents the contaminated air from creeping into the inside. By doing so, the system can form fog on the windshield and other inside windows.
- To defog, refer to the “Defog/Defroster” section.

AQS SYSTEM?

AQS automatically adjusts from the fresh air intake mode to the recirculation mode when polluted air is detected by the AQS sensor. The air source selection returns back to the fresh air intake mode if a certain time passes or the polluted air has disappeared.

AQS indicator

AQS Switch

When the Air Quality System (AQS) switch is pressed, the AQS system is activated and its indicator light comes on. When the switch is pressed again, the light turns off and the AQS system is inactivated.

When the AQS is activated and harmful gases are detected by its sensor, the system automatically selects internal air recirculation mode and the recirculation indicator comes on. When the harmful gases disappear, outside air is allowed to come in and the fresh air intake indicator comes on.

NOTE

The AQS system can be adjusted according to the vehicle’s driving conditions. Also, after initially operating for 5 seconds, the system checks the outside air quality and chooses either the fresh air intake mode or the recirculation mode.

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REPLACING AIR CONDITIONER FILTER

Replace the air conditioner filter when

- Unpleasant odor is generated at the first operation after a long unused period.
- Cooling and blowing capacity have decreased.

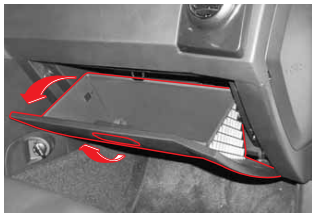
CAUTION

- Do not apply excessive force to the holders when removing the glove box. It may cause a deformation of holders and results in a loose installation.
- Replace both air conditioner filters at the same time while paying attention to the installing direction.

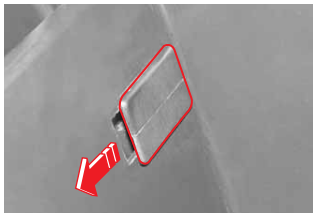
CAUTION

- Replace the air conditioner filter at every 10,000 km of driving.

  However, if the vehicle is operated under severe conditions, such as on dusty or unpaved roads, and excessive air conditioner or heater use, the replacement interval can be shortened.
- When the filter is contaminated, it will decrease the cooling or heating capacity of the system and creates unpleasant odors.



1. Open the glove box.



2. Remove the glove box from the dash panel by moving the left side of the holder in the direction of the arrow.

3. Push down the right side of the glove box in the direction of the arrow.

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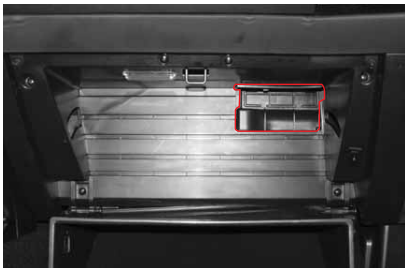
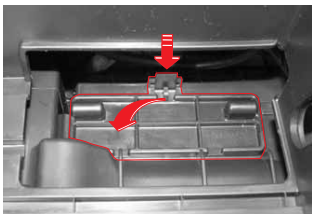
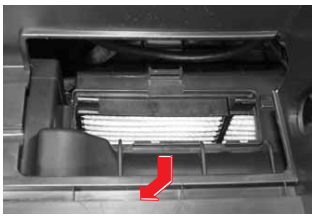


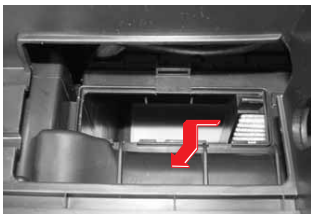
This protruding section indicates that this is the bottom of the filter.



4. Remove the filter cover.



5. Pull out the first filter.



6. Slightly move the second filter to the left side and pull it out.
7. Istall in the reverse order of removal.

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Turbocharger System

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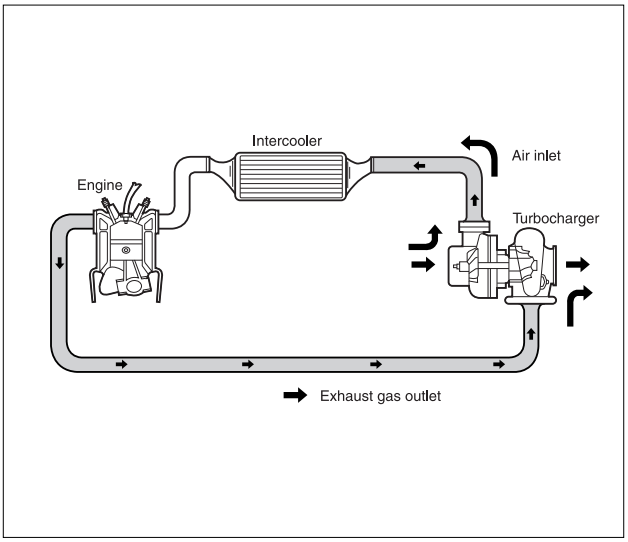
WHAT IS THE TURBOCHARGER?

Turbochargers are based on the gas turbine engine technology, but operate under considerably greater pressure. The turbocharger consists of two turbo elements, a turbine and a compressor, both of which are driven from the main center shaft. The turbine rotates between 50,000 ~ 160,000 spins per minute and uses the energy of the exhaust gas to drive the compressor. The compressor, in turn, draws in fresh air which it supplies to the cylinders in the form of compressed air. As more fuel is drawn into the engine, output performance is boosted between 15 ~ 30% in comparison to a non-turbocharged engine.



Advantages of a turbocharger

Turbocharger helps the engine operate more smoothly and with greater efficiency.

- Increase specific power
- Compensate for power loss at high altitude
- Reduce emissions

What is the intercooler?

The intercooler cools down the compressed air temperature to increase the engine power by increasing the air density.

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The vehicle owner should be encouraged to observe the following precautions to ensure maximum turbocharger service life.

CAUTION

- Operate the engine over the idling speed only after normal engine oil pressure has been established. Forcing the turbocharger to operate before the bearings are adequately lubricated creates unnecessary friction.
- Take steps to reduce temperature and speeds from their maximum before shutting down the engine.

  The engine equipped with turbocharger develops much more heats than a normal engine, so when the engine is stopped abruptly, the oil in the bearings may evaporate due to heats and can be stuck.
- Use only the specified engine oil and observe inspection and replacement intervals.

CAUTION

- At low ambient temperature, or when ever the vehicle has not been used for a long period, normal engine oil pressure and flow is affected. Under these conditions the engine should be started and allowed to idle for a few minutes before operating at higher rpm.
- Avoid long periods of engine idling. The combination of low-pressures in the turbine and compressor may allow oil to seep past the seal into the turbine or the compressor.
- The turbocharger may need to be pre-oiled after oil change or any service that involves oil draining. Crank the engine a few times before allowing start, then start the engine and allow it to idle for a period to establish full oil circulation and pressure before operating at higher rpm.

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TURBOCHARGER INSPECTION

Good maintenance practices should be observed, particularly regarding air filtration, oil quality and filtration.

These areas are important because of a turbocharger's operating speed.

Proper operating procedures and preventive maintenance practices enhance good turbocharger's service life and performance.

The contaminated air cleaner can damage the turbo-charger seriously, so frequently check the air cleaner and observe the replacement intervals.

WARNING

Operating the turbocharger system without the intake and exhaust manifold mounting can result in severe engine damage.

The turbocharger should be operated when every device is normally installed.

NOTE

The most defectives in turbocharger are turbine blade damages or compressor bearing sticks due to lack of oil supply, contaminated engine oil or external materials.

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Convenience Devices

11

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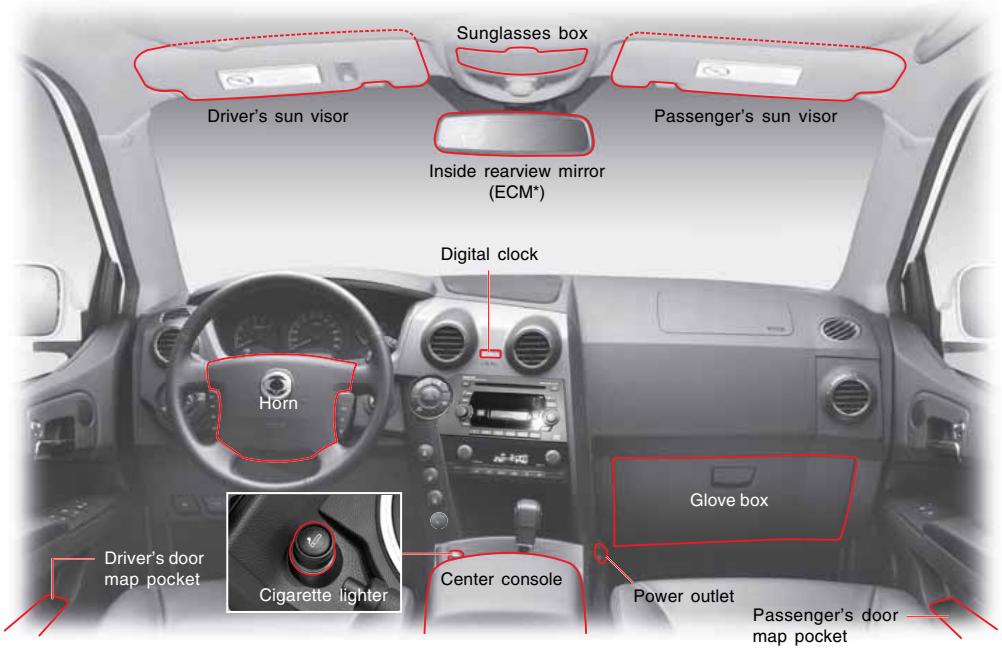

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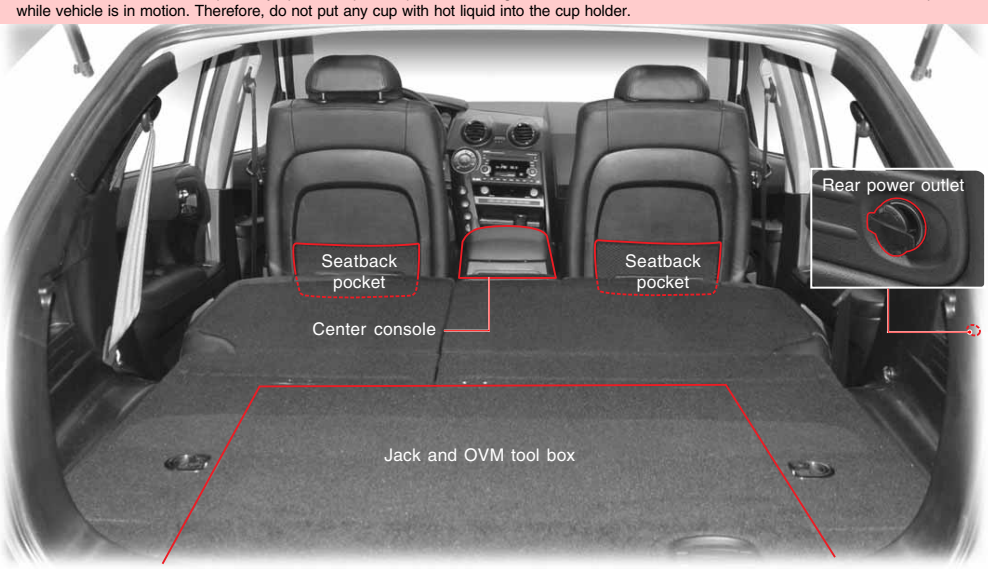
WARNING

- Driving with any storage box open can cause injury in case of an accident or a sudden stop. Keep all the storage boxes closed while driving.
- Do not store any flammable items or disposable lighters in the console box or other space. In hot weather, they can explode and cause a fire.
- When vehicle is in motion, liquid may spill out. Spilled liquid can damage the vehicle and cause burns if it is hot. Do not use the cup holder while vehicle is in motion. Therefore, do not put any cup with hot liquid into the cup holder.



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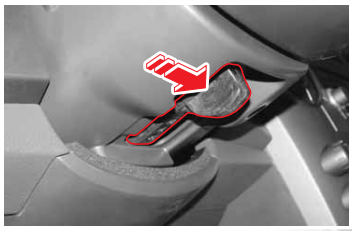
Tiltable Steering Wheel



To adjust the steering wheel, push the control lever to right, adjust the wheel up or down to the proper position, release the control lever to lock the wheel in place.

WARNING

- Do not adjust the steering wheel while your vehicle is moving. Otherwise, control of your vehicle can be lost.
- Before driving, make sure that the steering wheel is locked.

Horn

Press the horn pad on the steering wheel to sound the horn.

CAUTION

The sound of the horn can startle pedestrians. Use only when needed.

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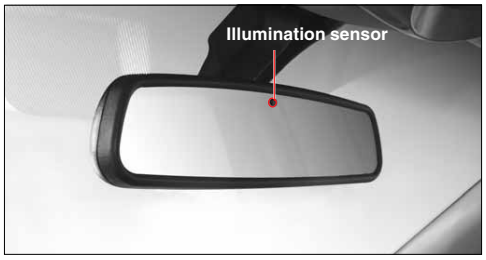
INSIDE REARVIEW MIRROR

The inside rearview mirror can be adjusted up, down or side ways to obtain the best rear view.

ECM (ANTI-GLARE AUTO ADJUSTMENT FUNCTION)*



The reflection rate of the inside rearview mirror can be automatically adjusted by the light intensity from a vehicle behind you.

CAUTION

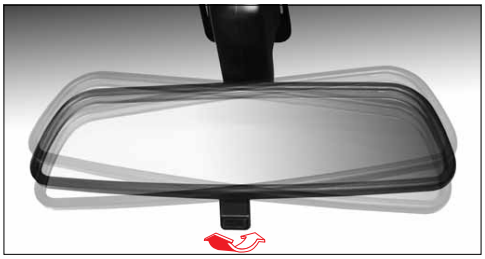
Under the following conditions, automatic anti-glare function may not operate properly.

- When the rear vehicle's headlamp is not beamed directly to the inside rearview mirror's sensor.
- When the rear window has a dark tinted glass.
- When the gear selector lever is in the R position, automatic anti-glare function will be cancelled to obtain the best rearview.

WARNING

- The electrolyte may come out when the mirror is broken. Do not allow it to contact your skin or eyes. If you accidentally get it in your eyes, flush with water and see your doctor.
- For your safety, never adjust the mirror while the vehicle is in motion.

MANUAL TYPE INSIDE REARVIEW MIRROR



Manual Day/Night Adjustment

You can manually adjust the rearview mirror by pushing or pulling its adjusting lever to avoid blindness at night due to other vehicles behind you.

CAUTION

When you are not able to see the back of your vehicle at night, adjust the rearview mirror by holding the mirror body and pushing or pulling it to a desired angle so that you can secure a clear rear view.

WARNING

For your safety, never adjust the inside rearview mirror while the vehicle is in motion.

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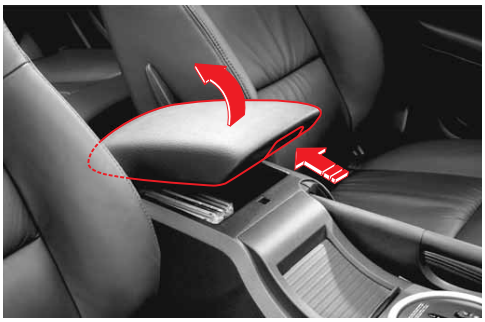
CENTER CONSOLE



Push the button and lift the cover lid to open in order to store small items. It can be used as an armrest for both the driver and passenger.

CAUTION

Do not store any flammables including disposable lighters in the console box or other space. In hot weather, they may explode and cause a fire.

FRONT CUP HOLDER AND ASHTRAY HOLDER

The holder is located in order to put the cup or ashtray into it. Slide the cover up.

CAUTION

- When the vehicle suddenly brakes or starts, liquid may spill.
- Danger of burning! Do not store a hot beverage in the cup holder.

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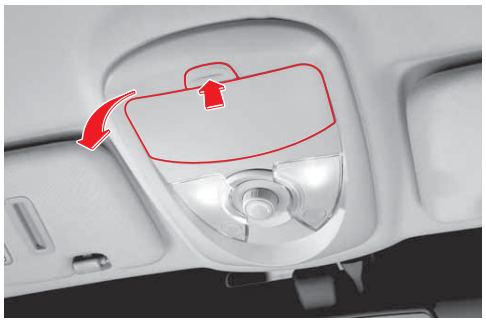
SUNGLASSES BOX / FRONT CONSOLE

SUNGLASSES BOX

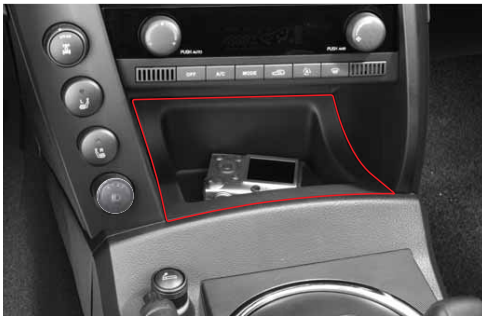


Press the button to open the console and place the sunglasses onto the hook.

CAUTION

- If glasses falls down, it may be damaged. Fix it firmly.
- The unclosed console can block your rearview. Also, the console can injure you in an accident or a sudden stop. Therefore, close the console before driving off your vehicle.
- Do not store any item that can be deformed in a hot temperature.
- Do not store any heavy items inside the console. When it falls out of the console, occupants may get injuries.

STORAGE BOX (FRONT)



There is another front storage box at the bottom of the center panel.

CAUTION

Do not place any item that might block the automatic gear selector lever or the manual gear shift lever from moving freely.

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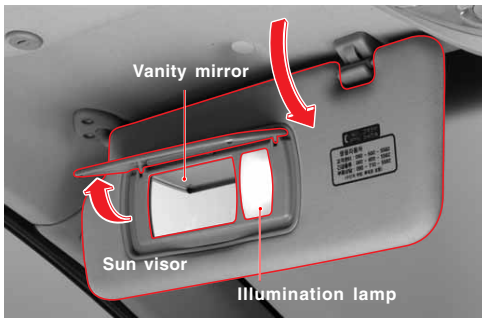
CARD HOLDER

Tickets and cards can be stored.

SUN VISORS AND VANITY MIRROR LAMP*



Sun Visors

Pull the sun visor down or to the left (right), if necessary.

Vanity Mirror

Swing the sun visor down and open the cover to reveal the mirror.

Vanity Mirror Lamp*

Swing the sun visor down and open the cover to reveal the mirror, then the lamp will come on.

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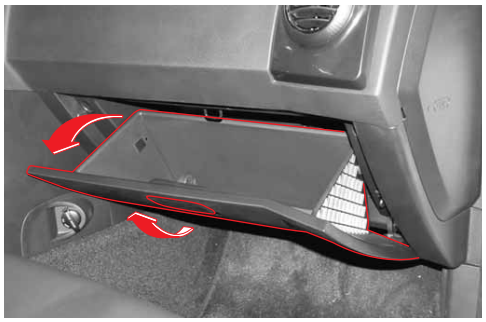
GLOVE BOX



Pull up on the lever to open the glove box. Items can be stored.

When the tail lights are on and the glove box is open, the glove box inner lamp comes on.

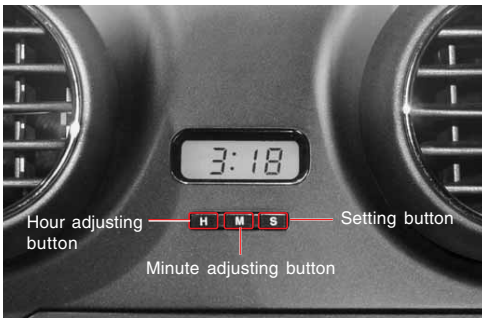
CAUTION

- Driving with the glove box lid open can cause injury in case of an accident or a sudden stop. Keep glove box lid closed when driving.
- Do not store any flammables including a disposable lighter in the console box or glove box. In hot weather, it may explode and cause a fire.

NOTE

The glove box lamp comes on upon its opening only when the parking light or head light switch is on.

DIGITAL CLOCK



H (HOUR) : Hour Adjusting Button

M (MINUTE) : Minute Adjusting Button

S (SET) : Setting Button

Press the “S” button to adjust the time to the nearest hour.

- When the time is between 00 and 29 minutes of a certain hour, the minute indicator will show “00” if this button is pressed.
- When the time is between 30 and 59 minutes of a certain hour, the minute indicator will show “00” and one hour will be added to the hour indicator if this button is pressed.

NOTE

When disconnecting the battery or replacing the fuse, the clock should be adjusted again.

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CIGARETTE LIGHTER

To operate the cigarette lighter, press it in all the way down. When it becomes heated, it automatically pops out and is ready for use.

WARNING

- When the cigarette lighter does not automatically pop up after 30 seconds, there is a danger of overheating. If this happens, pull it out and have the problem corrected by Ssangyong Dealer or Ssangyong Authorized Service Center.
- Inserting your finger into the cigarette lighter outlet can cause burns or electric shock.
- The barrel of the cigarette lighter becomes very hot when it is fully charged. When touched by or dropped on bare skin, this may cause burns. Dropping the hot lighter can cause damage to a car seat or even start a fire.

CAUTION

Do not tap the cigarette lighter strongly to clean up. That may damage the coil.

REMOVABLE ASHTRAY

If you open the lid at night or in a dark area, the ashtray light will light up inside the ashtray.

Battery type: CR2032

WARNING

To avoid danger of fire, do not accumulate inflammable materials, such as garbage or cigarette butts, in your ashtray and make sure the cigarettes are full extinguished.

CAUTION

The LED illuminator inside of the ashtray has an electronic circuit and is not water-proof. Any impact on it or water will damage the unit.

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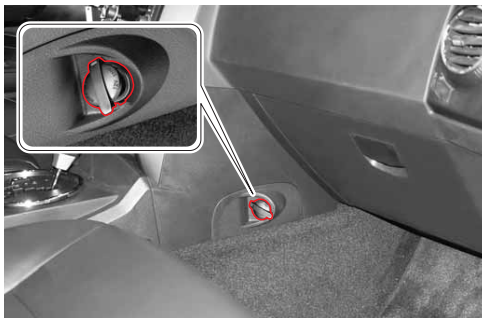
POWER OUTLET

FRONT POWER OUTLET



An auxiliary power outlet for extra electrical devices is installed. This power outlet supplies power when the ignition key is in the “ACC” or “ON” position.

CAUTION

Keep the power outlet cover closed if not in use. Electrical defects can occur if objects other than power outlet plugs or water gets in. Furthermore, an accident could happen such as an electric shock.

REAR POWER OUTLET (ACTYON ONLY)

WARNING

- For the extra electrical devices, you must use this power outlet. If you alter the vehicle's wire lines and leave the wires to hang freely, it could cause an accident like a fire.
- Abide by the nominal capacity of 120W.
- Do not put a finger into the outlet. It may cause an electric shock.
- The battery can be discharged if the power outlet is used excessively when the engine is not running.

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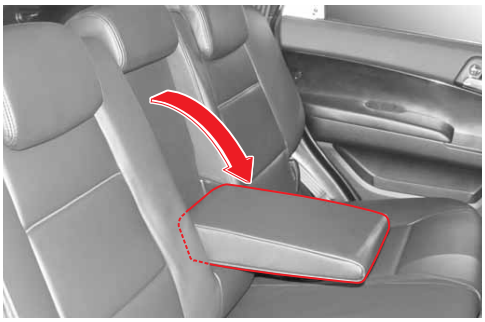
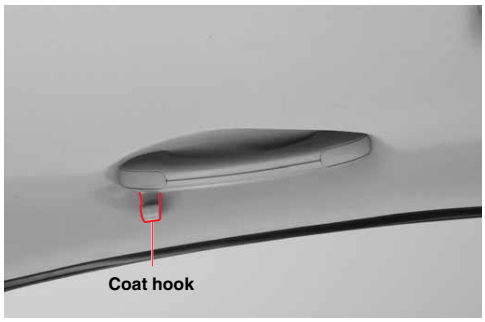
REAR ARMREST (CENTER)



The rear armrest is located in the center of the rear seat. Pull down the armrest to use. Stow it when not in use.

ASSIST GRIP AND COAT HOOK



Assist grip is not installed on the driver side. A coat hook is installed on the grips above the rear door at driver side.

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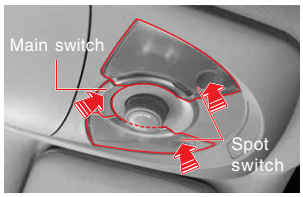
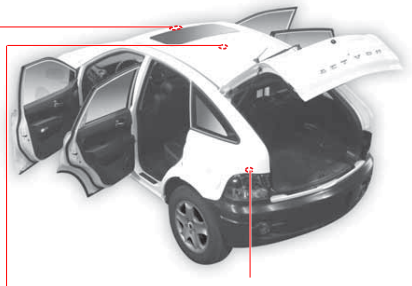
FRONT ROOM LAMP

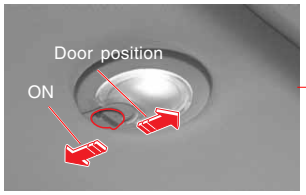


When this switch is pressed, the front and center room lamps are coupled with doors. (The center room lamp is coupled only if the center room lamp switch is in the door coupled operation.) When pressed again, the lamps go out.

* When a door is opened, the front and center room lamps are turned on. In this case, you cannot turn off the lamps with the main room lamp switch. When the door is closed, the lamp will go off.

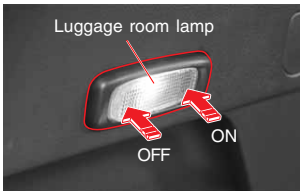


CENTER ROOM LAMP



When this switch is pushed towards the rear of the vehicle, the lamp comes on. If the switch is pushed to the opposite direction, the lamp will go off. But, when any door is open, the lamp comes on and stays on. (However, the lamp is coupled with the doors only when the main switch of the front room lamp is pressed) When the door is closed, the lamp will go off.

LUGGAGE ROOM LAMP (ACTYON ONLY)



If the portion of the lighting is pressed, the lamp will come on and if the portion of the light-out is pressed, the lamp will go off.

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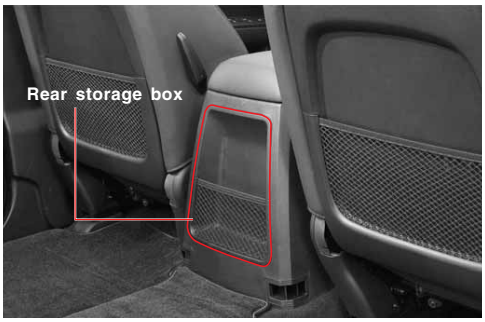
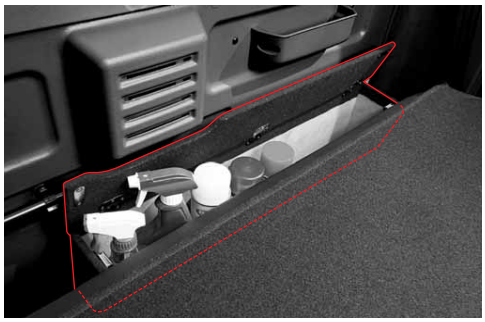
REAR STORAGE BOX



There is another storage box under the center console.

REAR STORAGE BOX (ACTYON SPORTS)



If you fold the rear seats down, there is a storage box where small items can be stored.

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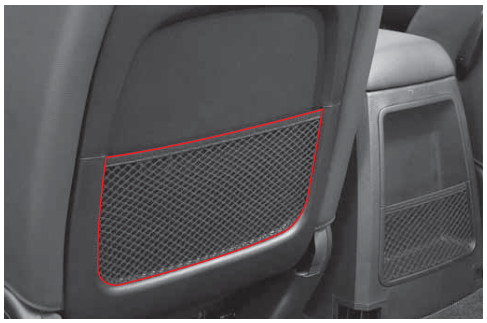
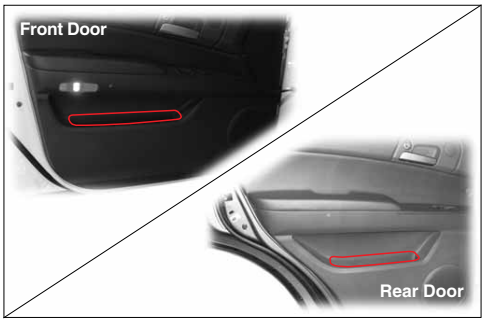
SEATBACK POCKET



There is a storage pocket for storing small items.

MAP POCKET



The map pocket is located on each front door. Maps, magazines, newspapers, and other items can be stored.

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LUGGAGE NET (ACTYON ONLY)

Any possibly moving objects during driving can be stored securely in the luggage net.

Hook the net up to the luggage compartment.

LUGGAGE ANCHOR

Your vehicle has 6 luggage anchors on the luggage room floor.

WARNING

The luggage anchor should be used to secure all loads in the luggage room by using the proper straps.

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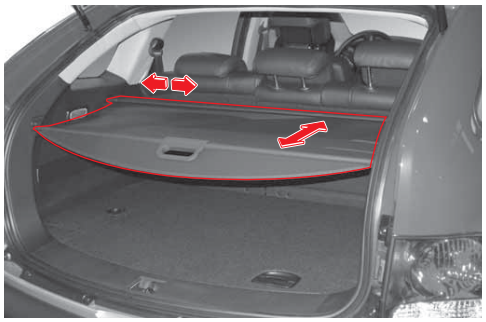
LUGGAGE COVER*



When Unrolling the Luggage Cover

Pull the handle of the luggage cover at the center, and fix it into the grooves at left and right sides of quarter trim inner panels.

When Rolling the Luggage Cover

Take the luggage cover out of the grooves by pulling the handle and let go the grasp slightly to roll the luggage cover.

When Removing the Luggage Cover

After tearing off the edge of luggage cover at the back of rear seat, remove the luggage cover assembly by raising up it from the fixing holder's grooves.

NOTE

Store the luggage cover separately to use the luggage room of the vehicle wide.

CAUTION

Don't put anything on the luggage cover.

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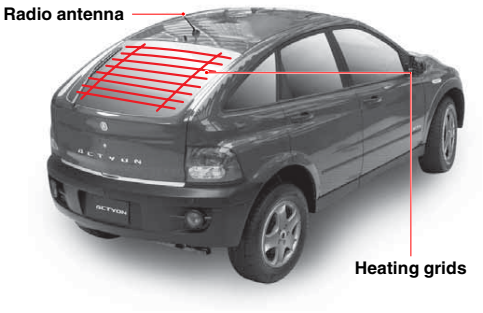
REAR DEFOGGER AND ANTENNA

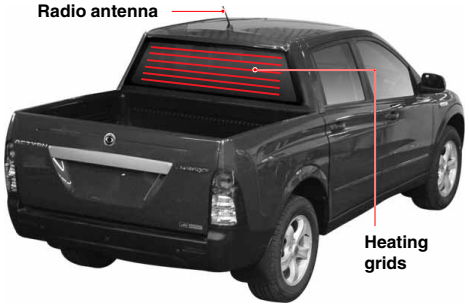


The heating grids are on the center section of the tailgate window.

Be careful not to damage the heating grids and antenna while cleaning the inside of the window.

CAUTION

Do not coat the tailgate window and side windows with any aftermarket products, especially a metal anti-glare film or a two-tone film. When it is used on the windows, the sensitivity of the heating grids and antenna can be deteriorated.



The heating grids are on the rear window.

Be careful not to damage the heating grids while cleaning the rear window's interior side.

CAUTION

Do not coat the rear window with anti-glare film, especially the metal or two-tone anti-glare film.

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CAUTIONS WHEN USING AUDIO SYSTEM

- An illegal copy of a CD may cause a malfunction in the audio head unit and abnormal replay. Use only original CD.
- Incompatible discs may cause a malfunction in the system. Use only compatible discs.
- The back of the front monitor is very hot. Do not touch the back when removing the monitor.
- When cleaning the screen, turn off the system and clean the surface with a dry and soft cloth. Never use a coarse cloth, hard cloth, chemical agent, or volatile cleaning solvent (alcohol, benzene, thinner) for cleaning the screen. The screen surface can be damaged and discolored.

Usable Discs

Head Unit

- CD player: Audio CD

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In Case of Emergency

12

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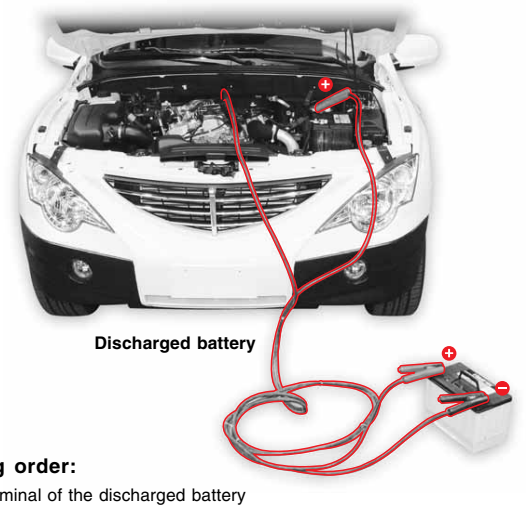
STARTING THE ENGINE WITH JUMPER CABLES

If the batter is weak or dead, the battery from another vehicle can be used with jumper cables to start the engine.



Booster battery

The positive (+) cable to the positive (+) terminal.

The minus (–) cable to the minus (–) terminal.

Be sure to observe the connecting sequence specified below.

CAUTION

- Start the engine of the booster vehicle after connecting the cables.
- Be careful not to have the jumper cable caught in the cooling fan.

Connecting order:

(1) The + terminal of the discharged battery

(2) The + terminal of the booster battery

(3) The - terminal of the booster battery

(4) Connect one end of the other jumper cable to the body of the discharged vehicle, such as the engine block or a front towing hook.

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1. Prepare a set of jumper cables.
2. Place another vehicle that has the same 12 V of power near to the discharged vehicle.
3. Switch off all electrical accessories for the discharged vehicle.
4. Apply the parking brake and shift the transmission to the P position (automatic transmission) or neutral (N) position (manual transmission).
5. Connect the jumper cables.
6. Try to start the discharged vehicle while accelerating the engine rpm in the booster vehicle.
7. Attempt to start the engine with the discharged battery.
8. After starting the engine, carefully disconnect the jumper cables in the reverse sequence of connection.

WARNING

- Connecting the jumper cable to the negative terminal of the discharged battery could result in arcing and possibly a battery explosion. Serious personal injury or vehicle damage can result.
- Make sure that the jumper leads are securely connected. Otherwise, an abrupt disconnection due to vibration during engine starting may cause an electrical short resulting in severe damage to electric components.
- Make sure that the booster battery has the same voltage rate with the discharged battery.
- While connecting the jumper cables, make sure that the negative (–) and positive (+) cables never touch each other. Otherwise sparks might cause an explosion of the battery.
- Battery fluid contains acid that can burn you. Do not allow battery fluid to contact eyes, skin, or painted surfaces. If you accidentally get it in your eyes or on your skin, flush the place with water and contact your doctor. If you swallow battery fluid, drink a large quantity of water or milk and see your doctor as soon as possible.
- While being transported in an ambulance, gently wipe out the contacted area with a water-wet cloth or sponge.

CAUTION

- When starting your vehicle with jumper cable, turn off the engine of the boost vehicle and connect the jumper cables
- Ensure that the jumper cables are clear of fan blades before starting the engine.

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CAUTIONS WHEN A TIRE IS FLAT

If one of the tires becomes flat while driving, grab the steering wheel firmly and remove your foot from the accelerator pedal. Gradually slow down and park your vehicle in a safe place. Replace the flat tire with a spare tire. For the process, refer to sections about the spare tire.

WARNING

- Don't panic! Improper operation of the steering wheel or abrupt braking may cause a consequential accident on the road. Stop your vehicle in a safe place and turn on the hazard flasher and then apply the parking brake.
- Do not drive with a flat tire for even a very short distance. In addition to damages to the rim of the tire, abnormal driving conditions can cause a very danger situation.

WARNING

- Stop the engine and set up the warning triangle behind your vehicle (daytime: 100 m, night time: 200 m - on express way).
- Chock the front and rear of the wheel diagonally opposite to the wheel being changed.
- Have all passengers get out of vehicle and stand in a safe place.

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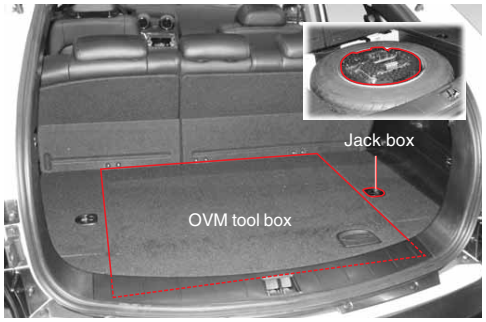
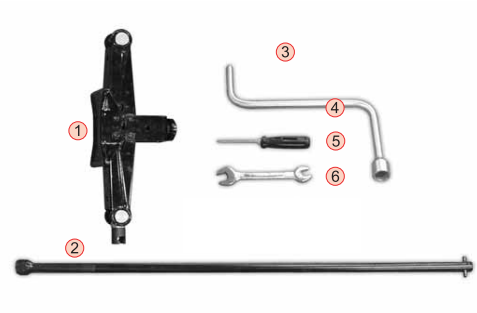
ACTYON



Emergency tools such as the jack connection and others are stored inside of jack and OVM tool box.

The jack is stored in the right hand luggage room.



1. Jack
2. Jack connection
3. Wheel nut wrench
4. Screwdriver (+ and -)
5. Spanner (Big)
6. Spanner (Small)

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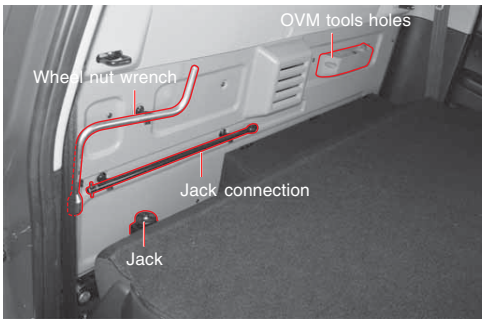
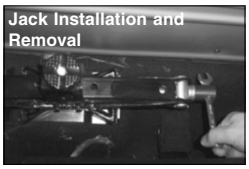
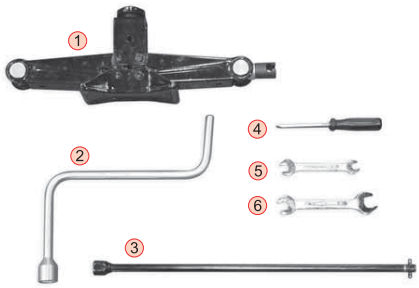
ACTYON SPORTS





If you fold the rear seats down, there are mounting positions where OVM tools can be stored.

When fitting the jack, insert the hook of the mounting bracket behind the rear seats to the mounting hole on top of the jack, and then turn the jack handle clockwise with the spanner to secure the jack. Removal is done in the reverse order of installation.



OVM Tools

1. Jack (Pantograph jack)
2. Wheel nut wrench
3. Jack connection
4. Driver (+ and –)
5. Spanner (Small)
6. Spanner (Big)

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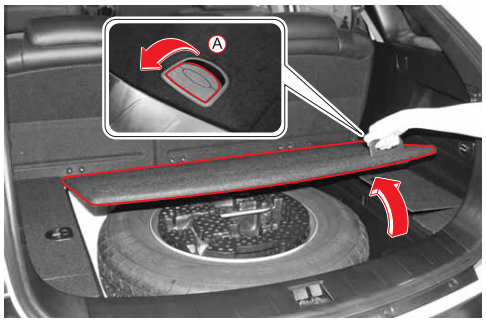
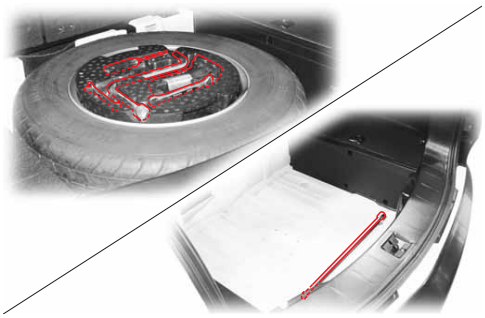
ACTYON (TEMPORARY TIRE)





1. Stop your vehicle in a safe place and turn on the hazard flasher and then apply the parking brake.
2. Chock the front and rear of the wheel diagonally opposite to the wheel being changed.
3. Turn fastening knobs and open the jack box cover. Also, open the jack extension storage box.

CAUTION

- Put the tools into their own locations.
- Stop the engine and set up the warning triangle behind your vehicle (daytime: 100 m, night time: 200 m - on express way).

4. Pull out the jack, the wheel nut wrench, OVM tools and the jack connection. The jack extension can be only taken out after removing the temporary tire.

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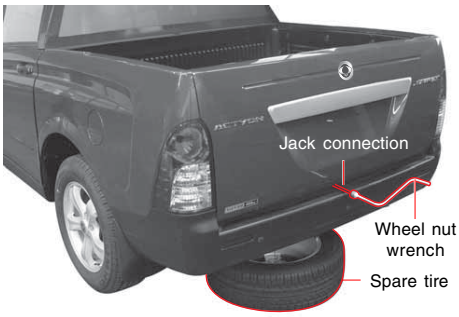
ACTYON SPORTS (FULL-SIZE TIRE)



Insert the jack connection to the center hole on the rear part of the deck and connect the wheel nut wrench, and then turn the wheel nut wrench counterclockwise.

If the spare tire is on the ground, pull out the lift plate from the spare tire wheel.

CAUTION

- When stowing the spare tire to the carrier, be sure to firmly secure it to the carrier holder.
- Stow the repaired or new spare tire in place. When stowing the spare tire, make sure that the outer surface of the tire (wheel nut side) is facing down. Check also if the spare tire is firmly secured in place.

  Always make sure that the spare tire and jacking equipment are properly secured after use. Such items can become dangerous projectiles in an accident or sudden stop.

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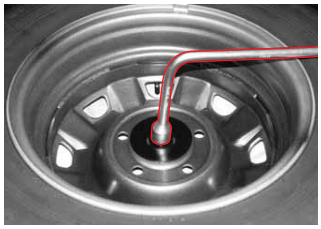
REMOVING THE SPARE TIRE (ACTYON)

1. Open the cover and take out OVM tool box.



2. Loosen the fastening bolt from the temporary tire holder with the wheel wrench.

3. Take out the temporary tire from the vehicle. After taking out the spare tire, take out the jack extension.

WARNING

The temporary spare tire is only for emergency situations. Never use it for normal driving. After installing the spare tire on a wheel, take your vehicle to a Ssangyong authorized service center or a tire-specialized shop to replace it with a new regular tire.

CAUTION

- When reinstalling the spare tire to the carrier, be sure to securely lock it to the carrier holder.
- When one of the rear tires is flat, you may not have a enough space to release the spare tire form the its carrier. Then, raise your vehicle with the jack.
- While your vehicle is being raised up with the jack, avoid any impact on your vehicle. Otherwise, you may get injured.
- When taking out the temporary tire, be careful not to damage the body of your vehicle.

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1. Pry off the wheel cap with a flat blade screwdriver.

WARNING

- The parking brake should always be applied when replacing the flat tire.
- Chock the front and rear of the wheel diagonally opposite to the wheel being changed.

CAUTION

When reinstalling the wheel cap, be sure to completely fit it in place.

2. Loosen the wheel nuts one or two turns by turning them counterclockwise with the wheel nut wrench.

WARNING

- Do not remove the nuts yet from the wheel. If they are removed, the wheel could slip off from the vehicle. Then, the body of the vehicle will fall down on you and you may get seriously injured.
- Loosen the wheel nuts one or two turns.

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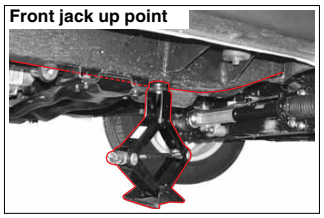
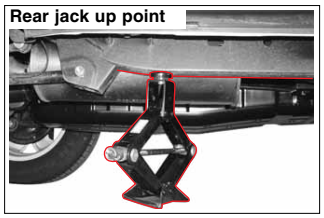




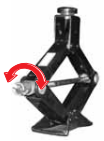
3. Place the jack directly under the jack-up points so that the top of the jack contacts the vehicle at the jack-up point.

WARNING

Do not attempt to raise the vehicle until the jack is set up at the jack up point. Do not use the jack on a tilted or soft surface. Make sure that the jack securely contacts the jacking point of the vehicle and the ground. Otherwise, there could be a personal injury or damage to your vehicle.

CAUTION

Do not set the jack at any other position on the vehicle other than those specified. If the jack is set at the wrong position, the body of the vehicle could be dented or damaged. The top of the jack should contact the jacking point.



When pulling out the jack from the box, first lower the jack head to take the jack out easily. When storing the jack again inside of the box, raise the jack head up after putting it back in the box so that the jack can be stored securely.

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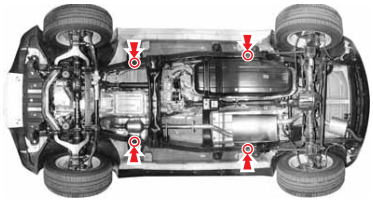
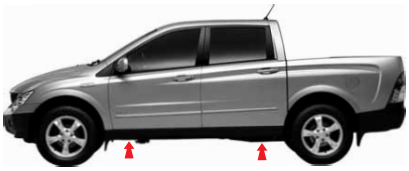
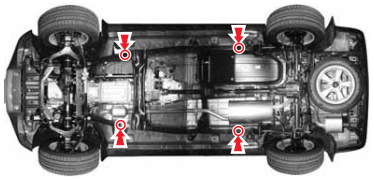
JACK UP POINTS

ACTYON



ACTYON SPORTS





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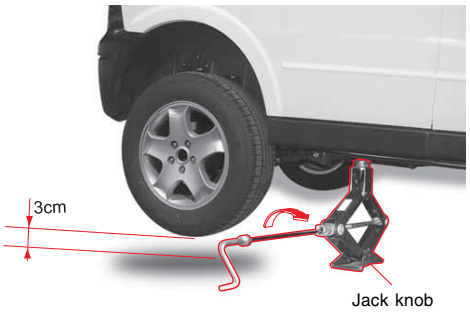

4. Combine the jack, the wheel nut wrench and the jack connection as shown in the figure. Jack up the vehicle by rotating the combined wrench clockwise until the tire is off the ground about 3 cm.
5. Remove the a wheel nuts by hands while the vehicle is stationary. Remove all of the wheel nuts.

WARNING

Do not attempt to raise the vehicle until the jack is in the proper position, and secure both to the vehicle and the ground. It may cause a personal injury or vehicle damage.

6. Take the wheel off and place the wheel under the vehicle body. This helps to minimize any danger if the jack slip off position.

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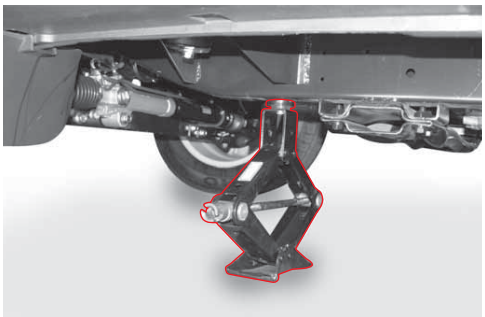
PANTOGRAPH JACK



CAUTION

Do not set the jack at any other position other than those specified. Setting the jack improperly may dent or damage the vehicle's body. Make sure that the top of the jack should square with the jacking point.

Pantograph Jack

7. Then mount the spare tire and temporarily tighten the wheel nuts until the spare tire wheel is no longer loose.

WARNING

By tightening up the spare tire until it is not loose any more, you can avoid any tilting of the tire on the wheel hub when the tire touches the ground.

8. Lower the vehicle by rotating the combined wrench counter-clockwise until the tire is on the ground. Remove the jack.

WARNING

While the jack is supporting your vehicle, do not use too much force to tighten the nuts. Otherwise, the vehicle may slip off and you may get injured.

9. Tighten the wheel nuts diagonally a couple of times.
10. When done with mounting the spare tire, place the flat tire removed from a wheel of ACTYON in the luggage room, and firmly secure the flat tire removed from a wheel of ACTYON SPORTS to the spare tire carrier.

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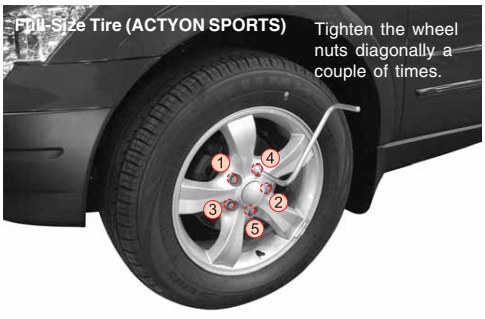

Temporary Tire

The temporary spare tire is only for emergency situations. Never use it for normal driving. After installing the spare tire on a wheel, take your vehicle to a Ssangyong authorized service center or a tire-specialized shop to replace it with a new regular tire.

Full-Size Tire

The full-size tire has the same size and type as regular tires.

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If over tightened, the wheel nuts could be damaged. Do not overtighten the wheel nuts by pressing the wheel nut wrench by foot or using an assist pipe.

WARNING

- With the temporary spare tire, do not drive any faster than 60 km/h.
- The temporary spare tire is only for emergency situations. Never use it for normal driving. After installing the spare tire on a wheel, take your vehicle to a Ssangyong authorized service center or a tire-specialized shop to replace it with a new regular tire.
- Improperly tightened wheel nuts can cause the wheel to become loose and even come off or any malfunctioning in the steering and braking system.
- This could lead to an accident. Be sure to tighten the wheel nuts as specified. If the wheel comes off due to a loose wheel nut, it may lead to a fatal accident.
- Using different tires could cause you to lose control while driving. Be sure to use the same size and type tires from the same manufacturer on all wheels.

CAUTION

After changing the tire and driving the vehicle about 1000 km, retighten the wheel nuts.

- Tightening torque: 120 ~ 140 Nm

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CAUTIONS WHEN CHANGING THE TIRE

▶ **Before changing the tire**

- Turn on hazard flashers and move the vehicle to a safe place away from traffic. Park on a firm and level ground.
- Set up the jack at the specified position. Never get under the vehicle while it is supported by the jack. While the vehicle is on the jack, never start or run the engine or push the vehicle.
- Have all passengers get out of the vehicle and stay in a place away from traffic.

▶ **During changing the tire**

- Tighten the wheel nuts diagonally a couple of times.
- Never apply oil or grease to either wheel studs or nuts as it will cause them to overtighten.

▶ **After changing the tire**

- Check, repair, and retighten the replaced tire at the nearest Ssangyong Authorized Service Center or a qualified tire shop after an emergency change.
- Securely stow the tire in its carrier. When stowing the spare tire, make sure that the outer surface of the tire (wheel nut side) is facing down. And, check to see if the spare tire is securely locked into the carrier without any looseness. Otherwise, it may fall out from the carrier while the vehicle is moving.
- Always make sure that the spare tire and jacking equipment are properly secured after use. Such items can become dangerous projectiles in an accident or sudden stop. Check the tightness of the wheel nuts and tire pressure before driving.

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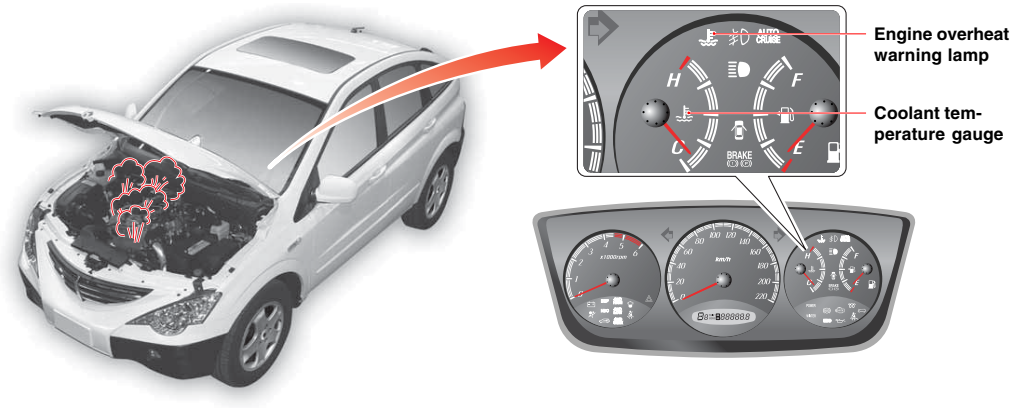
WHEN THE ENGINE IS OVERHEATING



Symptoms:

- The engine overheat warning lamp blinks (Buzzer sounds)
- The gauge indicates over the normal range (or in the red zone),
- Steam or spray from the engine compartment.
- Reduced engine output.

When the engine overheats, steam or spray may come out the engine compartment. Or, the coolant temperature gauge touches “H”. If this happens, the engine overheat warning lamp comes on and a buzzer will sound. Immediately stop your vehicle in a safe place.

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WHEN THE ENGINE OVERHEATS

1. Move off the road to a safe place away from traffic. Park on a firm and level ground. Apply the parking brake and shift the transmission to the **P** position (automatic transmission) or the neutral position (manual transmission).
2. Turn off the air conditioner or heater if used. Open the engine hood and idle the engine until it cools.
3. If you see steam under the hood, stop the engine immediately.

   If there is no steam, open the hood and leave the engine running in idling speed.
4. However, if the gauge doesn't go down to the normal range even in idling, stop the engine and cool it down.
5. Check the coolant level in the reserve tank. If it is too low, check for leaks in the radiator hoses and connections.
6. Add coolant into the reserve tank if necessary.
7. If necessary, cover the tank cap with a cloth and turn the cap a little to release any pressure. After fully releasing the pressure, remove the cap and fill up the tank. Then, put the cap back on the tank.
8. If the coolant level is normal, have the cooling system checked by a Ssangyong Dealer or Ssangyong Authorized Service Center.

CAUTION

- When the engine overheats because of the low coolant level, immediately turn off the engine and let it cool down.
- Opening the reserve tank cap should be performed when the engine is off and has cooled down.
- Scalding hot coolant and steam could be blown out under pressure, which could cause serious injury. Never remove the coolant reserve tank cap when the engine and the radiator are hot.
- The engine may be damaged if you add cold water abruptly when the engine is still hot.
- Use only Ssangyong recommended (antifreeze) coolants.
- If the problem continues, have the cooling system checked by a Ssangyong Dealer or Ssangyong Authorized Service Center.

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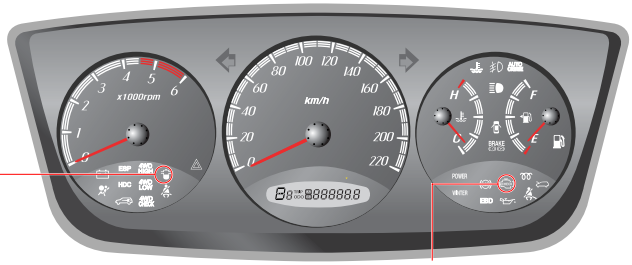
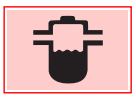
WATER SEPARATOR WARNING LIGHT AND ENGINE CHECK WARNING LIGHT



Water Separator Warning Light



When the water level inside the water separator in the fuel filter exceeds a certain level, this warning light comes on and a buzzer sounds. If these conditions occur, immediately drain the water from the fuel filter & the water separator. For the draining procedures, please refer to "How to drain the water from fuel filter" section in this manual.

WARNING

- The fuel system in the engine may get serious damages if you keep driving while the warning light is on. Prompt correction should be necessary.
- Before starting the engine, perform the pumping operation of the priming pump until it becomes rigid to fill up the fuel pump with fuel.

Engine Check Warning Light

If the light stays on or comes on while driving, some of the engine control components including sensors and other devices are defective. Have the system checked by a Ssangyong Dealer or Ssangyong Authorized Service Center.

CAUTION

When this warning light comes on, the engine driving force may be decreased or the engine may stall.

CAUTION

When the water level inside the water separator in the fuel filter exceeds a certain level, this warning light comes on and a buzzer sounds. Also, the driving force of the vehicle decreases. If these conditions occur, immediately drain the water from the fuel filter & the water separator. If the above conditions are still existing after draining the water, have the system checked by a Ssangyong Dealer or Ssangyong Authorized Service Center.

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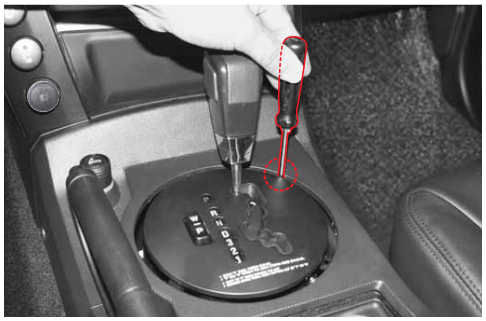
SHIFT LEVER LOCK RELEASE AND SAFETY MODE RESET

SHIFT LEVER LOCK RELEASE



If the gear shift lever does not move from the **"P"** position in spite of turning the ignition key to the **"ON"** position and depressing the brake pedal, take the following steps to manually shift the lever.

1. Stop the engine and apply the parking brake.
2. Remove the shift selector cover. While pressing the solenoid valve section, shift the lever into the **"N"** position.
3. While the shift lever is engaged in the **"N"** position, start the engine. Release the parking brake, shift the lever into the **"D"** position and drive off.

WARNING

If the shift lever is stuck in the **"P"** position, take the above steps to drive your vehicle. Then, you must have your vehicle checked by Ssangyong Dealer or Ssangyong Authorized Service Center.

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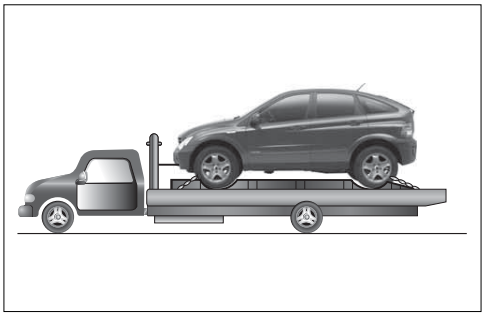
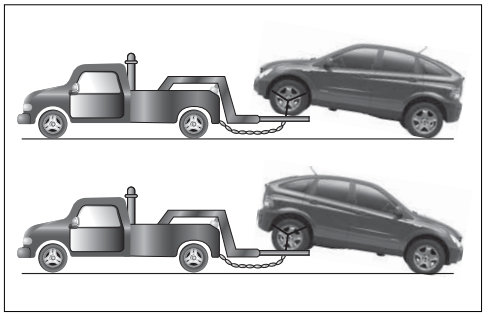


Flat-bed equipment is the best method of moving a disabled vehicle to avoid any damages.

We recommend towing the 4WD vehicle with all four wheels OFF the ground.

WARNING

Towing the 4WD vehicle with front or rear wheels on the ground might severely damage the drive system. It is recommended to use a flatbed truck in towing.



WARNING

- If a flat bed truck is not available, the propeller shafts for the wheels on the ground should be disconnected before towing.
- Because the oil pumps are deactivated during towing, towing the vehicle with propeller shafts connected can cause internal damage or burn the transmission or the transfer case.

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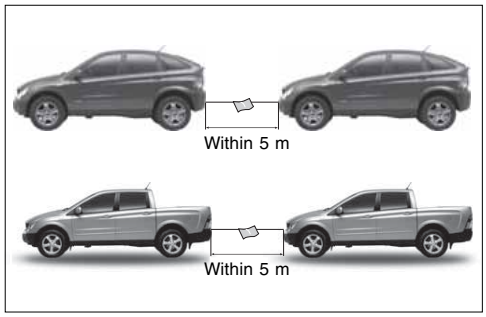
EMERGENCY TOWING



- When towing your vehicle with the towing rope:

1. Securely tie up the towing rope to the towing hooks. Secure the rope to both of the towing hooks under the front of the vehicle as tight as possible.
2. To make the rope conspicuously visible, bind a white colored cloth on the center of the rope.
3. Place the gearshift lever in the neutral position and release the parking brake.
4. Switch on the hazard warning flashers of both vehicles.
5. Maintain the towing distance. Apply more force to depress the brake pedal of the vehicle that will be towed.
6. Set the ignition in the ON position.
7. Total length of the towing and towed vehicle and the towing rope should be less than 25 meters. And tow the vehicle within 25 km with 5 km/h of the towing speed. The length of the rope should be less than 5 m.

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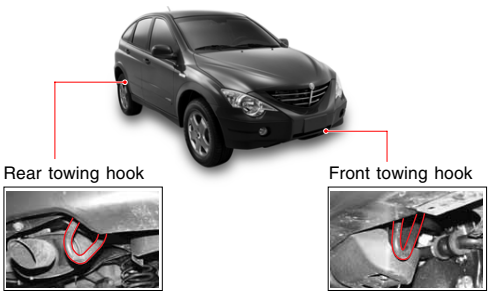
Location of Towing Hooks

ACTYON



ACTYON SPORTS

CAUTION

- If you cannot use a professional towing service, the driver of the towed vehicle should stay behind the steering wheel. But, never use this emergency towing when the electrical system, steering system, or brake system is not operative.
- Ensure that only horizontal tension is applied to the front or rear towing hook.
- If there are steep hills or sharp turns in your towing path, do not use this method.
- Depress the brake pedal stronger than normal condition when the engine is not running.
- When your electrical systems operate properly, turn on the hazard warning lamps or turn signal lamps according to the towing vehicle's signals.
- Avoid overloaded towing and do not tow a heavier vehicle than yours.
- Position the ignition switch to "ACC" or "ON" so that the steering wheel is not locked.

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Your vehicle is designed primarily as a passenger vehicle therefore handling, braking, durability and economy will be affected by towing a trailer.

Your safety and satisfaction depend upon proper use of correct equipment. Also, you should avoid overloading and other abusive use.

The maximum loaded trailer weight you can pull with your vehicle depends on your intended use and what special equipment has been installed on it. Before attempting any towing, ensure that the correct equipment is fitted to your vehicle.

Your Ssangyong Dealer will help supply and install towing equipment to suit your requirement.

TRAILER LOADING

To load your trailer properly, you must know how to measure gross trailer weight and trailer ball weight. Gross trailer weight is the weight of the trailer plus all cargo in it.

You can measure gross trailer weight by putting the fully loaded trailer on a vehicle scale.

Trailer ball weight is the downward force exerted on the hitch by the trailer coupler at its normal towing height. This weight can be measured using a bathroom scale.

The weight of your loaded trailer (gross trailer weight) should never exceed the specified values.

The maximum permissible trailer ball weight is 92 kg.

The permissible trailer loads are valid for several gradients from 6.8% to 12.6% according to engine power applied.

When the trailer has been coupled, the permissible rear axle load for the fully loaded towing vehicle (including occupants) must not be exceeded.

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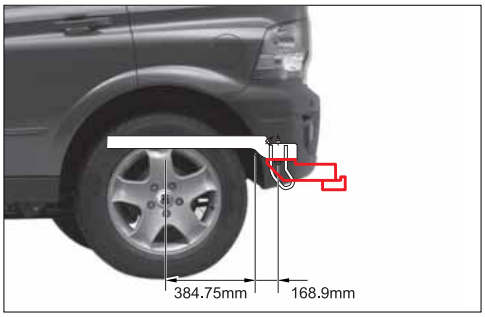
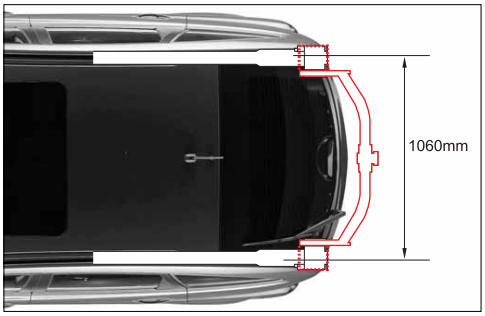
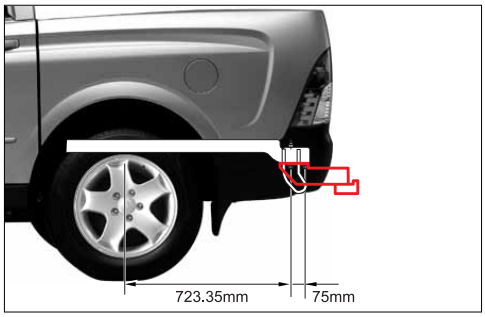
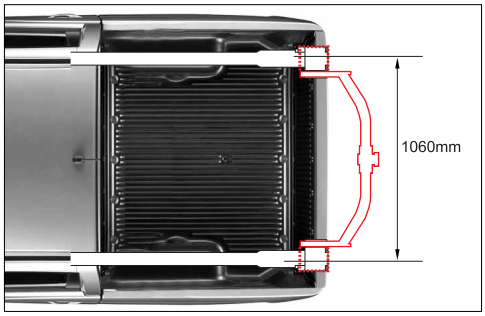
ACTYON





ACTYON SPORTS





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Maximum Load Limits

(unit: kg)

Type				Maximum Trailer	Maximum permissible static vertical load on the coupling device
ACTYON	2WD	with brake	MT	2,100	92
			AT	2,300	
		without brake		750	
	4WD	with brake	MT	2,100	
			AT	2,300	
		without brake		750	
ACTYON SPORTS	with brake			2,300	
	without brake			750	

The above dimensions are certified data to meet the following conditions.

Gradients up to 12%: Capable of 5 starts within 5 minutes (with trailer)

Gradients up to 18%: Capable of 5 starts within 5 minutes (without trailer)

WARNING

In higher elevations the engine output and gradability may drop so that it may not be possible for the permissible trailer loads to be fully utilized in mountainous territory.

So, the permissible trailer loads should be reduced by 10% at every 1,000 m after reached at 1,000 m of altitude.

WARNING

Never exceed the maximum load limits of trailer or trailer towing equipment and be aware that due to the higher load overheating might occur in hot days or during continuous uphill driving.

WARNING

Incorrect loading and crosswinds, large trucks passing or road roughness can cause swaying or trailer separation.

- Adjust ball load by distribution of load in trailer.
- Check by weighing loaded trailer and ball load separately.
- Check the relevant state or territory registration authorities for the legal maximum towing weight capacities.

TRAILER BRAKES

If the trailer brakes are used, you should follow all instructions provided by the manufacturer. Never modify the brake system of your vehicle.

TRAILER LIGHTS

Make sure your trailer is equipped with lights which meet country and local requirements.

Always check for the proper operation of all trailer lights before you start to tow.

TIRES

When towing trailers, be sure your tires are properly inflated to the inflation pressure.

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SAFETY CHAINS

Always attach safety chains between your vehicle and the trailer. Cross the safety chains under the tongue of the trailer so that the tongue will not drop to the road if it becomes separated from the hitch. Follow the manufacturer's recommendation for attaching safety chains. Always leave just enough slack to permit full turning. Never allow safety chains to drag on the road.

BRAKE FLUID

Change the brake fluid every 15,000 km (9,000 miles) under the following conditions.

- Towing a trailer frequently.
- Driving in hilly or mountainous terrain.

AUTOMATIC TRANSMISSION FLUID

More frequent maintenance is required if your vehicle tows trailer frequently.

TOWING TIPS

When towing a trailer, your vehicle will handle differently compared with normal driving condition.

For safety, observe the following precautions:

- Practice turning, stopping, and reversing before you begin towing in traffic.

  Do not tow in traffic until you are confident that you can handle the vehicle and trailer safely.
- Before driving, make sure that the lighting system of the trailer works properly.
- Do not drive faster than 90 km/h.
- Make sure that you have enough room when cornering and avoid sudden maneuvers.
- Avoid abrupt starts, acceleration or stops.
- Avoid sharp turns or lane changes.
- Always have someone guide you when reversing.
- Allow adequate stopping distance.

  Stopping distance is increased when you tow a trailer.
- Avoid holding the brake pedal down too long or too frequently, which will cause the brakes to overheat and result in reduced brake efficiency.
- Always block the wheels on both vehicle and trailer when parking. Apply the parking brake firmly.
- Parking on a steep slope is not recommended.

  You really should not park your vehicle, with a trailer attached, on a hill.

  If something goes wrong, such as the trailer/caravan hitch becoming disengaged, people can be injured and both the vehicle and trailer can be damaged.
- If someone removing the blocks stands directly behind the trailer, he could be injured. If your brakes or the hitch slipped, the trailer could roll backward. Make sure anyone removing blocks from your wheels stands to one side.
- Take note of trailer manufacturer's instructions.

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DRIVING ON HILL

Reduce speed and shift to a lower gear before you start down a long or sleep downgrade. If you don't shift down, you might have to use your brakes so much that they would get hot and no longer work well.

On a long uphill grade, shift down and reduce your speed to a level which minimizes the possibility of engine and transmission overheating.

PARKING ON HILLS

You really should not park your vehicle, with a trailer attached, on a hill. If something goes wrong, your rig could start to move. People can be injured, and both your vehicle and the trailer can be damaged.

But if you ever have to park your rig on a hill, here's how to do it:

1. Apply your regular brakes, but don't shift into PARK (P) for automatic transmission yet, or into a gear for a manual transmission.
2. Have someone place chocks under the trailer wheels.
3. When the wheel chocks are in place release the regular brakes until the chocks absorb the load.
4. Reapply the regular brakes. Then apply your parking brake, and then shift to PARK (P) for automatic transmission, or First or Reverse gear for a manual transmission.
5. Release the regular brakes.

WHEN YOU ARE READY TO LEAVE AFTER PARKING ON A HILL

1. Apply your regular brakes and hold the pedal down while you:
   - Start your engine
   - Shift into a gear and
   - Release the parking brake.
2. Let up on the brake pedal.
3. Drive slowly until the trailer is clear of the chocks.
4. Stop and have someone pick up and store the chocks.

MAINTENANCE WHEN TOWING TRAILER

Your vehicle will need service more often when you're towing a trailer. See the maintenance Schedule for more on this. Things that are especially important in trailer operation are engine oil, brake pads & discs, automatic transmission fluid. Each of these is covered in this manual and the index will help you find them quickly. If you want to tow a trailer, it's a good idea to review these sections before you start your trip.

Check periodically to see that all hitch nuts and bolts are tight.

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If your vehicle catches on fire, don't panic. Evacuate any occupants and use the extinguisher.

ACCIDENT

Turn on the emergency hazard warning switch. If possible, move your vehicle to a safe place to avoid any secondary accidents. If anyone is injured, call an ambulance and contact the nearest police station.

FIRE

Stop immediately in a safe place. Turn off the engine. Use fire extinguishers to put out the fire. If it is not possible to extinguish the fire, contact the nearest fire or police station.

WARNING

- In an accident, fuel can be released from the vehicle. Therefore, stop the engine and avoid any sparks or flames.
- If you have even a minor burn, see your doctor.

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WARNING TRIANGLE*

When you pull over your breaking down vehicle to a safe place, set up a warning triangle behind your vehicle.

(Daytime: 100 meters behind, Night: 200 meters behind)

When the vehicle has a serious problem during driving

1. Turn on the hazard flasher and move the vehicle out of traffic to a safe place. Set up the warning triangle behind your vehicle (day: 100 m, night: 200 m) to warn other vehicles.
2. Have all passengers get out of the vehicle and stay away from the traffic. When your safety is secured, contact your Ssangyong dealer for your emergency service.

CAUTION

- Set up a warning triangle on a place where it can be very visible while paying attention to traffic conditions.
- On a highway or vehicle-designated road, evacuate yourself to a safe place after pulling over your vehicle.
- At night time, set up a blinking emergency triangle behind your vehicle (over 200 meters) to warn others.
- On a curved road, provide a emergency hand signal to others at the point over 200 meters behind your vehicle.
- If your vehicle is operational or the problem is fixed, resume driving paying extra attention to traffic conditions.

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Service and Maintenance 13

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Exterior

The following checks are recommended before driving to maintain safe and dependable vehicle operation.

1. Check the tires for inflation pressure and damage.
2. Check the wheel bolts for looseness.
3. Check the operation of the lights.
4. Check for any oil, water, fuel and fluid leaks.

Interior

1. Check for the steering wheel's free play and looseness.
2. Check the parking brake lever.
3. Check the operation of the horn, windshield wipers and turn signals.
4. Check the operation of the instrument cluster and indicator warning lights.
5. Check the level of fuel in the fuel tank.
6. Check the position of the rearview mirrors.
7. Check the operation of the door and window locking mechanism.
8. Check the brake's and clutch pedal's free play, height and function.
9. Check the seat belts.

CAUTION

If in doubt about driving and operating conditions, have your vehicle checked at a Ssangyong Dealer or Ssangyong Authorized Service Center.

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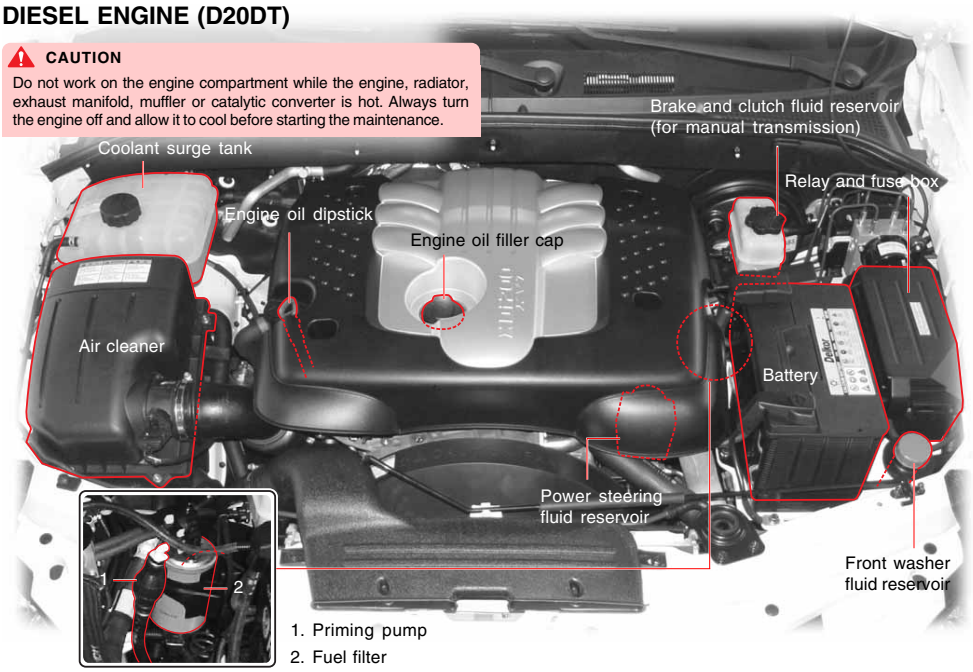
LOCATIONS IN ENGINE COMPARTMENT (Without Additional Water Separator)

DIESEL ENGINE (D20DT)

CAUTION

Do not work on the engine compartment while the engine, radiator, exhaust manifold, muffler or catalytic converter is hot. Always turn the engine off and allow it to cool before starting the maintenance.



1. Priming pump
2. Fuel filter

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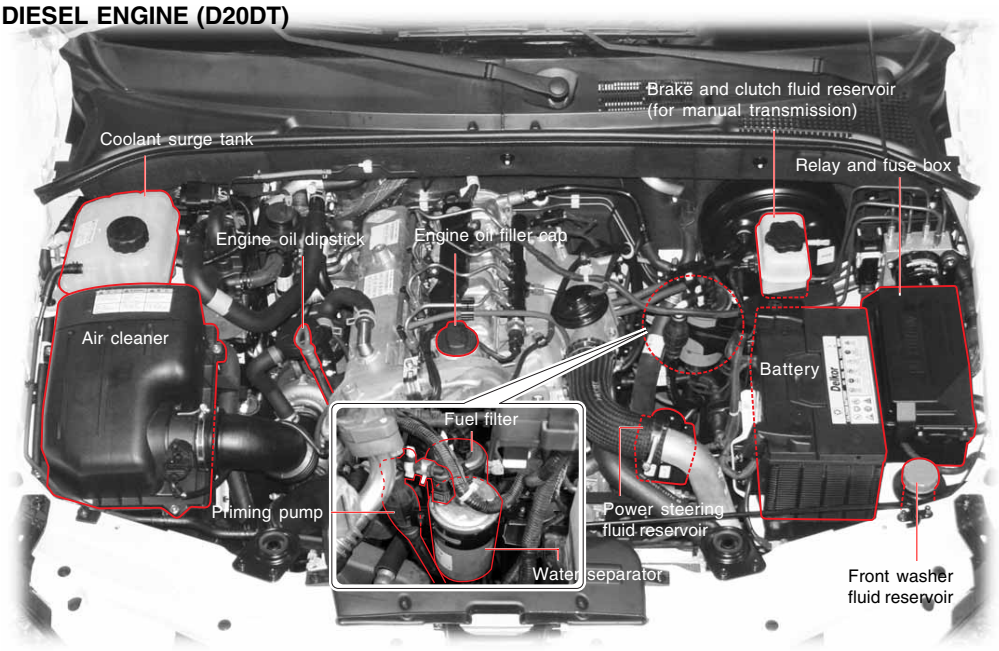
DIESEL ENGINE (D20DT)



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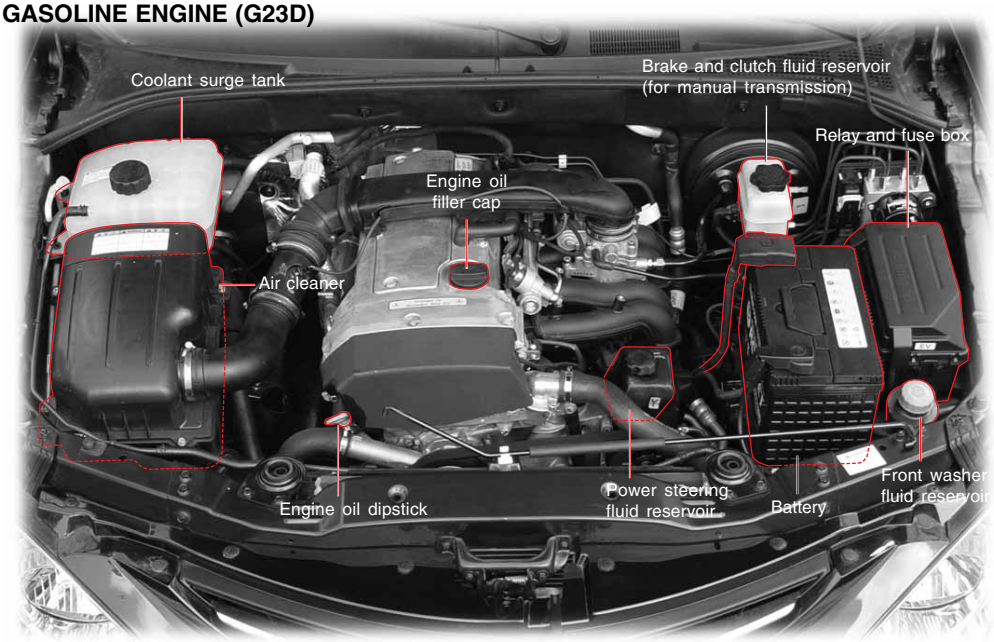
GASOLINE ENGINE (G23D)



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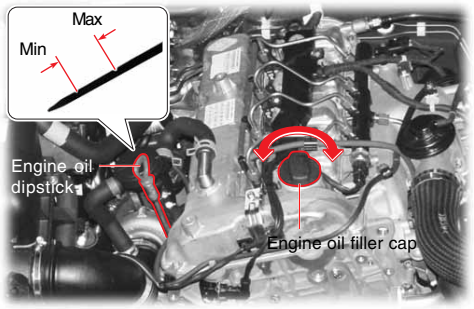
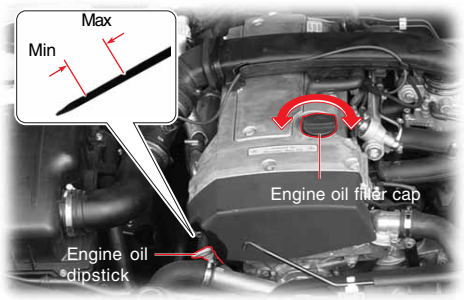
Diesel Engine



Gasoline Engine



Level Check

Park the vehicle on a level ground and apply the parking brake. Stop the engine and wait more than 5 minutes.

1. Pull out the dipstick and wipe it with a clean cloth. Reinsert it all the way.
2. Pull out it again and check the oil level.
3. The oil level should be between the maximum (Max) mark and minimum (Min) mark on the oil dipstick. Oil should be replenished before the level goes below the minimum mark.

Replenishment

1. If the level gets to the lower point, open the filler cap on top of the cylinder block and add the genuine oil without exceeding the level of the upper mark.
2. Recheck the oil level after 5 minutes.

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FUNCTION OF ENGINE OIL

Engine oil's major function is to lubricate and cool the parts inside of the engine, which enables engine to work properly.

Consumption of Engine Oil

The consumption of engine oil is depending on the viscosity and quality of the oil, and the driving habit. More oil may be required under the following conditions;

- When the Vehicle is New

A new engine usually consumes more oil because its pistons, piston ring and cylinder walls are not yet adjusted with an optimal condition.

Oil Consumption : Max. 0.8 Liter per 1,000 km

Accordingly, it is necessary for the driver to check frequently the oil level and to replenish oil if needed. SYMC recommends that the oil level be checked every time you refuel the vehicle or you drive the long distance until the first 5,000 km.

- When driving at High Engine Speeds

As long as you keep the followings with sufficient care in your first running the vehicle, it will guarantee you to get excellent and comfortable performance for a long with your vehicle.

- Remember to check the engine oil level and shorten the cycle to refuel the engine oil under severe driving conditions.
- Avoid subjecting to engine to heavy loads by driving at full throttle, especially be careful when the outside temperature remains below freezing for the first 1,000 km.
- Do not use the trailing in the first 1,000 km driving

*** What's Severe Driving Condition?**

- Driving at the high engine speed or at high-speed
- Driving for consecutive two hours at high speed
- Driving the rough road, off-road, dirt-laden road, and muddy roads
- Driving in areas where salt or other corrosive materials are being used
- Repeated driving in short-distance
- Driving with the excessive idling
- High load driving such as trailing

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CHANGE INTERVAL

- The engine oil filter element should be changed with the engine oil at the same time.
- Use only the Ssangyong genuine engine oil and filter.

Engine Oil

Diesel Engine

	Service interval
EU	Initial check: 5,000 km, and replenish if necessary, change every 15,000 km or 12 months (The service interval should be shortened under severe conditions)
GENERAL	Initial change: 5,000 km, change every 10,000 km or 12 months (The service interval should be shortened under severe conditions)

Gasoline Engine

Service Interval
Initial change: 10,000 km, change every 15,000 km or 12 months (The service interval should be shortened under severe conditions)

Engine Oil Filter

Item	Service interval
Engine oil filter	Same interval as the engine oil

SPECIFICATION AND CAPACITY

Specification	Quality class: Ssangyong genuine engine oil (Approved by MB Sheet 229.1 or 229.3) Viscosity: MB sheet No. 224.1	
Capacity	D20DT	7.5L
	G23D	7.5L

WARNING

Use only Ssangyong genuine engine oil and filters. Use of non-recommended products could cause damage to the engine.

WARNINGS AND CAUTIONS WHEN CHECKING

WARNING

- Clean the dipstick with a clean cloth so that any foreign materials cannot get into the engine.
- Use only the Ssangyong genuine engine oil.
- The oil should not go above the upper mark on the dipstick.
- Operating with insufficient or too much amount of oil can damage the engine.

CAUTION

Regularly check the engine oil level and add the Ssangyong genuine engine oil if necessary.

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SAE VISCOSITY CLASSES

The SAE classes (viscosity) should be selected in accordance with the average seasonal air temperature.

Applying the SAE classes exactly on the basis of the outside air temperatures would necessitate frequently changing the engine oil. The temperature limits for the SAE classes should therefore be regarded as reference temperatures and the actual air temperature may be higher or lower for a short period of time.

* How to check engine oil specification

Example:

0W, 5W, 10W, 15W, 20W, 25W **20, 30, 40, 50, 60**

Summer oil viscosity

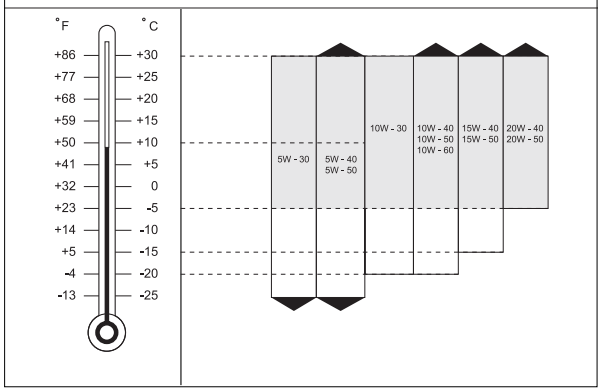
Winter oil viscosity
(W: Winter)

- The numerical, for example SAE 10W, relates to viscosity at particular temperature and the alphabet "W" indicates the oil's suitability for colder temperature.

  For summer oil viscosity, higher numbers mean higher viscosities.

Engine

The viscosity should be selected according to outside temperature. Do not switch to a different viscosity in the event of brief temperature fluctuations.



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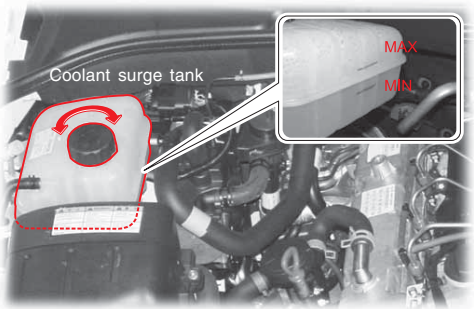
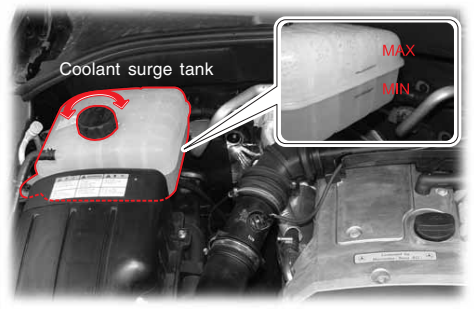
Diesel Engine



Gasoline Engine



Level Check

Park the vehicle on level ground and apply the parking brake. Stop the engine and wait until it cools.

1. The coolant level should be between the MAX and MIN mark on the coolant surge tank.
2. Check the coolant level. If the level is below the “MIN” mark, immediately add coolant.

Service Interval

- Replacement: Every 3 years or every 60,000 km

Diesel Engine (D20DT)	10.5 ~ 11.0 ℓ	Ssangyong genuine coolant (Anti-freeze:SYC-310, Anti-freeze:water = 50:50)
Gasoline Engine (G23D)		

- Check: Everyday, before driving off
- Replenishment: Replenish as necessary

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Replenishment

Use only the 50/50 mixture of soft water and antifreeze as specified.

1. Open the coolant surge tank cap slowly when the engine is cold. At this time, you can hear a “hissing” sound.
2. When there is no more “hissing” sound, remove the cap form the surge tank.
3. Add the 50:50 mixture of water and antifreeze to the coolant reservoir tank. (Avoid any direct contact of the coolant to the painted body of the vehicle.)
4. If no unusual things happen, tighten the coolant reservoir cap.

CAUTION

- Avoid any direct contact of the coolant to the painted body of the vehicle.

WARNING

When the coolant level is too low, the engine can overheat. If the coolant temperature gauge in the instrument cluster goes up abnormally, immediately check the coolant level. Use only the Ssangyong genuine coolant and anti-freeze. If different types of coolants or unapproved coolants are used to refill, chemical reactions can be caused and block the flow of the coolant. This may cause the engine to overheat or burning inside the engine.

WARNING

- Scalding hot coolant and steam could be blown out under pressure, which could cause serious injury. Never remove the coolant surge tank cap when the engine and radiator are hot.
- Use only the SSangyoug genuine coolant and anti-freeze.

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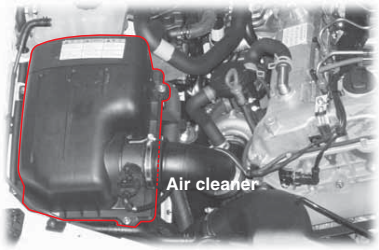
Diesel Engine

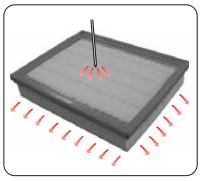


Gasoline Engine

Change

1. Unscrew the cover bolts and remove the cover.
2. Replace the air cleaner element with a new one. Make sure that the element is correctly installed in the air cleaner housing.
3. Close the cover and tighten the bolts.

Cleaning



Blow the compressed air through the element in the opposite direction to normal air flow to clean the element.

Maintenance Schedule

Diesel	EU: Initial clean: 5,000 km, clean every 15,000 km, replace every 30,000 km (The service interval should be shortened under severe conditions)
	GENERAL: Initial clean: 5,000 km, clean every 10,000 km, replace every 30,000 km (The service interval should be shortened under severe conditions)
Gasoline	Clean every 15,000 km, replace every 60,000 km (The service interval should be shortened under severe conditions)

WARNING

- Do not drive your vehicle with an improperly installed air cleaner element or without it. It may damage the engine or may cause a fire.
- Do not let any object enter the housing when cleaning the air cleaner. It may damage the engine or may cause an engine to stall.

CAUTION

- If you blow the compressed air to normal air flow, the engine will be damaged due to foreign materials entering.
- Be careful with the direction of the compressed air on the air cleaner.

CAUTION

If vehicle is operated under severe condition

- Pollutant area or off-road driving
- Driving in dusty condition or sandy condition

frequently inspect the air cleaner, if necessary, change the air cleaner.

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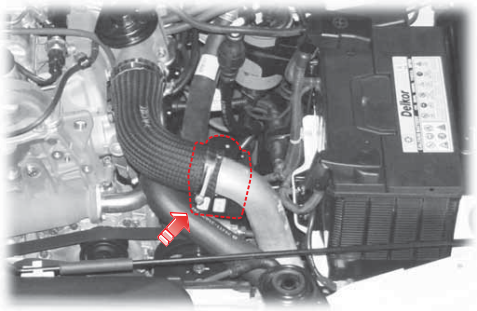
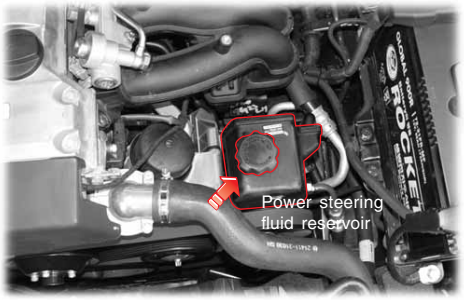
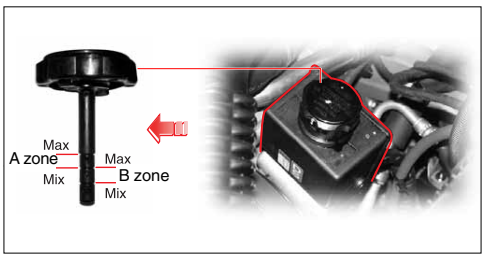
POWER STEERING FLUID

Diesel Engine



Gasoline Engine





Check the fluid level on a level ground with the engine turned off. The fluid level should be between the MIN and MAX marks on the reservoir cap gauge. If it drops to or below the MIN mark, refill the reservoir with the specified fluid. Only use the specified fluid. The difference between the MIN and MAX marks shows fluctuations of the steering fluid between when it is hot and when it is cold.

Specification and Capacity

Specification	ATF DEXRON II or III
Capacity (L)	Approx. 1.0

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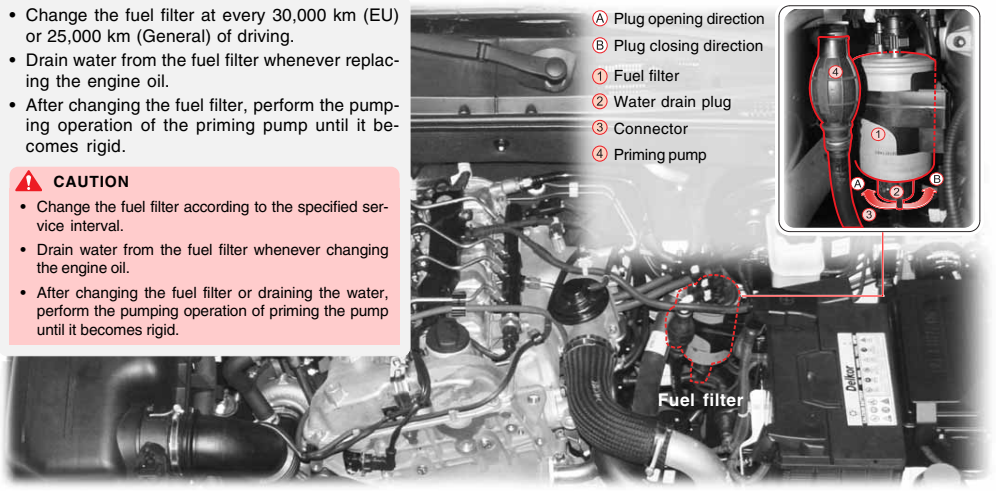
FUEL FILTER AND PRIMING PUMP (Without Additional Water Separator)

- Change the fuel filter at every 30,000 km (EU) or 25,000 km (General) of driving.
- Drain water from the fuel filter whenever replacing the engine oil.
- After changing the fuel filter, perform the pumping operation of the priming pump until it becomes rigid.

CAUTION

- Change the fuel filter according to the specified service interval.
- Drain water from the fuel filter whenever changing the engine oil.
- After changing the fuel filter or draining the water, perform the pumping operation of priming the pump until it becomes rigid.



Water Separating Function

If water in fuel gets into the engine and fuel system, it may cause serious damage to the fuel system. The fuel filter provides the water separating function to block the inflow of water. When the water level inside the water separator in the fuel filter exceeds a certain level, the warning light comes on and the buzzer sounds. If it occurs, immediately drain water from the fuel filter. For draining procedures, refer to “How to drain the water from fuel filter” section in this manual.

Priming Pump Operating Conditions

1. when completely consumed the fuel
2. after draining the water from the fuel filter
3. after replacing the fuel filter

Before starting the engine, perform the pumping operation of the priming pump until it becomes rigid to fill up the fuel pump with fuel.

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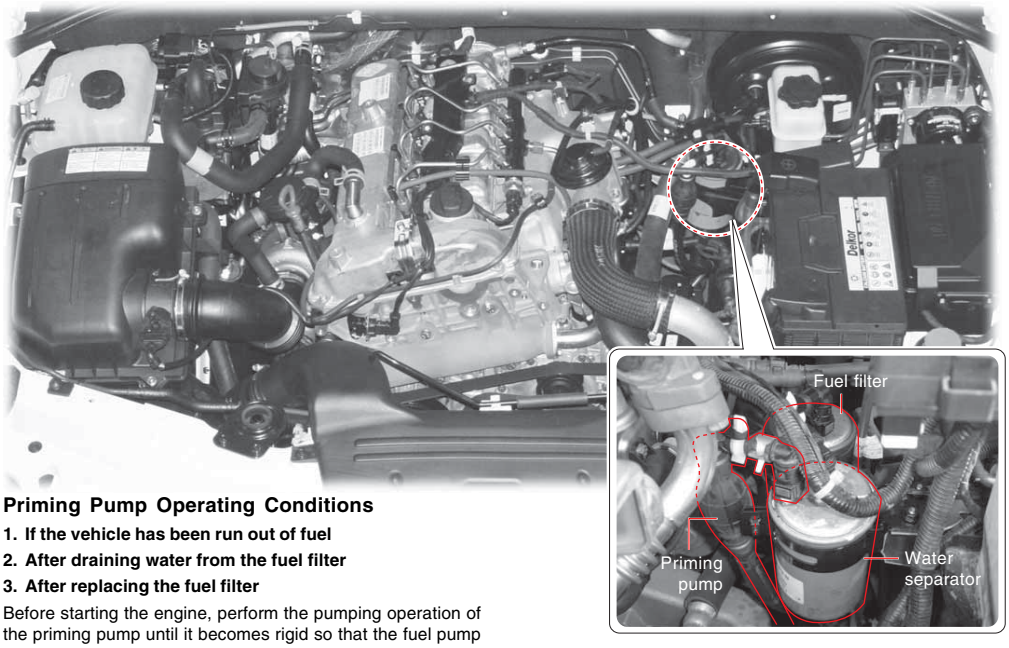

Priming Pump Operating Conditions

1. **If the vehicle has been run out of fuel**
2. **After draining water from the fuel filter**
3. **After replacing the fuel filter**

Before starting the engine, perform the pumping operation of the priming pump until it becomes rigid so that the fuel pump fills up with fuel.

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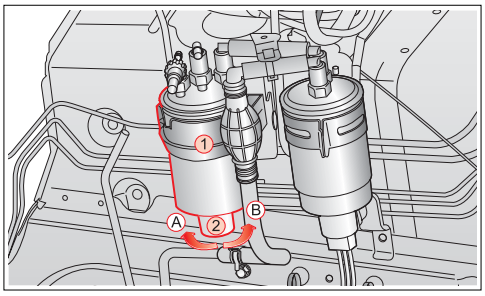
FUEL FILTER (DIESEL ENGINE)



1. Fuel filter
2. Drain plug

A. Opening direction of drain plug
B. Closing direction of drain plug

If particles in fuel get into the engine and fuel-related devices, it may cause serious damage in affected components. Make sure to replace the fuel filter according to the specified maintenance schedule.

Make sure that the foreign materials get into the fuel filter while changing the fuel filter, and clean around it to prevent particles from flowing into the filter.

Press the priming pump until it becomes rigid.

- Service Interval

EU	Replace every 30,000 km (Draining water from fuel filter: whenever replacing the engine oil)
General	Replace every 25,000 km (Draining water from fuel filter: whenever replacing the engine oil)

Water Separating Function

If the water in fuel gets into the engine and the fuel system, it may cause serious damage in the fuel system. The fuel filter offers the water separating function to block the inflow of water.

CAUTION

- Replace the fuel filter according to the specified maintenance schedule.
- Drain the water from the fuel filter whenever replacing the engine oil.
- After replacing the fuel filter or draining the water, press the priming pump until it becomes rigid.

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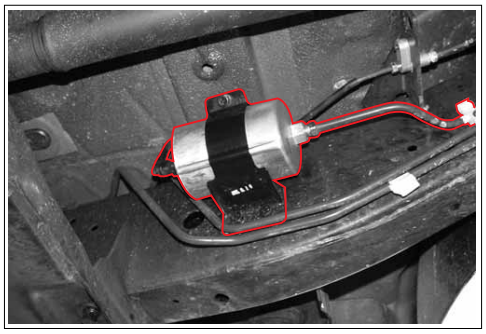
FUEL FILTER (GASOLINE ENGINE)



If the filter is contaminated, the supplied fuel will be reduced, main components will be damaged due to entering the contaminated materials and the performance of catalytic converter will be deteriorated.

Replace the fuel filter according to the specified maintemamce schedule.

Service Interval

Replacement	Every 100,000 km (if using poor quality of fuel, replace every 30,000 km)

CAUTION

Replace with a Ssangyong genuine part with specified intervals.

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SPARK PLUGS (GASOLINE ENGINE)

Spark plugs should be inspected periodically for carbon deposits. When carbon accumulates on a spark plug, a strong spark may not be produced.

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. And adjust the spark plug gap.

Service Interval

Replacement (G23D)	Change every 30,000 km

(G23D) Specification	BOSCH	Pole Ni-Alloy Type
	Gap	1 ± 0.1 mm

CAUTION

- When replacing the spark plugs, disconnect the negative terminal of the battery and turn off all the switches.
- It is recommended that the engine be cool or cold when changing the spark plugs (you could burn yourself).
- Do not use non-recommended spark plugs.
- Do not allow contaminants to enter spark plug hole.

WARNING

Spark plugs may be very hot. Be careful not to burn yourself.

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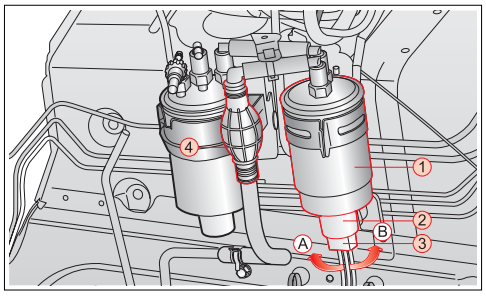
WATER SEPARATOR



1. Water separator
2. Drain plug
3. Connector
4. Priming pump

A. Opening direction of drain plug
B. Closing direction of drain plug

The water separator is used in the fuel supplying system in order to reduce the water content in the fuel provided to the FIE system. It gives additional water volume storage. A water sensor is fitted to the water separator in order to warn the driver that the water separator has to be drained.

When the water level in the water separator reaches a certain point, the water separator warning light in the instrument cluster comes on.

- Service Interval
  Change every 150,000 km or 5 year

Location:

Behind the fuel filter (between the fuel filter and the dash panel) in the engine compartment (engine intake side)

Draining the Water from Water Separator

Drain the water from the water separator whenever replacing the engine oil.

After draining the water, press the priming pump until it becomes rigid. Do not crank the engine before doing this procedure. For the detailed draining procedures, please refer to “How to drain the water from the fuel filter” in the water separator warning light section.

CAUTION

- Replace the water separator according to the specified maintenance schedule.
- Drain the water from the water separator whenever replacing the engine oil.
- After replacing the water separator or draining the water, press the priming pump until it becomes rigid.

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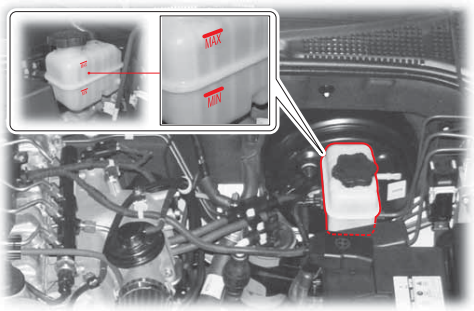
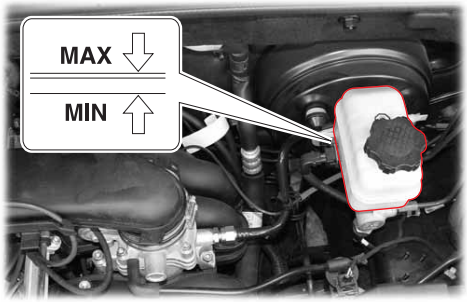
Diesel Engine



Gasoline Engine



Specification and Replacement

Specification	DOT 4
Service interval	Every 2 years

Level Check and Replenishment

- The fluid level should be between the “MAX” and “MIN” levels on the reservoir.
- Check the level on a level surface. If it drops to or below the MIN mark, refill the tank with the specified fluid. Only use the specified fluid.

CAUTION

- Be careful not to let any foreign materials enter the tank when adding the fluid.
- Do not add the fluid above the “MAX” level.
- Do not allow the fluid to make contact with the body paintwork.
- After adding the fluid, tighten the cap securely.
- If frequent refills are required, have the system checked by a Ssangyong Dealer or Ssangyong Authorized Service Center.

WARNING

- Use only the Ssangyong genuine brake fluid.
- Do not allow the fluid to make contact with skin or eyes. If contact happens, rinse affected areas immediately with plenty of water. If irritation persists, consult a doctor.
- The fluid gradually decreases according to brake pad wear. A sudden drop of the fluid level may indicate a leak in the system. In this case, have the system checked by a Ssangyong Dealer or Ssangyong Authorized Service Center.

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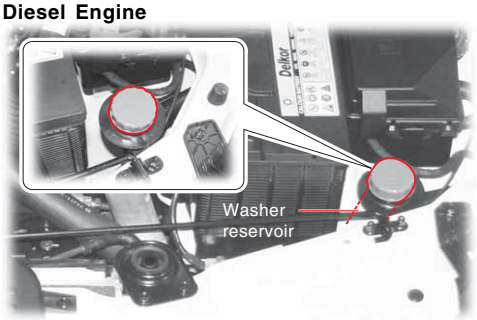
TOP UP WASHER FLUID

Diesel Engine



Gasoline Engine

Frequently check the washer fluid level and add the specified product as needed.

In winter, use only the specified washer liquid for winter season.

WARNING

- The washer fluid includes flammable materials to prevent freezing. It could cause a fire when directly contacted with flames. When checking the washer fluid, avoid the flames near the washer fluid tank.
- If engine oil or antifreeze is used as the washer fluid, it will decrease your visibility through the windshield and may cause an accident.

CAUTION

- If you use plain water as washer fluid, it will freeze during the winter and damage the washer fluid reservoir and motor. Use only the specified washer fluid.
- If you operate the washer switch without washer fluid, the motor could be damaged due to overloads. Therefore, if there is no washer fluid, do not operate the washer motor.
- Operating the wipers on a dry surface on the windshield or rear window without any washer fluid may cause damage to the glass. Operate the wipers after sufficiently spraying the washer fluid.
- Avoid any spills of washer fluid on the engine or body paint of your vehicle during replenishment. If washer fluid spills onto your hand or other body part, wash it away under a clean water flow.
- There is no independent washer reservoir for the tailgate window. The front washer reservoir is also for the tailgate window.

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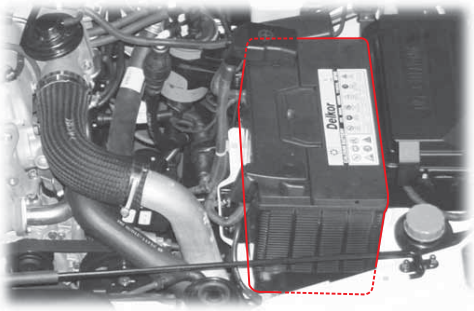
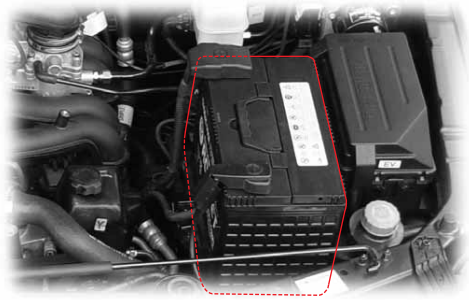
Diesel Engine



Gasoline Engine



When the battery charge warning light ( ) on the instrument cluster comes on, the battery is not normally charging. If the warning light comes on while driving, turn off all unnecessary electrical devices and have the system checked by a Ssangyong Dealer or Ssangyong Authorized Service Center.

Battery Maintenance

- Make sure the terminal connections are securely tightened.
- If the terminals are corroded, clean them with a wire brush or sand paper.
- The battery terminal should be disconnected only when the ignition key is removed from the key cylinder. Disconnecting the terminal with the key in the “ON” or “ACC” position may cause a sudden change in voltage and damage various electrical systems.
- Check the battery for any cracks, damages or leaks. Replace it if necessary. To remove any battery fluid on the battery surface, wear rubber gloves and wipe the fluid out with a wet-soapy cloth.

Specification

Specification	DC 12V
Capacity	90AH

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WARNING

- The battery has acid that can burn you. And its gas can explode. You can get serious injuries if you are not careful. Keep naked flames, sparks and smoking items away from the battery.
- Loosely connected batter terminals can set up sparks. These sparks can cause a fire with flammable gas. Therefore, tightly connect the terminals.
- At night, if you need to check the engine room, do not use a lighter, but only use a battery-powered flashlight.
- Because the battery electrolyte is very strong acid, avoid any direct contact of the battery electrolyte on your skin or vehicle's body. If the acid contacts your skin, thoroughly wash your skin with fresh water and see your doctor. Do the same on your vehicle.
- Wear eye protection when working with a battery. If working in a closed area, keep good ventilation.

CAUTION

- If you disconnect the battery terminal when the engine is running, electrical systems could be damaged.
- To remove the battery cable, disconnect the negative cable first. And be careful on the battery terminal polarity when you connect the cables. The negative and the positive should not be confused.
- The polarity of the battery, i.e. the connections for positive and negative cables, must not be interchanged. Never short-circuit the battery.
- When the ambient temperature is too low, the battery capacity will drop and can be frozen.
- Keep the battery electrolyte at its specified level. If the electrolyte level is higher than the MAX level, it can overflow during battery charging and if the electrolyte is overcharged, the battery can explode.
- Only use a battery with the approved voltage and capacity. Otherwise, an incompatible battery can catch fire.

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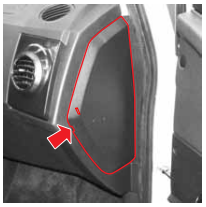
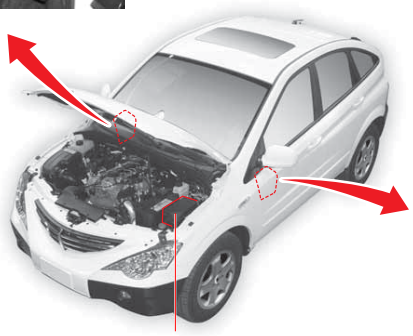
If any of the electrical system components do not operate, check its corresponding fuse. If the fuse is blown, replace it with the same capacity.

Interior Fuse and Relay Box



The fuse box is located at the right side of the instrument panel. To access the interior fuse box, open the passenger's door and remove the fuse box cover with a screwdriver.



Engine Compartment
Fuse and Relay Box

CAUTION

- When an electrical system does not operate, check its fuse first. If a fuse is blown, check its capacity and replace it with the same capacity.
- If you remove an electric system's fuse while the system is operating, the electrical equipment could be damaged. Always remove the ignition key from the ignition switch and turn off all electric devices.
- Always replace a specified fuse with the same rating.
- If a newly inserted fuse blows again after a short time, have the electrical system checked and repaired by a Ssangyong Dealer or Ssangyong Authorized Service Center.

Interior Fuse and Relay Box

The fuse box is located at the left side of the instrument panel. To access the interior fuse box, open the driver's door and remove the fuse box cover with a screwdriver.

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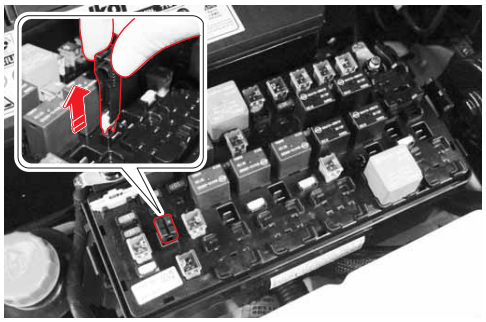
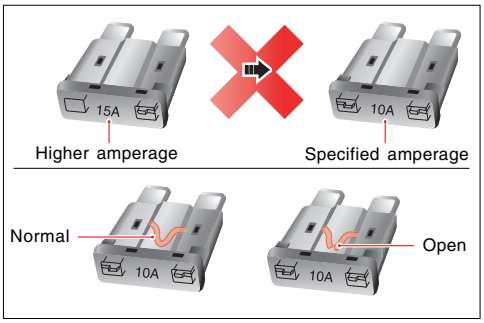
HOW TO CHECK AND REPLACE FUSE



1. Turn off all electrical systems and remove the ignition key from the key cylinder.
2. Open the fuse and relay box cover.
3. Locate the defective fuse.
4. Pull out the relevant fuse by using the fuse puller.
5. Visually check whether it is blown or not.
6. If normal, insert it to its original position.
7. If blown, check its capacity and replace it with the same capacity.



WARNING

- The use of anything other than the specified fuse could cause damage to the electrical system and even cause a fire.
- The use of different types or different rating fuses could cause damage to the electrical system and even cause a fire. Always replace a fuse with the one with the same rating.

NOTE

The underhood fuse and relay box has some spare fuses. Refill the fuses immediately as you use them. The fuse rating is indicated on the upper surface of the fuse.

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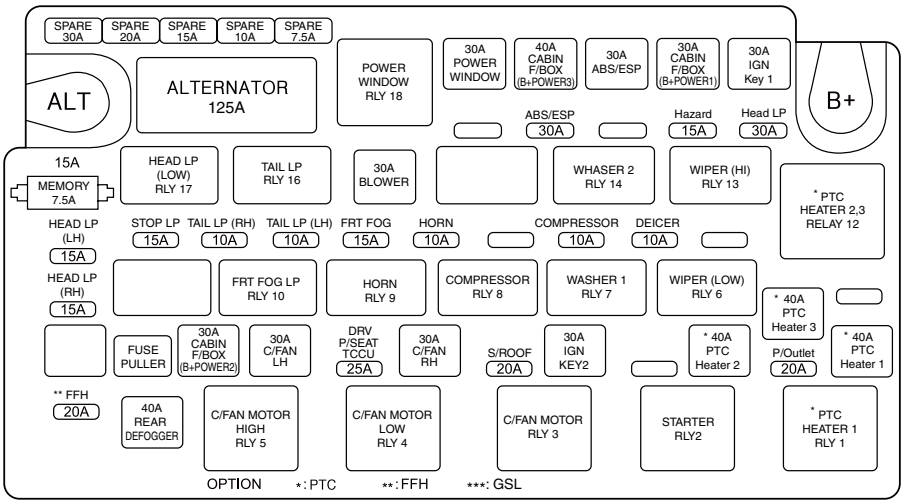
ENGINE ROOM FUSE BOX LABEL (ACTYON)



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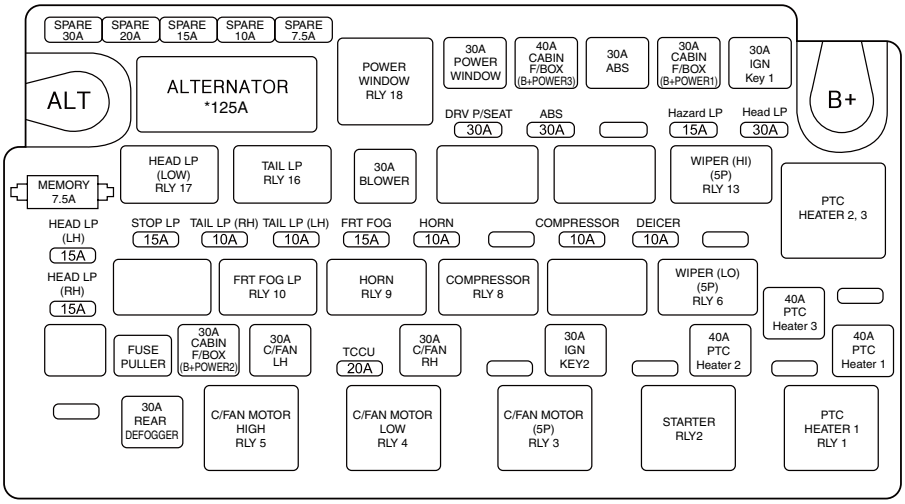
ENGINE ROOM FUSE BOX LABEL (ACTYON SPORTS)



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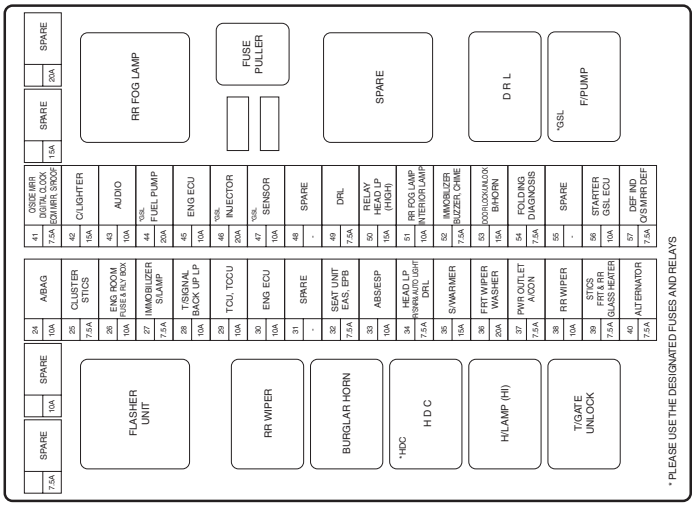
INTERIOR FUSE BOX LABEL (DRIVER'S SIDE) (ACTYON)



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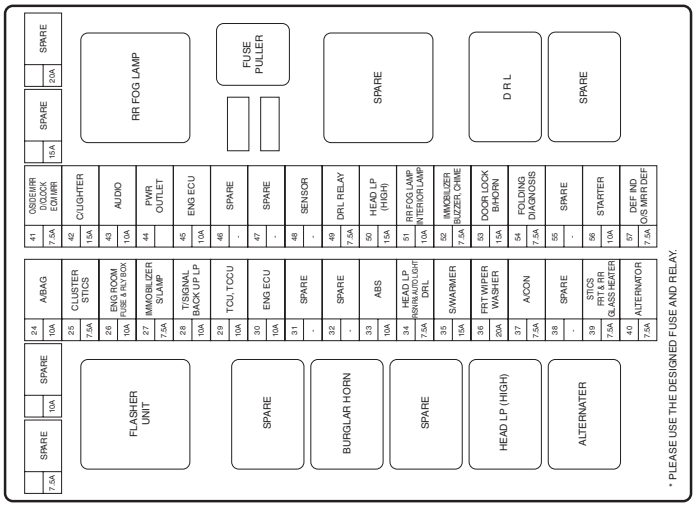
INTERIOR FUSE BOX LABEL (DRIVER'S SIDE) (ACTYON SPORTS)



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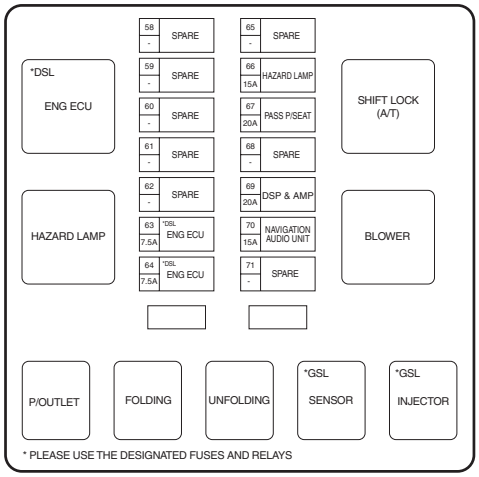
INTERIOR FUSE BOX LABEL (PASSENGER'S SIDE) (ACTYON)



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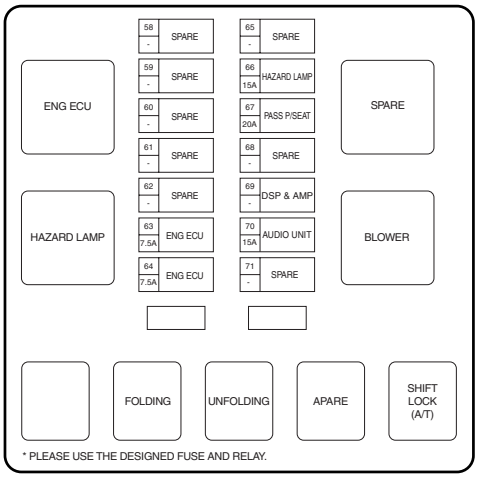
INTERIOR FUSE BOX LABEL (PASSENGER'S SIDE) (ACTYON SPORTS)



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TIRE INFLATION PRESSURE

Tire Pressure

Type	Description	Tire size	Wheel size	Specified tire pressure
ACTYON	Full-size tire	225/75R 16	6.5J x 16	
		235/75R 16	7.0J x 16	30 psi, 2.06 bar
		255/60R 18	7.5J x 18	
	Temporary tire	175/90R 16	5.5J x 16	60 psi, 4.13 bar
ACTYON SPORTS	Full-size tire	225/75R 16	6.5J x 16	32 psi, 2.21 bar
				(40 psi, 2.76 bar)
		255/60R 18	7.5J x 18	30 psi, 2.06 bar
				(36 psi, 2.48 bar)

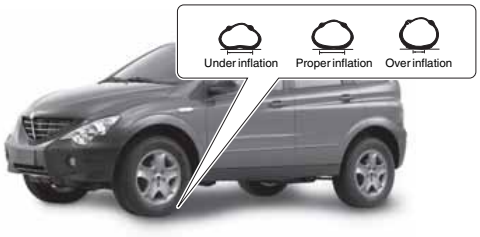
( ): Rear tire inflation pressures under load

NOTE

The tires should be checked before they are heated up using an tire pressure gauge. Increase the tire inflation pressure by 4~5 psi from the specified value prior to any long journey.

NOTE

ACTYON SPORTS is equipped with full-size tires (including spare) whose size and specified tire pressures are same as those of normal tires.



WARNING

For ACTYON SPORTS, rear tire inflation pressure under load should be adjusted to the specified tire pressure. Driving the vehicle without adjustment may cause poor fuel consumption and flat tires.

CAUTION

- Maintaining the specified tire pressure is essential for comfortable riding, driving safety, and long tire life. Incorrect inflation pressures will increase tire wear and will impair safety, vehicle handling, comfortable driving and fuel economy. Always make sure that the tire inflation pressure is correct.
- Check and adjust the tire inflation pressure, including the spare wheel, prior to any long journey (before the tire is heated up).
- Even the temporarily installed spare tire should be inflated properly.

NOTE

Make sure that tires are cool when checking, measuring and inflating (tire pressures rise immediately after driving starts due to heat. Never deflate the tires during check-up).

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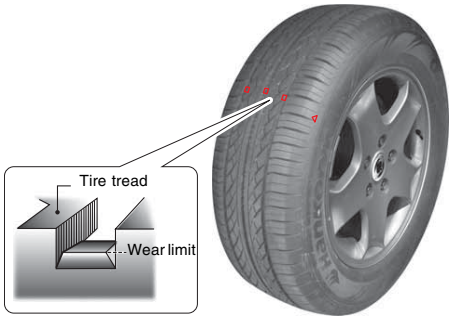
TIRE WEAR CHECK



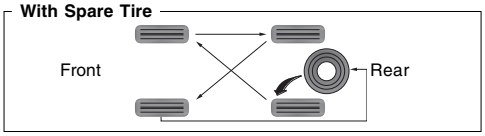
The tires on your vehicle have built-in tread wear indicators that appear between the tread grooves. The tire should be replaced when the wear indicators appear in two or more adjacent grooves.

WARNING

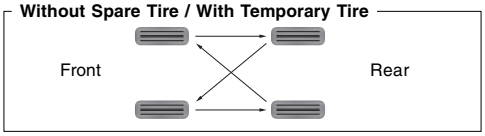
- Driving on worn or damaged tires is very dangerous and may cause an accident. Also, a damaged tire could burst.
- Check tires regularly for any damage (foreign objects, punctures, cuts, cracks, bulges in side walls) and replace if necessary.

TIRE ROTATION

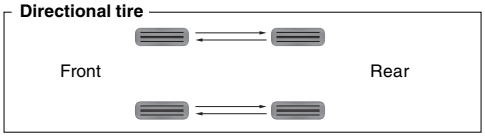
With Spare Tire



Without Spare Tire / With Temporary Tire



Directional tire



WARNING

- Be sure to replace and rotate the tires at a Ssangyong Authorized Service Center or professional tire shops.
- Mixing tires could cause you to lose control while driving. Be sure to use the same size and type tires of the same manufacturer on all wheels.

NOTE

As ACTYON is equipped with a temporary tire, use the appropriate tire rotation pattern.

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SPARE TIRE

The temporary spare tire is only for an emergency. Do not use it for normal driving. With these tires, do not drive more 80 km/h. The spare tire should be replaced with a regular tire as soon as possible.

Check the tire conditions and pressure as needed and always keep it available. For replacing procedures, refer to “In Case of Emergency” section in this manual.

CAUTION

After replacing the tire, be sure to adjust the pressure to the specified pressure of the tire. Otherwise, the suspension system and driving system may be damaged.

Spare tire (ACTYON)

The temporary spare tire is only for emergency situations. Never use it for normal driving. After installing the spare tire on a wheel, take your vehicle to a Ssangyong authorized service center or a tire-specialized shop to replace it with a new regular tire.

Full-size tire (ACTYON SPORTS)

The size and type of the full-size tire is same as those of general tires.

WINTER TIRE

Use snow tires when driving on snowy or icy roads.

If winter tires are used, they must be installed to all 4 wheels.

WARNING

- Drive very slowly with extra caution on snowy or icy roads.
- The snow tire with arrow direction markings on its side wall should be installed according to the arrow direction.
- The snow tires cannot guarantee your safety on icy and slippery road. Drive with extra caution, avoiding sudden acceleration, braking or movements of the steering wheel.
- When the snow tires are not needed anymore, replace them with ordinary tires. Keep the removed snow tires in a cool and shady place. Be careful not to contact them with any oil, grease, or fuel.

TIRE CHAIN

Chains must be installed on the rear wheels only.

CAUTION

If you have to install the chains on the front wheels, drive cautiously and avoid severe turns to prevent the surrounding parts from being damaged.

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CAUTIONS WHEN CHECKING THE WHEEL AND TIRE

- Mixing tires could cause you to lose control while driving. Be sure to use the same size and type of tires of the same manufacturer on all wheels. If you do not use the same tires on the vehicle equipped with the TOD (4 wheel drive), it may cause a serious damage to the vehicle's drive system.
- Check the inflation pressure, cracks and tearing of tires before driving.
- Improperly tightened wheel nuts can cause the wheel to become loose and even come off. This could lead to an accident. Be sure to check and tighten the wheel nuts as specified before any long journey.
- Do not use non-genuine wheel and tire. Non-genuine wheel and tire may have inferior performance and function and dangerous for safe driving. Also, any defects due to using them cannot be covered by warranty.
- Be sure to check the tires and wheels before driving. If a wheel is damaged, the tire inflation pressure can be decreased and the tire can be damaged.
- If a tire has been impacted by a stone or any other objects during driving, have it checked by a Ssangyong Dealer or Ssangyong Authorized Service Center.
- The use of tire sizes other than the specified sizes may cause abnormal operation of the steering wheel, increased fuel consumption, damage to the powertrain or the braking system, vibration, or uneven tire wear. Always use the specified tires from the same manufacturer.

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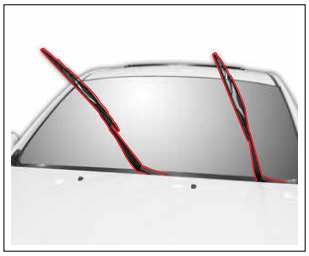
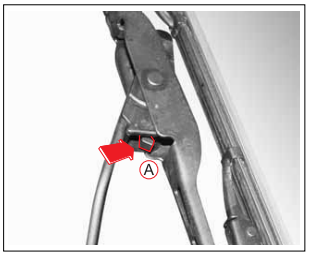
WIPER BLADE REPLACEMENT

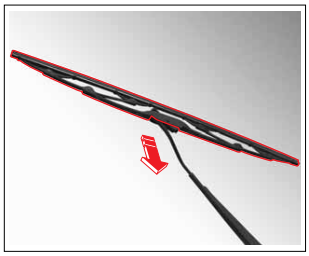


1. Lift the wiper arm up from the windshield.

- The tailgate wiper blade can be replaced in the same manner.



2. Press the safety button (Ⓐ).



3. Slide the blade down and remove it from the arm.
4. Install a new blade.
5. Put the wiper arm down.

Wiper Blade Specifications

Front wiper		Rear wiper
Driver's	Passenger's	
22″	19″	20″

CAUTION

- Do not open the hood when the wiper arm is lifted up. The wiper and hood may be damaged.
- Do not operate the wiper when the washer fluid reservoir is empty.
- Be certain not to apply any fluid polish containing oil to the windshield of your vehicle since this will result in streaks which impair vision. Contamination of either the window or the wiper blades with foreign materials can reduce the effectiveness of the windshield wipers. Never clean up the windshield with a waxed or oil-saturated cloth.

WARNING

- Malfunctioning wipers on a raining or snowing day may be detrimental to your driving safety. Never drive your vehicle with malfunctioning wipers on a raining or snowing day.
- Do not touch the running wipers. It may cause a personal injury.

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DO-IT-YOURSELF OPERATION

When performing any inspection or maintenance work on your vehicle, always take care to prevent serious accidental injury to yourself or damage to the vehicle.

WARNINGS AND CAUTIONS WHEN PERFORMING DO-IT-YOURSELF OPERATION

WARNING

- Be careful not to touch any hot components such as the engine, radiator, exhaust manifold, catalytic converter, or muffler when the engine is just stopped. They may burn you badly. Let the engine cool down before any service.
- When working with the battery or fuel related components, always stop the engine and do not smoke. Also, remove all flames or sparks near the vehicle.
- Do not connect and disconnect the battery terminals when the ignition key is in the "ON" position.
- The polarity of the battery, i.e. the connections for the positive and negative cables, must not be interchanged.
- The battery cables and wires transfer high voltage and current. Avoid any short circuit.
- Make sure that the ignition key is "OFF" when performing any work in an enclosed space such as a garage.
- Keep the used oil and coolant out of reach of children. (For a proper disposal of them, contact a professional service.)
- When checking your vehicle, you must turn off the engine first. Then, put the shift lever into the "P" (automatic transmission) or "Neutral" (manual transmission) position and apply the parking brake.
- The electrical cooling fan can start to operate unexpectedly even when the engine is stopped. Disconnect the negative battery cable before you check the radiator, cooling fan or nearby parts.

CAUTION

- Check the level of the engine oil and every fluid including coolant daily. If you drive while the fluid levels are low, your vehicle can be damaged and such damages will not be covered by warranty.
- Use only the genuine Ssangyong oils and fluids.
- Do not allow oils and coolant to make contact with skin or painted surfaces during inspection or refill of them. They can also damage paint finish. If skin contact happens, rinse affected areas immediately with plenty of water and then consult a doctor.
- Do not overfill the oil or coolant, otherwise the engine and transmission may be damaged. Maintain the specified level.
- The performance of oils and coolant may be deteriorated when they are exposed to dust and moisture. Be careful not to allow contact with dust while refilling.
- In spite of very limited driving of your vehicle, oils and other fluids can disappear over the time. Therefore, check their levels frequently.
- Improperly disposed engine oil and/or other fluids can pollute the environment. Dispose used fluids in accordance with local environmental regulations.

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SCHEDULED MAINTENANCE SERVICES (DIESEL ENGINE)

* Use only approved Ssangyong genuine parts.

Maintenance service 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 service chart.

* EU Countries: Only countries that belong to EU. (It does not apply to all countries in EU.)

MAINTENANCE ITEM \ MAINTENANCE INTERVAL		Kilometers (miles) or time in months, whichever comes first							
	x1,000 km	15	30	45	60	75	90	105	120
	x1,000 miles	10	20	30	40	50	60	70	80
	Months	12	24	36	48	60	72	84	96
ENGINE CONTROL SYSTEM									
Drive belt		I	I	I	I	I	I	I	I
* Engine oil & filter (1)* (3)* (4)*	EU	Initial check: 5,000 km, and replenish if necessary, change every 15,000 km or 12 months							
	General	Initial change: 5,000 km, change every 10,000 km or 12 months							
Cooling system hose & connections		I	I	I	I	I	I	I	I
Engine coolant (3)* (4)*		Change every 60,000 km or 3 years. And, inspect and replenish if necessary.							
* Fuel filter Direct Injection (Diesel Engine)	EU	I	R*	I	R*	I	R*	I	R*
	General	Replace every 25,000 km (Draining water from fuel filter: whenever replacing the engine oil)							
Additional Water Separator (if equipped)		Replace every 150,000 km or 5 years (Drain the water whenever replacing the engine oil)							
Fuel line & connections		I	I	I	I	I	I	I	I
Air cleaner (2)*	EU	Initial clean: 5,000 km, clean every 15,000 km, replace every 30,000 km (The service interval should be shortened under severe conditions)							
	General	Initial clean: 5,000 km, clean every 10,000 km, replace every 30,000 km (The service interval should be shortened under severe conditions)							
Injection timing (See NOTE1)		I	I	I	I	I	I	I	I

NOTE 1: Adjust as required;
- When excessive smoke is visible (black or white)
- Poor performance/economy

Chart Symbols:

I - Inspect these items and their related parts. If necessary, correct, clean, replenish, adjust or replace.

R - Replace or change.

(1)* If vehicle is operated under severe condition:
- Frequent stop-and-go traffic, extended idling, short driving distance below 6 km, driving distance below 16 km when the outside temperature remains below freezing
- Driving in a hilly or mountainous terrain, sandy, or dusty area
- High load driving such as trailer towing
- Taxi, patrol service or delivery service (extended idling and excessive driving with low speed)

Shorten the service interval. Inspect the engine oil at any time, occasionally, if necessary refill the engine oil.

(2)* If vehicle is operated under severe condition, driving in dusty condition or sandy condition, pollutant area or off-road driving, frequently inspect the air cleaner, if necessary, change the air cleaner.

(3)* More frequent maintenance is required if under dusty driving condition.

(4)* Refer to "Recommended fluids, coolant and lubricants".

* Water separator: When replace the engine oil, also drain the water from the fuel filter.

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* Use only approved
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* EU Countries: Only countries that belong to EU. (It does not apply to all countries in EU.)

MAINTENANCE INTERVAL / MAINTENANCE ITEM		Kilometers (miles) or time in months, whichever comes first							
	x1,000 km	15	30	45	60	75	90	105	120
	x1,000 miles	10	20	30	40	50	60	70	80
	Months	12	24	36	48	60	72	84	96
CHASSIS AND BODY									
Exhaust pipes & mountings		I	I	I	I	I	I	I	I
Brake / Clutch fluid (3)*		Change every: 2 years (inspect frequently)							
Parking brake /	EU	Periodic check: every 15,000 km, adjust or replace if necessary.							
Brake pads (Front & Rear) (4)*	General	Periodic check: every 10,000 km, adjust or replace if necessary.							
Brake line & connections (including booster)		Inspect every 15,000 km or 1 years, adjust or replace if necessary							
Manual transmission oil (5)*		I	I	I	R	I	I	I	R
Clutch & brake pedal free play		I	I	I	I	I	I	I	I
Front & Rear differential fluid (3)*		Inspect frequently, change every 30,000 km							
Transfer case fluid (3)*		Inspect every 15,000 km, change every 60,000 km (Frequnt check of oil leak)							
Automatic transmission fluid (6)*		Inspect every 30,000 km or 12 month (But change every 60,000 km under severe condition)							

Chart Symbols:

I - Inspect these items and their related parts. If necessary, correct, clean, replenish, adjust or replace.

R - Replace or change.

(3)* Refer to "Recommended fluids and lubricants".

(4)* More frequent maintenance is required if the vehicle is operated under any of the following conditions:
- In heavy city traffic where the outside temperature regularly reaches 32°C (90°F) or higher, or
- In hilly or moutainous terrain, or
- When doing frequent trailer towing, or
- Uses such as found in taxi, police or delivery service.

(5)* Inspect manual transmission fluid every 15,000 km (Inspect the leak of fluid at any time,occasionally), then change every 60,000 km

(6)* Change automatic transmission fluid and every 60,000 km if the vehicle is mainly driven under severe conditions: Towing a trailer or off-road driving (Inspect the leak of fluid at any time,occasionlly)

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* EU Countries: Only countries that belong to EU. (It does not apply to all countries in EU.)

MAINTENANCE ITEM \ MAINTENANCE INTERVAL		Kilometers (miles) or time in months, whichever comes first							
	x1,000 km	15	30	45	60	75	90	105	120
	x1,000 miles	10	20	30	40	50	60	70	80
	Months	12	24	36	48	60	72	84	96
CHASSIS AND BODY									
Chassis & underbody bolts & nuts tight / Secure (6)*		Check frequntly and adjust or replace if necessary							
Tire condition & inflation pressure		Check frequntly and adjust or replace if necessary							
Wheel alignment (7)*		Inspect when abnormal condition is noted							
Steering wheel & linkage		I	I	I	I	I	I	I	I
Power steering fluid & lines (3)*		I	I	I	I	I	I	I	I
Drive shaft boots (8)*		I	I	I	I	I	I	I	I
Seat belts, buckles & anchors		I	I	I	I	I	I	I	I
Lubricate locks, hinges & bonnet latch		Check frequntly and adjust or replace if necessary							
Wheel bearing grease		I	I	I	I	I	I	I	I
Propeller shaft grease - Front / Rear (9)*	EU	I	I	I	I	I	I	I	I
	General	Inspect every 10,000 km							
Air conditioner filter		Change every 10,000 km (The service interval should be shortened under severe conditions)							

Chart Symbols:

I - Inspect these items and their related parts. If necessary, correct, clean, replenish, adjust or replace.

R - Replace or change.

(3)* Refer to "Recommended fluids and lubricants".

(6)* After completion of off-road operation, the underbody of the vehicle should be throughly inspected. Examine threaded fasteners for looseness.

(7)* If necessary, rotate and balance wheels.

(8)* After completion of off-road operation, the drive shaft boots should be inspected.

(9)* Inspect propeller shaft grease every 5,000 km or 3 months if the vehicle is mainly driven under severe condition.
- In off-road or dusty road, or
- In heavy city traffic where the outside temperature regularly reaches 32°C (90°F) or higher, or
- In hilly or moutainous terrain.

Severe Conditions in Air Conditioner Filter
- Pollutant area or off-road driving, extended air conditioner or heater operation

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SCHEDULED MAINTENANCE SERVICES (GASOLINE ENGINE)

* Use only approved Ssangyong genuine parts.

Maintenance service 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 service chart.

* EU Countries: Only countries that belong to EU. (It does not apply to all countries in EU.)

MAINTENANCE INTERVAL / MAINTENANCE ITEM	Kilometers (miles) or time in months, whichever comes first								
	x1,000 km	15	30	45	60	75	90	105	120
	x1,000 miles	10	20	30	40	50	60	70	80
	Months	12	24	36	48	60	72	84	96
ENGINE CONTROL SYSTEM									
Drive belt		I	I	I	I	I	I	I	I
Engine oil & engine oil filter (1)* (3)* (Initial change: 10,000 km)		R**	R	R	R	R	R	R	R
Cooling system hose & connections		I	I	I	I	I	I	I	I
Engine coolant (3)*		Change every 60,000 km or 3 years. And, inspect replenish if necessary.							
Fuel filter (2)*		Replace every 100,000 km (if using poor quality of fuel, replace every 30,000 km)							
Fuel line & connections		I	I	I	I	I	I	I	I
Air cleaner (2)*		I	I	I	R	I	I	I	R
Ignition timing		I	I	I	I	I	I	I	I
Spark plugs (G23D)		-	R	-	R	-	R	-	R
Charcoal canister & vapor lines		-	-	I	-	-	I	-	-

Chart Symbols:

I - Inspect these items and their related parts. If necessary, correct, clean, replenish, adjust or replace.

R - Replace or change.

** - In order to secure engine long life and effective break-in, first oil (factory filled) would be recommended to drain with in 10,000 km.

(1)* If vehicle is operated under severe condition: short distance driving, extensive idling or driving in dusty condition, shorten the service interval.

(2)* If vehicle is operated under severe condition, pollutant area or off-road driving, driving in dusty condition or sandy condition, frequently inspect the air cleaner, if necessary, change the air cleaner.

(3)* Refer to "Recommended fluids and lubricants".

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* Use only approved
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* EU Countries: Only countries that belong to EU. (It does not apply to all countries in EU.)

MAINTENANCE ITEM \ MAINTENANCE INTERVAL		Kilometers (miles) or time in months, whichever comes first							
	x1,000 km	15	30	45	60	75	90	105	120
	x1,000 miles	10	20	30	40	50	60	70	80
	Months	12	24	36	48	60	72	84	96
CHASSIS AND BODY									
Exhaust pipes & mountings		I	I	I	I	I	I	I	I
Brake / Clutch fluid (3)*		Change every: 2 years (inspect frequently)							
Parking brake / Brake pads (Front & Rear) (4)*	EU	Periodic check: every 15,000 km, adjust or replace as necessary.							
	General	Periodic check: every 10,000 km, adjust or replace as necessary.							
Brake line & connections (including booster)		Inspect every 15,000 km or 1 years, adjust or replace if necessary							
Manual transmission oil (5)*		I	I	I	R	I	I	I	R
Clutch & brake pedal free play		I	I	I	I	I	I	I	I
Front & Rear differential fluid (3)* — Front	EU	Periodic check: every 15,000 km, adjust or replace if necessary.							
	General	Periodic check: every 10,000 km, adjust or replace if necessary.							
Rear	EU	Periodic check: every 15,000 km, adjust or replace if necessary.							
	General	Periodic check: every 10,000 km, adjust or replace if necessary.							
Transfer case fluid (3)*		Inspect every 15,000 km, change every 60,000 km (Frequent check of oil leak)							
Automatic transmission fluid (6)*		Inspect every 30,000 km or 12 month (But change every 60,000 km under severe condition)							

Chart Symbols:

I - Inspect these items and their related parts. If necessary, correct, clean, replenish, adjust or replace.

R - Replace or change.

(3)* Refer to "Recommended fluids and lubricants".

(4)* More frequent maintenance is required if the vehicle is operated under any of the following conditions:
- In heavy city traffic where the outside temperature regularly reaches 32°C (90°F) or higher, or
- In hilly or moutainous terrain, or
- When doing frequent trailer towing, or
- Uses such as found in taxi, police or delivery service.

(5)* Inspect manual transmission fluid every 15,000 km (Inspect the leak of fluid at any time,occasionally), then change every 60,000 km

(6)* Change automatic transmission fluid and every 60,000 km if the vehicle is mainly driven under severe conditions. (Inspect the leak of fluid at any time, occasionlly)

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* EU Countries: Only countries that belong to EU. (It does not apply to all countries in EU.)

MAINTENANCE INTERVAL / MAINTENANCE ITEM		Kilometers (miles) or time in months, whichever comes first							
	x1,000 km	15	30	45	60	75	90	105	120
	x1,000 miles	10	20	30	40	50	60	70	80
	Months	12	24	36	48	60	72	84	96
CHASSIS AND BODY									
Chassis & underbody bolts & nuts tight / Secure (6)*		Check frequntly and adjust or replace if necessary							
Tire condition & inflation pressure		Check frequntly and adjust or replace if necessary							
Wheel alignment (7)*		Inspect when abnormal condition is noted							
Steering wheel & linkage		I	I	I	I	I	I	I	I
Power steering fluid & lines (3)*		I	I	I	I	I	I	I	I
Drive shaft boots		I	I	I	I	I	I	I	I
Seat belts, buckles & anchors		I	I	I	I	I	I	I	I
Lubricate locks, hinges & bonnet latch		Check frequntly and adjust or replace if necessary							
Wheel bearing grease		I	I	I	I	I	I	I	I
Propeller shaft grease - Front / Rear (8)*	EU	I	I	I	I	I	I	I	I
	General	Inspect every 10,000 km							
Air conditioner filter		Change every 10,000 km (The service interval should be shortened under severe conditions)							

Chart Symbols:

I - Inspect these items and their related parts. If necessary, correct, clean, replenish, adjust or replace.
R - Replace or change.
(3)* Refer to "Recommended fluids and lubricants".
(6)* After completion of off-road operation, the underbody of the vehicle should be throughly inspected. Examine threaded fasteners for looseness.
(7)* If necessary, rotate and balance wheels.
(8)* Inspect propeller shaft grease every 5,000 km or 3 months if the vehicle is mainly driven under severe condition.
- In off-road or dusty road, or
- In heavy city traffic where the outside temperature regularly reaches 32°C (90°F) or higher, or
- In hilly or moutainous terrain.

Severe Conditions in Air Conditioner Filter
- Pollutant area or off-road driving, extended air conditioner or heater operation

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Lamp

14

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- Location of Exterior Lamps 14-4
- Interior Lamps 14-14

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BULB SPECIFICATIONS (ACTYON)

Description			Amount	Specification (EU)	Specification (General)
Exterior lamp	Headlamp	High beam	2	H4(60W)	←
		Low beam		H4(55W)	
		Turn signal lamp	2	PY21W	←
		Position lamp	2	W5W	←
	Front fog light		2	H27W	27W
	Side repeater		2	W5W	5W
	Rear combination lamp	Stop (tail) lamp	2	P21W(5W)	27W(8W)
		Turn signal lamp	2	PY21W	27W
	Back-up lamp	EU	2	16W	-
		General	2	-	16W
	Rear fog light		2	P21W	-
	License plate lamp		2	W5W	5W
	High mounted stop lamp	Bulb type	5	W5W	5W
Interior lamp	Front room lamp		2	10W	←
	Glove box lamp		1	10W	←
	Center room lamp		1	10W	←
	Luggage lamp		1	10W	←
	Door courtesy lamp		2	5W	←

BULB SPECIFICATIONS (ACTYON SPORTS)

Description			Amount	Specification (EU)	Specification (General)
Exterior lamp	Headlamp	High beam	2	H4(60W)	←
		Low beam		H4(55W)	
		Turn signal lamp	2	PY21W	←
		Position lamp	2	W5W	←
	Front fog light		2	H27W	27W
	Side repeater		2	W5W	5W
	Rear combination lamp	Stop (tail) lamp	2	P21W(5W)	27W(8W)
		Turn signal lamp	2	PY21W	27W
	Back-up lamp	EU	1	21W	-
		General	2	-	21W
	Rear fog light		1	P21W	-
	License plate lamp		2	W5W	5W
	High mounted stop lamp	Bulb type	5	W5W	5W
Interior lamp	Front room lamp		2	10W	←
	Glove box lamp		1	10W	←
	Center room lamp		1	10W	←
	Door courtesy lamp		2	5W	←

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FUNCTIONAL CHECK

1. Check whether the lamp comes on or off by turning its switch.
2. Check the corresponding fuse when the lamp doesn't come on.
3. If the fuse is blown, replace it with a new one.

   For replacing procedures, refer to the "In Case of Emergency" section in this manual.
4. If the fuse is not blown, check the bulb and replace it with a new one if needed.
5. If the bulb is not defective, have the system checked by a Ssangyong Dealer or Ssangyong Authorized Service Center.

CAUTION

- Use only a specified capacity bulb for replacement.
- Disconnect the negative cable on the battery before replacing the bulb. Remove the ignition key.
- Do not apply excessive force to remove the bulb cover.
- Make sure that the corresponding switch and the ignition switch are turned off before replacing a bulb.
- Do not touch a bulb with bare hands immediately after turning off the lamp.
- Do not touch a bulb with bare hands. Fingerprints, dust, or moisture stuck to the bulb may shorten its life or cause it to explode. If you accidentally touch the bulb, wipe the bulb glass with a soft cloth.
- Never try to adjust the headlamp aiming angle. It should be done by a qualified technician in a Ssangyong Dealer or Ssangyong Authorized Service Center.

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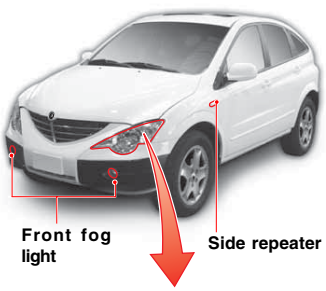
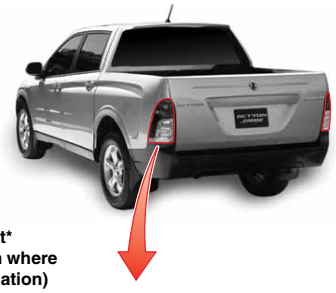
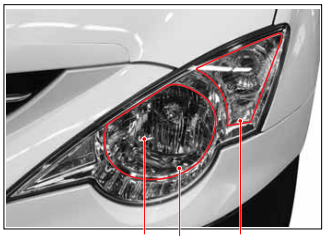
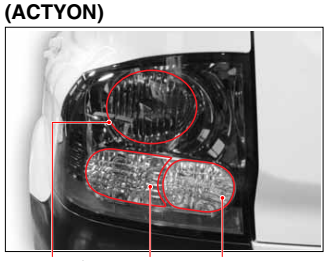




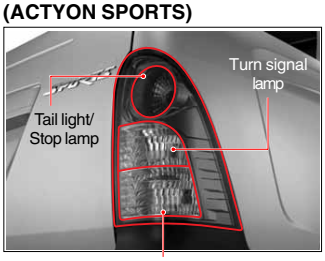
Headlamp



Rear Combination Lamp (ACTYON)



Rear Combination Lamp (ACTYON SPORTS)



Back-up lamp or rear fog light*
(Rear fog light - LHD: only fitted in left side,
- RHD: only fitted in right side)

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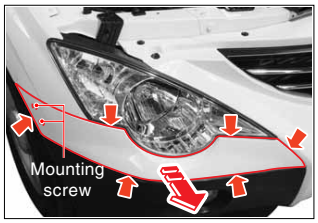
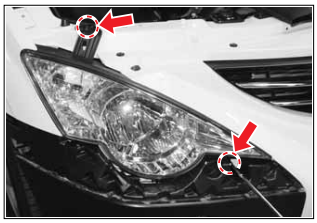
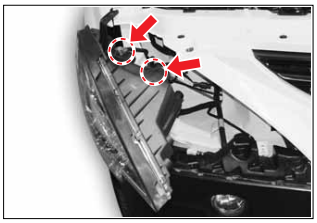
REMOVING HEADLAMP HOUSING



1. Disconnect the negative cable on the battery.
2. Remove two mounting screws on the headlamp lower cover at wheel house side and carefully sepatate lower cover.



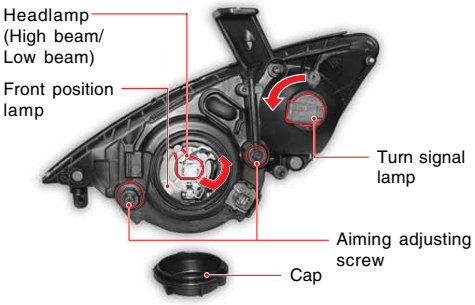
3. Unscrew the bolt at the bottom of the headlamp.



4. Disconnect the two headlamp connectors and remove the headlamp housing.

WARNING

For safe driving, do not adjust the headlamp aiming by yourself. It should be done by a qualified technician in a Ssangyong Dealer or Ssangyong Authorized Service Center.



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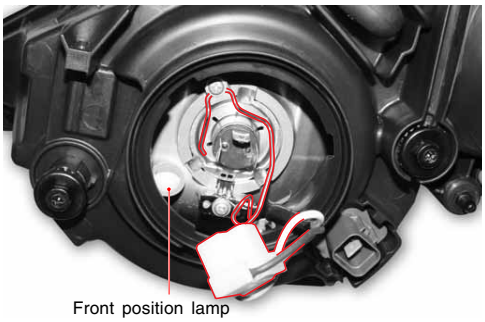
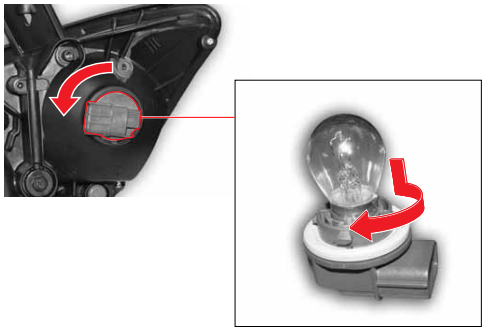
HEADLAMP



1. Remove the headlamp cover from the removed headlamp housing.
2. Release the fixing clip.
3. Replace the bulb with a new one.
4. Install in the reverse order of removal.

TURN SIGNAL LAMP



1. Remove the turn signal lamp connector from the removed headlamp housing.
2. Push down and turn the bulb to remove.
3. Replace the burnt bulb with a new one.
4. Install in the reverse order of removal.

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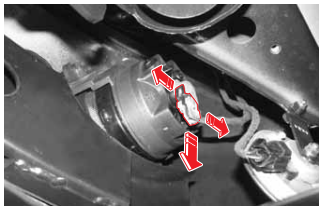
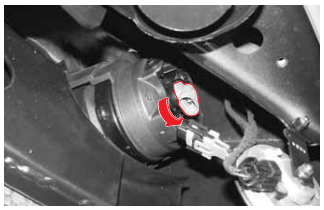
FRONT FOG LIGHT



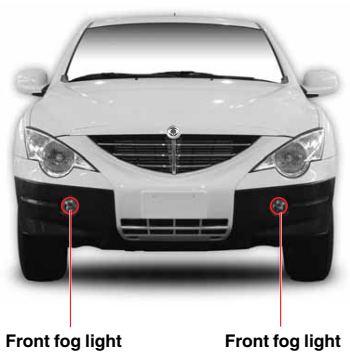
1. Remove the ignition key from the key cylinder.
2. Remove the front fog light connector by pushing both locks in the direction of the arrows.



3. Turn the bulb to remove it.
4. Replace it with a new one.
5. Install in the reverse order of removal.

CAUTION

Because the front fog lights can be accessed only from the bottom of the vehicle, it should be done by a Ssangyong dealer or authorized service center.



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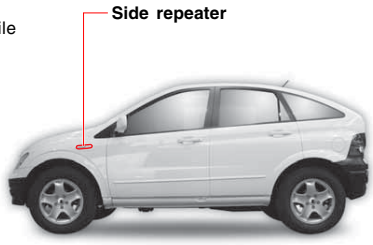
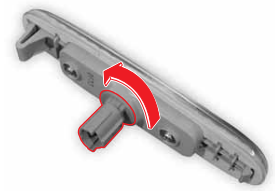
SIDE REPEATER

1. Remove the ignition key from the key cylinder.

2. Pull the lamp housing out while pushing it rearward.





3. Disconnect the connector.

4. Remove the bulb housing.

5. Remove the bulb from the housing.

6. Replace it with a new one.

7. Install in the reverse order of removal.

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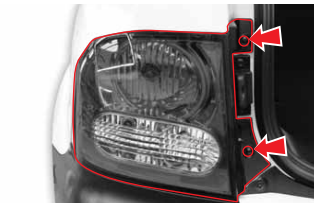
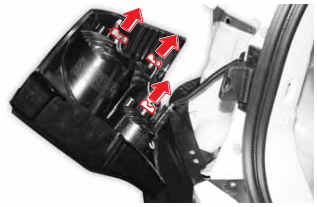
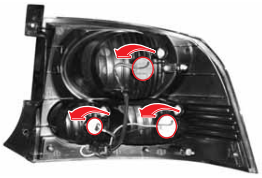
REAR COMBINATION LAMP



1. Remove the ignition key from the key cylinder.
2. Disconnect the two mounting bolts from the rear combination lamp.





3. Remove the rear combination lamp from the body.
4. Disconnect the connector of the rear combination lamp.
5. Turn the bulb housing to remove in the state that rear comb-lamp is disassembled from body.
6. Remove the back-up lamp bulb while pulling it/remove the turn signal lamp bulb while pushing and turning it.
7. Replace it with a new one.
8. Install in the reverse order of removal.

Rear combination lamp

Back-up lamp

Stop (tail) lamp / Turn signal lamp

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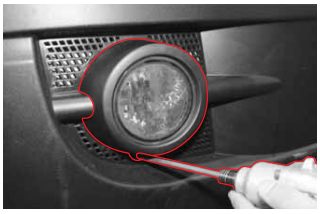
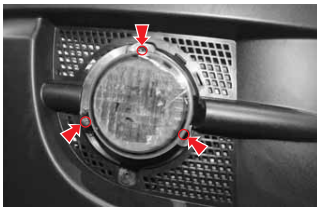
REAR FOG LIGHT (ACTYON)



1. Remove the ignition key from the key cylinder.
2. Remove the one bolt of the rear fog light and remove the bracket.



3. Remove the three bolts and remove the assembly of the rear fog light from the rear bumper.
4. Remove the lamp housing by turning it from the assembly of the rear fog light.

Rear fog light*

5. Remove the bulb.
6. Replace it with a new one.
7. Install in the reverse order of removal.

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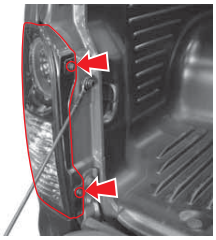
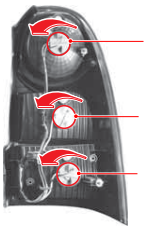
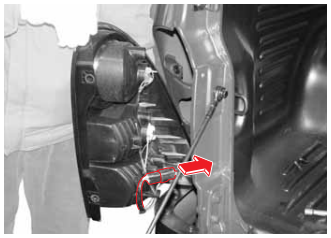
REAR COMBINATION LAMP BULB REPLACEMENT (ACTYON SPORTS)



1. Remove the ignition key from the key cylinder.
2. Open the tailgate.
3. Disconnect the two mounting bolts from the rear combination lamp.





4. Remove the rear combination lamp from the deck.
5. Disconnect the connectors of the rear combination lamp.
6. Turn the bulb housing to remove in the state that rear comb-lamp is disassembled from body.

7. Turn the bulb while pushing it out to remove it from the housing.
8. Replace the old bulb with a new one.
9. Install in the reverse order of removal.

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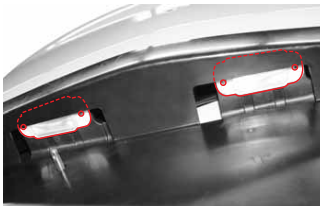
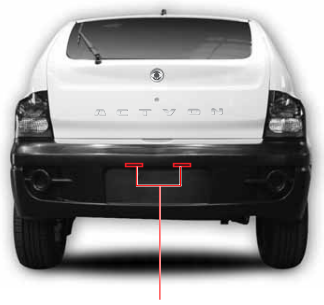
LICENSE PLATE LAMP (ACTYON)



1. Remove the ignition key from the key cylinder.

2. To take out the license plate light assembly, remove the two fastening screws on the license plate light and push the assembly downward.

3. Remove the lamp housing by turning the connector.



License plate lamp

4. Remove the bulb.

5. Replace it with a new one.

6. Install in the reverse order of removal.

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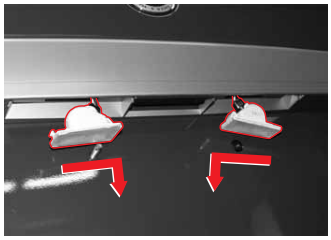
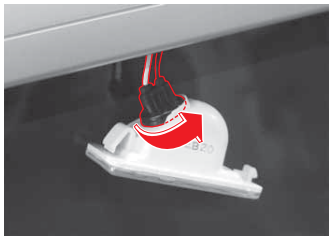
LICENSE PLATE LAMP (ACTYON SPORTS)

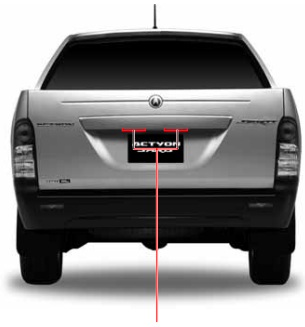


1. Remove the ignition key from the key cylinder.
2. Disconnect the lamp housing while pushing it.



3. Remove the lamp housing by turning the connector.

4. Remove the bulb while pushing it.
5. Replace the old lamp with a new one.
6. Install in the reverse order of removal.



License plate lamp

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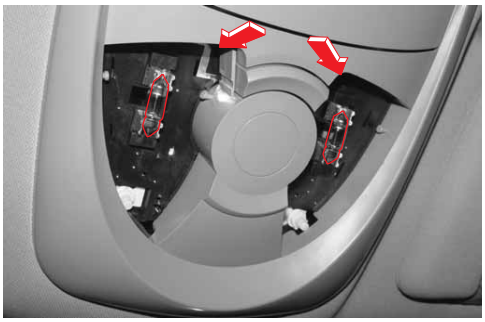
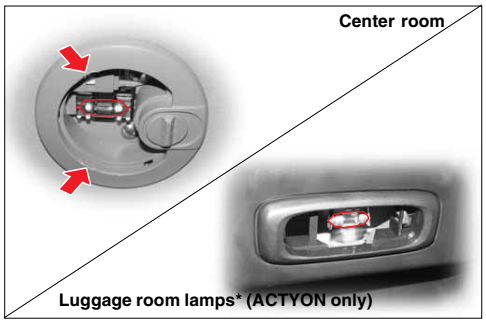
FRONT ROOM LAMP



1. Remove the ignition key from the key cylinder.
2. Cover the tip of a flat blade screwdriver with a cloth and insert the tip into a lamp cover slot. Then, pry off the cover.
3. Replace the bulb with a new one.
4. Install the cover.

CAUTION
The cover should be pried up from the rear section (indicated by the arrow). Otherwise, the cover may be damaged.

CENTER ROOM AND LUGGAGE ROOM LAMPS



1. Remove the ignition key from the key cylinder.
2. Cover the tip of a flat blade screwdriver with a cloth and insert the tip into a lamp cover slot. Then, pry off the cover.
3. Replace the bulb with a new one.
4. Install the cover.

NOTE
ACTYON SPORTS does not come with the luggage room lamp.

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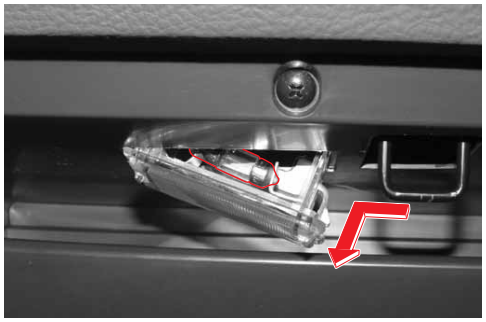
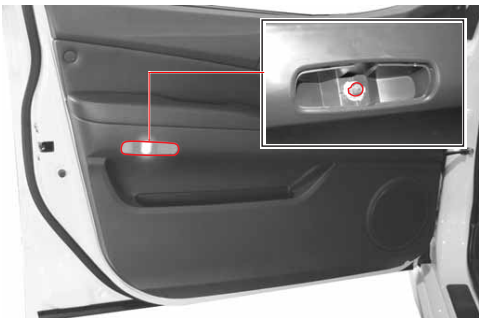
GLOVE BOX LAMP



1. Remove the ignition key from the key cylinder.
2. Open the cover as shown in the figure.
3. Replace the bulb with a new one.
4. Install in the reverse order of removal.

DOOR COURTESY LAMP



1. Remove the ignition key from the key cylinder.
2. Cover the tip of a flat blade screwdriver with a cloth and insert the tip into a lamp cover slot. Then, pry off the cover.
3. Replace the bulb with a new one.
4. Install the cover.

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Vehicle Care

15

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RUNNING-IN PERIOD

There are no particular running-in rules for your new vehicle. However, following a few simple precautions for the first 1, 000 km can add to good future performance, fuel economy and long life of your vehicle.

- Allow the engine to warm up after starting.
- Avoid harsh operations such as abrupt fast starts, sudden acceleration and prolonged high speed driving.
- Do not race the engine.
- Drive at varying speeds, trying not to “strain” the engine.
- Avoid overload when climbing.

CLEANING AGENTS

Follow the manufacturer’s advice whenever cleaning agents or other chemicals are used for the inside or the outside of the vehicle. Some cleaners may be poisonous or flammable, and improper use may cause personal injury or damage. When cleaning the inside or outside of the vehicle, do not use volatile cleaning solvents such as: acetone, lacquer thinners, enamel reducers, nail polish removers; or cleaning materials such as laundry soaps, bleaches or reducing agents, except as noted in the fabric cleaning advice on stain removal. Never use carbon tetrachloride, petrol, benzene, or naphtha for any cleaning purpose. Open all vehicle doors for ventilation when any cleaning agents or other chemicals are used in the interior. Overexposure to some vapors may result in a health problem which is more likely to occur in small, unventilated spaces. To avoid possible permanent discoloration of light colored seats, do not let materials with non-fast colors come in contact with seat trim materials until these materials are totally dry. This includes certain types of casual clothing, such as colored denims, corduroys, leathers and suedes; also, decorative paper, etc.

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CARE AND CLEANING OF THE INTERIOR

With the use of modern trim materials, it is very important that you use proper cleaning techniques and cleaners. Failing to do this on the first cleaning may result in water spots, spot rings, or setting of stains or soils. All of which are more difficult to remove in a second cleaning.

Dust and loose dirt that are accumulated on interior fabrics should be frequently removed with a vacuum cleaner or soft bristle brush. Wipe vinyl or leather trim regularly with a clean damp cloth. Normal trim soils, spots or stains can be cleaned with cleaners.

Seat Belt Care

- Keep belts clean and dry.
- Clean seat belts only with mild soap and lukewarm water.
- Do not bleach or dye belts since this may severely weaken them.

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GLASS SURFACES

Glass surfaces should be cleaned on a regular basis. The use of a glass cleaner or a liquid household glass cleaner will remove normal tobacco smoke and dust films.

Never use abrasive cleaners on any vehicle glass, as they may cause scratches. If abrasive cleaners are used on the inside of the rear window, any electric demister element may be damaged. Avoid placing decals on the inside rear window, since they may have to be scraped off later.

Cleaning the Outside of the Windshield

If your windshield is not clear after using the windshield washer, or if the wiper blade chatters when running, wax or another material may be on the blade or windshield, clean the outside of the windshield with cleaning powder or an equivalent non abrasive cleaner. Your windshield is clean if beads do not form when rinsing with water.

CARE AND CLEANING OF THE EXTERIOR

Exterior Finish

The paint finish on your vehicle provides beauty, depth of color, gloss retention, and durability.

Washing your Vehicle

The best way to preserve your vehicle's finish is to keep it clean by frequent washing.

Wash the vehicle with lukewarm or cold water.

Do not use hot water or wash your vehicle under direct sunlight. Do not use a strong soap or chemical detergent.

All cleaning agents should be washed promptly from the surface and not allowed to dry on the finish.

Ssangyong vehicles are designed to operate under normal environmental conditions and to withstand the natural elements. However, unusual conditions, such as high pressure car washers, may cause water to enter the inside of your vehicle.

Polishing and Waxing

Periodic polishing and waxing is recommended to remove surface residue from your paint finish. Approved products are supplied through your Ssangyong Distributor.

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Protecting Exterior Bright Metal Parts

Bright metal parts should be cleaned regularly to keep their luster.

Special care should be taken when cleaning the aluminum trim. To avoid damaging the protective trim, never use automotive or chrome polish, steam, or caustic soap to clean the aluminum trim. A coating of wax is recommended for all bright metal parts.

Cleaning Aluminum Wheels, Alloy Wheels, and Wheel Covers

Preserve the original appearance of wheels or wheel covers by keeping them clean and free from build-up of road dirt and/or road salt. Wash the parts regularly. Do not use abrasive cleaners or cleaning brushes, as they could damage the finish.

CORROSION PROTECTION

Your car was designed to resist corrosion. When it was built, special and protective finishes were used on most parts of your car to help maintain a good appearance, strength and reliable operation. Some parts which normally are not visible (such as certain parts located in the engine compartment and the underbody of the vehicle) are such that surface rust will not affect their reliability. Therefore, corrosion protection is not needed or used on these parts.

Sheet Metal Damage

If your car is damaged and requires body panel repair or replacement, make sure the body repair shop applies proper anticorrosion material to the parts repaired or replaced so that corrosion protection is restored. (Also refer to “Finish Damage” on the next page).

Foreign Material Deposits

Calcium chloride and other salts, deicing agents, road oil and tar, tree sap, bird droppings, chemicals from industrial chimneys and other foreign materials may damage vehicle finishes if left on painted surface. Prompt washing may not completely remove all of these deposits. Other cleaners may be needed. When using chemical cleaners, be sure they are safe for use on painted surfaces.

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Finish Damage

Any stone chips, fractures or deep scratches in the finish should be repaired promptly. Bare metal will corrode quickly and may develop into a major repair expense. Minor chips and scratches can be repaired with touch-up materials. Larger areas of finish damage can be corrected in your Distributor's body and paint shop.

Underbody Maintenance

Corrosive materials used for ice and snow removal and dust control can accumulate on the underbody. If these materials are not removed, accelerated corrosion (rust) can occur on underbody parts such as the fuel lines, frame, floor pan, and the exhaust system even though they have been provided with corrosion protection. At least every spring, flush these materials from the underbody with plain water. Take care to clean any area where mud and other debris can accumulate.

Sediment packed in closed areas of the frame should be loosened before being flushed. If desired, your Ssangyong Distributor can do this service for you.

Washing the Bumper

Wash off any dirty objects on the bumper with a sponge.

When engine oil or any other oils are splashed on the bumper, use soapy water to wipe them out. Do not use an abrasive wax or brush. Otherwise, the bumper or the body of the vehicle may be damaged.

CAUTION

- When the engine is washed, fuel, grease or oil residues are washed off. Therefore you should use only a filling station or a Ssangyong Distributor who has oil separator equipment in the car wash bay.
- Used engine oil, brake fluid, transmission fluid, antifreeze, batteries, and tires should be disposed by using the local authorized waste disposal facilities, or have them disposed of by the vendor who is under a statutory obligation to do so when you replace them.
- None of these items should be placed in the household recycling bins or poured into the sewage system.
- Everyone should be concerned about environmental protection.
- Help by doing your share.
- When a strong multi-purpose, acid, or alkaline detergent is used to clean up the surface of the painted body, side mirrors, windshield, plastic moldings or leather, changes, fading of colors or rusting can happen.
- When the windshield is cleaned with an oil-contained or waxed towel, strange sounds and vibrations may occur on the windshield surface when the wipers are operating. Also, decreased visibility, reflection at night, or poor removal of water on the windshield may happen. Do not clean the windshield with an oil-contained or waxed towel.
- An abrasive detergent may damage the painted surface of your vehicle, including the bumper. Do not buff or polish your vehicle with an abrasive detergent.
- An acid or alkaline detergent may damage the painted surface of the aluminum or alloyed wheels.
- When chemical products are used to clean up the interior, the chemical products may change some colors or distort the shape of some interior parts.
  When cleaning up interior parts, do not use chemical products such as acetone, enamel or bleach.

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CARING FOR YOUR VEHICLE UNDER 0°C (32°F)

During the winter, undesirable road conditions frequently happen. Therefore, appropriate preparations for emergencies should occur.

Before driving in suburban or rural areas, or on a snowing day, have bags of sand, snow chains, a shovel, gloves, and old clothes in your vehicle.

Coolant

Before it gets cold, check the coolant level.

The conventional coolant is the 50:50 mixture of water and antifreeze.

If only water has been added into the coolant reservoir, the engine and the cooling system of your vehicle may seriously be damaged when the water freezes as it gets below the freezing point.

CAUTION

- When the vehicle is shipped, the cooling system is filled with a four-season coolant.
- Before adding or refilling coolant, ensure that the coolant is a 50:50 mixture of water and antifreeze.
- Use only Ssangyong genuine coolant.

Washer Fluid

Use a genuine coolant that does not freeze on a cold day.

When non-recommended washer liquid is used, the liquid may form an ice. This will damage the wiper motor and hinder your safe driving.

Engine Oil

When the vehicle is shipped, the engine is filled with four-season engine oil.

Tires

Snow tires are more desirable on an icy or snow-covered road. Have snow tires installed on your vehicle before driving on such a road.

CAUTION

- When snow tires are installed, drive your vehicle at a lower speed than normal.
- Install snow chains correctly. Otherwise, the chains may damage the wheelhouses or the body of your vehicle.

Air Conditioner

When the air conditioner has not been used for an extended period of time, internal packing systems may become hard because the lubricating system has not worked for a prolonged amount of time. As a result, the refrigerant may leak or rusting may happen to the system. Malfunction of the air conditioner may result.

To maintain its optimal operating condition, it is recommended that the air conditioner be turned on for approximately 5 to 10 minutes every week throughout all seasons.

CAUTION

Do not remove the refrigerant in the winter, even though you do not use the air conditioner.

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STARTING THE ENGINE AND DRIVING IN THE WINTER

Starting the Engine in the Winter

During the winter, the engine experiences increased resistance from the powertrain; the battery and the starter show decreased capacity. Therefore, start the engine in an appropriate way.

After starting the engine, allow time to warm it up before driving the vehicle. Warming up the engine will increase its life expectancy and help you drive safely.

CAUTION

The glow plugs of the diesel engine should sufficiently be warmed up before the engine starts.

Driving in the Winter

Maintain at least twice as long of a normal driving distance between your vehicle and the vehicle in front of you. When stopping, shift into a lower gear to use the engine brake.

Avoid speeding, abrupt acceleration, sudden braking, or drastic maneuvering of the steering wheel.

PARKING IN THE WINTER

When the parking brake is applied in cold weather, ice may form on the brake system and cause some difficulty moving the vehicle. When parking on a hill, first, apply the parking brake. Put the shift lever into the “1” or “R” position (Manual Transmission) or into the “P” position (Automatic Transmission). Put a chock behind a tire and release the parking brake.

WARNING

When ice forms on the parking brake system, an attempt to move the vehicle without removing the ice may damage your vehicle. Wait until the ice melts away and gently move your vehicle.

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OTHER MAINTENANCE TIPS

After driving on a calcium chloride (salt) spayed road, wash the bottom of your vehicle as soon as possible to avoid any rust.

When parking on a snow-covered road, the brake system may begin to have some ice on it. The ice will decrease your vehicle's braking ability. If this happens, drive at a low speed and use the brake frequently to remove the ice. After regaining the braking ability, drive your vehicle at a normal speed.

WARNING

- When there is ice on the wiper blades, turning on the wiper switch may put an extra burden on the wiper motor and damage it. Avoid using the wipers when ice is on the blades.
- When driving on a snow-covered road, a large amount of snow may build up under each wheelhouse. This buildup prevents the steering wheel from moving freely. Therefore, remove the snow buildup frequently.

Diesel Fuel in the Winter

On an extremely cold day, paraffin, one of the chemicals in diesel fuel, may separate from the diesel fuel. This separation makes starting the engine difficult. During the winter season, Kerosene is added to diesel in the domestic market to prevent the paraffin separation and secure stable flow of the fuel through the fuel filter. The amount of added Kerosene into diesel can vary by location and their average winter temperatures. Therefore, to ensure an easy start on a cold day, park your vehicle inside of a garage. If possible, fill up the fuel tank after each driving to prevent ice from forming inside of the fuel system.

CAUTION

- Change engine oil and the fuel filter as scheduled. Contaminated engine oil will lose its liquidity, clog the fuel filter and oil filter and cause difficulties starting the engine.
- Do not add any additive other than Kerosene or alcohol into the fuel tank to improve starting of the engine. The additive may decrease the lubricating ability of the internal fuel system; the additive may have a different flashing point. This will damage the fuel system or produce an excessive exhaust fume.

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BEFORE DRIVING

For safe and comfortable driving, check each part of the vehicle before driving your vehicle.

CAUTION
To inspect your vehicle effectively, park it on a level surface and check it in the following order.

Checking Problematic Parts

Check those parts that you felt they were problematic to see if they would be a hindrance on the road.

Checking the External Appearance of Your Vehicle

- Check for flat tires and check the air pressure.
- Check the side mirrors and the license plate for dirt or damage.
- Check all lights for damage or dirt.
- Check for oil stains under a parked car.

Checking the Driving Conditions:

- Adjustment of the rearview mirror
- Applying the brake and releasing the parking brake
- All warning lights and indicator lights
- All lighting devices
- The adjustment of driver's seat
- Make sure that headlights, tail lights, rear lights, license plate lights, backup lights, directional signals, and stop lights work properly.

CAUTION
When checking the lights, look for the reflections on walls and in the mirrors, or get someone to help you.

Checking Engine Compartment

Check the following:

- Engine oil
- Power steering fluid
- Brake fluid
- Cooling system
- Drive belt

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Always Using Seat belt

Everyone in your vehicle needs to be buckled up at all times.

WARNING

- Children, pregnant or nursing women who fail to fasten their seat belts properly might suffer from an accident. Always use seat belts as directed.
- Please carefully read the seats, seat belts and air bags sections.

Taking Care of Children

▶ **Children should sit in the rear seat**

To prevent children from interfering with your driving by accidental movements or misusing of devices, children should sit in the rear seat.

▶ **Do not allow children to adjust comport and safety devices**

When a child gets in the vehicle, an adult should take care of doors, windows, seat belts, or seats making sure not to hurt the child's hands, feet or neck.

Do Not Leave a Child Alone in the Vehicle

When left alone in the car, a child might unintentionally start the engine, cause a fire, or cause another accident.

WARNING

- During the summer, the temperature in your vehicle rises due to direct sunlight, and a child who is unable to adjust vehicle devices is in danger of suffocation.
- Do not leave a child alone in the car.

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ON THE ROAD

If a Problem Occurs On the Road

- If a warning light comes on, immediately stop the vehicle in a safe place and take emergency measures.
- If your vehicle suffered a serious blow to the bottom, immediately stop the vehicle in a safe place and check for a fuel leak, brake fluid spill, or others and for damages to the underbody of your vehicle.
- If you have a sudden puncture or blowout on the road, keep your composure, grip the steering wheel firmly, brake gently to reduce your speed, and then stop in a safe place.

WARNING

If the front axle and tires were severely hit on the road and you notice steering problems (steering wheel shakes up and down / right and left / in circular motion), immediately visit the nearest Ssangyong Dealer or Ssangyong Authorized Service Center to check and repair steering and suspension parts.

Avoiding Unnecessary Movements While Driving

- While driving, do not turn off the ignition key under any circumstances. Brakes and power steering will not work.
- While driving, do not put your hands through the steering wheel to manipulate various switches. It might interfere with operating the steering wheel and cause an accident.

Parking in a Safe Place

Do not park in places where hay, foliage, paper, rags, oil, or other easily inflammable materials are kept.

CAUTION

While driving or after immediately driving, the muffler and exhaust pipe are hot; inflammable materials near the vehicle might cause a fire.

Turning The Engine Off When Taking A Nap

You might cause an accident by unconsciously shifting the transmission or stepping on the accelerator pedal, so turn the engine off.

CAUTION

Repeated application of the accelerator pedal overheats the engine and exhaust pipe and might cause a fire.

Turning The Engine Off When Leaving Your Car

- Turn the engine off and lock the doors.
- Do not leave valuables inside the car. Do not leave a child alone in the vehicle.

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Moving Your Vehicle Only After Starting the Engine

Move your vehicle only after having started the engine.

WARNING
Driving the vehicle on a downhill using the downgrade slope without running the engine might cause an accident.

Parking Downhill

After firmly applying the park brake, set the gearshift lever in Reverse for vehicles with the manual transmission or set the gearshift lever in **P** for vehicles with the automatic transmission.

CAUTION
Place wheel chocks under the wheels.

Parking Uphill

After firmly applying the park brake, set the gearshift lever in first gear for vehicles with the manual transmission or set the gearshift lever in **P** for vehicles with the automatic transmission.

CAUTION
Place wheel chocks under the wheels.

When Parking or Stopping in An Enclosed Place

When parking or stopping in an enclosed place, turn off the engine.

WARNING
Leaving the engine running in an enclosed place, in a garage or indoors or in other areas with no air ventilation, might result in death from carbon monoxide poisoning.

Things To Watch For When Reversing

When reversing your vehicle, always make sure that there are no children or other obstacles behind the vehicle.

Driving in the Rain

When it is raining, the road surface becomes slippery and your tire-to-road traction is reduced, so you should drive more carefully than usual.

CAUTION
If you travel at a high speed on a wet road, your tires might not be in constant contact with the road; if your tires float, your vehicle starts hydroplaning. You might lose control of your steering and brakes.

After driving through a puddle of water, or after a car wash, apply your brake pedal lightly several times while moving slowly to confirm that your brakes work normally before getting on the road.

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Putting Away Things That Interfere With Driving

WARNING

- Do not leave inflammable materials, such as disposable lighters or sprays, inside the vehicle. They might cause a fire or an explosion.
- Do not place objects under the driver's feet or cover the car bottom with a very thick carpet as it might interfere with applying your brake, clutch or accelerator pedals.

Using Engine Brakes On Long Downgrades

If you repeatedly apply the brake pedal, the brakes overheat and the braking effectiveness can deteriorate. When on a long downgrade, shift to a low gear and apply your brake pedal together with the engine brake.

NOTE

The engine brake slows down your vehicle while the accelerator pedal is not applied; down-shifting increases the effectiveness of this retarding force.

Always Putting Out Cigarettes

- Make sure you have put out all cigarettes and matches completely before throwing them into your ashtray.
- Do not put many cigarette butts or materials that easily catch fire into your ashtray.

CAUTION

For safer driving, refrain from smoking while on the road.

Being Careful With Accessories

Do not attach accessories or other unnecessary things to your car's windows as they might interfere with your driving.

Attached accessories can work as a convex lens and cause a fire or cause an accident.

Being Careful While Checking Your Coolant

When the engine is hot, never open the cap of the coolant tank.

Hot steam or liquid might surge upwards and cause burns to your face or body.

Always Using Ssangyong Genuine Parts

- You can maintain the safety and performance of your car by using only specified parts or Ssangyong genuine parts.
- You can distinguish specified parts by their part numbers and seal.

CAUTION

- The warranty does not cover problems caused by using non-Ssangyong genuine parts.
- You can distinguish an authentic Ssangyong genuine part by its hologram.

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Driving on a Snowy or Icy Road

- Shift to the lowest possible gear and drive slowly.
- Since your braking distance is longer than usual, allow a longer following distance.
- If you accelerate or brake too fast, your vehicle will slide and you might get in an accident, so drive with caution. When braking, use the engine brake; apply your brakes only after you have slowed down considerably.
- When going down a slippery downhill, use the engine brake and drive slowly.

CAUTION

When traveling on a snowy or icy road, use snow tires for safer driving.

Driving on a Sandy or Muddy Road

- Keep your speed steady as low as possible.
- While driving, be careful not to accelerate or stop too quickly because you might get stuck in sand or mud.
- If your vehicle gets stuck in sand or mud, insert a rock or a piece of wood under the stuck wheel, lightly apply the accelerator pedal and gently shift back and forth between the reverse and forward gear to allow inertia to get your vehicle out.

CAUTION

- If your vehicle is stuck in snow, sand or mud and you cannot get out, do not repeatedly depress the accelerator pedal. If possible, with the aid of other vehicle, rescue your vehicle.

Driving on Unpaved and Mountain Roads

- Before driving, check road conditions such as if the road suddenly ends, or if there is enough space for a U-turn in the middle of the road.
- It's easy to slide in a road covered with much sand or with much dry dirt. Keep your speed low and steady.
- There is a danger of driving off the mountain road, so stay alert.
- When coasting downhill, do not change gears; go down slowly by applying the engine brake.

Going Through Water

- If water gets into the electric system or engine, it might cause irreparable damage to your vehicle. Please refrain from underwater driving.
- If going through water is unavoidable, choose a shallow spot where the exhaust outlet wouldn't get submerged in water and proceed slowly at a steady speed.
- Before going through water, get out of your vehicle and check the bottom of the river. Do not go through water if the bottom is sandy or covered with big rocks.
- If several vehicles are going through water together, the first vehicle might burrow into the bottom, so be careful and cross in a different place if possible.

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▶ **Important things to remember when going through water**

- If the engine stops while you are going through water, do not try to restart. Get your vehicle towed.
- Be particularly careful not to allow water to enter into the engine through the air cleaner.
- Never change speeds while going through water.

WARNING

If water gets into the brake system, the effectiveness of the brakes decreases. After going through water, move slowly and gently applying the brakes several times so that frictional heat dries the brake pads and disks. Check if the brakes work properly before continuing driving.

▶ **Checking your vehicle after going through water**

- Check the front, rear, right and left sides, transmission, axle hubs, propeller shaft, oil and fluid levels, and underbody; if you discover problems, get your vehicle checked immediately.
- Check all lamps and other electrical devices. If necessary, replace damaged components and get your vehicle checked.
- Check for damages to the vehicle body and underbody; if you discover problems, get your vehicle checked immediately.
- If the vehicle body is very dirty, wash your car to protect it.

Driving On Hill Roads

Position the gearshift lever in accordance with the road conditions.

WARNING

If you suddenly use the engine brake on an icy or slippery road, the vehicle might slide and get in an accident. Use the engine brakes after fully reducing your vehicle speed.

- On a steep downgrade, shift to the lowest gear to get the biggest effect of the engine brake.

WARNING

If you repeatedly apply your brakes on a long downgrade, they may overheat, their effectiveness decreases and an accident might occur. When on a long downgrade, use the engine brake together with your brakes.

CAUTION

If you suddenly apply the engine brake while traveling at a high speed, the engine may get damaged. Slow down the vehicle speed and then downshift the gear.

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Freeway Driving

- Before getting on a freeway, listen to the weather forecast, prepare thoroughly and check the fuel level, brake system, cooling system, and tires.
- Always respect the speed limit and refrain from speeding.
- Allow for a safe following distance, avoid sudden steering movements.
- When it rains or snows and the whether conditions are adverse, double the distance between your vehicle and the vehicle running in front of you. And reduce your speed by half.

CAUTION

Do not idle the engine for a long time; it wastes fuel and causes environmental pollution.

- Drive at a slow speed for the first 2 km if possible.
- Do not load your vehicle with unnecessary stuff.
- Refrain from quick accelerating and abrupt braking, travel at a steady speed.
- When you park or stop for a long time, turn the engine off.
- Keep tires at the recommended pressure.
- Keep your vehicle in the best possible condition by periodically checking it and perform maintenance.

PROHIBITION OF UNAUTHORIZED MODIFICATIONS

This vehicle contains various advanced electronic and control devices. Do not modify them without authorization.

Modification of Fuses and Circuits

Always use the Ssangyong genuine fuses of the specified capacity and do not alter or modify your vehicle's circuits. It might cause a fire.

Prohibition of Window Tinting

Modification such as coloring windows might cause leaks.

Using Non-Specified Tires and Wheels

If using non-specified parts, the steering wheel feels heavier, fuel consumption increases, brake performance decreases and the steering wheel might shake, wearing out tires when you are traveling at a high speed.

Performing Regular Checks

Always check your vehicle as specified in the inspection schedule, replace parts when necessary and record in your vehicle diary which parts were replaced.

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