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FOREWORD

This manual has been prepared to acquaint you with the operation and maintenance of your new **RODIUS / STAVIC** 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 **RODIUS / STAVIC** 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 Motor CO., LTD.
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.

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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MAINTENANCE SCHEDULE (EU)

* Use only approved Ssangyong genuine parts.

Descriptions		Daily Check	Weekly Check	Service Interval
Engine Oil and Oil Filter	Diesel Engine	○	–	Initial check: 5,000 km and replenish if necessary, change every 15,000 km or 12 months (But, shorten the service interval under severe condition)
	Gasoline Engine	○	–	Initial change: 10,000 km, change every 15,000 km or 12 months (But, shorten the service interval under severe condition)
Coolant		○	–	Change every 60,000 km. And, inspect and replenish as necessary.
Brake/Clutch Fluid		–	–	Change every 2 years (Inspect frequently)
Brake Pipes and Hoses		–	○	Initial check: 1,000 km, periodic check: every 20,000 km or 1 year, replace as necessary.
Brake Pad, Shoe, and Disc		–	○	Periodic check: every 10,000 km, adjust or replace as necessary.
Air Cleaner Element	Diesel Engine	–	–	Clean every 10,000 km, replace every 30,000 km
	Gasoline Engine	–	–	Clean every 15,000 km, replace every 60,000 km
Fuel Filter	Diesel Engine	–	–	Replace every 30,000 km
	Gasoline Engine	–	–	Replace every 60,000 km
Automatic Transmission Fluid		–	–	Inspect every 15,000 km or 12 months (But change every 60,000 km under severe conditions)
Manual Transmission Fluid		–	–	Inspect every 15,000 km or 12 months, change every 60,000 km
Transfer Case Fluid		–	–	Inspect every 15,000 km, change every 60,000 km
Axle Oil	Front	–	–	Inspect frequently, change every 30,000 km
	Rear	–	–	Inspect frequently, change every 30,000 km
Air Conditioner Filter		–	–	Change every 10,000 km

Severe Conditions in Engine
- 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 hilly or mountains terrain, sandy or dusty area
- High load driving such as trailer towing

Severe Conditions in Automatic Transmission and Axle
- Towing a trailer or off-road driving
- Taxi, patrol service or delivery service (extended idling and excessive driving with low speed)

Severe Conditions in Air Conditioner Filter
- Pollutant area or off-road driving, extended air conditioner or heater operation

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MAINTENANCE SCHEDULE (GENERAL)

* Use only approved Ssangyong genuine parts.

Descriptions		Daily Check	Weekly Check	Service Interval
Engine Oil and Oil Filter	Diesel Engine	○	–	Initial change: 5,000 km, change every 10,000 km or 12 months (But, shorten the service interval under severe condition)
	Gasoline Engine	○	–	Initial change: 10,000 km, change every 15,000 km or 12 months (But, shorten the service interval under severe condition)
Coolant		○	–	Change every 60,000 km. And, inspect and replenish as necessary.
Water Separator (Diesel Engine)		–	–	Inspect every 10,000 km, change every 150,000 km or 5 year.
Brake/Clutch Fluid		–	–	Change every 2 years (Inspect frequently)
Brake Pipes and Hoses		–	–	Initial check: 1,000 km, periodic check: every 20,000 km or 1 year, replace as necessary.
Brake Pad, Shoe, and Disc		–	–	Periodic check: every 10,000 km, adjust or replace as necessary.
Air Cleaner Element	Diesel Engine	–	○	Clean every 10,000 km, replace every 25,000 km
	Gasoline Engine	–	○	Clean every 15,000 km, replace every 60,000 km
Fuel Filter	Diesel Engine	–	–	Replace every 25,000 km
	Gasoline Engine	–	–	Replace every 60,000 km
Automatic Transmission Fluid		–	–	Inspect every 10,000 km or 6 months (But change every 60,000 km under severe conditions)
Manual Transmission Fluid		–	–	Inspect every 10,000 km or 6 months, change every 60,000 km
Transfer Case Fluid		–	–	Inspect every 10,000 km, change every 60,000 km
Axle Oil	Front	–	–	Inspect frequently, change every 30,000 km
	Rear	–	–	Inspect frequently, change every 30,000 km
Air Conditioner Filter		–	–	Change every 10,000 km

Severe Conditions in Engine
- 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 hilly or mountains terrain, sandy or dusty area
- High load driving such as trailer towing

Severe Conditions in Automatic Transmission and Axle
- Towing a trailer or off-road driving
- Taxi, patrol service or delivery service (extended idling and excessive driving with low speed)

Severe Conditions in Air Conditioner Filter
- Pollutant area or off-road driving, extended air conditioner or heater operation

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RECOMMENDED FLUIDS AND LUBRICANTS

Descriptions		Capacity	Specifications	
Engine Oil	Diesel Engine (D27DT)	6.3 ~ 8.3 ℓ	Quality class**	API : CG grade or above, ACEA : B2, B3 or B4 MB sheet : 229.1/3 (preferable)
			Viscosity	MB sheet No. 224.1
	Gasoline Engine (G32D)	7.0 ~ 9.0 ℓ	Quality class**	API : SJ grade or above, ACEA : A2 or A3 MB sheet : 229.1/3 (preferable)
			Viscosity	MB sheet No. 224.1
Engine Coolant	DI Engine	11.0 ~ 11.5 ℓ	MB sheet 325.0, BASF GLYSANTIN G05-11, HOECHST GENANTIN SUPER 8023/14	
	G32D	11.3 ~ 11.5 ℓ		
Automatic Transmission Fluid		4-speed: 9.5 ℓ	CASTROL TQ 95	
		5-speed: 8.0 ℓ	SHELL or FUCHS ATF 3353	
Manual Transmission Fluid	2WD	3.4 ℓ	ATF DEXRON® II, III	
	4WD	3.6 ℓ		
Transfer Case Fluid		TOD: 1.4 ℓ / Part time: 1.3 ℓ	ATF DEXRON® II, III	
Axle Fluid	Front	1.3 ~ 1.4 ℓ	API GL-5 or SAE 80W/ 90	
	Rear	1.7 ℓ	Approved by MB Sheet 235.0 Viscosity grade: 85W/90	
Brake/Clutch Fluid		as required	SAE J 1703, DOT 3 or 4	
Power Steering Fluid		1.0 ℓ	ATF DEXRON® II, III	

WARNING

- Use only Ssangyong recommended fluids and lubricants.
- Do not use any mixed oil with different types of fluids.
- Keep the specified levels when adding or replacing the fluids.

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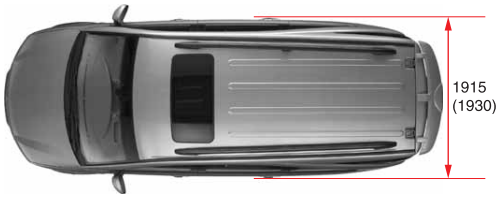
DIMENSIONS

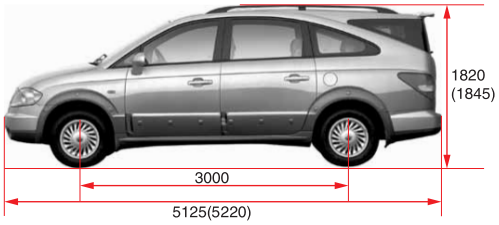
Unit: mm

Top View



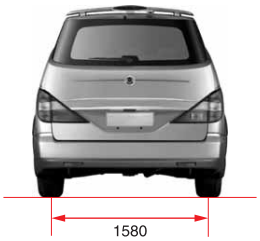
Front View

Side View



*( ): Optional

Rear View



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SPECIFICATIONS

* ( ) Optional, [ ] 2WD

Descriptions			D27DT	G32D
Engine	Numbers of cylinders/ Compression ratio		5 / 18 : 1	6 / 10 : 1
	Total displacement (cc)		2,696	3,199
	Camshaft arrangement		DOHC	←
	Max. power		165 ps / 4,000 rpm	220 ps / 6,100 rpm
	Max. torque		34.7 kg·m / 1,800~3,250 rpm	31.8 kg·m / 4,600 rpm
	Idle speed		750 ± 20 rpm	700 ± 50 rpm
	Cooling system		Water- cooled / forced circulation	←
	Coolant capacity (ℓ)		11.0 ~ 11.5	11.3 ~ 11.5
	Lubrication system		Gear pump, forced circulation	←
	Max. oil capacity (ℓ)		8.9	9.8
	Turbocharger and cooling type		Turbocharger, air- cooled	-
	Fuel		Diesel	Gasoline
Automatic Transmission	Model		Electronic	←
	Operating type		Floor change type	←
	Gear ratio	1st	3.595	3.951
		2nd	2.186	2.423
		3rd	1.405	1.486
		4th	1.000	1.000
		5th	0.831	0.833
		Reverse 1st	3.167	3.147
		Reverse 2nd	1.926	1.930

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Descriptions				11 Seaters	9 Seaters	7 Seaters
General	Overall length (mm)			5,125 (5,220)	←	←
	Overall width (mm)			1,915 (1,930)	←	←
	Overall height (mm)			1,820 (1,845)	←	←
	Gross vehicle weight (kg)	A/T	Diesel	3,035 [2,925]	2,850 [2,750]	←
			Gasoline	2,950 [2,850]	2,850 [2,750]	←
		M/T		3,005 [2,900]	2,850 [2,750]	←
	Curb vehicle weight (kg)	A/T	Diesel	2,320 [2,210]	2,308 [2,198]	2,244 [2,134]
			Gasoline	2,325 [2,215]	2,313 [2,203]	2,235 [2,125]
		M/T		2,290 [2,180]	2,281 [2,171]	2,217 [2,106]
	Fuel tank capacity (ℓ)			80	←	←
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	←	←
Transfer Case	Model			D27DT: TOD / G32D: Part-time	←	←
	Type			Planetary gear type	←	←
	Gear ratio		High	1.000 : 1	←	←
			Low	2.483 : 1	←	←

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Descriptions			11 Seaters	9 Seaters	7 Seaters
Clutch (M/T)	Operating type		Hydraulic type	←	←
	Disc type		Dry single diaphragm type	←	←
Power Steering	Type		Rack and pinion	←	←
	Steering angle	Inner	37° 22′	←	←
		Outer	32° 31′	←	←
Front Axle	Drive shaft type		Ball joint type	←	←
	Axle housing type		Build-up type	←	←
Rear Axle	Drive shaft type		Ball joint 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	Disc type	←	←
	Parking brake		Cable type (internal expansion)	←	←
Suspension	Front suspension		Wishbone (Double) + coil spring	←	←
	Rear suspension		Multi-link + coil spring	←	←
Air Conditioner	Refrigerant (capacity)		R-134a (1050 ± 30 g)	←	←
Electrical	Battery type / Capacity (V-AH)		MF / 12 - 90	←	←
	Starter capacity (V-kW)		12 - 2.2	←	←
	Alternator capacity (V-A)		12 - 150 (12 - 115)	←	←

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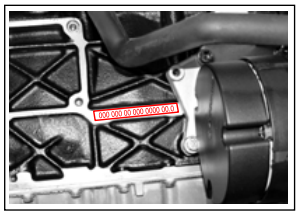
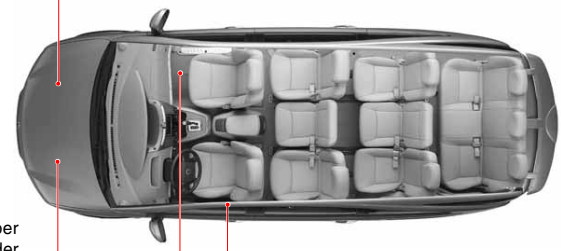
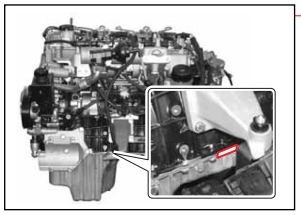
VEHICLE IDENTIFICATION

1. Engine Number



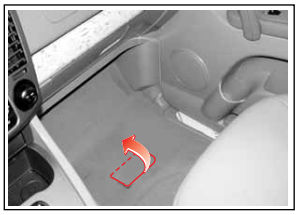
Gasoline Engine: The engine number is stamped on the lower area of cylinder block in exhaust manifold side.





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

2. Chassis Number



The chassis number is stamped on the floor under the passenger's mat.

3. Certification Label

The certification label is affixed on the bottom of driver side B-pillar.

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MEMO

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1

Safety Precautions

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CHECKS BEFORE STARTING A JOURNEY

CHECK THE VEHICLE OUTSIDE

1. Check the tyre inflation and wear.
2. Check the engine oil level and other fluid/oil levels in engine compartment.
3. Clean the windshield glass, rear glass, and side 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 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 the parking brake operations.
6. Check that all appropriate warning lights are operating when turning the ignition key to the "ON" position.
7. Check the operations of 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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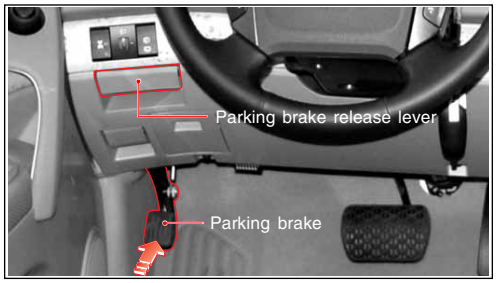
STARTING THE ENGINE AND DRIVING OFF THE VEHICLE



1. Apply the parking brake.

2. Make sure that there are no persons or obstacles in the danger area around the vehicle.

WARNING

In automatic transmission equipped vehicle, depress the brake pedal when the selector lever is at **"P"** position. Never depress the accelerator pedal.

CAUTION

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

Do not turn the ignition key to **"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 **"P"** position and depress the brake pedal.

   • **Manual transmission equipped vehicle**

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

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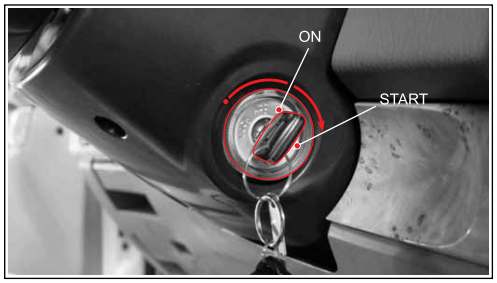


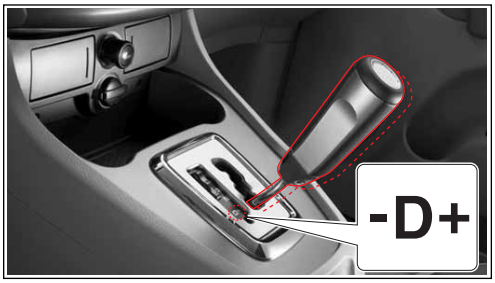
4. • **Diesel engine equipped vehicle:**

   Turn the ignition key to “ON” position and check the appropriate warning lights are operating. The preglow indicator light will come on and go out when the glow plugs are sufficiently heated for cold engine starting. As soon as the glow indicator goes out, start the engine.

   • **Gasoline engine equipped vehicle:**

   Turn the ignition key to “ON” position and check the appropriate warning lights are operating.

5. Crank the engine without touching the accelerator pedal by turning the igniting key to the “START” position. Release the key when the engine starts. If the engine starts, but fails to run, repeat the above procedure.



6. Warm up the engine in idling speed. Do not warm up the engine over 2 minutes.

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 **“-D+”** position. Make sure that the position indicators of **“D”** and **“1”** are coming. Drive off the vehicle by releasing the brake pedal slowly.

   • **Manual transmission equipped vehicle**

   Keep the brake pedal and clutch pedal depressed and shift into “1” position. To drive off the vehicle, release the brake pedal and depress the accelerator pedal gradually while releasing the clutch pedal slowly.

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SAFETY PRECAUTIONS

Ignition Key/Remote Control Key

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

Turbocharger System (Diesel Engine Equipped Vehicle)

The turbocharger elements rotate very fast. If the oil supply to running parts stops, the turbocharger system may be seriously damaged.

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

Air Bag

1. Never impact on the air bag installations by hands or tools.
2. The air bag system serves as 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 area. You may be injured by those objects during deployment.
4. The air bag system should be inspected after 10th year from its installation regardless of its appearance and other conditions.
5. Repairs to the air bag system should be done by only Ssangyong Dealer or Ssangyong Authorized Service Operation.
6. Never try to alter or modify the air bag related components.
7. Never install a child restraint in the front seat. The children on the restraint could be seriously injured by air bag in collision.
8. The deployed air bag unit should be removed from the vehicle and replaced with new one.
9. When the air bag is deployed, the relevant components will be very hot, so do not touch them until they are cooled down.
10. A person who is smaller than 140 cm should sit on the rear seat.

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SAFETY PRECAUTIONS

Hazardous Materials

1. Do not store any flammable items or disposable lighter in the console box or other space. 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.

Tyre

1. Be sure to use the same size and type tyres of the same manufacturer on all wheels. Using tyres of different sizes may cause damage to the driving mechanism of vehicle.
2. Keep the specified tyre inflation pressure.
3. Make sure that the spare tyre is available at any time.
4. Always check the tyre surface for damage and uneven wear before driving and replace it if needed.
5. Using tyres of different specifications may cause a high fuel consumption, long stopping distance, vehicle body vibration, heavy steering operation, and poor ABS operation.

Power Window

1. 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.
2. When carrying children on 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 antenna.

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SAFETY PRECAUTIONS

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 a infant or child restraint.
- NEVER INSTALL A REAR-FACING CHILD RESTRAINT IN 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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Starting the Engine

1. Diesel engine equipped vehicle: Turn the ignition key to “ON” position and wait until the preglow indicator goes out. After then, turn the ignition key to “START” position and hold it until the engine starts.
2. Even if the engine does not start, do not hold the ignition key at “START” position for more than 10 seconds.
3. If the engine does not start, wait 10 seconds before trying again.
4. If failed to start the engine, turn the ignition key to “LOCK” position, then turn it to “START” position again.
5. Do not turn the ignition key to “START” position while the engine is running.
6. The engine in automatic transmission equipped vehicle can be started only when the selector lever is at “P” or “N” position. The engine in manual transmission equipped vehicle can be started only when the clutch pedal is fully depressed.
7. Do not leave the ignition key at “ON” or “ACC” position when the engine is not running. This could cause battery discharge.

Warming Up the Engine

1. Warm up the engine with idle speed before driving off the vehicle. It can adversely affect the expected life span of the engine.
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 up increases the fuel consumption and air pollution. An optimized warming up time is approx. 2 minutes.

※ Do not accelerate the engine during warming up period.

Driving Off the Automatic Transmission Equipped Vehicle

1. Keep the brake pedal depressed and shift into “-D+” position. Make sure that the shift indicator of “D” and “1” are coming. Drive off the vehicle by releasing the brake pedal slowly.
2. To avoid damage to the automatic transmission, do not drive off and accelerate the vehicle immediately after placing the gear selector lever at “-D+” position. Especially, on a hill, move the gear selector lever to “-D+” position with brake depressed and wait until the position indicators of “D” and “1” are coming before driving off.
3. The vehicle can move down the slope even if the gear selector is at “-D+” position.

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SAFETY PRECAUTIONS

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. You can use only mechanical operations of the steering and brake system without assisted pressure. Thus, you need bigger force to steer and stop your vehicle. It may cause an accident.
2. Do not adjust driver's seat, rear view mirrors, steering wheel while the vehicle is moving.
3. While driving, do not depress the brake pedal when the accelerator pedal is depressed. Otherwise, the response from 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.

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 the 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 "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 the hilly road, apply the parking brake and chock the blocks under the wheels. Place the gear selector lever to "P" position (automatic transmission equipped vehicle).
3. If possible, do not stop and park the vehicle on the steep road.

Fade

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

Vapor Lock

The abnormal condition that occurs when brake fluid contains too much moisture and is overheated, causing the moisture in the fluid to boil. Gas bubbles are formed in the fluid, which causes a spongy brake pedal or a complete loss of hydraulic pressure.

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DIRECT INJECTION TYPE DIESEL ENGINE

CAUTIONS FOR DIRECT INJECTION TYPE DIESEL ENGINE

Direct Injection (DI) Type Diesel Engine

Compared to Indirect Injection (IDI) Type Diesel Engine that uses mechanical fuel injection system, 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 DI engine equipped vehicle has many precisely machined components. Using low quality fuel could result in a serious damage to the engine due to the water or impurities in 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 the Ssangyong Dealer or Ssangyong Authorized Service Operation.

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 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.

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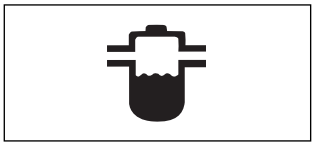
CAUTIONS FOR DIRECT INJECTION TYPE DIESEL ENGINE

Engine Check Indicator

This warning light comes on when the ignition switch is turned to ON and goes out if the engine is in normal condition.

When this warning light comes on, the engine driving force may be decreased or the engine may stall in some severe cases. These are indication of activating the safety mode to protect engine system. When this happens, have the system checked at the Ssangyong Dealer or Ssangyong Authorized Service Operation.

Water Separator Warning Light



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

For the draining procedures, please refer to “How to drain the water from fuel filter” section in this manual.

Water Separation Interval

- at every 10,000 km
- when changing the engine oil

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 priming pump until it becomes rigid to fill up the fuel pump with fuel.

WARNING

- When engine check warning light comes on, immediately stop driving and have the engine system checked at Ssangyong Dealer or Ssangyong Authorized Service Operation.
- Drain the water from fuel filter & water separator immediately after the water separator warning light comes on. The fuel system in engine may get serious damage if you keep driving while the warning light is coming on. Prompt correction should be necessary.

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2

Ignition Key, Remote Control Key

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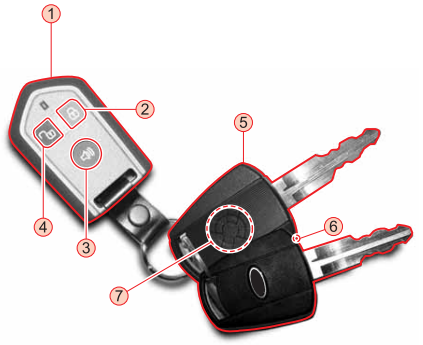
IMMOBILIZER KEY AND DOOR REMOTE CONTROL



1. Door Remote Control

2. Door Lock Button

1. Locks the doors
2. Activates the theft deterrent mode

Escort Button

To operate this mode, press and hold the door lock button for about 2 seconds: Lights up the headlamps for about 20 seconds

3. Panic Button (operative only when the ignition key is inserted)

Sounds intermittent buzzer for about 27 seconds

4. Door Unlock (by steps)

1st step : Unlocks the driver's door

2nd step : Unlocks the other doors and tailgate (press the button again in 1st step)

5. Immobilizer Key

6. Illumination Lamp

7. Illumination Button

To light up the illumination lamp, press this button.

CAUTION

- Avoid shock to the transmitter in door remote control. It may cause a malfunction of door remote control.
- If you lose your keys, you have to replace whole key set to prevent from theft.

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HOW TO USE DOOR REMOTE CONTROL

Door Unlock Button

1st step : Unlocks the driver's door and releases the theft deterrent mode

2nd step : Unlocks the other doors and tailgate (press the button again in 1st step)

Panic Button

- 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.

Door Lock Button

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

Escort Button

If you press and hold the door lock button for about 2 seconds, the headlamps will come on for about 20 seconds (gets into the theft deterrent mode, then activates the escort function).

Automatic Door Locking

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

Coupled With Front Interior Lamp

- If you press the door unlock button in door remote control when the front interior lamp switch is at "Door" position, the front interior lamps will come on for 30 seconds.

CAUTION

The doors cannot be locked by door remote control if they are not closed.

Theft Alarm Activation

If somebody tries to open the door, tailgate, or the hood in theft deterrent mode, the alarm will sound and the side turn signal lamps will blink for about 27 seconds.

Theft Alarm Deactivation

To stop the theft alarm during its activation, press any key on the door remote control.

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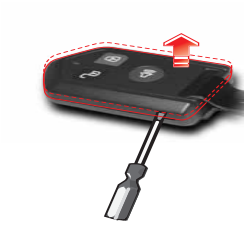
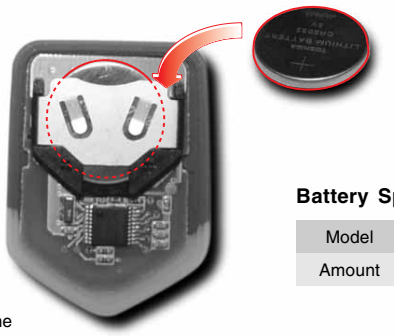
BATTERY REPLACEMENT



If the operating distance is shortened, the door remote control does not work properly, or the operating indicator is dimmed out, replace the battery with new one.



Battery Replacement

1. Pry off the cover from the door remote control cover by using small flat screwdriver.
2. Remove the battery and insert new one with the positive pole faced upright.
3. Reassemble the cover of the door remote control.

Battery Specifications

Model	CR 2032
Amount	one

CAUTION
Use only the specified battery.

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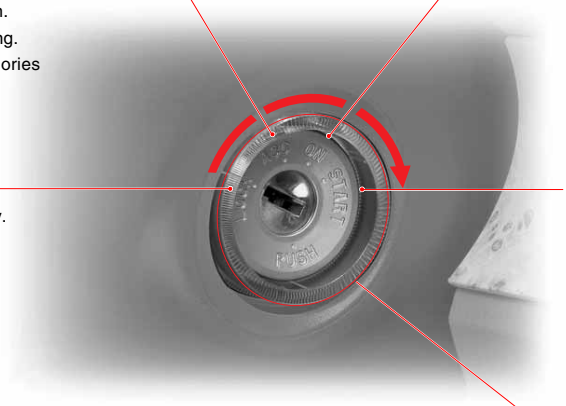
KEY FUNCTIONS

ACC Position

- Engine stop.
- The ignition key cannot be removed at this position.
- Steering wheel unlocking.
- Some electrical accessories are activated.

ON Position

- Electrical accessories are activated.
- Driving or engine running condition.



LOCK Position

- Insertion/removal of key.
- Steering wheel locking.

START Position

- Engine starting.
- The key automatically returns to ON position when releasing the key after starting.

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 ACC 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.

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CAUTIONS WHEN STARTING THE ENGINE

CAUTIONS WHEN STARTING THE ENGINE

- To unlock the steering wheel, insert the key and gently turn it to **ACC** position while slightly moving the steering wheel right and left.
- The engine in manual transmission equipped vehicle can be started only when the clutch pedal is fully depressed.
- Diesel engine equipped vehicle: Turn the ignition key to **"ON"** position and wait until the preglow indicator goes out. After then, turn the ignition key to **"START"** position and hold it until the engine starts (less than 10 seconds).
- The engine in automatic transmission equipped vehicle can be started only when the selector lever is at **"P"** or **"N"** position ("P" position is preferred).
- Keep the brake pedal depressed when starting the engine.
- Even if the engine does not start, do not hold the ignition key at **"START"** position for more than 10 seconds.
- After starting the engine, let it run for approx. 2 minutes with idle speed. Do not accelerate the engine during warming up period.
- Alarm sounds when opening the driver's door with the key positioned at **"ACC"** or **"LOCK"** position.
- Do not leave the key at **"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.
- If the engine does not start, wait 10 seconds before trying again.
- Never turn the key to **"LOCK"** position or pull out the ignition key from the ignition switch while driving. Doing it makes the steering wheel locked.
- Never use any duplicated key not provided from Ssangyong. It may cause a fire due to overload in electric circuit. The engine with immobilizer system cannot be started with the duplicated key.

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IMMOBILIZER SYSTEM*

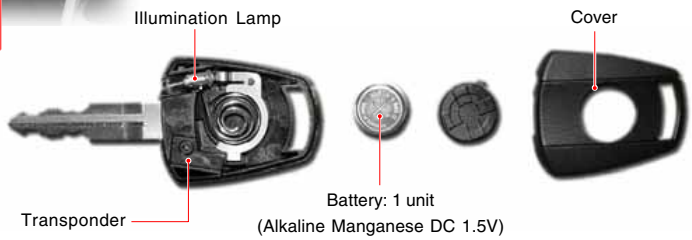
The Immobilizer System provides an additional theft deterrent to the vehicle in which it is installed and prevents it from being started by unauthorized persons. When the ignition key with integrated transponder is turned to the ON position, ECU (Engine Control Unit) checks the crypto code of key and,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

Immobilizer Indicator

This indicator indicates the operating conditions of immobilizer system. 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 Ssangyong Dealer or Ssangyong Authorized Service Operation.

Immobilizer Key

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



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- **When The Transponder Has Damaged**

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

- **When Lost The Keys**

  When lost the keys, you have to erase the transponder key from the engine control unit.

  To prevent the vehicle from being stolen by lost keys, contact Ssangyong Dealer or Ssangyong Authorized Service Operation. When you visit a dealer for service, please bring all keys you have.

CAUTION

- If the indicator remains blinking, have the immobilizer system checked by Ssangyong Dealer or Ssangyong Authorized Service Operation.
- Do not drop or shock to the transponder in the key, or it could be damaged.
- If the transponder has damaged, replace the key from Ssangyong Dealer and register the code to the engine control unit to be started.
- Immobilizer system should be inspected, replaced, serviced, and coded by only qualified service personnel in Ssangyong Dealer or Ssangyong Authorized Service Operation.
- When you erase the code or register an extra key, please attend on the site.

WARNING

- In any cases, the immobilizer system can not be removed from the vehicle. If you attempt to remove it and damage the system, starting will be impossible, so never attempt to remove, damage or modify it.
- And, remote engine starter cannot be installed to the vehicle equipped with immobilizer system. So never install a remote engine starter.

CAUTION

- The communication may not be established in the conditions as below:

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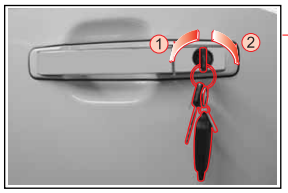
OPENING AND CLOSING THE DOORS WITH IGNITION KEY

Door



① Locking the door
② Unlocking the door

To lock the door:

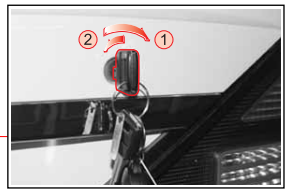
Turn the key to the lock position (toward front of the vehicle) from driver's door or passenger's door. All doors except tailgate will be locked.

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 except tailgate will be unlocked.

Tailgate



① Locking the tailgate
② Unlocking the tailgate

Turn the key to the clockwise/counterclockwise direction to lock/unlock the tailgate.

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3

Opening and Closing

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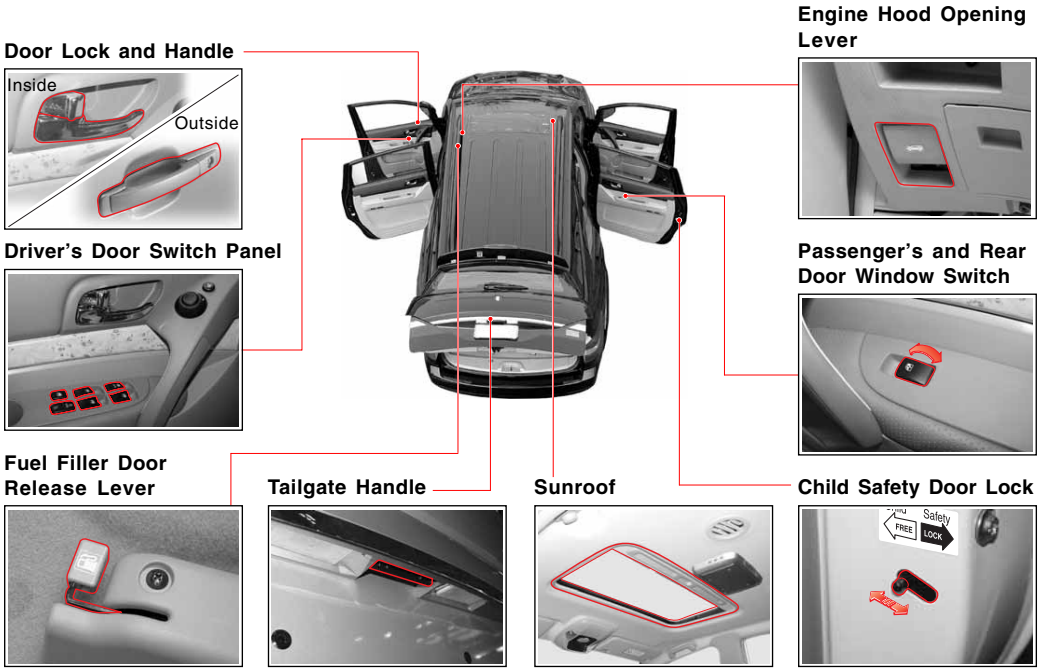
OPENING AND CLOSING DEVICES



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DOORS

Driver's Door (Inside)

Ⓐ Door Lock/Unlock Button
Ⓑ Door Opening Lever
① Lock
② Unlock

- If you press the door lock/unlock button (A) to the lock (1) direction, all doors are locked, and vice versa.
- Pull the door opening lever (B) to open the door.

Passenger's Door (Inside)

The passenger's door lock/unlock button and lever have the same functions with those of driver's door.

Rear Right Door (Inside)

Rear Left Door (Inside)

The opening levers on the rear right and rear left door have the same functions with that of driver's door. However, the lock/unlock button is available only for the appropriate door.

Automatic Door Locking

All doors will be automatically locked when you drive over 50 km/h while the doors are unlocked.

Automatic Door Unlocking

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

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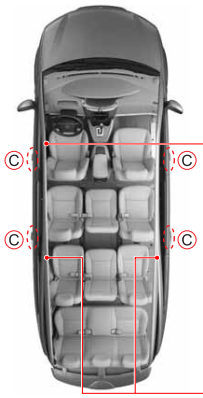
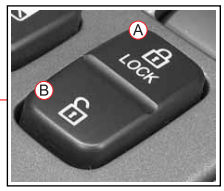


Central Door Lock/Unlock Switch



Press the Ⓐ section of the switch to lock the doors and tailgate.

Press the Ⓑ section of the switch to unlock the doors and tailgate.

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

Child Safety Door Lock

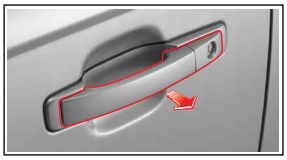
Child safety door lock helps prevent from an accidental door open, especially when children are in the vehicle. When the child-safe lever is in the “LOCK” position, the rear door can be opened only from the outside.

WARNING

Children in rear seats can open rear doors.

Move the child-safe lever to **“LOCK”** position.

Door Opening Lever (Outside Ⓒ)



To open the door, pull the outside door handle outward.

CAUTION

The door should be already unlocked.

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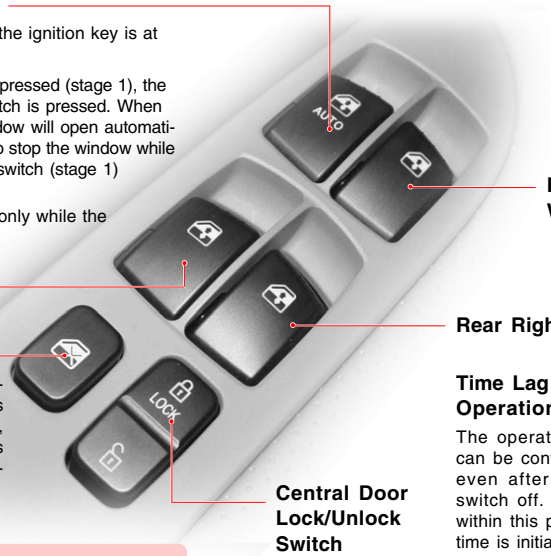
WINDOWS

Driver's Door Window Switch

- All windows can be operated when the ignition key is at **"ON"** position.
- When the front of the switch is lightly pressed (stage 1), the window will be lowered while the switch is pressed. When pressed to its end (stage 2), the window will open automatically until it is fully open. If you want to stop the window while automatic lowering, lightly press the switch (stage 1) again or pull up the switch.
- The other window can be operated only while the appropriate switch is activated.



Passenger's Door Window Switch

Rear Left Window Switch

Rear Right Window Switch

Window Lock Switch

If this switch is pressed, all door windows are operated only by driver's door window switches. To deactivate, press the switch again. The driver's door window operates without relations to window lock switch.

Central Door Lock/Unlock Switch

Time Lag of Window Operation

The operation of power window can be continued for 30 seconds even after turning the ignition switch off. If you open the door within this period of time, this lag time is initiated again.

WARNING

When carrying children on the rear seat, press the rear door window lock switch to make the rear door 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.

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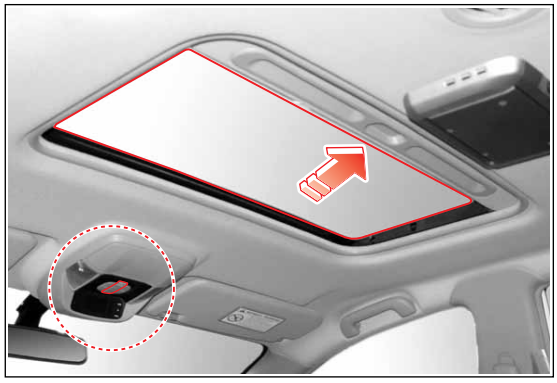
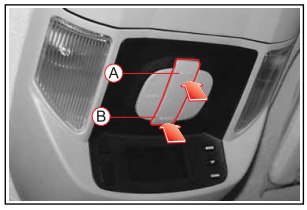
SUNROOF

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



CAUTION

- The sunroof can be operated when the ignition key is ON position (engine is not running), however, to prevent the battery from discharging, operation under engine running is recommended.
- When the sunroof operation is completed, release the switch. If keeps pressing the switch, could be a cause of malfunction. Especially in winter, never operate the sunroof if operation areas are iced and wait for deicing.
- If the sunroof has been stopped at its open position due to battery discharge or abrupt cut down of the supplying power, press (A) section of the switch to fully open the sunroof then press it again over 10 seconds, or press (B) section of the switch to tilt the sunroof then press it again over 10 seconds. This is for position recognizing operation to make the sunroof work properly.



Ⓐ Open Ⓑ Close

Sunroof Sliding Operation

1. To fully open the sunroof, briefly press the Ⓐ section of the switch. To partially open the sunroof, press and hold the button until it reaches at the desired position.
2. The sunroof operation stops if you press the switch during its operation.
3. To close the sunroof, press the Ⓑ section of the switch.

Sunroof Tilting Operation

To tilt up the sunroof, press the Ⓑ section of the switch. To tilt down it, press the Ⓐ section of the switch.

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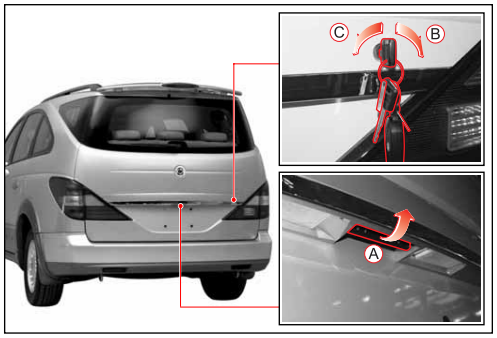
TAILGATE



Ⓐ Tailgate Opening Lever
Ⓑ Lock
Ⓒ Unlock

To open the tailgate, unlock the tailgate and pull up the tailgate opening lever Ⓐ.

WARNING

Exhaust gases are poisonous. Do not run the engine with the tailgate open to avoid exhaust gas in passenger compartment.

An open tailgate while vehicle is in motion could cause a falling down of luggage, resulting in an unexpected accident. Do not travel with the tailgate open.

CAUTIONS FOR OPENING/CLOSING DEVICES

- Do not allow children to play with any switch, door lever, and driving equipment.
- When closing the windows, sunroof, engine hood, and tailgate, be aware of safety conditions before operation. Parts of the body can be trapped.
- Make sure that doors, sunroof, engine hood, fuel filler door, and tailgate are completely closed before driving.
- When carrying children, use the child safety devices not to open the windows and doors.
- Parts of the body can be trapped in window or sunroof and can be struck by passing objects. Do not stick hands, head or anything else out of the openings.

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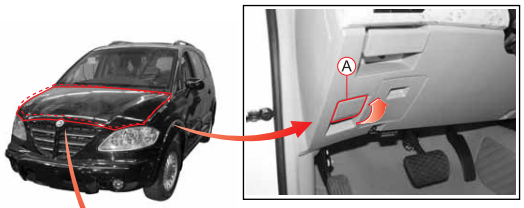
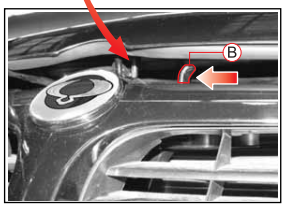
ENGINE HOOD



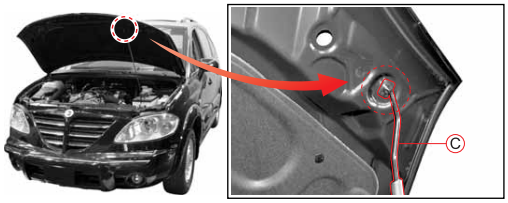
1. To open the engine hood, pull the release knob Ⓐ located on left lower side of instrument panel to unlatch the engine hood. The engine hood will then be unlocked and partially opened.



2. Push the safety catch lever located under the hood to the arrow direction Ⓑ and lift up the engine hood.

WARNING

- An open engine hood with engine running exposes moving parts which can crush, cut or entangle.
- Check that the engine hood is fully latched in position by pulling at its front edge before driving.
- To avoid a personal injury, take care of the separation of the support rod from the slot especially in windy day.



3. To hold the engine hood in the open position, insert the support rod Ⓒ into the slot.

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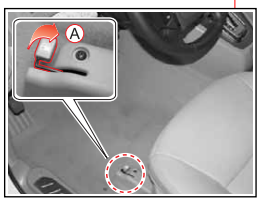
FUEL FILLER DOOR

WARNING

- Gasoline vapor is highly flammable. It burns violently and that can cause very bad injuries.
- When refueling,
  - Switch off engine.
  - No naked flame.
  - No smoking.
  - No sparking material.
- Using low quality fuel could result in a serious damage to the engine due to the water or impurities in fuel. Never use the low quality fuel.

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. Push or tap fuel filler door lightly to open.

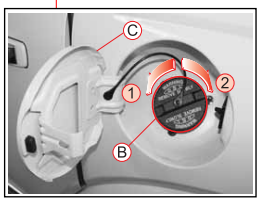


Ⓐ Fuel Filler Door Release Lever

1. Open the fuel filler door Ⓒ by pulling the release lever Ⓐ located on left lower side of driver's seat.

WARNING

Stop the engine before refueling.



① Open ② Close

2. Open the fuel filler cap Ⓑ by turning it counterclockwise ①.
3. After refueling, tighten the fuel filler cap by turning it clockwise ② and push the fuel filler door Ⓒ properly until it latches.

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MEMO

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4

Interior Switches

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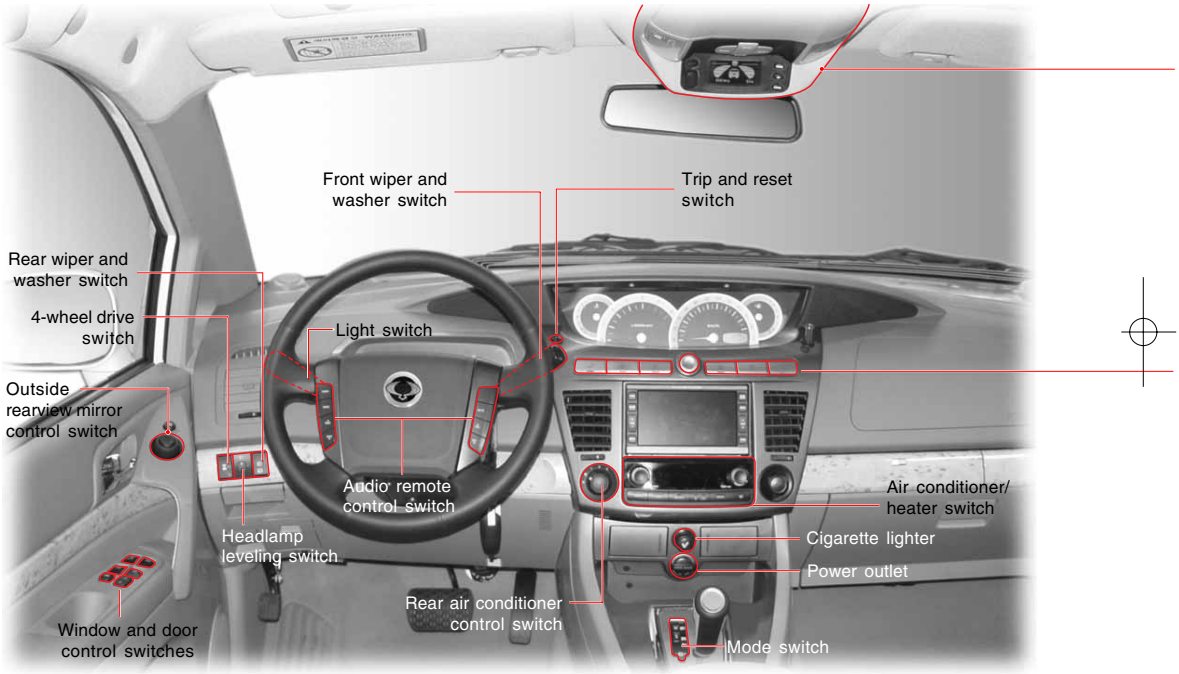
INTERIOR SWITCHES



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Overhead Console Switches

1. Door coupled front room lamp switch
2. Sunroof switch
3. Door coupled side room lamp switch
4. Front room lamp switch
5. Multimeter mode switch
6. Multimeter control button

Center Switch Panel

1. Seat warmer switch (driver's seat)
2. Rear fog lamp switch
3. Front fog lamp switch
4. Hazard warning flasher switch
5. Windshield, tailgate and outside rearview mirror heated glass switch
6. ESP_{OFF} switch
7. Seat warmer switch (passenger's seat)

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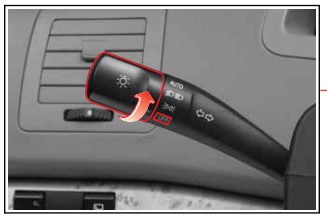
LIGHT SWITCH

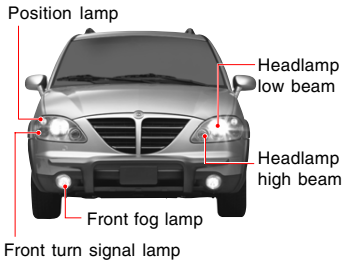
Light Switch

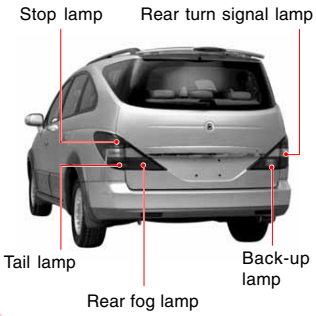


Turn the barrel on the end of the lever as shown, then lights will be operated as follows.

Position	OFF			AUTO
Headlamp	X	X	O	Turns on and off all rights automatically.
Position lamp	X	O	O	
Tail lamp	X	O	O	
License plate lamp	X	O	O	
Front fog lamp	X	O	O	
Rear fog lamp	X	O	O	
Instrument panel illumination lamp	X	O	O	

The fog lamp in the above table is turned on or off when the fog lamp switch is at “ON”.





: Mandatory where required by regulation

CAUTION

Turn on the headlamps when passing through the dark area such as tunnel.

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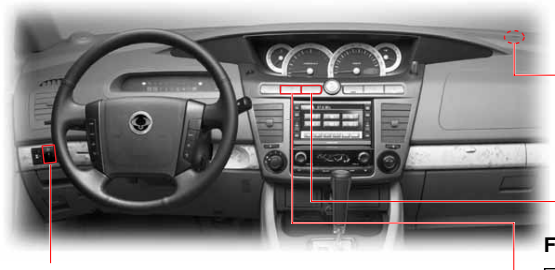
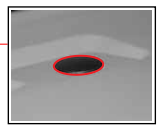


AUTO Light Sensor



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

Front Fog Lamp Switch

To turn on the fog lamps, push this switch while the tail lamps or headlamps are turned on. Push this switch again To turn if off.

Rear Fog Lamp Switch*

To turn on the rear fog lamp, push this switch while the light switch is placed in position.

Pushing this switch again will turn off the rear fog lamps.

Rear fog lamps can dazzle people behind.

Use rear fog lamps in severe weather conditions.

CAUTION

Do not use the fog lamp as a substitute for the headlamp.

Headlamp Leveling Switch*

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

- To lower the aiming angle, rotate the switch downward.
- To raise the aiming angle, rotate the switch upward.

NOTE

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

1. Without EAS: Do not turn the Headlamp Leveling Device switch over the third stage (it may affect a visibility due to low-aimed headlamp).
2. With EAS: Do not turn the Headlamp Leveling Device switch over the first stage (it may affect a visibility due to low-aimed headlamp).

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LIGHT SWITCH

1. Headlamp High Beam

To turn on the headlamp high beam, push the lever towards the instrument panel ① with the headlamp low beam on. The headlamp high beam indicator in instrument panel comes on when the headlamp high beam is turned on.

WARNING

Driving with high beam headlamp 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.

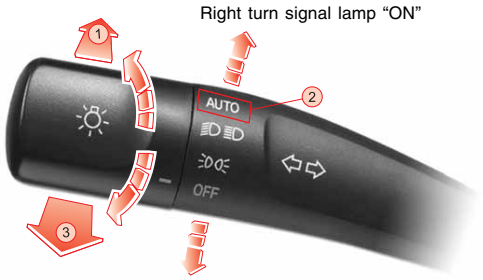
2. AUTO Light

Headlamps and tail lamps will automatically come on or off according to the ambient illumination intensity when the light switch is at "AUTO"② .

CAUTION

- Do not place any objects blocking the sensor. Do not clean the sensor with detergent or wax.
- In 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.
- The sun proof coating that can affect the illumination intensity inside the vehicle may cause the malfunction of the lighting system.

Right turn signal lamp "ON"



Left turn signal lamp "ON"

3. Passing

To flash the high beam, pull the lever towards the steering wheel ③ and release it. The lever will return to the normal position when released. The high beam headlights stay on as long as you hold the lever.

Battery Saver (Automatically turns off the lights)

To prevent the battery from discharging, the warning buzzer sounds when a driver remove the ignition key from the ignition switch and open the door with the tail lamps on. The tail lamps are turned off when the door is closed. And, the tail lamps come on again when the ignition key is inserted into the ignition switch.

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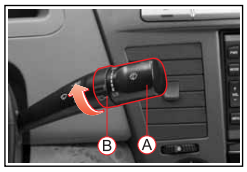
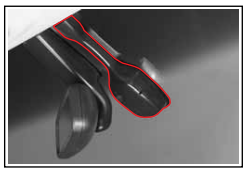
WIPER AND WASHER SWITCH



Front Wiper and Washer Switch

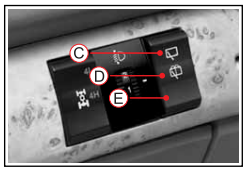
A. Front wiper and washer switch

B. Automatic wiper control switch



Rain Sensor*

When the windshield wiper switch is at “AUTO” position, the rain sensor automatically turns on and off the wiper. And, it controls the wiping speed by detecting the amount of rain drops.



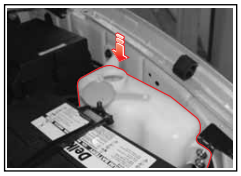
Rear Wiper and Washer Switch

C. Rear wiper operation

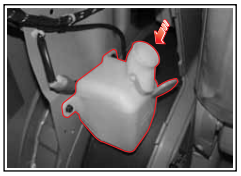
D. Rear wiper and washer operation

E. Rear wiper stops

Front Washer Fluid Reservoir



Rear Washer Fluid Reservoir



Frequently check the washer fluid level and add with specified washer fluid.

CAUTION

- If you use plain water as washer fluid, it will freeze during the winter and damage the washer fluid tank and motor. Use only specified washer fluid.
- Be careful not to spill the washer fluid around the reservoir.

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1. MIST

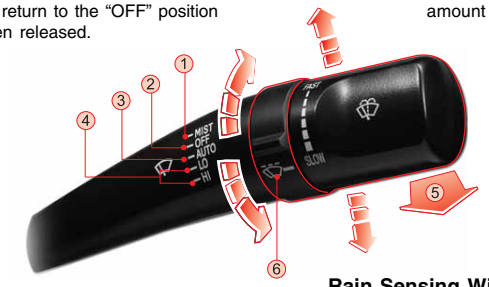
The wiper operates once when pushing up the lever. The lever will return to the “OFF” position when released.

2. OFF

Stop the operation.

3. AUTO

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



AUTO Position Recognition Function

When you start the engine with the wiper switch “AUTO” position, the wiper will operate once to remind you that the wiper switch is in “AUTO” position.

Rain Sensing Wiper

This sensor detects the amount of rain while the wiper switch is in “AUTO” position. If the rains become heavier, the speed of the wipers gets faster and smaller, the speed reduces.

4. LO/HI

LO: Continuous wipe, slow operation

HI: Continuous wipe, fast operation

5. Wiper and Washer Coupled Operation

Pull the lever briefly (below 0.6 seconds): One wiping cycle without washer spray

Pull and hold the lever for more than 0. 6 seconds: Three wiping cycles with washer spray

6. 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 AUTO position.

F : Fast interval

S : Slow interval

CAUTION

- Auto position recognition, especially in winter, may reduce the life span of the wiper blade. Make sure the wiper switch is at “OFF” position unless it rains.
- During winter time, the wiper blade can be frozen to windshield. Wiper operation while blade is frozen can damage wiper motor. Be sure to check the blade before operation.

CAUTION

- The wiper operation on dry wind- shield can scratch glass and wear the blade prematurely. Do not operate wiper when the windshield is dry.
- When you clean the windshield over the sensor with damp cloth, the wiper may operate suddenly. It could cause serious injury. Make sure to place the wiper switch and ignition switch to “OFF” position when not in use.
- Make sure to place the wiper switch to “OFF” position before washing the vehicle.

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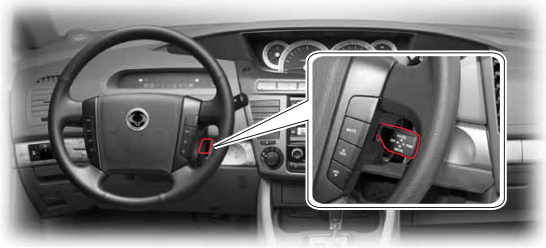
CRUISE CONTROL SWITCH*

CRUISE CONTROL*



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 36 km/h to engage cruise control. This feature is especially useful for motorway driving.

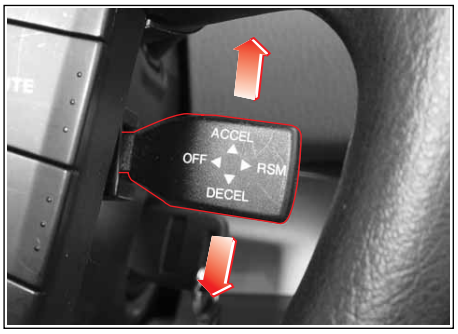
CAUTION

Improper use of 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.

Setting a Desired Speed



1. To operate the cruise control, accelerate to your desired speed using the acceleration pedal more over 36 km/h.
2. When the desired speed is reached, push up the ACCEL.SET. switch of a cruise control lever or push down the DECEL.SET. switch for 1 second per one switching and then release the acceleration pedal, slowly.
3. Now, the vehicle is cruised by this system with set speed.
4. And you can set to other vehicle speed again with above steps after acceleration pedal intervention during cruise control running.

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Accelerating with Cruise Control System

- While cruise control system is running

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

- While cruise control system is not running

1. Accelerate using the acceleration pedal more over 36 km/h.
2. Push up the ACCEL.SET switch of a cruise control lever and hold it.
3. And then release the acceleration pedal, slowly.
4. When the desired speed is reached, release the lever.

- Tap up while cruise control system is running

1. Push up the ACCEL.SET. switch of a 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 1.3 km/h over the previous set speed.
3. If you want to accelerate for 13 km/h, operate the tap-up switching ten times without accelerating with cruise control system.

Decelerating with Cruise Control System

- While Cruise control system is running

1. Push down the DECEL.SET. Switch of a 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 34 km/h.
2. When the desired speed is reached, release the lever.

- When Cruise control system is not running

1. Push down the DECEL.SET. Switch of a cruise control lever and hold it.
2. And then release the acceleration 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 34 km/h.

- Tap down while cruise control system is running

1. Push down the DECEL.SET. Switch of a 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 brake pedal intervention.

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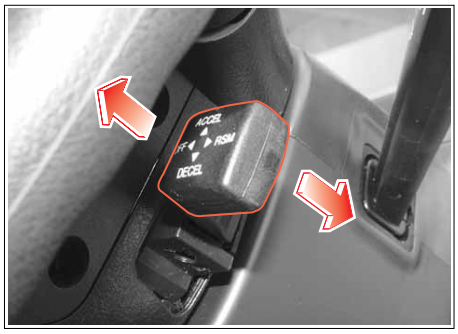
Recovery of Set Speed



Even if the cruise control is canceled, the previous set cruise speed can be recovered by pushing toward the RSM (resume) switch of a cruise control lever when the current vehicle speed is higher than 36 km/h without 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 Cruise Control

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

1. When the brake pedal is depressed.
2. When the cruising speed is downed less than 34 km/h.
3. When the off switch is operated by pulling rearward the cruise control lever.
4. When ABD is activated.

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

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

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Abnormal Cancellation of 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 brake light switch input signal is unplausible.

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 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 Cruise Control on Hills

How well 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 press 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 cruise control.

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4-WHEEL DRIVE SWITCH*

Full-Time 4-Wheel Drive Vehicle (TOD)*

The vehicle equipped with the TOD 4-wheel drive evenly distributes the driving force to all wheels according to the road conditions.

Driving Mode Change (4H ↔ 4L)

1. Manual Transmission Equipped Vehicle

   Stop the vehicle on a level ground and place the shift lever into "Neutral" position. Push the desired portion of the switch while depressing the brake pedal and clutch pedal.

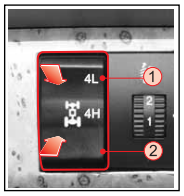
2. Automatic Transmission Equipped Vehicle

   Stop the vehicle on a level ground and place the gear selector lever into "N" position. Push the desired portion of the switch while depressing the brake pedal.

NOTE

When shifting from "4L" to "4H" in automatic transmission equipped vehicle, move the gear selector lever from "N" to "R" position after pushing the 4WD switch, then move it to "N" position again. This may help to make easy mode change.

4-Wheel Drive Switch*



1. "4L" (4-Wheel Drive, Low)

Push this portion of the switch for maximum traction in slippery roads, steep hills and rough roads. At this time, the "4WD LOW" indicator in instrument panel comes on.

2. "4H" (4-Wheel Drive, High)

Push this portion of the switch for normal driving. This position gives greater economy, quieter ride and less drive train wear.

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4-Wheel Drive Switch - Part Time*

Driving Position

The 4WD indicator light illuminates when the 4WD switch is in ‘4H’ or ‘4L’.

1. ‘2H’ (2-Wheel drive)

This is rear wheel drive with high speed. Use this for normal driving. This position gives greater economy, quieter ride and least drive train wear.

2. ‘4H’ (4-Wheel Drive, High)

Use this for driving on wet or slippery roads such as roads with snow, mud or sand.

This position provides greater traction than 2-wheel drive. The front hubs will be locked automatically.

3. ‘4L’ (4-Wheel Drive, Low)

Use this for maximum power and traction. Use ‘4L’ for climbing or descending steep hills, hard pulling in sand, mud or deep snow.

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4WD CHECK WARNING LIGHT AND INDICATOR*

4WD CHECK Warning Light*

4WD CHECK

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

CAUTION

If "4WD CHECK" warning light stays on or "4WD LOW" indicator blinks continuously, have the 4WD system checked by Ssangyong Dealer or Ssangyong Authorized Service Operation.

4WD LOW Indicator*

4WD LOW

When shifting the driving mode between "4WD LOW" and "4WD HIGH", this indicator blinks until the shifting operation is completed. After completion of mode change to 4WD LOW, the indicator goes on. After completion of mode change to 4WD HIGH, the indicator goes out.

CAUTION

- Select a proper 4-wheel drive mode according to the road conditions such as slippery, steep hills, and roughness.
- There could be mechanical noises and shocks during mode changes. However, these are normal conditions due to mode changing operations.
- When cornering a curved road in 4WD LOW drive mode, there could be some mechanical shocks and resistances in vehicle's drive train. These are normal conditions due to internal resistance in drive train when the 4WD LOW is properly working. To avoid damages to the drive train, do not drive your vehicle with excessively high speed in sharply curved road.

4WD High Indicator (For Part Time 4WD)

4WD HIGH

This indicator comes on when the 4WD HIGH mode is selected by pushing 4H switch.

Shift the driving mode from 2WD to 4WD HIGH only when the vehicle speed is under 70 km/h.

NOTE

When shifting the driving mode from 4WD LOW to 4WD HIGH, this indicator will blinks until the shift is completed. After completion of shift, the indicator stays on. The indicator comes on without blinking when shifting from 2WD to 4WD HIGH.

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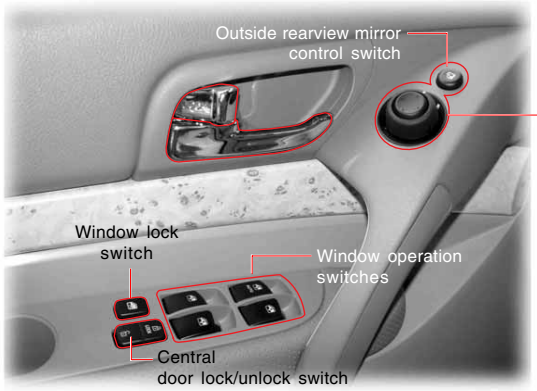
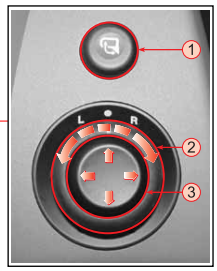
SWITCHES ON DRIVER'S DOOR TRIM

OUTSIDE REARVIEW MIRROR CONTROL SWITCH





1. Outside rearview mirror folding switch

To fold the outside rearview mirrors, press the switch for more than 0.5 seconds. To unfold the mirrors, press again.

2. Mirror selection switch

"L": Driver side mirror

"R": Passenger side mirror

"•": Neutral position

3. Aiming switch

Adjust the selected mirror up, down, left, or right by pressing the corresponding edges of the switch to get the direct rearview.

CAUTION

- Do not fold or unfold the outside rearview mirrors manually. It may cause a malfunction of the mirror folding system.
- If the outside rearview mirrors are folded or unfolded manually, an abnormal noise may be produced during the folding switch operations.
- If you operate the outside rearview mirror folding switch within 10 seconds after starting the recognizing operation of the mirror position, continuous abnormal noise may be produced.

Recognizing Operation of the Mirror Position

When you folded or unfolded the outside rearview mirrors, perform the recognizing operation of the mirror position in the following order.

1. Fold/unfold the mirrors with folding switch.
2. The mirrors are folded/unfolded.
3. Fold/unfold the mirrors with folding switch after 10 seconds.
4. The mirrors are folded/unfolded.
5. The mirrors can be operated with folding switch after 10 seconds.

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AUDIO REMOTE CONTROL SWITCHES ON STEERING WHEEL*

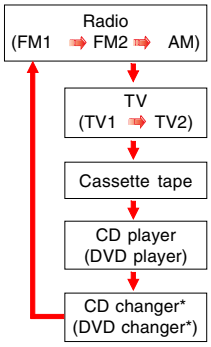
* The audio system equipped in the vehicle can be controlled by the remote control switches on the steering wheel.

POWER

Audio power on/off when the button is pressed.

MODE

Audio mode changes in following order:



- CD & DVD changer: optional

MUTE

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

▲ SEEK / SEEK ▼

- In radio mode
- Press briefly: Manual searching for a station.
- Press and hold: Automatic searching for a station.

- In CD (DVD) player/Cassette tape mode
- Press briefly: Replay next/previous track.
- Press and hold: Move forward/backward in current tract.

▲ VOL / VOL ▼

Increases volume / Decreases volume

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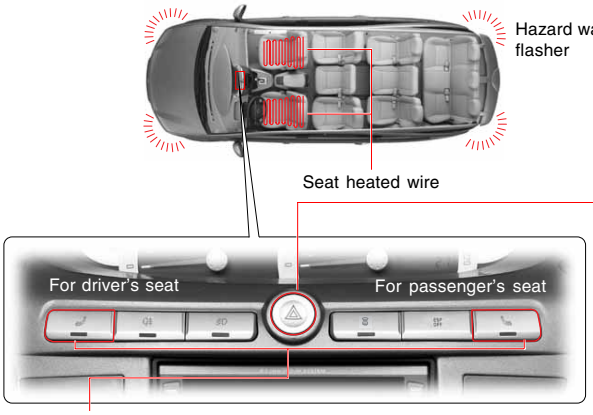
CENTER SWITCH PANEL



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. Push this switch again to turn them off.

CAUTION

Do not turn on the hazard warning flashers for an extended period of time when the engine is stopped. The battery could be discharged.

Seat Warmer Switch

Press the switch to warm the seat in cold weather, and press it again to stop the operation. The indicator in the switch comes on when in use.

WARNING

- If the temperature continues to rise, turn the switch off and have the system checked by Ssangyong Dealer or Ssangyong Authorized Service Operation.
- Do not place anything sharp on the seat. This may cause damages to the seat heater.

CAUTION

- 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, exhausted person or drunk person. They may get burnt.
- Do not put anything on the seat that insulates heat, such as a blanket, cushion or seat cover.
- When cleaning the seats, do not use organic solvents such as benzene or thinner. The seat surfaces may get deteriorated.

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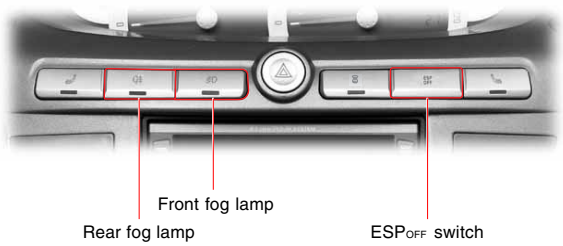
FOG LAMP SWITCH & ESP$_{OFF}$ SWITCH*



Rear Fog Lamp Switch*

To turn on the rear fog lamp, push this switch while the light switch is placed in position.

Pushing this switch again will turn off the rear fog lamps.

Rear fog lamps can dazzle people behind.

Use rear fog lamps in severe weather conditions.

Front Fog Lamp Switch

To turn on the fog lamps, push this switch while the tail lamps or headlamps are turned on. Push this switch again To turn if off.

CAUTION

Do not use the fog lamp as a substitute for the headlight.

ESP$_{OFF}$ Switch

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

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

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

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

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

Driving Impression When ESP Is Working

The ESP system may transfer noise and vibration to the driver due to the pressure changes caused by the motor and valve operations in a very short period of time. Extreme cornering will trigger the ESP operation and this will make the driver feel noise and vibration due to strong braking operation. Also, the ESP system controls the engine output. So, the driver may notice the engine output decrease even when the accelerator pedal is being depressed.

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ESP & ABS*

The ESP system is activated unless you press the ESP OFF switch. However, the ABS system operates only when the tyres are slipping on the road surface due to sudden braking. Basically, the ESP system is advanced vehicle control system that integrates the ABS system and vehicle stability control system.

CAUTION

- The ESP system deactivates when stopping the engine. It will be resumed when the engine is started again.
- If the vehicle is controlled by ESP during driving, the ESP$_{OFF}$ switch will not work.
- The ESP system does not operate during reverse driving.
- 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. At this moment, the ABS works in a basic way. However, make sure to check the vehicle at the nearest Ssangyong Dealer or Ssangyong Authorized Service Operation.
- If the ESP warning light and the ABS warning light come on simultaneously, both ESP and ABS system are not working. Do not over speed your vehicle and be sure to check or repair the vehicle at the nearest Ssangyong Dealer or Ssangyong Authorized Service Operation.
- If the ESP warning light flickers and the alarm sounds, it means that the vehicle stability is controlled by the ESP function when vehicle stability is extremely unstable. In this situation, drive the vehicle with maximum safety.
- 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. Keen on the safe driving.

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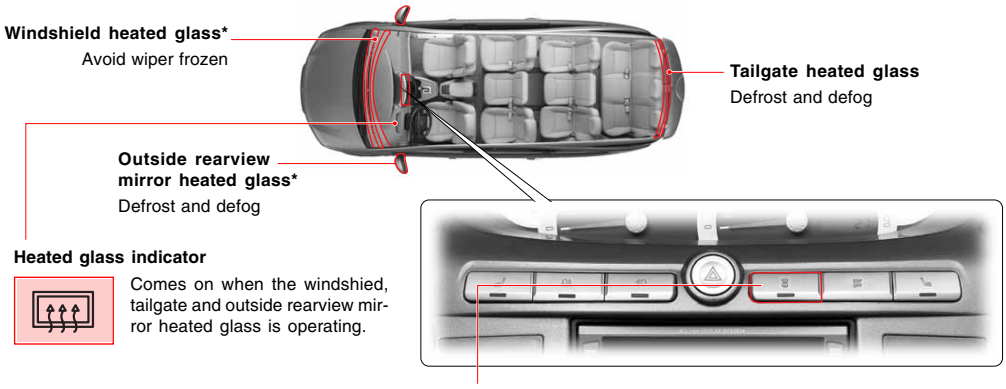
HEATED GLASS SWITCH



Windshield, Tailgate and Outside Rearview Mirror Heated Glass

Tailgate and Outside Rearview Mirror Heated Glass

Windshield, Tailgate and Outside Rearview Mirror Heated Glass

- Press this switch to turn on the windshield heated glass. It will operate for about 12 minutes. However, the outside rearview mirror heated glass is optional.
- Press the switch again to stop the operation.
- This switch is designed to defrost and defog on the windshield, 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 indicators in the instrument panel and the switch come on when in use.

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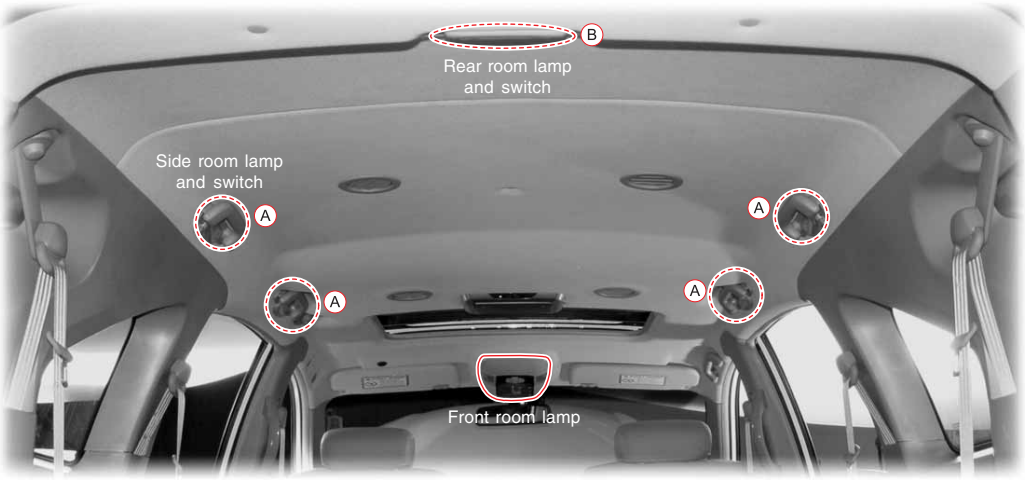
SWITCHES IN OVERHEAD CONSOLE AND ROOM LAMP SWITCHES

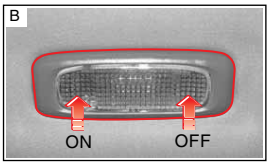


Side Room Lamp Switch

Press the lamp body to turn on. Press it again to turn off.

- Side room lamps and rear room lamp are available only when the side room lamp coupled switch is pressed in.

Rear Room Lamp Switch



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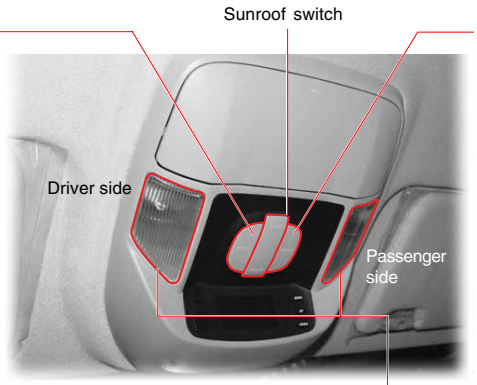
SWITCHES IN OVERHEAD CONSOLE

Front Room Lamp Coupled Switch

Front room lamps (driver's and passenger's) are turned on when opening one of front doors with this switch pressed in. The front room lamps are dimmed out after closing the door. If this switch is pressed out, front room lamps are not turned on even when opening a front door.



Side Room Lamp Coupled Switch

Four side room lamps are turned on when opening a rear door with this switch pressed in. The side room lamps are turned off when closing the door. If this switch is pressed out, side room lamps are not turned on even when opening a rear door.

Side and Rear Room Lamp Operating Condition

Side and rear room lamps are turned on only when the side room lamp coupled switch is pressed in.

Coupled Operation with Door Remote Control

With the front room lamp coupled switch pressed in, the front room lamps are turned on for 30 seconds when the doors are unlocked by the door remote control. The front room lamps are turned off immediately when closing the door.

Front Room Lamp Switch

The front room lamps are turned on when pushing the lamp body regardless of the positions of front room lamp coupled switch. Press the lamp body again to turn off.

NOTE

With the front room lamp coupled switch pressed in, the front room lamps are turned on when opening a front door regardless of the operation of front room lamp switch.

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MULTI-METER

Mode changing sequence when pressing the MODE button:

Parking Aid Signal (The rearview display is appeared when placing the shift lever to **"R"** position)

The distance from the obstacles can be measured with the displaying bars. For details, please refer to the Section 6.

This message appears only when the rear detecting sensor is defective.

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TIME AND DATE MODE

Adjusting the Time and Date

1. Press and hold the MODE button for more than 1 second to start time and date mode.
2. Move and select the information to be adjusted while briefly pressing the MODE button (0.5 seconds). The selected information is blinking.

Changing sequence

AM (PM) ➡ Hour ➡ Minute ➡ Day ➡ Month ➡ Year

3. Adjust the information by using UP or DOWN button.
4. Press and hold the MODE button for more than 1 second to set the time and date.

NOTE

A day of the week is automatically changed according to the adjusted date, month, and year.

Time Alarm Function

- The background of display window lights on and the displaying letters becomes dark for 10 seconds at every hour.
- The background of display window lights on and the displaying letters becomes dark for 3 seconds at every half hour.

Changing the user Interface Language

The user Interface language is changed between Korean and English when pressing "MODE" and "DOWN" buttons for more than 1 second at a time.

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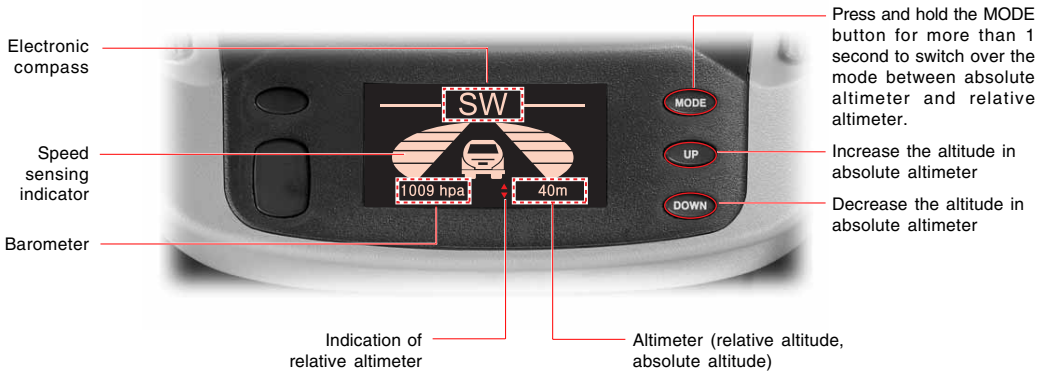
DIRECTION, ATMOSPHERIC PRESSURE, ALTITUDE MODE



Electronic compass	Speed sensing indicator	Barometer	Altimeter
It indicates 8-direction according to the vehicle's driving direction.	The flashing interval of the road signs changes gradually according to the vehicle speed. **NOTE** The indicator stays on below 2.8 km/h of vehicle speed.	It indicates the current atmospheric pressure by 1 hpa.	**Absolute altimeter** It indicates the current altitude from sea level (0 m) by every 20 m. **Relative altimeter** It indicates the specific area's relative altitude based on the current altitude of the vehicle.

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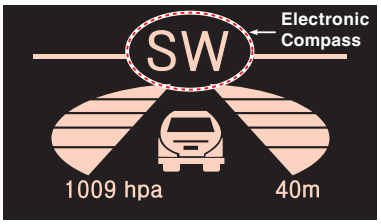
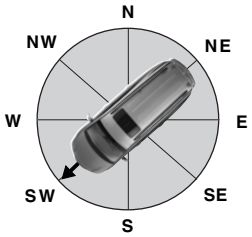
Electronic Compass





It indicates 8-direction by interval of 45° according to the vehicle's driving direction. This is available only when the vehicle speed is over 2.8 km/h.

Turning Calibration

When the multimeter is installed to the vehicle or the battery is replaced, you have to perform calibration by circulating your vehicle. If not, there will be misreading in direction.

NOTE
The direction will be indicated while driving.

1. If you press the MODE and UP button simultaneously for more than 1 second, the current direction flashes.
2. Turn the vehicle over 1 complete circle within 128 seconds slowly, then the calibration will be accomplished.
3. When the calibration is finished, the vehicle's new direction will be indicated.

NOTE
- You can turn to any direction, left or right.
- When the calibration is completed, the compass does not flash anymore.
- If the compass continues to flash, turn again slowly until it goes off.

Release conditions for turning calibration
- When the MODE and UP button simultaneously are pressed briefly.
- When the vehicle is not turned within 128 seconds after calibration mode started.

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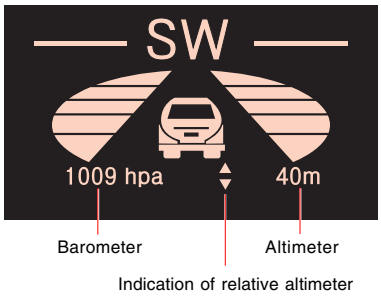
BAROMETER AND ALTIMETER



Barometer and Altimeter (relative altitude, absolute altitude)

Barometer

It indicates the current atmospheric pressure in range from 720 hpa to 1045 hpa by 1 hpa.

Altimeter

It indicates the absolute altitude or relative altitude. Press and hold the MODE button for more than 1 second to switch over the mode between absolute altimeter and relative altimeter in direction/atmospheric pressure/altitude mode.

Absolute Altimeter

It indicates the current altitude from sea level (0 m) by every 20 m.

- **Indication range:** -200 m ~ 2,800 m
- **How to calibrate the absolute altitude**
  Press UP button: increase by 20 m
  Press DOWN button: decrease by 20 m
- **Absolute altitude calibration range**
  - 200 m ~ 320 m
- **How to erase the calibrated altitude value**
  Press the UP and DOWN buttons simultaneously for more than 1 second to cancel the altitude calibration.

Relative Altimeter

- It shows the specific area's relative altitude based on the current altitude of the vehicle and shows by every 20 m.
- In relative altimeter mode, reset the relative altitude to 0 m by using UP or DOWN button. The relative altimeter shows the destination's relative altitude after arrival.

NOTE

0 m above the sea level is equivalent to 1013.25 hpa and the altimeter convert the difference between this pressure and atmospheric pressure to absolute altitude or relative altitude.

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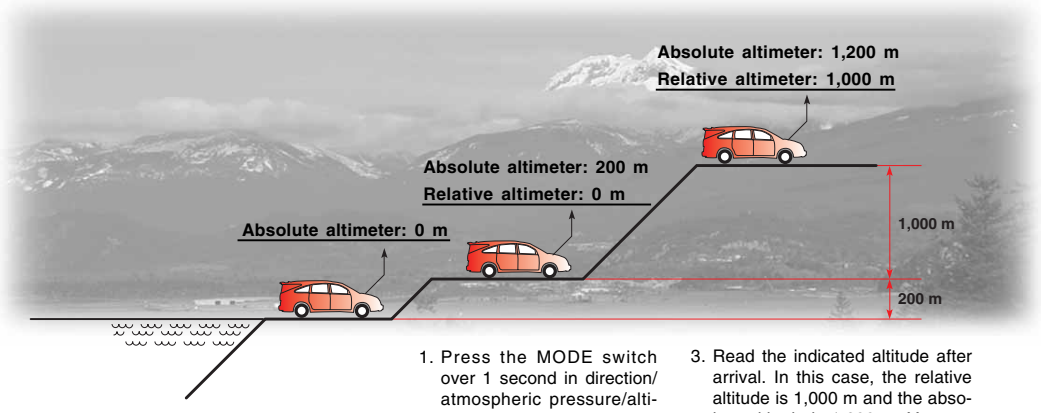
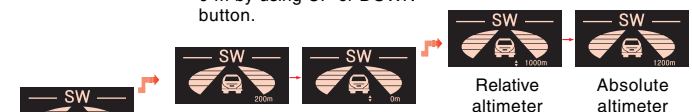
HOW TO USE THE ALTIMETER (EXAMPLE)



1. Press the MODE switch over 1 second in direction/atmospheric pressure/altitude mode.
2. In relative altimeter mode, reset the relative altitude to 0 m by using UP or DOWN button.
3. Read the indicated altitude after arrival. In this case, the relative altitude is 1,000 m and the absolute altitude is 1,200 m. You can switch over the mode by pressing the MODE button over 1 second.



Absolute altimeter | Absolute altimeter | Relative altimeter | Relative altimeter | Absolute altimeter

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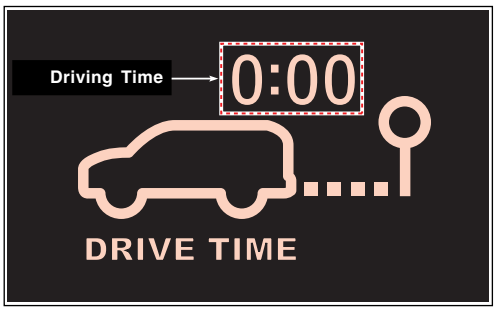
DRIVING TIME AND AVERAGE SPEED

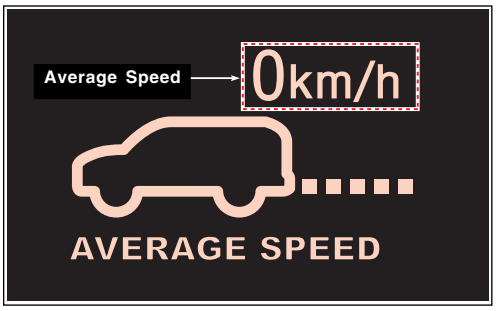
DRIVING TIME



It indicates the driving time from start up to now.
It can be reset to 0 by using UP or DOWN button.
It is not available when the engine is not running.

Indication range: 0:00 ~ 23:59

AVERAGE SPEED



It indicates the average vehicle speed from start up to now.
It can be reset to 0 km/h by using UP or DOWN button.
It is not available when the engine is not running.

Indication range: 0 ~ 120 km/h (0 ~ 120 MPH)

DOWN button: KPH ↔ MPH mode change

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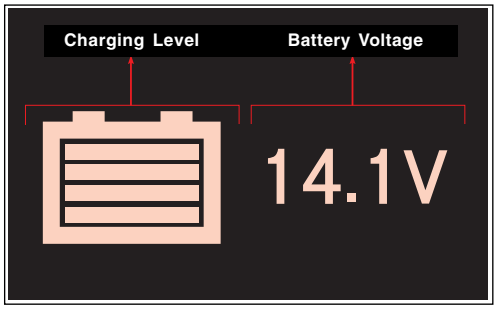
BATTERY VOLTAGE



It indicates the current battery voltage by 0.1 V.

When the battery voltage goes below 12.0 V, current display is changed to battery voltage mode and “LOW VOLTAGE” message flashes at every 10 seconds.

CAUTION

- Start the engine and charge the battery voltage when the battery voltage is below 12.0 V.
- When starting the engine, the battery voltage is temporarily decreased.
- If the charging level in display is not increased even when the engine is running, have the system checked at Ssangyong Dealer or Ssangyong Authorized Service Operation.

Battery voltage	Indication
Over 12.0 V (Fully charged)	12.8V
11.9 ~ 11.0 V	11.2V
10.9 ~ 10.0 V	10.6V
9.9 ~ 9.0 V	9.4V LOW VOLTAGE

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5

Instrument Panel

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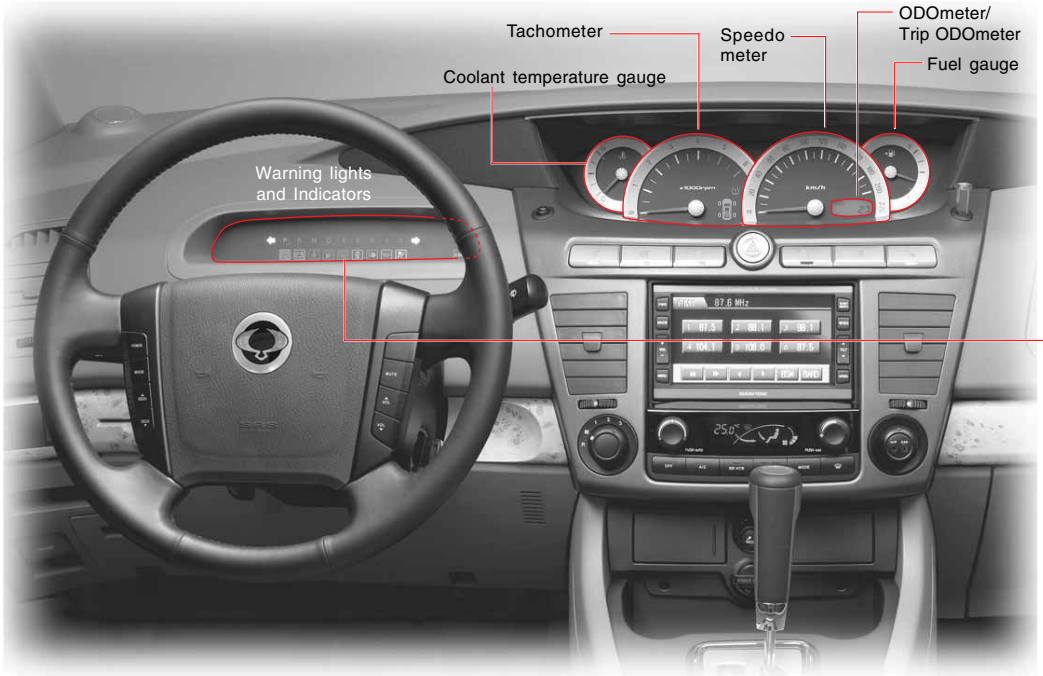
INSTRUMENT PANEL



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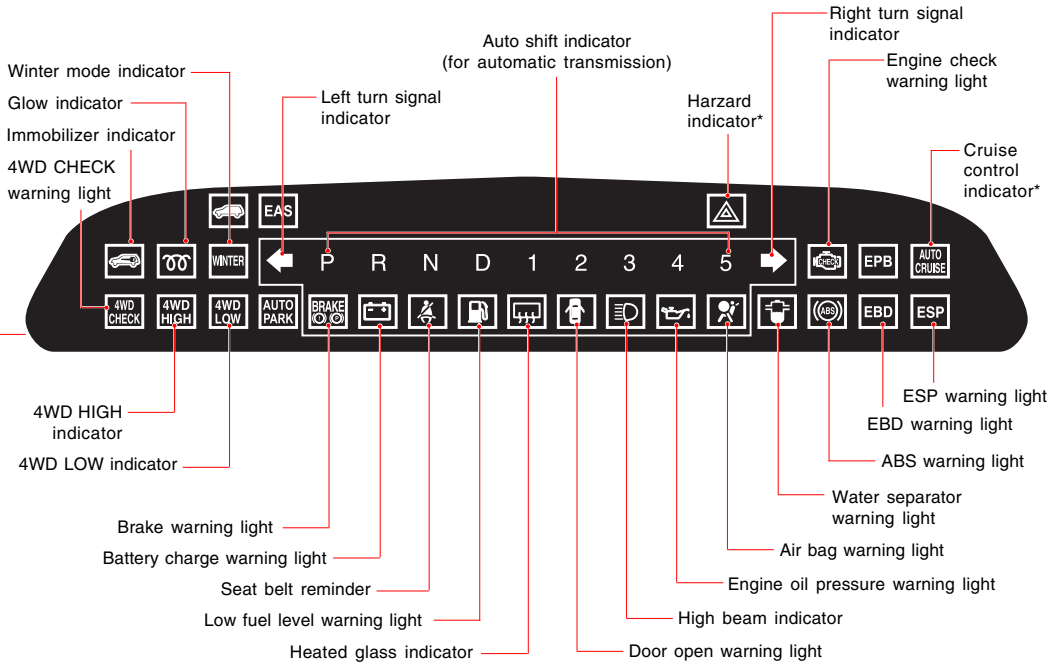
WARNING LIGHTS AND INDICATORS



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METER CLUSTER

Coolant Temperature Gauge

The temperature gauge indicates the temperature of engine coolant when the ignition switch is in the “ON” position.

CAUTION

The engine can overheat.

- If the pointer reaches the red zone, stop the vehicle.
- Allow engine to cool.

Fuel Gauge

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

- F : Full
- E : Empty

Tachometer

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.

WARNING

Excessive speed can damage engine.

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

Speedometer

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

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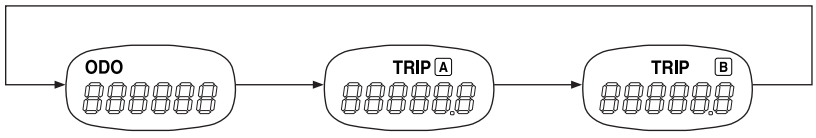
ODOMETER/TRIP ODOMETER

TRIP Button

The TRIP button is used for the display mode: ODO (total driving distance), TRIP A, and TRIP B

To reset the TRIP ODOmeter to 0 km, press the TRIP button for more than one second.

ODOmeter and TRIP ODOmeter Display



Total driving distance (0 ~ 999999 km)

Driving distance of range A (0.0 ~ 999.9 km)

Driving distance of range B (0.0 ~ 999.9 km)

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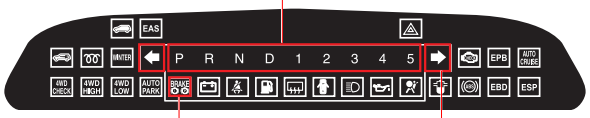
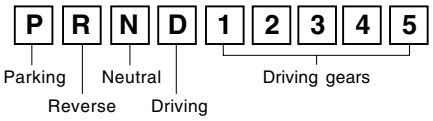


Auto Shift Indicator (for automatic transmission)



This indicator shows the automatic transmission selector lever position.

When the selector lever is at “D” position while driving, “D” indicator and currently selected gear indicator are coming on.

If you move the selector lever to left or right direction, only the selected gear indicator comes on.

Brake Warning Light

When the ignition is switched on, this warning light comes on and should go out after 4 seconds.

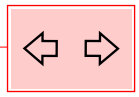
This warning light comes on when the parking brake is applied and/or the brake fluid level is lower than specified level.

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 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. Have the brake system checked and repaired immediately by nearest Ssangyong Dealer.



Turn Signal/Hazard Warning Flasher Indicator

When the turn signal switch is turned on, this indicator flashes to indicate operation of the external turn signal. Both right and left lights flash when the hazard warning switch is turned on.

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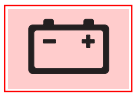


Battery Charge Warning Light

This warning light comes on when the ignition switch is turned on and go 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 Operation.

Seat Belt Reminder

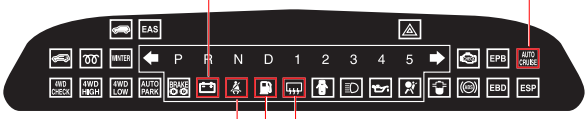
The seat belt warning light comes on and the seat belt warning chime sound for 6 seconds when the ignition switch is turned to "ON" position unless the driver's seat belt is securely fastened. This reminding operation stops when the driver fastens the seat belt even during its operation period.

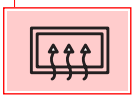
Low Fuel Level Warning Light

This warning light indicates that the fuel will soon be exhausted. The time it takes to turn on, however, varies according to the vehicle operating conditions or gradient of the road. Refuel preferably before the warning light comes on. Fill up the fuel tank immediately if this warning light comes on.

Cruise Control Indicator* (For Gasoline Engine)

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





Heated Glass Indicator

This indicator comes on when the outside rearview mirror and tailgate glass heated glass is switched "ON". It goes out after specified period of time.

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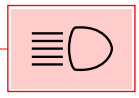
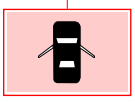


High Beam Indicator

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

CAUTION

Driving with high beam headlamp 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.



Door Open Warning Light

This light comes on when a door or tailgate is either opened or not closed completely. If you drive over 10 km/h of vehicle speed without closing the door, the warning light blinks.

WARNING

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

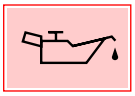
- Before driving off, close all doors.
- Check warning light is off.

Air Bag Warning Light

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

WARNING

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



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 the light comes on while driving, it indicates that the oil pressure is dangerously low. Stop the engine immediately and check the engine oil level. If the oil level is low, add the specified engine oil to the proper level. If the oil level is normal, have the lubricating system checked by Ssangyong Dealer or Ssangyong Authorized Service Operation.

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IMMO

Immobilizer Indicator

This indicator indicates the operating conditions of immobilizer system. 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.

CAUTION

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

4WD LOW

4WD Low Indicator*

* When shifting the driving mode between "4WD LOW" and "4WD HIGH", this indicator blinks until the shifting operation is completed. After completion of mode change, the indicator goes on. After completion of mode change to 4WD HIGH, the indicator goes out.

4WD CHECK

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 "4WD CHECK" warning light stays on, have the 4WD system checked by Ssangyong Dealer or Ssangyong Authorized Service Operation.

CAUTION

If "4WD CHECK" warning light stays on or "4WD LOW" indicator blinks continuously, have the 4WD system checked by Ssangyong Dealer or Ssangyong Authorized Service Operation.

4WD HIGH

4WD High Indicator (For Part Time 4WD)

This indicator comes on when the 4WD HIGH mode is selected by pushing 4H switch.

Shift the driving mode from 2WD to 4WD HIGH only when the vehicle speed is under 70 km/h.

NOTE

When shifting the driving mode from 4WD LOW to 4WD HIGH, this indicator will blinks until the shift is completed. After completion of shift, the indicator stays on. The indicator comes on without blinking when shifting from 2WD to 4WD HIGH.

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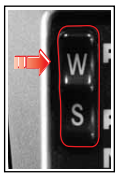
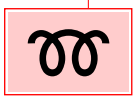
Winter Mode Indicator (For Automatic Transmission)

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

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



Mode switch



Glow Indicator (For Diesel Engine)

This indicator comes on when the ignition switch is turned on and stays on for a short time or may go off right away. The waiting time will vary according to the engine coolant temperature. When the glow plugs are sufficiently heated for cold starting, the light will go out. Then, the engine should be started.

In the vehicle equipped in with direct injection type engine, this indicator may come on very shortly or may not 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 Ssangyong Dealer or Ssangyong Authorized Service Operation.

Engine Check Warning Light

This warning light comes on when the ignition switch is turned to ON and goes out if the engine is in normal condition. If the light stays on or comes on while driving, some of engine control components including sensors and devices are defective.

CAUTION

If the engine stops due to complete fuel consumption and then this light comes on after refueling, the engine's output power may be decreased in a certain driving distance (30 km)

WARNING

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 Ssangyong Dealer or Ssangyong Authorized Service Operation.

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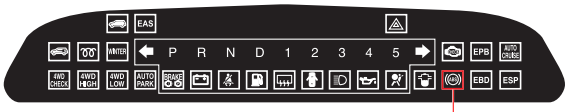
BRAKE SYSTEM RELATED WARNING LIGHTS



ABS Warning Light

This warning light comes on when the ignition switch is turned to ON and should go 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 Operation. 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 Ssangyong Dealer or Ssangyong Authorized Service Operation as soon as possible if this condition occurs.
- 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

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

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EBD 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 EBD system is abnormal, both EBD warning light and ABS warning light come on simultaneously.

WARNING

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

ESP Warning Light*

If you press the ESP OFF switch, the ESP function stops and the indicator lamp in instrument panel comes on.

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

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

CAUTION

If the ESP warning light comes on, the ESP related system is defective. At this moment, the ABS works in a basic way. However, make sure to check the vehicle at the nearest Ssangyong Dealer or Ssangyong Authorized Service Operation.

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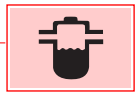
WATER SEPARATOR WARNING LIGHT



WARNING

- The fuel system in engine may get serious damage if you keep driving while the warning light is coming on. Prompt correction should be necessary.
- Using low quality fuel could result in a serious damage to the engine due to the water or impurities in fuel. Never use the low quality fuel.
- When the water level inside water separator in fuel filter exceeds a certain level, this warning light comes on and buzzer sounds. Also, the driving force of the vehicle decreases. If these conditions occur, immediately drain the water from fuel filter & water separator. If the above conditions are still existing after draining the water, have the system checked by Ssangyong Dealer or Ssangyong Authorized Service Operation.
- Before starting the engine, press the priming pump until it becomes rigid to fill up the fuel pump with fuel.

Water Separator Warning Light (EU)

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

For the draining procedures, please refer to “How to drain the water from fuel filter” on next page. This warning light goes out when the draining is completed.

Water Separator Warning Light (General)

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

For the draining procedures, refer to “How to drain the water from fuel filter & water separator” on next page.

This warning light goes out when the draining is completed.

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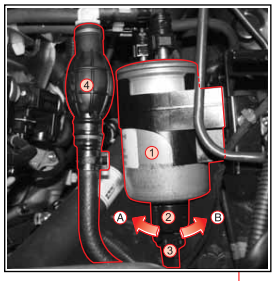
HOW TO DRAIN THE WATER FROM FUEL FILTER (EU)

DIESEL ONLY



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

A. Opening direction of drain plug

B. Closing direction of drain plug

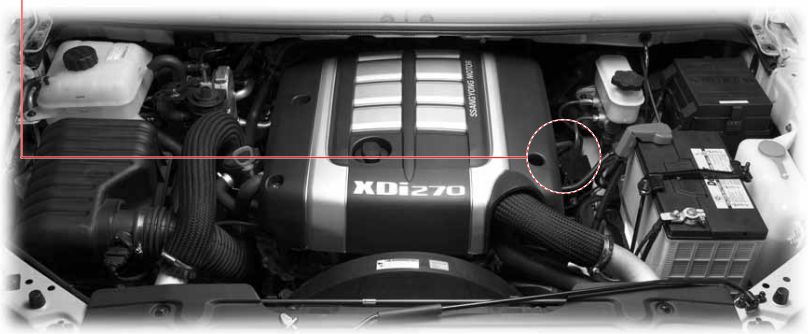
1. Locate the fuel filter (①) in engine compartment and place the water container under it.
2. Disconnect the connector (③) under the drain plug (②) of the water separator.
3. Turn the drain plug (②) to "Ⓐ" direction to drain the water.
4. Press priming pump until all water is drained. After draining, turn the drain plug until the gasket contact to the threaded plug hole, then tighten ("Ⓑ" direction) it 1/2 turns by hand.
5. Engage the connector (③) under the drain plug and press the priming pump (④) 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 starting problem or fuel system problem. Make sure to perform the job in step 5.

CAUTION

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



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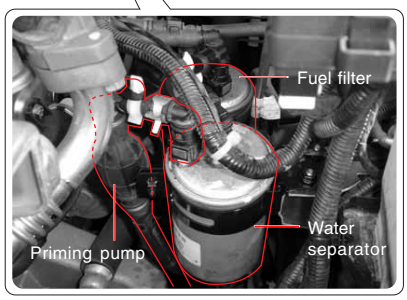
HOW TO DRAIN THE WATER FROM FUEL FILTER (GENERAL) DIESEL ONLY

CAUTION

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

WARNING

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



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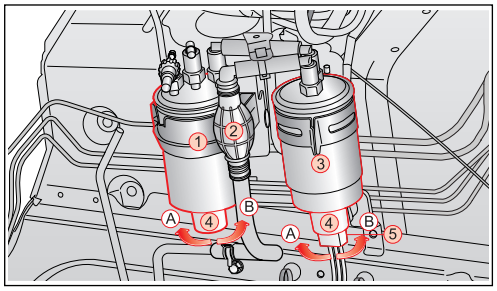

1. Fuel filter
2. Priming pump
3. Water separator
4. Drain plug
5. Connector

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

1. Locate the fuel filter (①) & water separator (③) in 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 "Ⓐ" direction to drain the water.
5. Press 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 starting problem or fuel system problem. Make sure to perform the job in step 6.

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6

Transmission and Brake System

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SHIFT LEVER IN MANUAL TRANSMISSION

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

5th Gear

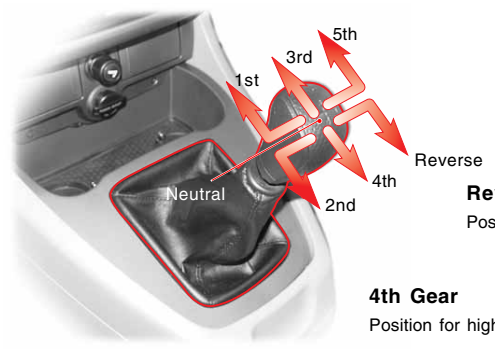
Position for very high speed driving on a highway

3rd Gear

Position for normal and high speed driving

1st Gear

Position for driving off and high traction force



Reverse Gear

Position for reverse driving

Neutral Position

Position for engine start, vehicle stop, and parking

4th Gear

Position for high speed driving

2nd Gear

Position for low speed driving

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CAUTIONS

Downshift

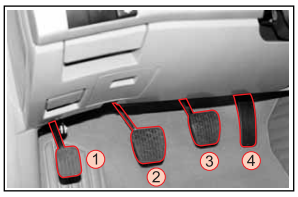
On long downhill stretches, downshift in good time and operate the engine brake to make use of the engine braking effect.

Parking

When parking the vehicle, ensure the parking brake is fully applied before stopping the engine.

When parking on a downhill gradient, place the gearshift lever in “R” position. When parking on a uphill gradient, place the gearshift lever in “1st” position.

Pedals in manual transmission equipped vehicle



1. Parking brake pedal
2. Clutch pedal
3. Foot brake pedal
4. Accelerator pedal

CAUTIONS

- Stop the vehicle completely before shifting into reverse.
- Do not rest your foot on the clutch pedal while driving. The clutch disc will wear prematurely.
- Do not downshift by skipping gears or while the engine is running in high speed. The clutch or transmission could be damaged.
- Make sure that the engine rpm will not go over the red zone in tachometer. Especially, when downshifting from 5th gear into 4th gear, the 2nd gear can be abruptly engaged due to driver’s carelessness. This should cause a very sharp increase of engine rpm and results in a severe damage to engine and transmission.
- Do not rest your hand on the gearshift lever while driving. This may cause an unexpected gear change and result in a transmission damage.
- In cold weather, gearshifting may not be easy until the transmission oil is heated. However, it is not malfunction but normal.

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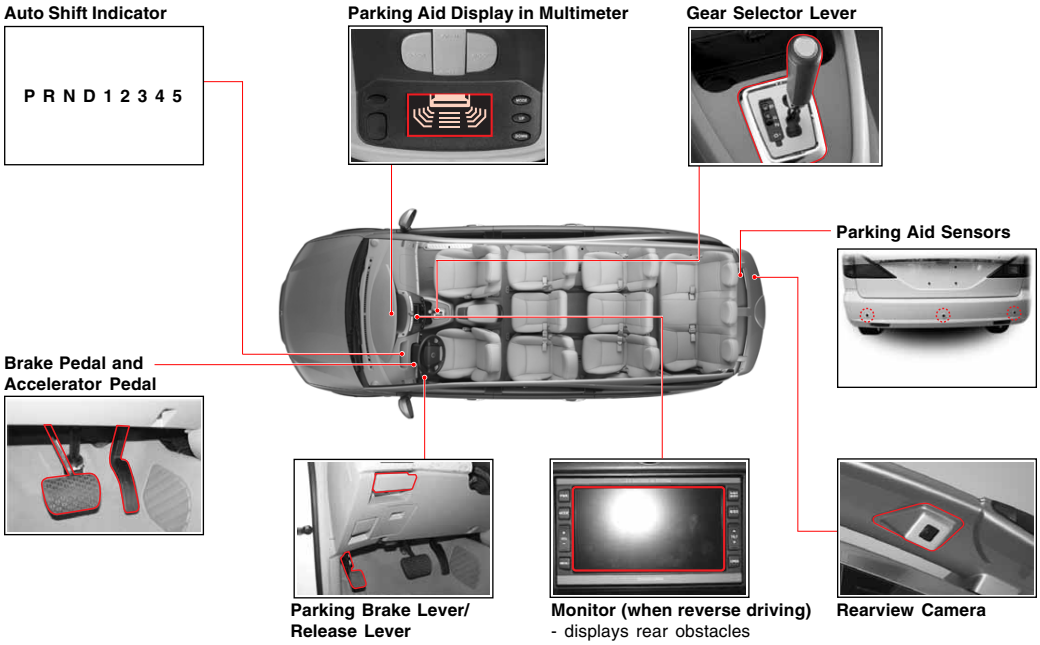
AUTOMATIC TRANSMISSION, PARKING AID SYSTEM, BRAKE SYSTEM



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GEAR SELECTOR LEVER IN AUTOMATIC TRANSMISSION

Mode Switch

- W: Winter mode
- S: Standard mode

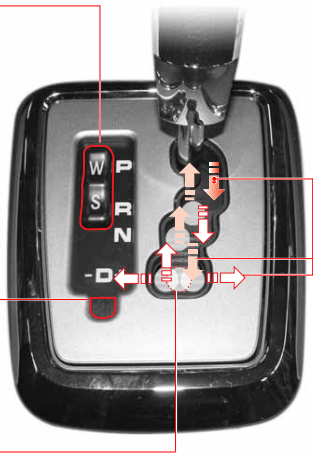
Use the standard mode in normal driving conditions and use the winter mode on slippery road.

Shiftlock Release Button when locked in "P" position

If you cannot shift out from "P" position, move the selector lever while pushing this hole with a sharp object such as ball point pen. At this moment, the brake pedal should be depressed

Adjustment for Shiftable Gear in "-D+" Position

The shiftable gear is down/up by one step as the lever is moved to left(-)/right(+) direction.



To shift into any other position, depress the brake pedal (ignition switch: "ON").

Shift lever moves only when the brake pedal is depressed.

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

Shift lever moves without depressing the brake pedal.

WARNING

- To shift into "-D+" from "N" position after stopping the vehicle, you have to depress the brake pedal. Make sure that the shift indicator "D" and "1" are coming on before driving off.
- 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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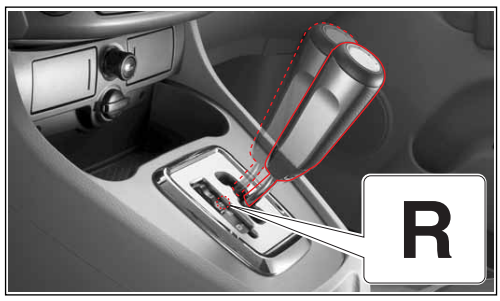
P: Park position

- Use this position when the vehicle is parking, starting the engine or stationing the vehicle.

  To shift into any other position, depress the brake pedal (ignition switch “ON”).

WARNING
- Never shift into “P” position when the vehicle is moving, or the transmission will be damaged.
- Stop the vehicle completely before shifting into “P” position.

R: Reverse position



- Use this position to reverse the vehicle.

  To shift into “R” position from “P” or “N” position, completely stop the vehicle and depress the brake pedal.

  When the shift lever is in “R” position, the rearview camera and parking aid system will be activated (optional).

WARNING
- Never shift into “R” position when the vehicle is moving.
- Please note that the vehicle may slowly move rearward when the selector lever is at “R” position.
- As a safety function, the gear selector lever cannot be moved into “P” or “R” position when the vehicle speed is above 7 km/h.

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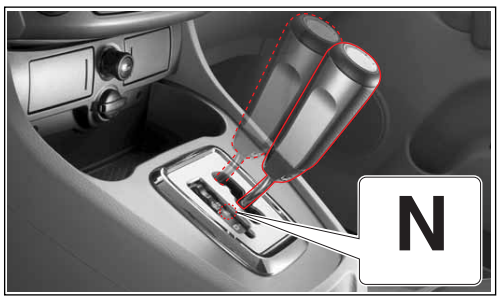
N: Neutral position



- This indicates the neutral position and use this position for temporarily parking.

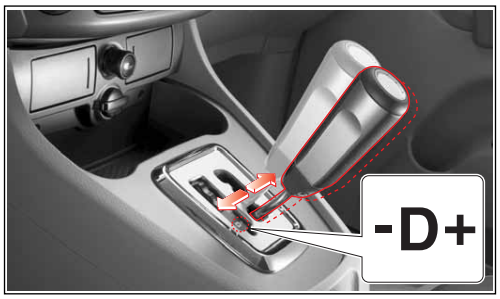
  At this position, the engine does not transfer power to the wheels and the vehicle will not move. However, for safety, apply the brake while at rest.

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

WARNING

- Never shift into "N" from "-D+" position when the vehicle is moving, or the transmission will be damaged.
- If you have to stop on a hill, depress the brake pedal securely.

-D+: Drive position



- Use this position in normal driving conditions. The transmission is automatically shifted from 1st gear through 5th gear according to the vehicle speed and the acceleration with accelerator pedal.

WARNING

- Do not abruptly drive off or sharply accelerate the vehicle after shifting into "-D+" position, or the transmission will be damaged. Especially, when you drive off on a hill after stopping and parking the vehicle, wait for a while until the shift indicator "D" and "1" will come on with the brake pedal depressed.
- Even the gear is in "-D+" position, the vehicle can be moved down on a uphill even according to gradients, so you have to depress the brake pedal.

CAUTION

Please note that the vehicle may slowly move forward on a level ground when the selector lever is at "-D+" position.

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Adjustment for the shiftable gear in "-D+" position

The shiftable gear is down/up by one step as the lever is moved to left(-)/right(+) direction.

Downshift

1 ← 2 ← 3 ← 4 ← D

Upshift

1 → 2 → 3 → 4 → D

4

The drive position for driving conditions in first, second, third and fourth gear.

3

The drive position for driving conditions in first, second and third gear.

2

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

1

The drive position for maximum braking effect, e.g. when driving down severe gradients; the transmission does not shift beyond first gear.

WARNING

- 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 in 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).

CAUTION

- When pushing and holding the selector lever to left(-)/right(+), the gear may be shifted through several steps in series. Make sure to shift one step at a time.
- If you apply excessive force when moving the lever to left(-)/right (+), the gear may not be shifted into other gears. Soft and smooth operation is recommended.
- Please note that the gear may be upshifted If you fully depress the accelerator pedal while driving with 1st, 2nd, 3rd, and 4th gear.

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MODE SWITCH

Use the standard mode in normal driving conditions and use the winter mode on slippery road.

Winter Mode

- To select winter mode, press the “W” of the mode switch. “WINTER” indicator in instrument panel comes on.
- In this mode, the vehicle starts from 2nd gear (forward and reverse). Use this mode in the event of starting-off or driving difficulties on slippery road.
- To deselect winter mode, press “S” of the switch. The mode is changed to standard mode.

How to start off the vehicle with 2nd forward gear

1. Press the “W” portion of the mode switch to select winter mode.
2. Place the selector lever to “D” position and check if the shift lever indicator shows “2”.
3. You can now start off the vehicle with 2nd forward gear.

How to start off the vehicle with 2nd reverse gear

1. Press the “W” portion of the mode switch to select winter mode.
2. Place the selector lever to “D” position and check if the shift lever indicator shows “2”.
3. Place the selector lever to “R” position to start off the vehicle with 2nd reverse gear.

CAUTION

- When started off with winter mode, stop the winter mode after the vehicle speed reaches at a certain level.
- Even the gear is in “-D+” position, the vehicle can be moved down on a uphill even according to gradients, so you have to depress the brake pedal.

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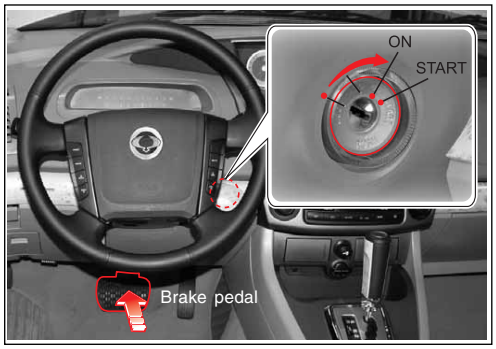
SHIFT LEVER LOCK RELEASE



Your vehicle has a selector lever lock control system. Before you can shift from park (P), the ignition must be ON and you must depress the brake pedal.

If you cannot shift out of “P” position with the ignition ON and the brake pedal depressed:

1. Apply the parking brake firmly and turn the ignition off.
2. Push the shift lock release lever by inserting a proper stick. Then, with the brake pedal depressed, move the selector lever to “N” position.
3. Start the engine, release the parking brake, and place the selector lever at “D” position.

WARNING

Have your vehicle repaired by Ssangyong dealer or Ssangyong Authorized Service Operation as soon as possible.

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SAFETY MODE (AUTOMATIC TRANSMISSION)

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.

When the transmission is defective, the symptoms that can be occurred are as follows:

- Heavy shock when moving the selector lever
- Decreased driving force while driving at high speed
- Fixed gear position during driving

- **How to reset the safety mode**

1. Park the vehicle and place the selector lever to “P” position.
2. Stop the engine and wait for over 10 seconds.
3. Start the engine.

- **Symptoms after resetting the safety mode**

- If the vehicle is normally operational after resetting, the troubles are corrected.
- The gear may be fixed at 2nd forward gear in “D” position or 2nd reverse gear in “R” position. Have the system checked by Ssangyong dealer or Ssangyong Authorized Service Operation

CAUTION

- If you find any symptom caused by mechanical or electrical defective in transmission, stop the vehicle immediately and reset the safety mode.
- If the mechanical or electrical problem is still exist, have the system checked by Ssangyong dealer or Ssangyong Authorized Service Operation.
- If abnormal operation of the transmission (fixed at 2nd forward gear in “D” position or 2nd reverse gear in “R” position) is still exist, have the system checked by Ssangyong dealer or Ssangyong Authorized Service Operation.

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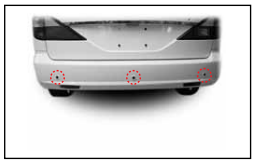
PARKING AID SYSTEM*

Parking Aid System

When the gear selector lever is shifted into “R” position, the parking aid system is activated and the sensors in rear bumper detect the distance to obstacle. You can figure out the distance from obstacle to vehicle with the alarming sound and the display in multimeter.

Obstacle Detecting Sensor



When you move the gear selector lever to “R” position, the alarm sounds according to the distance from obstacle to vehicle. The alarm interval becomes faster as the obstacle approaches.

Multimeter

The number of displaying bars is decreased as the obstacle approaches.

Sensor Check

This message appears when the rear detecting sensor is defective.

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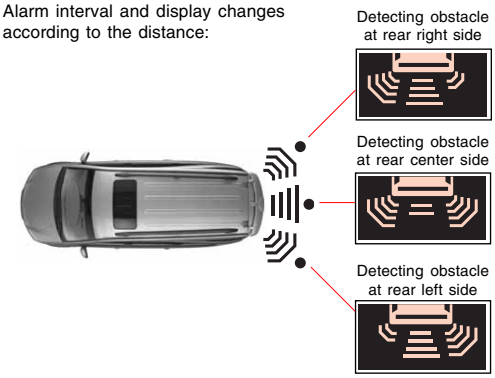
Rearview Display in Multimeter

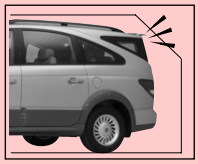
Alarm interval and display changes according to the distance:



Distance	Alarm interval	Display
over 1.2m	no alarm	
81cm ~ 1.2m	approx. 2.6 sec	
51cm ~ 80cm	approx. 1.3 sec	
below 50cm	alarm stays on	

CAUTION

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 outside rearview mirrors or by turning your head during parking.



- The parking aid system will not work or improperly work under following cases:

▶ **Certain obstacles that sensors cannot detect**

- Wires, ropes, chains.
- Cotton, sponge, clothes, snow that absorb ultrasonic waves.
- Obstacles lower than the bumper.

▶ **Not defective but improperly working**

- When driving on the rough roads, gravel road, hill and grass.
- When the bumper height is changed due to the heavy load.
- When the sensing portion is frozen.
- When the sensing portion is covered by rain, water drops, snow or mud.
- When receiving other ultrasonic signals (metal sound or air braking noises from heavy commercial vehicles).
- When a high-power radio is turned on.

- Do not press or shock the sensors by hitting or high-pressure water gun while washing, or the sensors will be damaged.
- The parking aid system is just a supplemental device to help your parking operation. You should continue to utilize the mirrors or turning your head. Normal precautions when reversing should be maintained.

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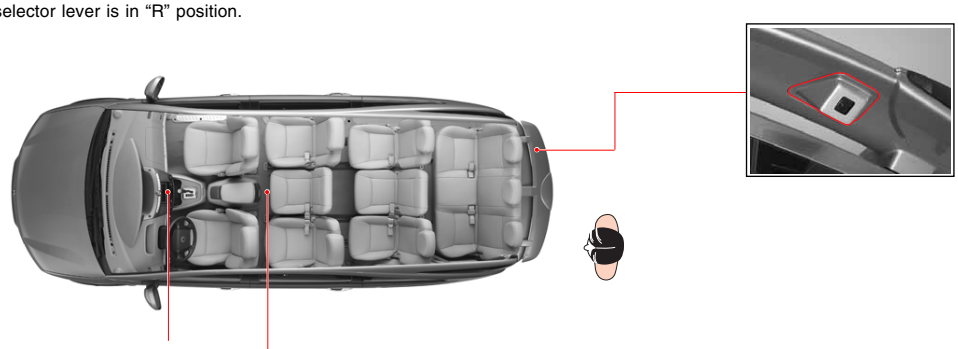
REARVIEW CAMERA SYSTEM*

This is a supplementary system to show the rear area when the gear selector lever is in “R” position.



Front Monitor

If you move the gear selector lever to “R” position, the front monitor displays rearview even when it is in use.

Rear Monitor

If you move the gear selector lever to “R” position, the rear monitor displays rearview only when it is not in use.

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When selecting R position while A/V system is in use

- The video mode in front A/V system is changed to rear view monitoring mode. However, the audio mode stays on.
- The video mode in front A/V system resumes when shifting out from “R” position.
- The audio and video mode in rear A/V system are not changed.

When selecting R position while A/V system is not in use

- Both monitors are automatically turned on to display rearview.
- Both monitors are automatically turned off when shifting out from “R” position.

CAUTION

- The real distance is different from what you see in monitor because the camera uses wide-angle lens.
- Note that the display does not show everything in the rear area.
- Keep the camera lens clean with a lens cleaner.

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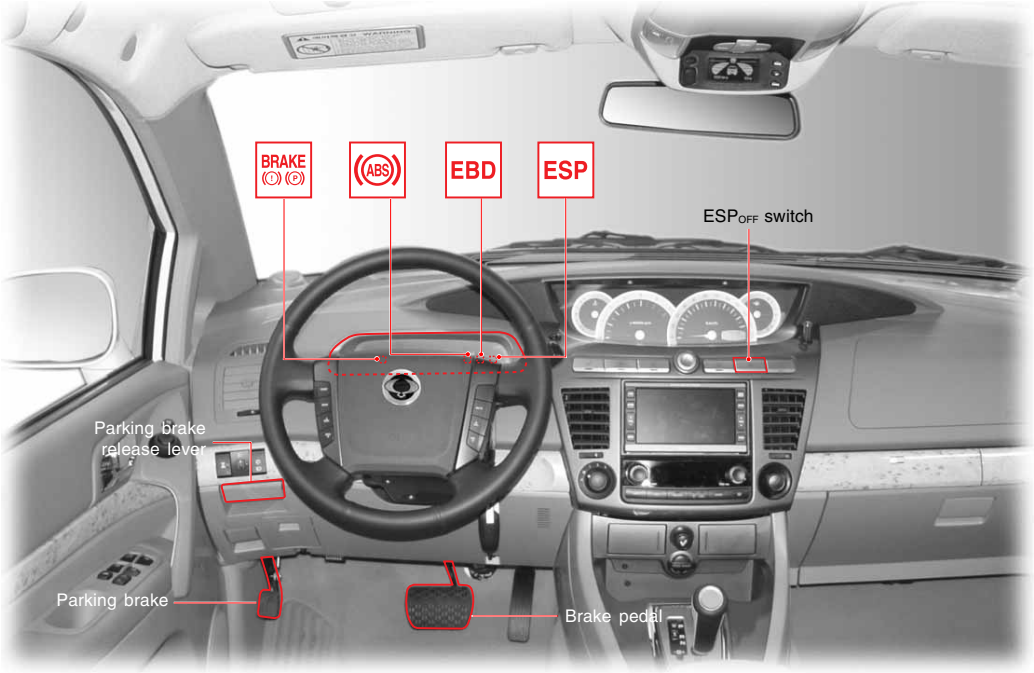
BRAKE SYSTEM



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Brake Pedal (Foot Brake)

Foot brake is designed to decrease the vehicle speed and stop the vehicle. Do not continuously apply the brake pedal while going down a long hill. The brake system will be overheated causing vapor lock or fade to lose braking force. Use foot brake along with the engine braking effects by selecting lower gears.

Parking Brake

To apply parking brake, depress the parking brake pedal firmly.

Parking Brake Release Lever

To release parking brake, pull up the parking brake release lever.

Drive System Safety Function

While driving, do not depress the brake pedal when the accelerator pedal is depressed. Otherwise, the response from 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.

SYSTEM DESCRIPTION

ABS (Anti-Lock Brake System)?

When you brake abruptly or on the slippery road, the vehicle keeps going on ahead but the wheels are locking not to rotate. At this time, your vehicle will not be steered or rotate and could be resulted in accident. ABS controls the wheels properly not to be locked and allows steering to increase the vehicle's stability.

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 and if ABS is engaged, it does not operate.

ESP SYSTEM*

The ESP system is an electronic vehicle stability control system and driving safety supplementary system that helps to avoid dangerous situations by applying brakes on the wheels or the engine torque to compensate vehicle stability when it is extremely unstable under conditions such as sharp cornering. This system also includes brake assist function for the handicapped persons because they depress the brake pedal softly even when hard braking is required. If the system recognizes that it is an emergency case requires hard braking, it delivers high braking pressure to the wheels. The ESP function works when vehicle stability is very unstable. The ESP system does not work under normal driving conditions.

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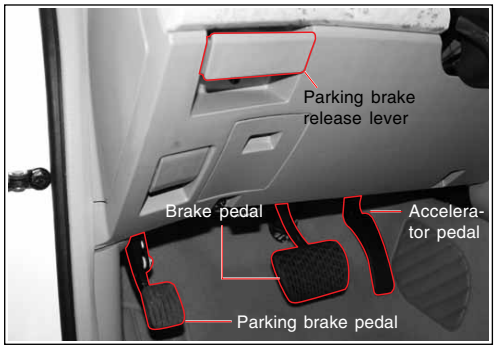
PARKING BRAKE OPERATION



Parking Brake Operation

Park at a safe place and depress the parking brake pedal firmly. When the pedal is depressed, the brake warning light on the instrument panel comes on.

Parking Brake Release

To release parking brake, pull up the parking brake release lever.

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 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 parking brake applied could damage rear brake system. Before driving, fully release the parking brake.
- If the brake warning light doesn't go out after releasing the parking brake, have the brake system checked by Ssangyong Dealer or Ssangyong Authorized Service Operation.

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Seats

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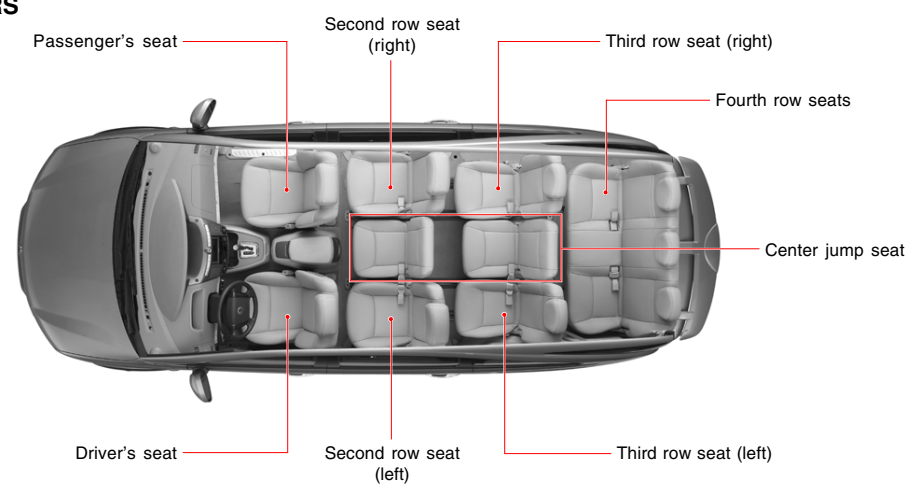
11-SEATERS



WARNING

- Do not adjust driver's seat when vehicle is moving. Control of vehicle can be lost.
- When folding the seatback in rear seats, make sure that it is securely locked at its proper position.
- Removed or improperly adjusted head restraints can result in serious head and neck injuries in case of a collision.

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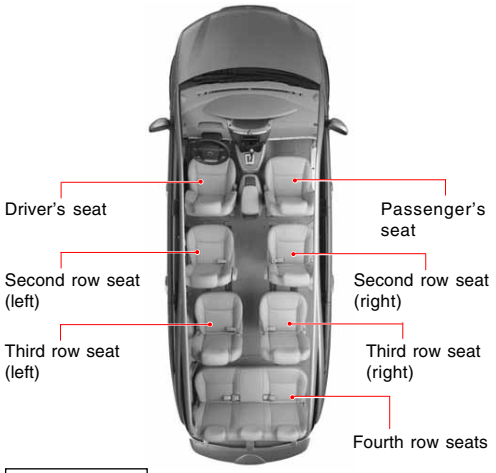
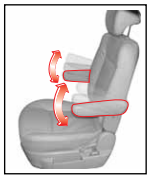
9-SEATERS

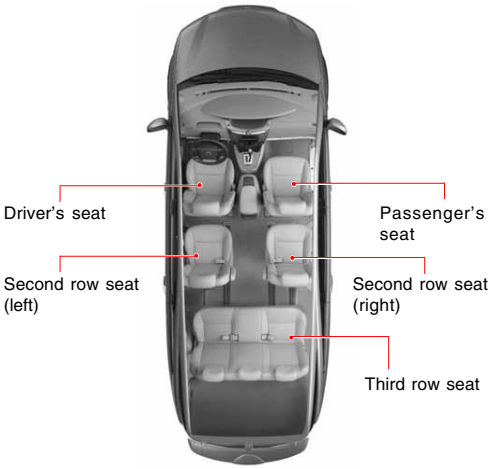




Second Row Seat

The second row seats have arm rests at both sides. Swing down them when you want to use.

7-SEATERS



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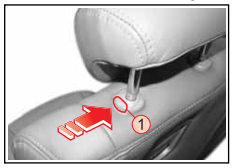
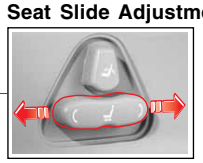
DRIVER'S SEAT (POWER SEAT)

Head Restraint Adjustment

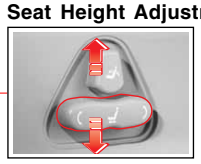


To raise the head restraint, pull it up without pressing the release button. To lower the head restraint, press the release button ① on top of seatback and push the head restraint down.

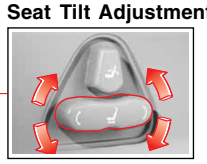
Seat Slide Adjustment



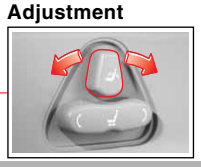
Seat Height Adjustment



Seat Tilt Adjustment



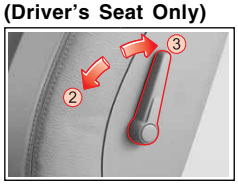
Seatback Reclining Adjustment



Seat Warmer Switch

Press the button to warm the seat, and press it again to stop the operation.

Lumbar Support (Driver's Seat Only)



Swing down ② the lever to increase the amount of lumbar support. To decrease it, swing up ③ the lever.

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DRIVER'S SEAT (MANUAL SEAT)

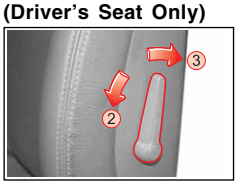
Head Restraint Adjustment

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 seatback and push the head restraint down.

Seat Slide Adjustment

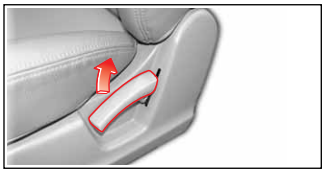
To move the seat forward or backward, pull and hold the seat slide lever up and move the seat as required. Then, release the lever in desired position.

Lumbar Support (Driver's Seat Only)



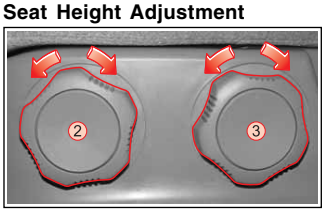
Swing down ② the lever to increase the amount of lumbar support. To decrease it, swing up ③ the lever.

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 retuned to its original position and the seatback is locked.

Seat Height Adjustment



Rotate the front knob ② forwards to lower the front section of the seat cushion and rotate rearwards to raise it. Rotate the rear knob ③ forwards to lower the rear section of the seat cushion and rotate rearwards to raise it.

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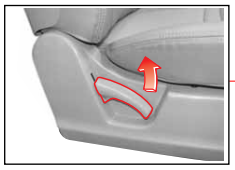
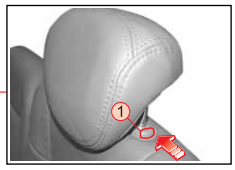
PASSENGER'S SEAT

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 retuned to its original position and the seatback is locked.

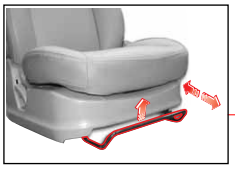
Head Restraint Adjustment



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 seatback and push the head restraint down.

Seat Heater

Seat Slide Adjustment

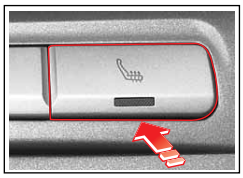


To move the seat forward or backward, pull and hold the seat slide lever up and move the seat as required. Then, release the lever in desired position.

Seat Under Tray

The seat under tray is located under the passenger's seat. Hold the front of the tray and pull forwards to use.

Seat Warmer Switch



Press the button to warm the seat, and press it again to stop the operation.

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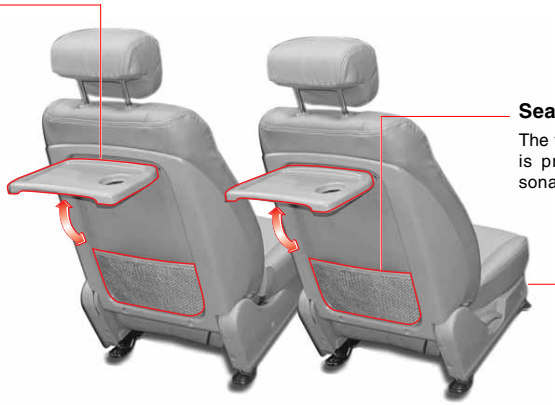
CONVENIENCE DEVICES IN FRONT SEATS

Seatback Table and Cup Holder

* Locations of cup holder may vary according to the seats.

A table is installed at the rear of the front seatback. To do some temporary jobs and put something on it, swing it up. Turn it back to its original position when not in use.



Seatback Storage Pocket

The front seatback storage pocket is provided to store small personal properties.

Seat Under Tray

The seat under tray is located under the passenger's seat. Hold the front of the tray and pull forwards to use.

WARNING

- Do not put heavy objects on the table. The table can be damaged.
- Do not use the table when the vehicle is moving. It may result in a personal injury during abrupt braking or sharp acceleration.
- Do not put any hot beverage cup or can on the table when the vehicle is moving. It may result in a personal injury during sudden braking or starting.

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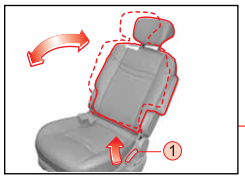
SECOND ROW SEAT (7-SEATERS)

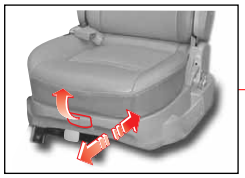
* Locations of cup holder may vary according to the seats.

Seatback Reclining Adjustment



To change the seatback angle, lean forward slightly and raise the lever ①. Then, lean back to the desired angle and release the lever. This lever is designed to adjust the seatback up to a certain angle.

Seat Slide Adjustment

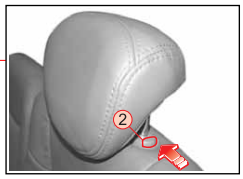


To move the seat forward or backward, pull and hold the seat slide lever up and move the seat as required. Then, release the lever in desired position.

Seat Turning

To make the second row seat facing rearwards, pull up the lever ③ and turn the seat until it clicks.

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 ② on top of seatback and push the head restraint down.

Seat Under Tray

The seat under trays are located under the seat at both sides. Use the trays to store some personal properties.

WARNING

Make sure that the seat is completely locked.

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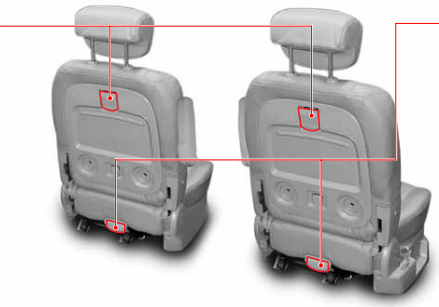
Seatback Folding and Unfolding

Pull up the lever ① and fold and unfold the seatback until it clicks.

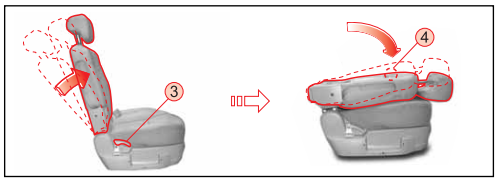
WARNING
Make sure that the seatback is completely locked.



Seat Slide Adjustment

To move the seat forward or backward, pull and hold the seat slide lever ② up and move the seat as required. Then, release the lever in desired position.

Seat Folding



1. Pull up the seatback reclining lever ③ and set the seatback upright.
2. Pull up the seatback folding lever ④ and fold the seatback until it clicks.

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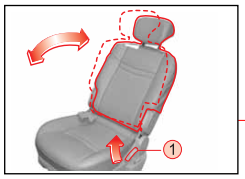
SECOND ROW SEAT (9-SEATERS)

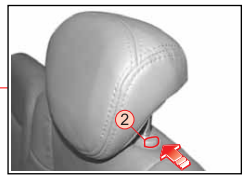
* Locations of cup holder may vary according to the seats.

Seatback Reclining Adjustment



To change the seatback angle, lean forward slightly and raise the lever ①. Then, lean back to the desired angle and release the lever. This lever is designed to adjust the seatback up to a certain angle and to make it flat.

Head Restraint Adjustment

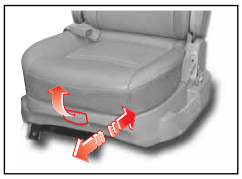


To raise the head restraint, pull it up without pressing the release button. To lower the head restraint, press the release button ② on top of seatback and push the head restraint down.

Seat Under Tray

The seat under trays are located under the seat at both sides. Use the trays to store some personal properties.

Seat Slide Adjustment



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

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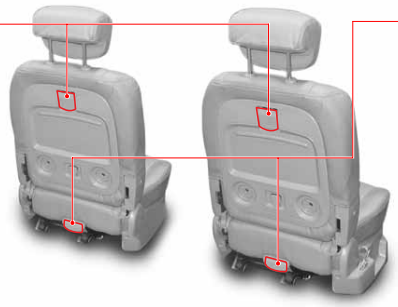
Seatback Folding and Unfolding

Pull up the lever ① and fold and unfold the seatback until it clicks.

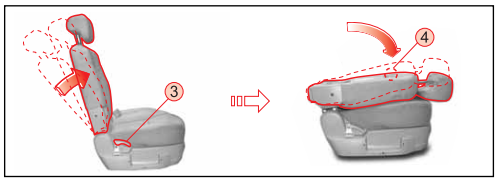
WARNING
Make sure that the seatback is completely locked.



Seat Slide Adjustment

To move the seat forward or backward, pull and hold the seat slide lever ② up and move the seat as required. Then, release the lever in desired position.

Seat Folding



1. Pull up the seatback reclining lever ③ and set the seatback upright.
2. Pull up the seatback folding lever ④ and fold the seatback until it clicks.

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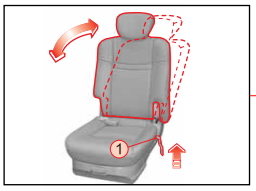
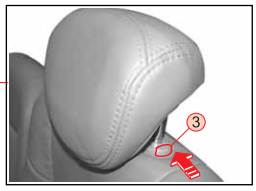
THIRD ROW SEAT (9-SEATERS)

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. This lever is designed to adjust the seatback up to a certain angle and to make it flat.

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 ③ on top of seatback and push the head restraint down.

Seat Slide Adjustment

To move the seat forward or backward, pull and hold the seat slide lever ② up and move the seat as required. Then, release the lever in desired position.

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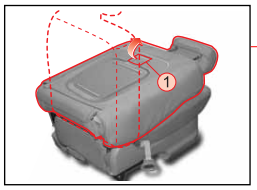
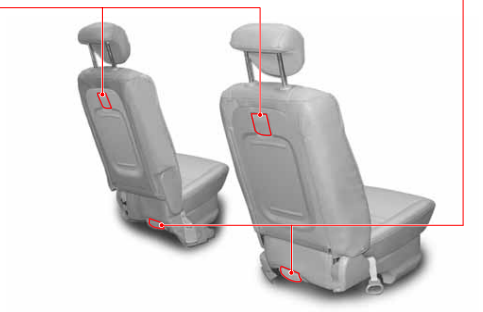
Seatback Folding and Unfolding

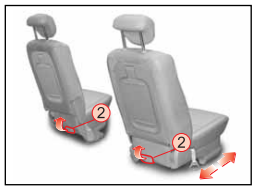


Pull up the lever ① and fold and unfold the seatback until it clicks.

WARNING
Make sure that the seatback is completely locked.

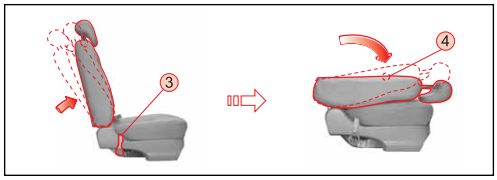


Seat Slide Adjustment



To move the seat forward or backward, pull and hold the seat slide lever ② up and move the seat as required. Then, release the lever in desired position.

Seat Folding



1. Pull up the seatback reclining lever ③ and set the seatback upright.
2. Pull up the seatback folding lever ④ and fold the seatback until it clicks.

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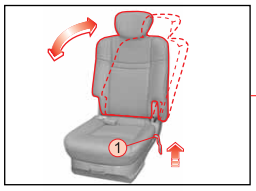
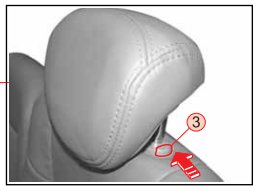
SECOND & THIRD ROW SEAT (11-SEATERS)

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. This lever is designed to adjust the seatback up to a certain angle and to make it flat.

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 ③ on top of seatback and push the head restraint down.

Seat Slide Adjustment

To move the seat forward or backward, pull and hold the seat slide lever ② up and move the seat as required. Then, release the lever in desired position.

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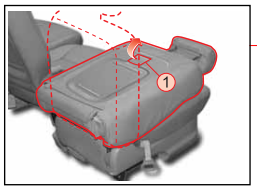
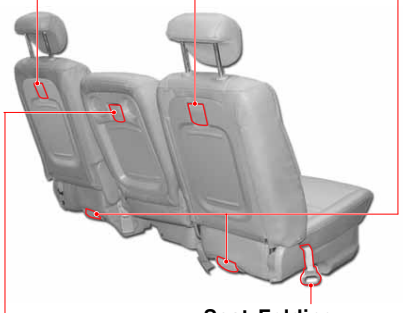
Seatback Folding and Unfolding

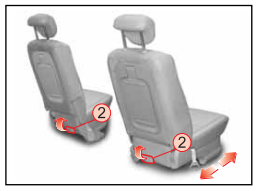


Pull up the lever ① and fold and unfold the seatback until it clicks.

WARNING
Make sure that the seatback is completely locked.

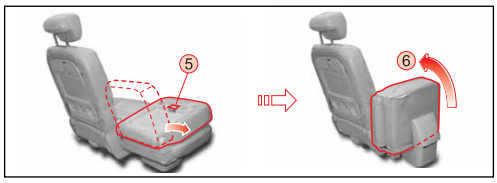


Seat Slide Adjustment



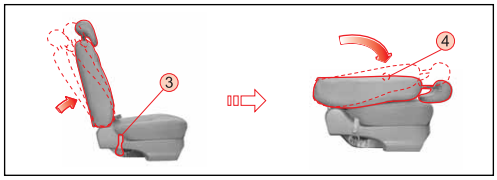
To move the seat forward or backward, pull and hold the seat slide lever ② up and move the seat as required. Then, release the lever in desired position.

Center Jump Seat Folding



1. Pull up the seatback folding lever ⑤ and fold the seatback completely.
2. Fold the center jump seat to arrow direction ⑥.

Seat Folding



1. Pull up the seatback reclining lever ③ and set the seatback upright.
2. Pull up the seatback folding lever ④ and fold the seatback until it clicks.

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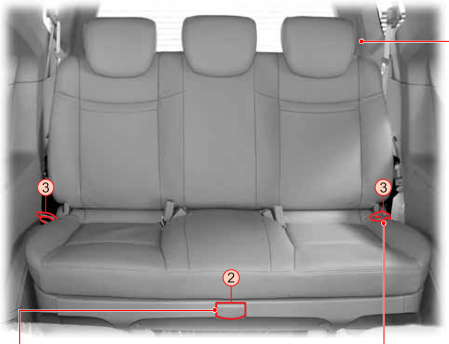
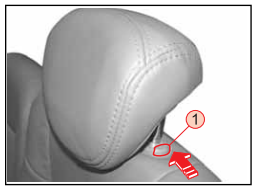
THIRD ROW SEAT (7-SEATERS)

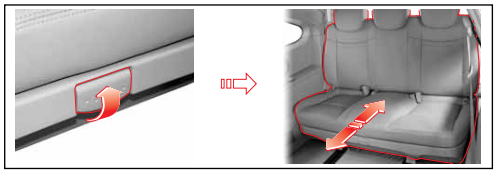


Head Restraint Adjustment



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 seatback and push the head restraint down.

Seat Slide Adjustment

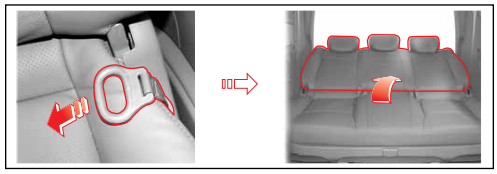


To move the seat forward or backward, pull and hold the seat slide lever ② up and move the seat as required. Then, release the lever in desired position.

NOTE

To make the seat sliding adjustment easier, adjust the seat while passengers are sitting on the seat.

Seatback Reclining Adjustment ③



To change the seatback angle, lean forward slightly and raise the lever. Then, lean back to the desired angle and release the lever. This lever is designed to adjust the seatback up to a certain angle.

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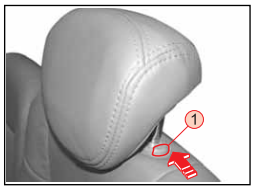
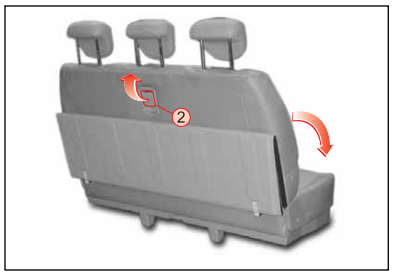
FOURTH ROW SEAT (9 & 11-SEATERS)

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 seatback and push the head restraint down.

Seatback Folding and Unfolding



Pull up the lever ② and fold and unfold the seatback until it clicks.

WARNING
Make sure that the seatback is completely locked.

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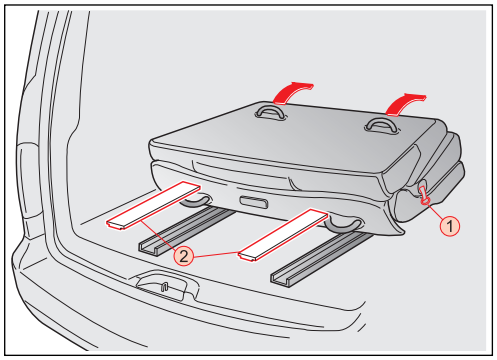
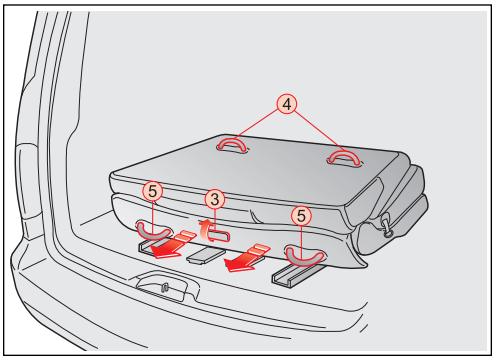
HOW TO REMOVE AND INSTALL THE THIRD ROW SEAT (7-SEATERS)*



1. Fold down the seatback of the third row seat while puling up the seatback reclining lever (①).
2. Remove the seat rail covers (②)

CAUTION

- Be careful not to drop the seat when removing it. It may cause apersonal injury.
- Make sure that the seat is securely engaged on the rail duringinstallation.
- Do not put any luggage between the 2nd and 3rd row if the 3rdrow seat has been removed and the 2nd row seat is rotated. It may cause serious personal injury when the brake is applied suddenly. Please put the luggage only when the seat is installed in normal position.



3. Slide the third row seat to its rear end (arrow direction) while pulling up the seat sliding lever (③).
4. Carefully remove the third row seat from the rail by using the hand grips (④, ⑤) on the seat as shown in the figure.
5. Install the seat in the reverse order of removal.

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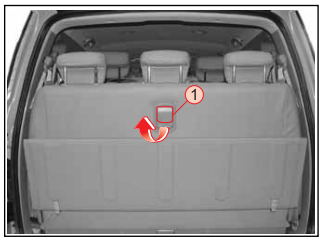
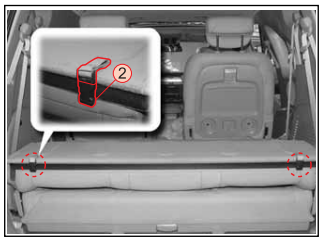
MAKING A LUGGAGE COMPARTMENT (9 & 11-SEATERS)

Making a luggage compartment on the fourth row seat



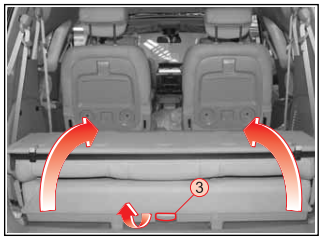
1. Pull up the fourth seatback folding lever ① and fold the seatback until it clicks.



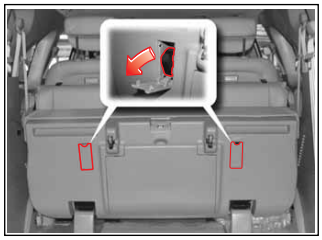
2. Release the cover locks ②.

3. Unfold the cover completely.

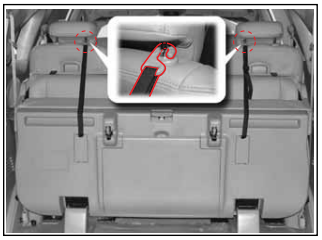
Making a luggage compartment by folding the fourth row seat



1. Pull up the fourth seatback folding lever and fold the seatback until it clicks.
2. Pull up the lever ③ and set the fourth row seat upright.



3. Open the covers and take out the supporting straps.



4. Hook two straps on the poles of head restraint as shown in above figure. Adjust the length of the straps to tighten the folded seat securely.

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8

Seat Belt and Air Bag

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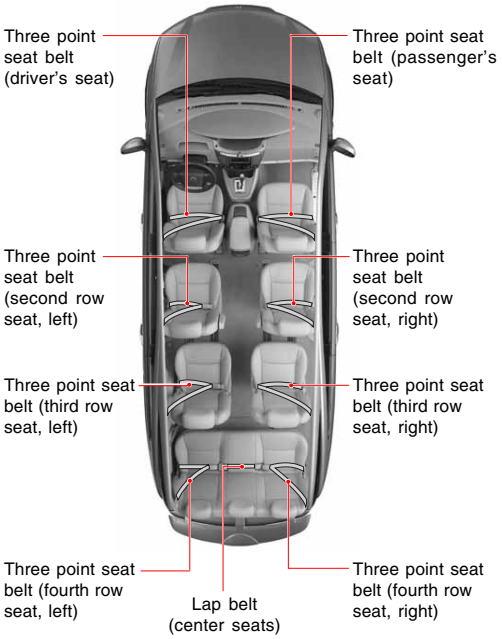
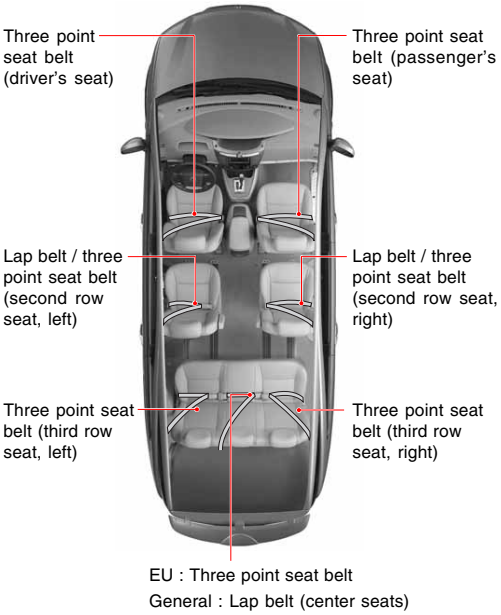
9-SEATERS



7-SEATERS



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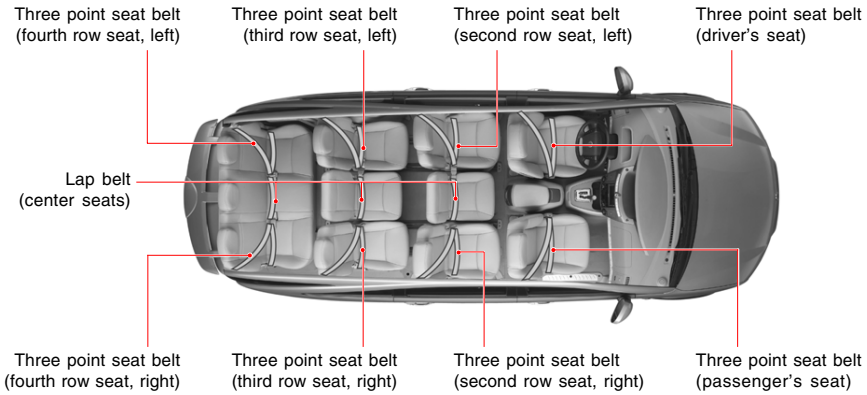
11-SEATERS

To protect you and your passengers in the event of an accident, it is compulsory that the seat belts are worn by all occupants while the vehicle is in use.



WARNING

- Before driving, all occupants should fasten the seat belts. If not, the occupant can be injured seriously in collision or sudden maneuvering of the vehicle.
- Never use a same seat belt more than one person at a time.
- Modifications and improper maintenance for the safety systems could cause serious injury. The safety systems including seat belt should be checked and repaired by only Ssangyong Dealer or Ssangyong Authorized Service Operation.

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Three Point Seat Belt

The belt is positond across the chest and pelvis. The belt is secured at three points in the vehicle body and seat.

Lap Belt

The belt is positiond across the pelvis. The belt is secured at two points in the vehicle body and seat.

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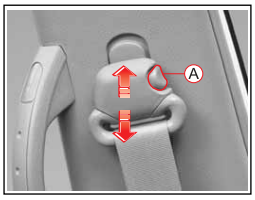
SEAT BELT IN FRONT SEATS

Seat Belt Height Adjustment



- To raise the seat belt, press the knob Ⓐ and slide up D-ring.
- To lower the seat belt, press the knob Ⓐ and slide down D-ring.

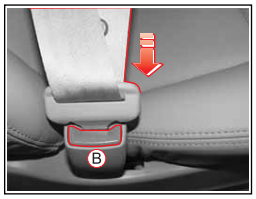
WARNING

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

Pretensioner

When a strong frontal occurs, seat belt pretensioner rewinds the seat belts immediately to protect occupant's face and chest.

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.

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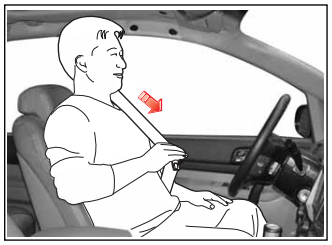
HOW TO FASTEN THE THREE POINT SEAT BELT IN FRONT SEATS



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

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

WARNING

Make sure that the seat belt is not twisted.

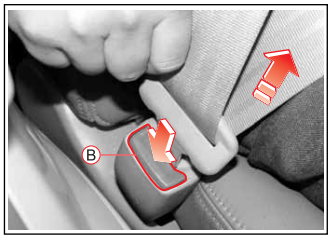
2. Position the shoulder belt across the body and the lap belt as low as possible across the hips. Insert the latch plate into the buckle until it clicks.
3. Adjust the seat belt height as required.

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 waist. In an accident, the belt may pressurize on your abdomen. This may also result serious internal injuries.
- Shoulder belt should be positioned midway over the shoulder, never across the neck.

4. Pull the latch plate to make sure it is securely locked.
5. To unfasten the seat belt, press the button Ⓑ on the buckle.



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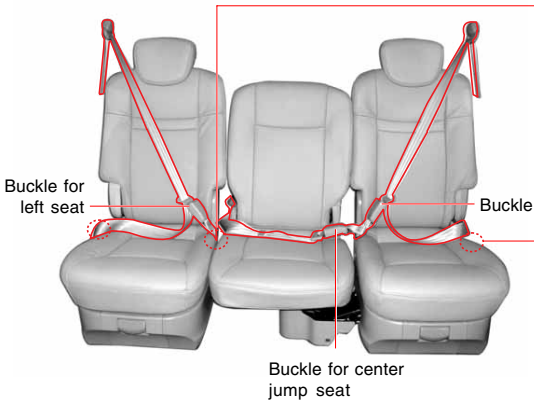
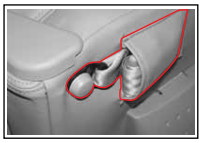
SECOND ROW SEAT

* 9-Seaters vehicle does not have the center jump seat in the second row seat.

The center jump seat has a lap belt, and both side seats have a lap and three point belt. Use the three point seat belt when the seat is facing forwards, and use the lap belt when the seat belt is facing rearwards.

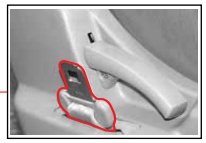


Seat Belt Latch for Center Jump Seat



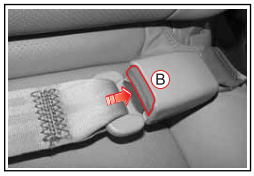
The latch is stored in the side pocket.

Latch for Lap Belt in Side Seat



Lap Belt in Side Seats (7 Seaters Only)

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.

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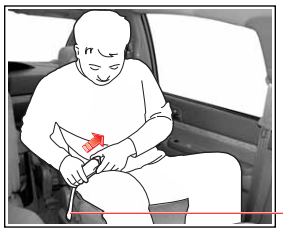
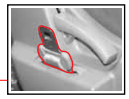
HOW TO FASTEN THE SEAT BELTS IN SECOND ROW SEAT

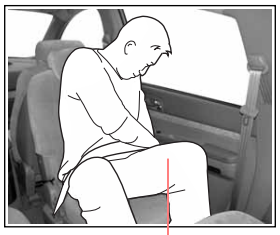
* Refer to the procedures in front seat.

Lap Belt in Side Seat



1. Pull out the latch plate from the retractor installed at side bottom of the seat.

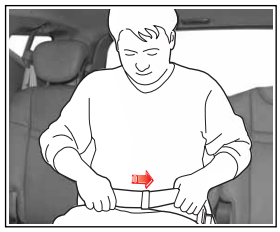




2. Insert the metal latch plate into the buckle until it clicks.
3. Position the belt as low as possible across your hips, not across your abdomen.
4. To unfasten the seat belt, press the button (B) on the buckle.

Lap Belt in Center Jump Seat

1. Pull out the latch plate from the retractor in the side pocket.



2. Insert the metal latch plate into the buckle until it clicks.
3. Position the belt as low as possible across your hips, not across your abdomen.
4. To unfasten the seat belt, press the button (B) on the buckle.

WARNING

- Put the lap belt as low as possible across the hips. Do not put it across waist. In an accident, the belt may pressurize on your abdomen. This may also result serious internal injuries.
- Make sure that the latch plate is inserted into a correct buckle.

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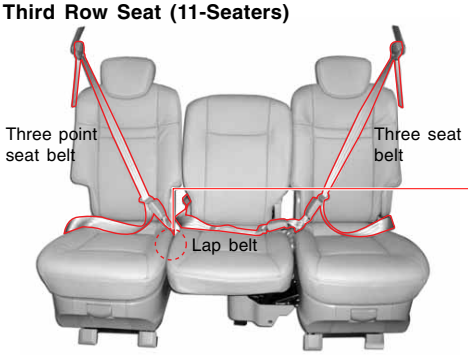
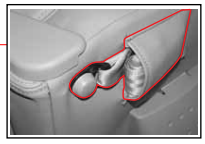
SEAT BELTS IN THIRD AND FOURTH ROW SEAT

Third Row Seat (11-Seaters)



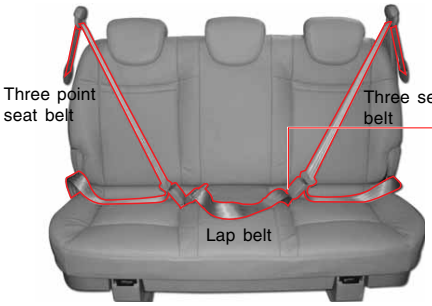
The seat belt fastening procedures in third and fourth row seat are same with that of second row seat. However, both side seats do not have the lap belt.

Seat Belt Latch for Center Jump Seat



The latch is stored in the side pocket.

Third Row Seat (9-Seaters) / Fourth Row Seat (11-Seaters)



Latch Plate for Center Seat Belt

The latch plate for center seat belt is stowed in a clevis between center seat and left seat.

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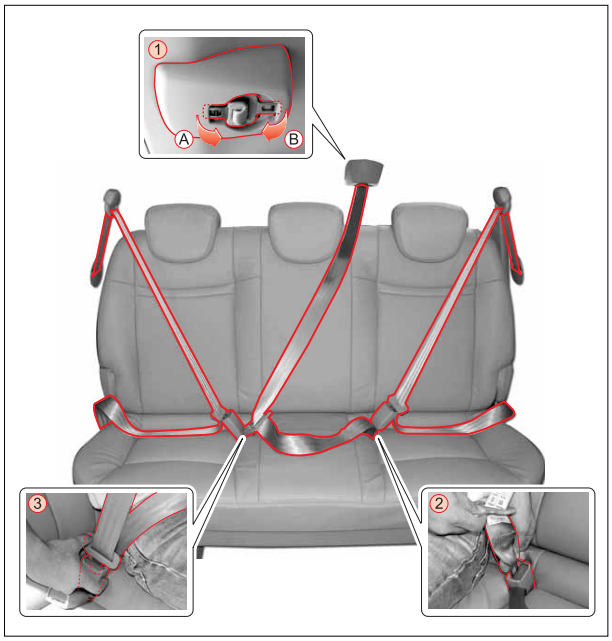
Rear three point seat belt (center - EU only)



1. Pull the Mini-latch plate (A) out of the seat belt console installed at the ceiling.
2. Pull the Mini-latch plate (A) across the shoulder on the left and insert it into the buckle (2) until it clicks.
3. Pull the latch plate (B) out of the seat belt console installed at the ceiling.
4. Pull the latch plate (B) across the hips and insert it into the buckle (3) until it clicks.
5. To unfasten the seat belt, press the red (black) button on the buckle.

WARNING

- Make sure to fasten the seat belt according to the order as described so that it functions properly.
- To prevent the seat belt 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 second row seat.
- Tug on the seat belt to make sure 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 a crash.
- Do not position the seat belt to pass across your neck and abdomen.

CAUTION

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

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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 a infant or child restraint.
- NEVER INSTALL A REAR-FACING CHILD RESTRAINT IN 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.
- 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.

PREGNANT WOMEN

Ssangyong recommends that pregnant women uses a seat belt to lessen the chance of injury in an accident..

WARNING

Pregnant women and unborn child could be injured.

- Use a lap-shoulder seat belt if possible (Consult your doctor).
- Lap belt should be worn as low as possible throughout the pregnancy.

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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 pressurize on 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 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, If not, 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 use the seat belt for more than one person at a time.
- Do not wear the seat belt over any hard or breakable objects in pockets or on clothes.
- Infants and small children 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 component work properly. Damaged seat belt can cause serious injuries. Repair or replace the damaged seat belt immediately at Ssangyong Dealer or Ssangyong Authorized Service Operation.
- 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 Operation.
- Additional device or accessory 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 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 Operation finds that no damage has occurred and and everything is in proper working order. The seat belts components that were not used during a collision must also be inspected and replaced if they show signs of damage or faulty operation.
- Replace the entire seat belt assembly after a severe impact even if the damage is not obvious.

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WARNINGS FOR SEAT BELT

- 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 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 pelvis, 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.
- No modifications or additions should be made by the user which will entire prevent the seat belt adjusting devices from operating to remove slack, or prevent the seat belt assembly from being adjusted to remove slack.

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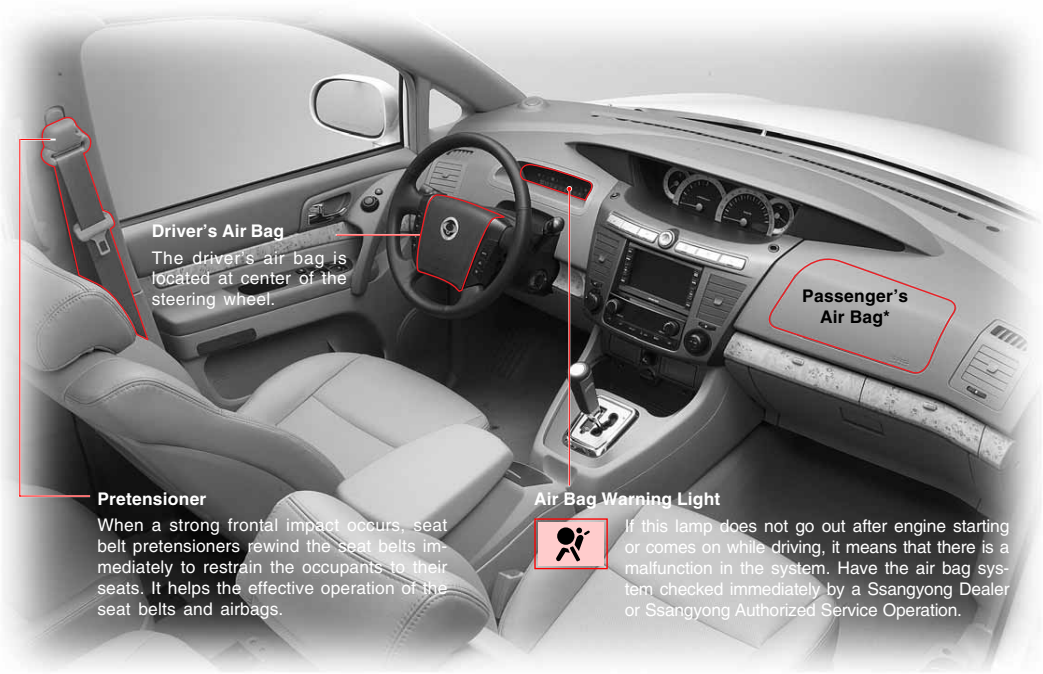
AIR BAG

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



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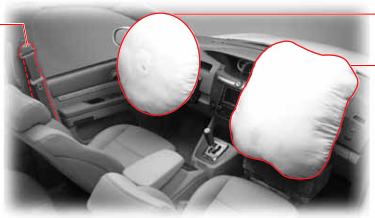
OPERATIONS OF AIR BAG AND PRETENSIONER

Pretensioner

The pretensioner is a device that retracts the seat belt to tighten or loosen the seat belt. When a collision occurs or when brakes are applied, the pretensioner detects the stopping pressure and tightens the belt before the occupant is propelled forward. This holds the occupant in the seat more securely.



When a strong 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.

Air Bag Operation

▶ The air bag inflates when:

- In response to a severe frontal impact, the driver's and front passenger's air bags work together with the seat belts to help preventing or reducing the 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

▶ 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 telegraph pole or a tree
- The vehicle falls into a drainage or a puddle
- The front of the vehicle crashes into high impact point vehicle such as a truck
- Impact on the hood by falling stones
- The air bag warning lamp is on

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WARNINGS FOR AIR BAG

- 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.
- 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 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 new one.
- The air bag contains explosive materials, so contact Ssangyong Dealer or Ssangyong Authorized Service Operation when trashing or replacing it.
- Incorrect air bag inspection can be dangerous and cause injuries. The air bag system must be disposed only by Ssangyong Dealer or Ssangyong Authorized Service Operation.
- Replace the steering wheel with only Ssangyong genuine part.
- 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 Ssangyong Dealer or Ssangyong Authorized Service Operation.
- The seat belt and air the bags are the most effective when you are sitting well back and upright in the seat.
- A child restraint system must not be placed on the front seat. The infant or child can be severely injured by an air bag inflation in case of an accident.
- 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 the vehicle.
- Do not place any objects on the air bag inflation location. You may get injured by those objects during deployment.
- 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 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.
- Hold only the outer rim of the steering so that the air bag can inflate without any hindrance.
- 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.

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WARNINGS FOR AIR BAG

- Do not hold and operate the steering wheel by crossing your arms. You could get seriously injured when the air bag deploys.
- 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 is deployed, 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 the doctor if irritation continues.
- 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 Ssangyong Dealer or Ssangyong Authorized Service Operation.
- The windshield glass may be broken when the passenger's air bag is deployed.
- The air bag deployment can cause abrasion on your hands and face.
- The air bag system does not need to be inspected. However, it must be replaced in the 10th year from the installation.

Locations of Air Bag Warning Label

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MEMO

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9

Ventilation, Heating, Air Conditioning and Air Purification System

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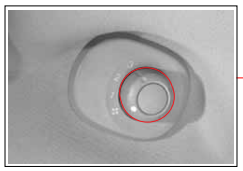
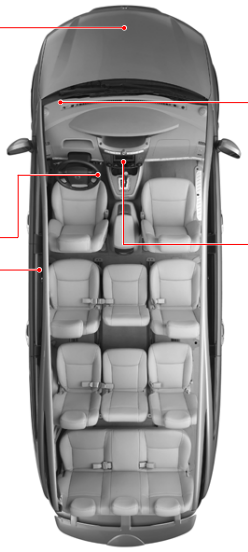
AQS and Ambient Temperature Sensor

Interior Temperature and Humidity Sensor

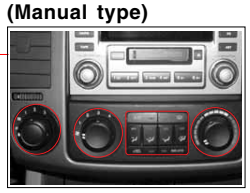
Rear Fan Control Switch



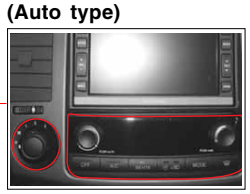


Sun Sensor

Control Panel (Manual type)



Control Panel (Auto type)



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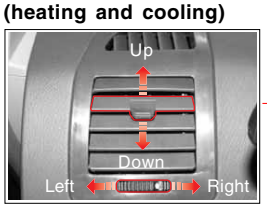
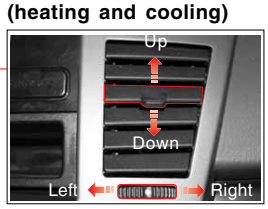
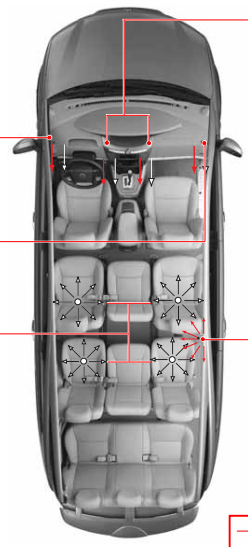
AIR VENTS

Front Vent (heating and cooling)

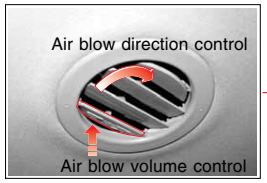


Front Vent (heating and cooling)

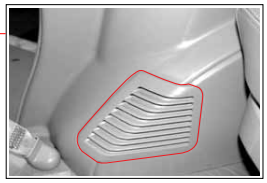




Rear Vent (cooling)



Rear Vent (heating)



Heating
Cooling

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WARNINGS AND CAUTIONS

WARNING

- If you sleep while air conditioner or heater on with all windows closed. You may be suffocated to death.
- Continued operation in recirculation mode may cause interior to become stuffy and windows to fog. Use recirculation mode for a short period of time, and when driving through an area of smoke or fume.
- Be sure to switch back to fresh air mode after passing through an area of smoke or fume.
- Never leave a child or the handicapped person alone in a vehicle with the air conditioner or heater on in hot or cold weather. Child or the 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 conditioner.
- Operating the air conditioner for a long time with the vehicle parked may cause the engine to overheat.
- During driving up long hills, turn on and off the air conditioner every 3 ~ 5 minutes.
- To prevent battery from discharging, do not run the fan for an extended period of time when the engine is not running.
- To maintain the system to its optimum state and to keep the lubrication of the air conditioner compressor and related components, run the air conditioner in low speed once a week.

CAUTION

- 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 fresh air mode before stopping the engine off.
- If you start the engine with the air conditioner on, the engine may not start easily and the engine idling can be unstable causing vehicle to vibrate. Be sure to turn off electrical systems such as 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. Otherwise, the oil in the compressor will not be circulated and could result in malfunctions. Do not forget to run the air conditioner in low speed.

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SUPPLEMENTARY HEATING DEVICE

* FFH (Fuel Fired Heater) is optional.

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

FFH (Fuel Fired Heater)	PTC (Positive Temperature Coefficient)
This supplementary heater is a fuel burning type and improves the heating effect by increasing the engine coolant temperature. This device is operated by two steps according to the coolant temperature and the ambient temperature. Compared to PTC, FFH cannot be operated or stopped by driver's intention. The FFH is automatically operated by 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 PTC according to the coolant temperature and the ambient temperature.
▶ FFH Operation - The FFH system operates up to more 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 temperature switch is at any position other than “OFF” position and the coolant temperature and the ambient temperature is within a specified range. ▶ Non-operational Condition - The temperature switch is at “OFF” position - Defective ambient temperature sensor - During engine cranking - Too low battery voltage - During pre-glowing process (indicator ON)

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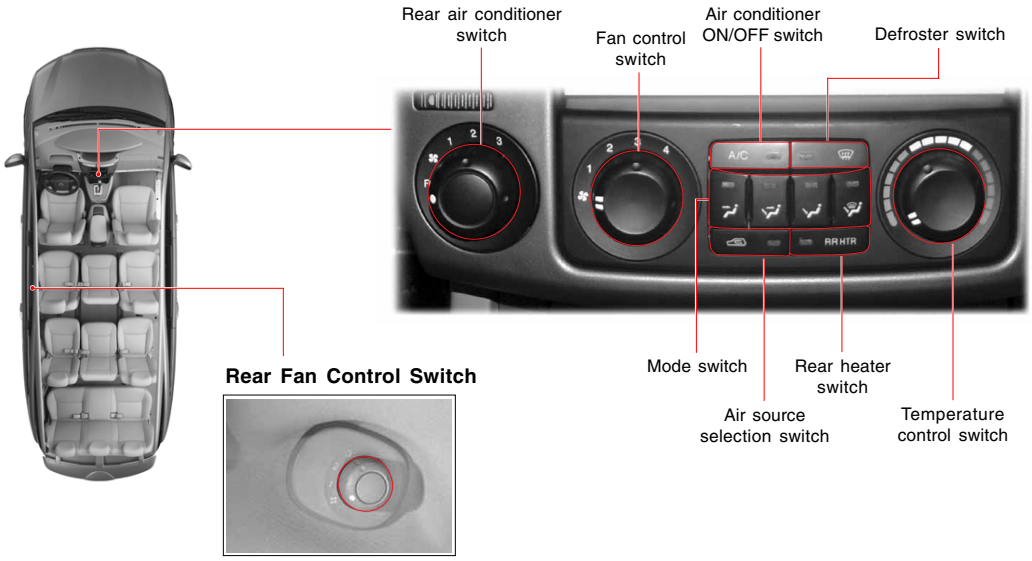
MANUAL AIR CONDITIONER



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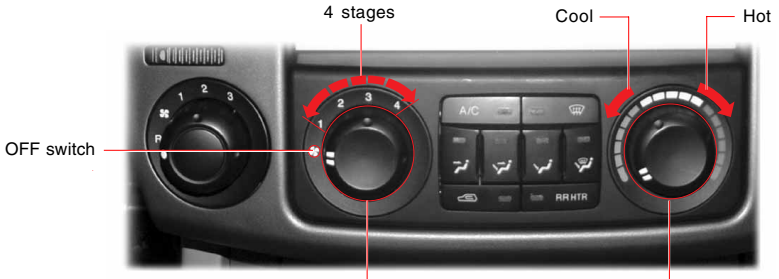

Fan Control Switch

The fan speed can be adjusted in 4 stages.

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

White direction: Bi_level zone

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Air conditioner ON/OFF switch

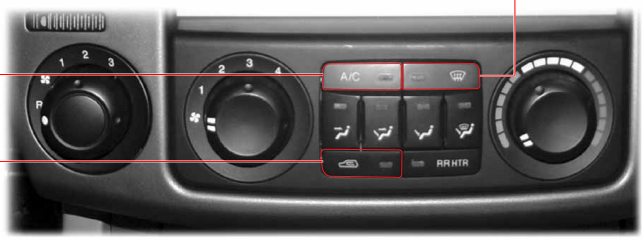
To turn on the air conditioner, press this switch when the fan speed switch is at any positions except OFF ( ) position.

At this moment, the indicator in the switch comes on.

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

Defroster switch

When you press the switch, the airflow direction will be changed to windshield and door glasses, the air conditioner operates automatically and outside air comes in. When the defrosting is completed, press the switch to return to normal operations.



Air source selection switch

By pressing the switch, fresh air intake mode and recirculation mode changes alternatively. When the recirculation mode is selected, the indicator in the switch comes on. To defog, set the air source to the fresh air intake mode and use the defroster mode.

WARNING

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

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Rear air conditioner switch

- Rear air conditioner OFF:
- Fan speed control: 1, 2, 3 stage
- Rear air conditioner ON: “R” position

Rear heater switch

- Rear heater ON
- This function is not available when the rear air conditioner switch is at ( ) position.

Mode Switch

By pressing the switches, the air flow mode changes.

Vent	Bi-level	Floor	Defroster and Floor

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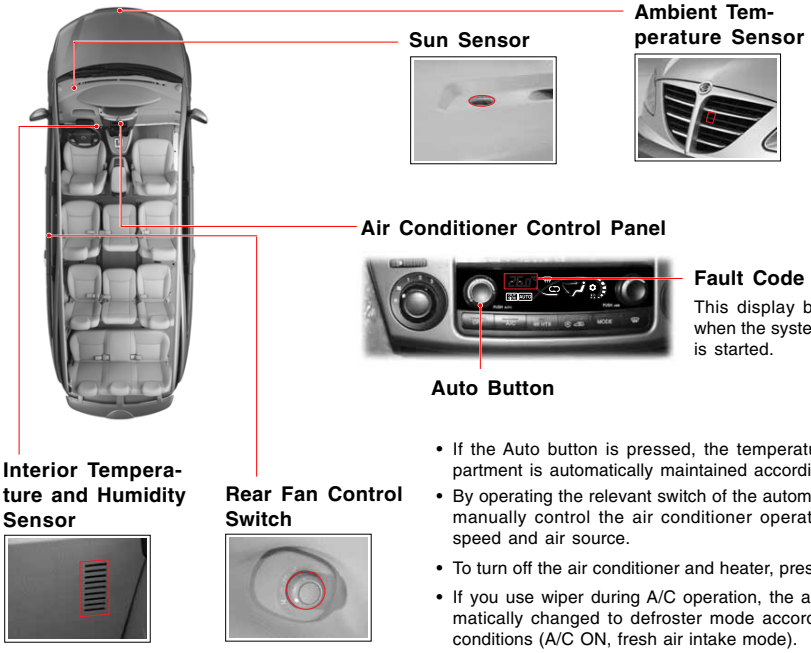
AUTOMATIC AIR CONDITIONER*



- 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 can manually control the air conditioner operation, air flow direction, fan speed and air source.
- To turn off the air conditioner and heater, press "OFF" button (OFF).
- If you use wiper during A/C operation, the air conditioner may be automatically changed to defroster mode according to the wiper operating conditions (A/C ON, fresh air intake mode).

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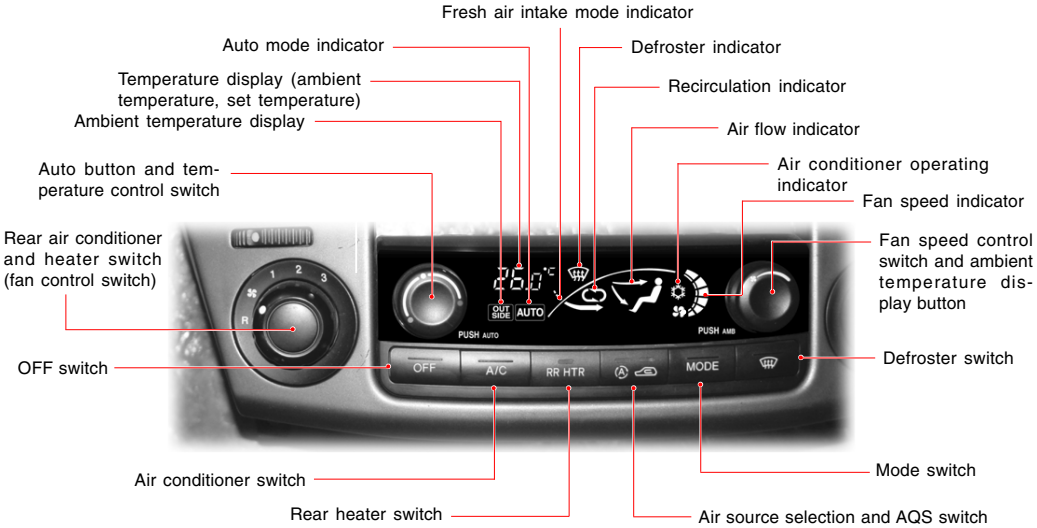

Auto Operation Mode

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

Manual Operation Mode

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

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Auto Button And Temperature Control Switch

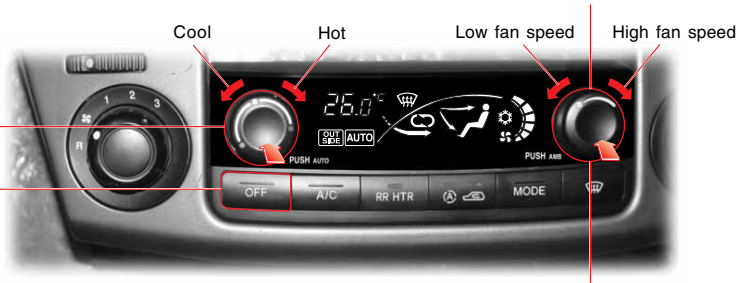
When you press Auto button, the "AUTO" indicator is displayed on the VFD and the temperature of the passenger compartment is automatically maintained according to the set temperature. To adjust the temperature and fan speed, turn the switch as required. When you press Auto button during manual operation mode, the system is changed to Auto operation mode.

Ambient Temperature Display Button

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

CAUTION

The ambient temperature may not display the actual ambient temperature due to engine heat or ground heat.



OFF Switch

To stop the air conditioner operation, press this switch.

Fan Speed Control Switch

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

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Air Conditioner Switch

When you press the switch, the (❄) 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 indicator goes out.

Defroster Switch

When you press the switch, the airflow direction will be changed to windshield and door glasses, the air conditioner operates automatically and outside air comes in. At this moment, the (), (❄), and () indicators come on. When the defrosting is completed, press the switch to return to normal operations.

Air Source Selection and AQS (Air Quality System) Switch

By pressing the switch, fresh air intake mode, recirculation mode, and AQS ON/OFF changes alternatively. For details, refer to the AQS section.

CAUTION

To change the air source to recirculation mode during auto air conditioner operation, get into manual air conditioner mode, then press the air source selection switch.

AQS system activated

AQS system deactivated, recirculation mode

AQS system deactivated, fresh air intake mode

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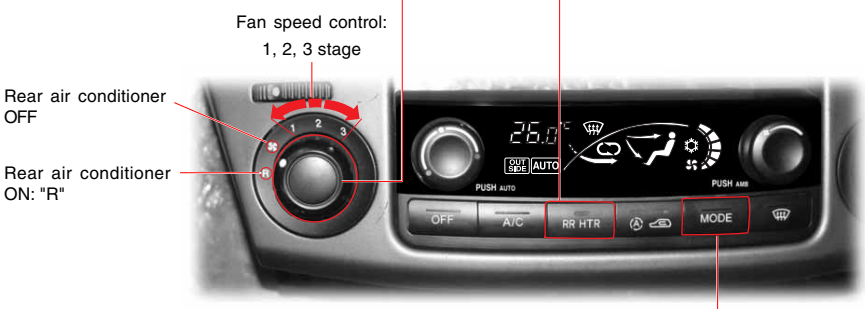
Rear air conditioner switch

- Rear air conditioner OFF:
- Fan speed control: 1, 2, 3 stage
- Rear air conditioner ON: “R” position

Rear heater switch

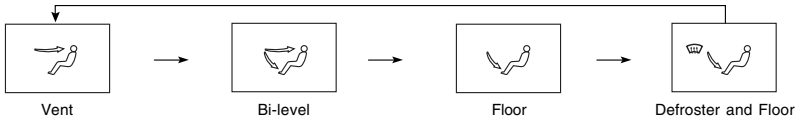
* Rear heater ON
* This function is not available when the rear air conditioner switch is at ( ) position.



Mode Switch

By pressing the switch, the air flow mode changes.

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



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DEFOGGING AND DEFROSTING

Inside

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

Outside

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

Automatic air conditioner

Manual air conditioner

CAUTION

- To prevent the fog generating on the glass, setting the air source selection switch to the fresh air intake mode is recommended.
- An extended air conditioner operation in bi-level mode or defrost mode may cause the fogged outside glass due to high temperature difference between inside and outside of the vehicle. In this case, change the air flow to vent mode and use the low fan speed.
- Especially in winter and summer, to avoid glass fogging, remove any obstacles such as snow or leaves on the air inlets.

NOTE

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

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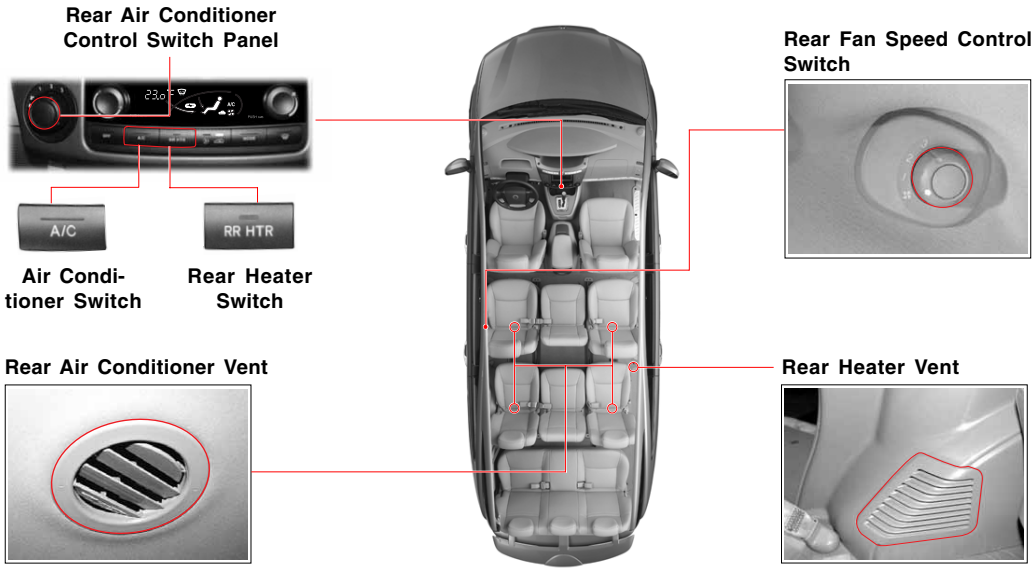
REAR AIR CONDITIONER

The appearance of rear air conditioner switch in automatic air conditioner equipped vehicle is different from that of manual air conditioner equipped vehicle, but its functions are same.



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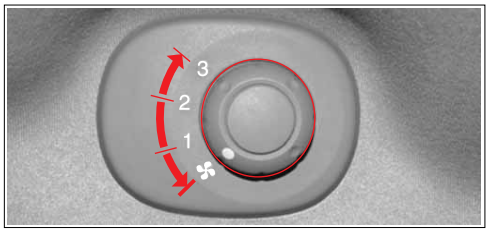
1. Position the rear air conditioner control switch to any position except (❀) position.

2. To operate the heater, press "RR HTR" switch. To operate the air conditioner, press "A/C" switch.

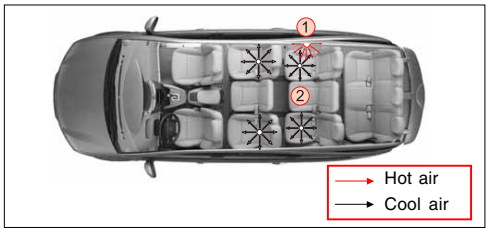
WARNING

If the "A/C" switch or "RR HTR" is turned off, the air conditioner does not work even when the rear air conditioner switch is operated. However, the air flows due to fan operation.

3. When the rear air conditioner switch is at "R" position, the fan speed can be controlled by this switch.



4. Hot air flows out from (①) vent when heating, and cool air flows out from (②) vent when cooling.



CAUTION

Do not operate the fan for a long time when the engine is not running. The battery could be discharged.

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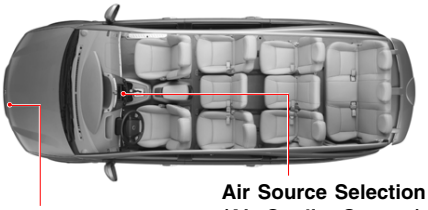
AIR SOURCE SELECTION AND AQS (AIR QUALITY SYSTEM) SWITCH



AQS Sensor

Air Source Selection and AQS (Air Quality System) Switch

AQS System?

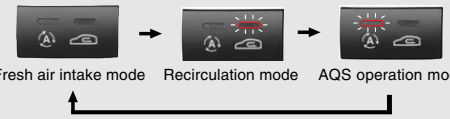
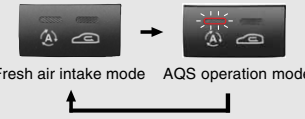
Air Quality System (AQS) automatically changes the air source selection to recirculation mode when polluted air is detected through AQS sensor. The air source selection returns back to fresh air intake mode after a specified period or the polluted air is disappeared.

NOTE

The AQS also can be operated according to the vehicle's driving conditions.

Air Source Selection and AQS (Air Quality System) Switch

By pressing the switch, the mode changes as below:

Manual Operation ("AUTO" indicator OFF)	Auto Operation ("AUTO" indicator ON)
 Fresh air intake mode → Recirculation mode → AQS operation mode	 Fresh air intake mode → AQS operation mode To change the air source to recirculation mode in AUTO mode, get into MANUAL mode first, then press the air source selection switch.

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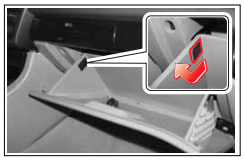
REPLACING AIR CONDITIONER FILTER

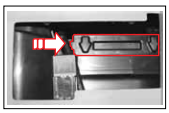
Replace the air conditioner filter at every 10,000 km of driving. However, if the vehicle is operated under severe conditions such as dusty road, unpaved road, and excessive air conditioner and heater operation, shorten the replacement interval.

1. Open the glove box.

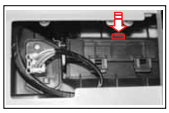


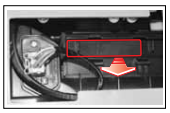
2. Remove the glove box from dash panel by moving both holders to arrow direction.

Auto

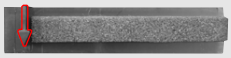


Manual





3. Remove the filter cover while pushing the holder to arrow direction.
4. Pull out the first filter.
5. Slightly move the second filter to left side and pull it out.
6. Replace the filters with new ones. Install in the reverse order of removal. Make sure that the filters are facing correct direction.

Auto	Manual
	
The arrow should face upward.	The arrow should face downward.

Replace the air conditioner filter when

- Unpleasant odor is generated at first operation after long unused period.
- Cooling and blowing capacity are 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 a time and pay attention to the installing direction.

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MEMO

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- Preventive Maintenance 10-3
- Turbocharger Inspection 10-4

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Turbocharger System

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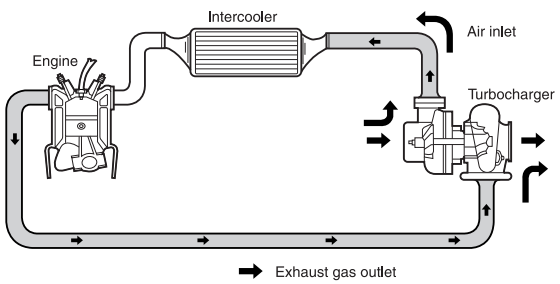
CAUTIONS IN USING THE TURBOCHARGER

WHAT IS THE TURBOCHARGER?

Turbochargers are based on 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 compressed from. 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 altitude
- Reduce emissions

What is the intercooler?

The inter-cooler cools down the compressed air temperature to increase the engine power by increasing the air density.

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PREVENTIVE MAINTENANCE

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

CAUTION

- Operate the engine above idle 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 normal engine, so when the engine is stopped abruptly, the oil in the bearings may evaporate due to heats and can cause sticks.
- Use only designated 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 a 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 turbo-charger's speed of operation.

Proper operating procedures and preventive maintenance practices enhance good turbo-service lift and performance.

The contaminated air cleaner can damage the turbocharger 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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11

Convenience Devices

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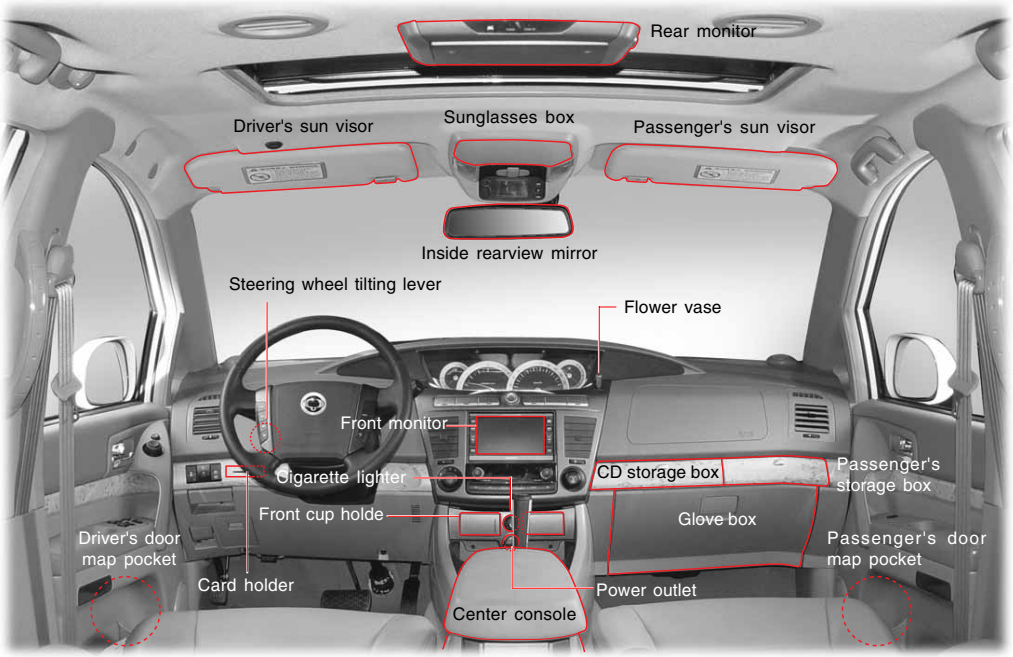
STORAGE BOXES AND CONVENIENCE DEVICES



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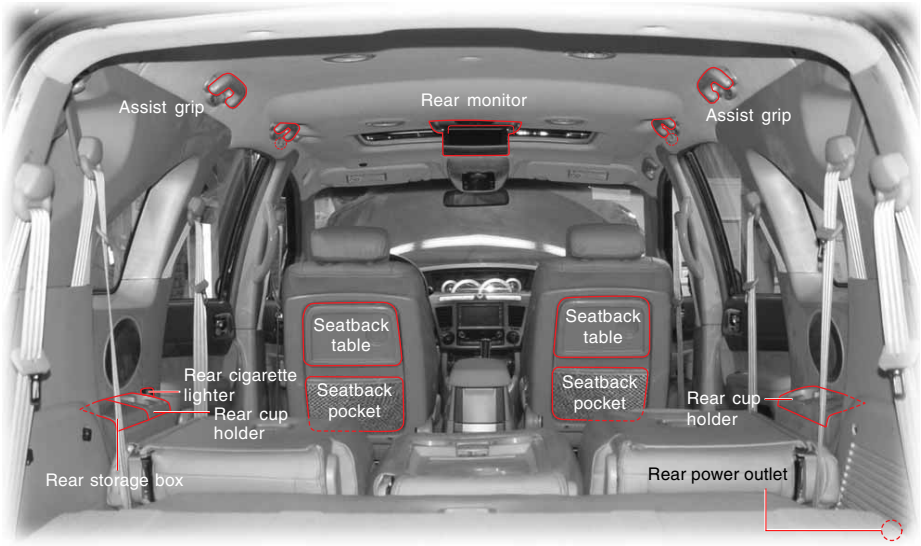
WARNING

- 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 lighter in the console box or other space. In hot weather, they can explode and cause a fire.
- When vehicle is in motion, the liquid may spill out. Spilled liquid can damage the vehicle and cause burns if it is hot. Do not use cup holder while vehicle is in motion.



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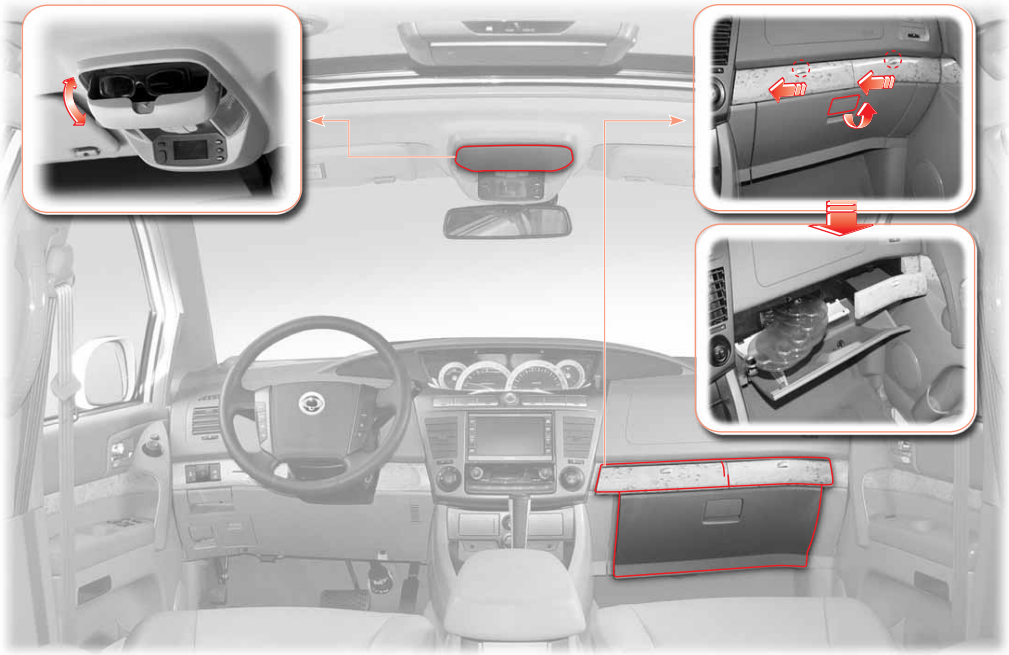
FRONT STORAGE BOXES

Sunglasses Storage Box

CD Storage Box, Passenger's Storage Box, Glove Box



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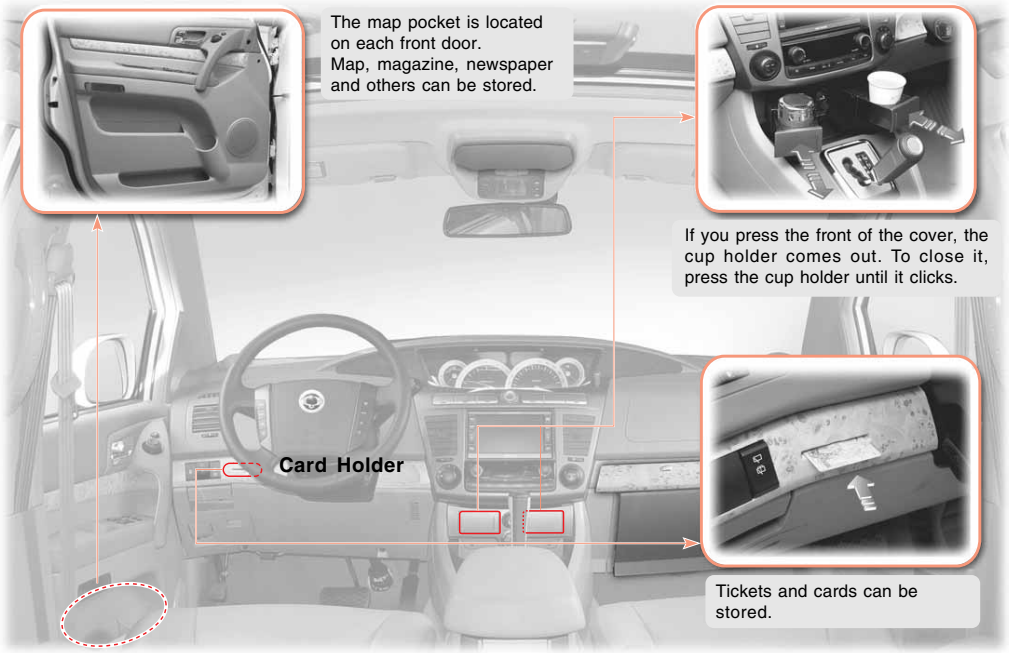
Front Door Map Pocket

Front Cup Holder



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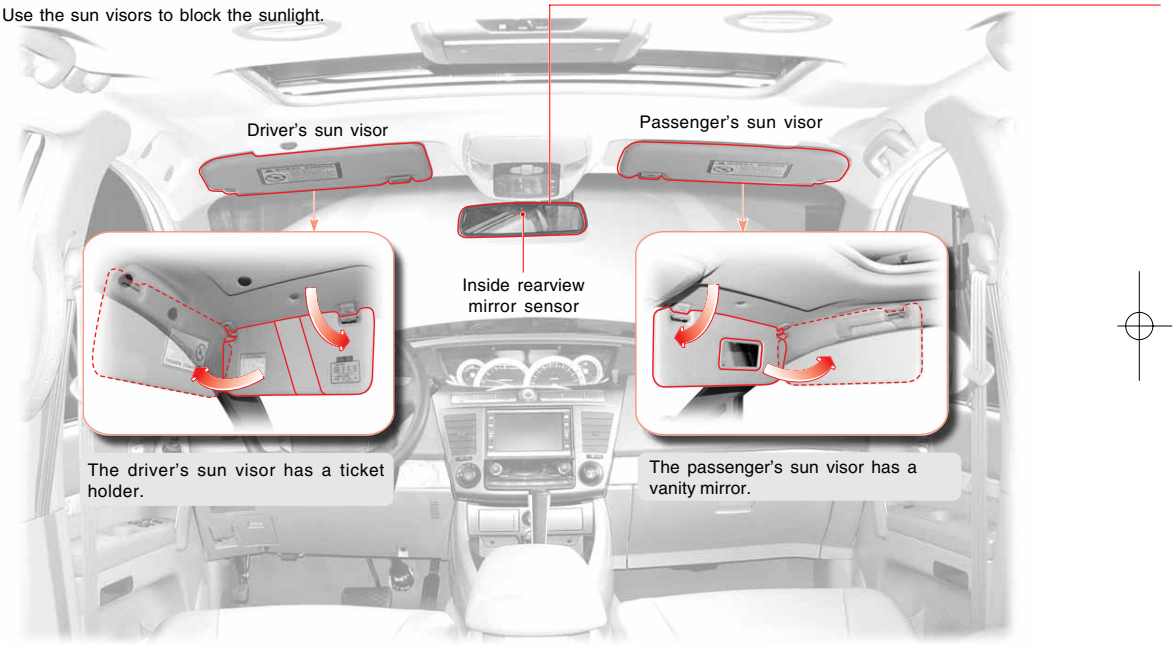
SUN VISORS

Use the sun visors to block the sunlight.



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INSIDE REARVIEW MIRROR

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

ECM (Anti-glare auto adjustment function)

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

CAUTION

Under 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 rear window has dark tinted glass.
- When the gear selector lever is in R position, automatic anti-glare function will be cancelled to obtain a 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

Adjustment

Hold and adjust the mirror to obtain a best rearview.

CAUTION

- Day time use
  Push forward the lever on the mirror.
- Night time use
  Push aft the lever on the mirror.

WARNING

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

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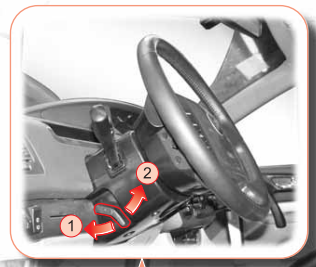
TILTABLE STEERING WHEEL AND HORN

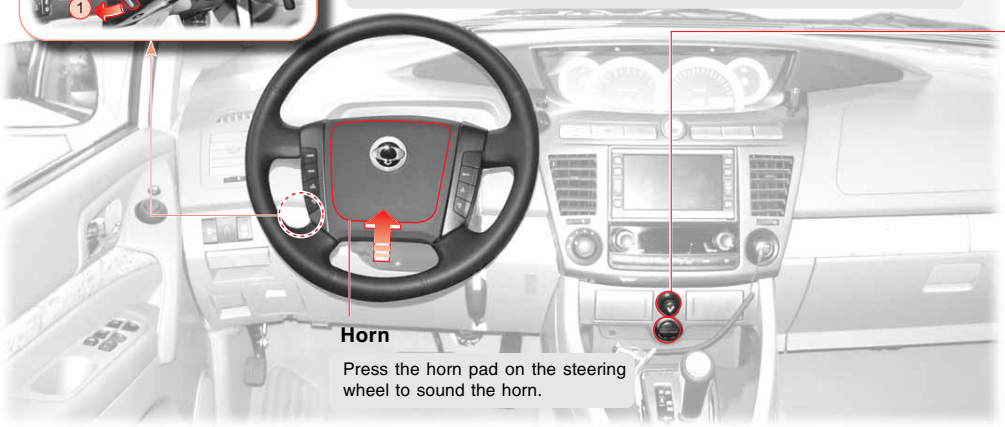
Tiltable Steering Wheel



The steering wheel can be adjusted up or down to the desired position. To adjust the steering wheel, move the control lever to arrow direction ① and adjust the wheel up or down to the proper position. To lock the steering wheel at the position, move the control lever to arrow direction ②.

WARNING

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



Horn

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

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FRONT POWER OUTLET AND CIGARETTE LIGHTER

Front Cigarette Lighter

To operate the cigarette lighter, press it in all the way when the ignition switch is in the “ACC” or “ON” position. When it becomes heated, it automatically pops out ready for use.

WARNING

The barrel of the lighter becomes hot during use and can cause burns.

- Do not touch barrel of lighter.
- Do not allow children to operate or play with cigarette lighter.

The lighter can be overheated and this can cause a fire hazard.

- Do not hold the lighter pressed in by hand while heating.
- If the lighter does not pop out within 30 seconds, pull it out and have the problem corrected by Ssangyong Dealer or Ssangyong Authorized Service Operation.

Front Power Outlet

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

CAUTION

- Keep the power outlet cover closed if not in use. There can be electrical defect if insert objects other than power outlet plug or water comes in.

WARNING

- For the extra electrical devices, you must use power outlet. If you alter vehicle’s wiring lines freely, there could be accidents like fire.
- Abide by the nominal capacity of 120W.
- Do not put a finger into the outlet. It may cause an electric shock.

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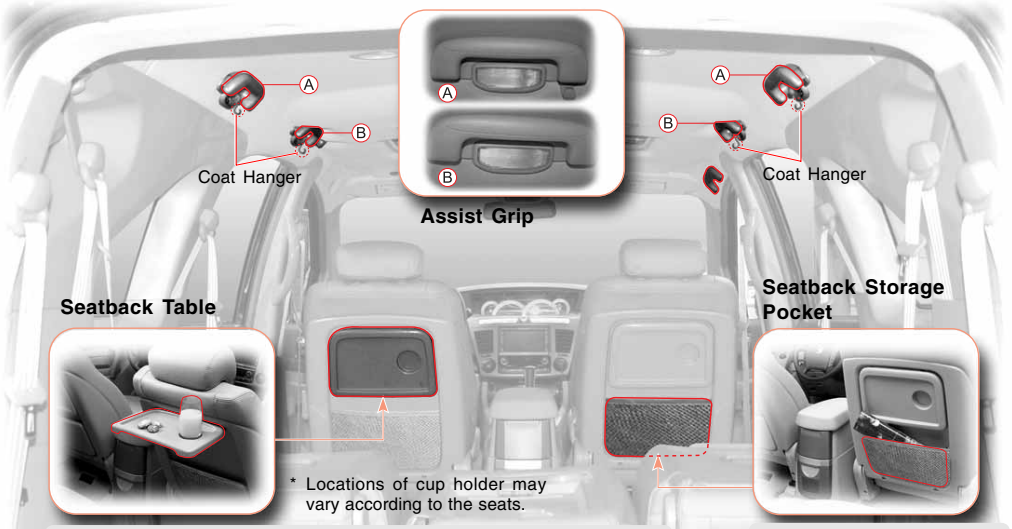
ASSIST GRIP, SEATBACK TABLE, SEATBACK POCKET



A table is installed at the rear of the front seatback. To do some temporary jobs and put something on it, swing it up. Turn it back to its original position when not in use.

WARNING

- Do not use the table when the vehicle is moving. It may result in a personal injury during abrupt braking or sharp acceleration.

The front seatback storage pocket is provided to store small personal properties.

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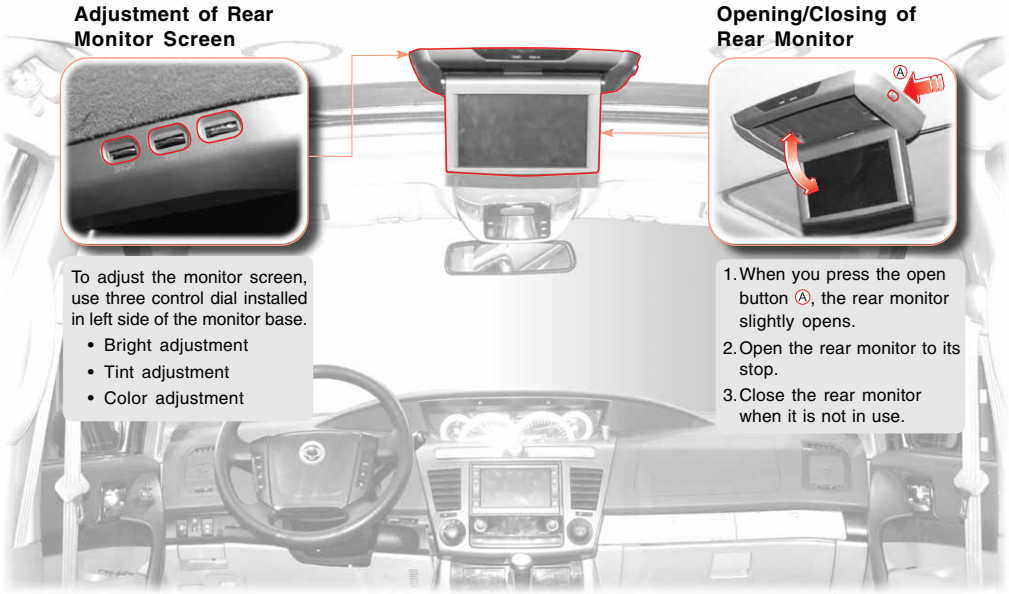
REAR MONITOR*

Passengers in rear seats can watch TV, DVD, and VCD through the rear monitor. The rear monitor displays the rearview during reverse driving (rearview camera system equipped vehicle).



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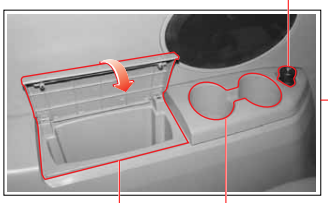
REAR CIGARETTE LIGHTER, REAR CUP HOLDER, REAR STORAGE BOX, REAR POWER OUTLET

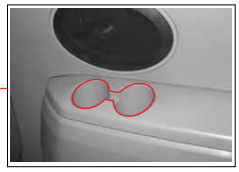
Rear Cigarette Lighter (Left side of third row seat)

To operate the cigarette lighter, press it in all the way when the ignition switch is in the “ACC” or “ON” position. When it becomes heated, it automatically pops out ready for use.

For detailed cautions and warnings, refer to "Front Cigarette Lighter" section.



Cup Holder (Right)

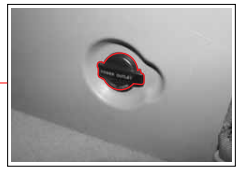


WARNING

When vehicle is in motion, the liquid may spill out. Spilled liquid can damage the vehicle and cause burns if it is hot. Do not use cup holder while vehicle is in motion.

Cup Holder (Left)

Rear Power Outlet (Right side of fourth row seat)



This power outlet can be found at right side of body wall when you raise the fourth row seat. For detailed cautions and warnings, refer to "Front Power Outlet" section.

Rear Storage Box (Left side of third row seat)

The rear storage box is provided to store small personal properties.

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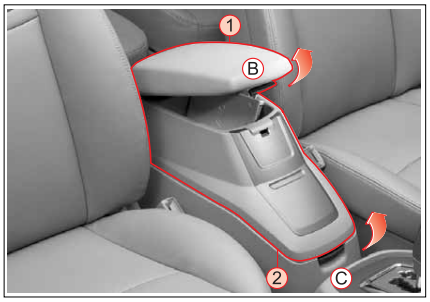
CENTER CONSOLE (STORAGE BOXES, CD CHANGER, DVD CHANGER)



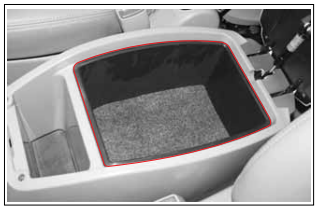
- To open the upper storage box, pull up the lever Ⓑ.
- To open the lower storage box (or CD/DVD changer), pull up the lever Ⓒ.

① : Storage box

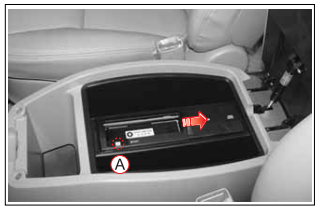
② : Varies according to option

- Storage box
- CD changer
- DVD changer

Storage Box



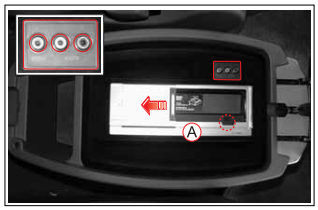
CD Changer



When using CD/DVD changer

When you open the cover and press the button Ⓐ, the CD/DVD changer case appears. For details, refer to the separately provided operating manual.

DVD Changer



Aux jack (audio and video terminals) can connect with camcorder, digital camera and joy stick.

- Do not use accessories that exceed rated capacity (12V/120W) which may cause blown fuses.

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REMOVABLE CENTER CONSOLE

Storage Bin and Table

The center console cover can be used as a table in second row seats.

When swing the inner cover from center console cover, it can be used as a table in front seats.

Portable Tray

The center console can be used as a portable tray. Refer to the removal and installation procedure in next page.

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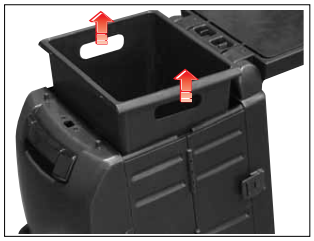
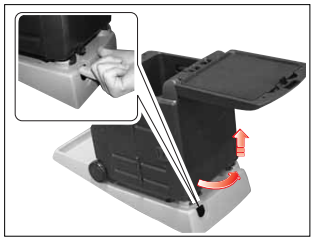
REMOVAL AND INSTALLATION OF TRAY



1. Open the cover and remove the storage bin.

2. To release the bottom locks, lift up the support from floor and push both sides of tray in.



3. Open the cover in rear bottom of the tray. To release left lock, turn the tray to arrow direction while pushing up the inner lock button. Pull out the tray assembly.

4. Put down the lifted support and push both sides of tray out.

5. Insert the removed storage bin into the tray and close the cover.

WARNING

- When pushing both sides of tray out, do not touch the folded area. It may cause a personal injury.

The length of tray handle can be adjusted.

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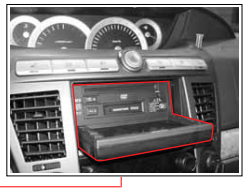
AUDIO, VIDEO, NAVIGATION SYSTEM*

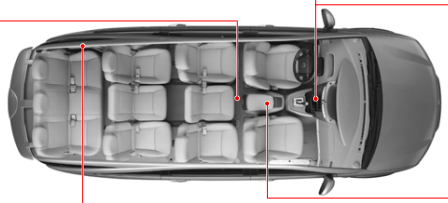
For details, refer to the separately provided operating manual.

Rear Monitor

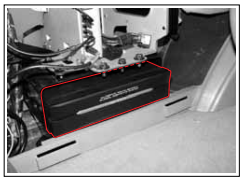
Front Monitor

Audio/Video Head Unit





DVD Navigation Unit*



CD Changer*
(DVD Changer*)

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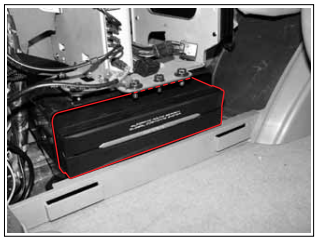
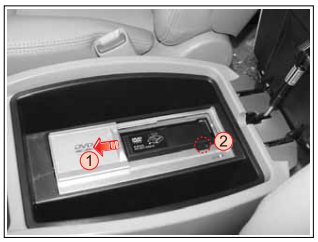
DVD Navigation Unit*



CD Changer*

DVD Changer*



CD/DVD changer is installed in the center console.

Location of Navigation Unit

The navigation unit is installed behind the rear left side cover.

CAUTION
Use only a navigation map DVD.

How to change a CD or DVD

1. Open the lower cover in center console.
2. Slide the changer cover to direction ①.
3. Press the opening button ②. CD/DVD case appears within few seconds.
4. Remove the CD/DVD case from the changer.
5. Insert a CD/DVD into the case and put the case back into the changer.
6. When pressing the case down, it is automatically moved down.
7. Close the changer cover and lower cover in center console.

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CAUTIONS WHEN USING AUDIO/VIDEO/NAVIGATION SYSTEM*

- An illegal copy of CD/DVD may cause a malfunction in the audio/video head unit and an abnormal replay. Use only genuine CD/DVD.
- Unusable discs may cause a malfunction in the system due to different drive type. Use only usable discs.
- Do not use the audio/video/navigation system for a long time when the engine is not running. The battery could be discharged.
- Be careful not to spill water on the unit or to let any foreign object into the system through the opened monitor.
- Do not apply excessive force to adjust, open, and close the monitor. Do not impede the automatic movement of the unit. It may cause a malfunction.
- Do not apply any impact and pressure to the monitor screen. The LCD panel or touch screen panel can be damaged.
- When cleaning the touch screen, turn off the system and clean the surface with a dry and soft cloth. Never use any coarse cloth, hard cloth, chemical agent, volatile cleaning solvent (alcohol, benzene, thinner) for cleaning the touch screen. The screen surface can be damaged and discolored.

Usable Discs

Navigation Unit

- Map DVD for navigation

Head Unit

- DVD player: DVD/VCD/Audio CD/MP3 CD
- CD player: Audio CD
- CD + MP3 player: Audio CD, MP3 CD

CD changer

- Audio CD

DVD changer

- DVD/VCD/Audio CD/MP3 CD

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12

In Case of Emergency

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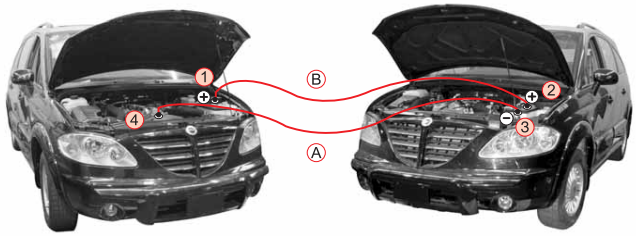
STARTING THE ENGINE WITH JUMPER CABLES

You can start a vehicle that has a discharged battery by transferring electrical power to it from a battery in another vehicle.



Discharged battery **Booster battery**

- Connect the positive ⊕ cable first when connecting.
- Disconnect the megative ⊖ cable first when disconnecting.

1. Prepare a set of jumper cable.
2. Apply the parking brake and shift the transmission to **P** position (automatic transmission) or neutral (**N**) position (manual transmission).
3. If the booster battery is not a MF type battery, remove all vent plugs from it. Cover the opened vent holes with cloth to avoid a possibility of battery explosion and other hazards.
4. Start the engine with the booster battery. Switch off all electrical accessories in the vehicle with discharged battery.
5. Connect one end of the first lead of the jumper cable to the positive terminal of the discharged battery.
6. Connect other end of this same jumper cable lead to the positive terminal of the booster battery.

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7. Connect one end of the second lead of jumper cable to the negative terminal of the booster battery.
8. Make the last connection to a suitable ground, such as a steel bracket bolted to the engine block. This last connection should be as far away from the battery as possible.
9. Attempt to start the engine with discharged battery while slightly accelerating the engine with booster battery.
10. If the engine is started, let it run for a few minutes.
11. 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 in electric components.
- Make sure that the booster battery has the same voltage rate with the discharged battery.

Batteries can explode. You could be burned by battery acid. Electrical short could injure you or damage the vehicles.

- Do not expose battery to flames or sparks.
- Do not allow cable terminals to touch each other.
- Do not allow battery fluid to contact eyes, skin, fabric, or painted surfaces.
- Do not disconnect discharged battery from vehicle.
- This can create damage to electrical systems in both vehicles, and cause serious personal injury.

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CAUTIONS WHEN A TYRE IS FLAT

If a tyre goes flat, follow the safety instructions as below:

1. Turn on hazard flashers.
2. Move off the road to a safe place away from traffic.
3. Park on a firm and level ground.
4. Change the flat tyre with spare tyre.

WARNING

- Don't be panic! Improper operation of the steering wheel or abrupt braking may cause a consequential accident on the road.
- Stop your vehicle to a safe place and turn on the hazard flasher and then apply the parking brake.
- Stop the engine and set up the warning triangle behind your vehicle (daytime: 100 m, night time: 200 m - on express way).
- Block 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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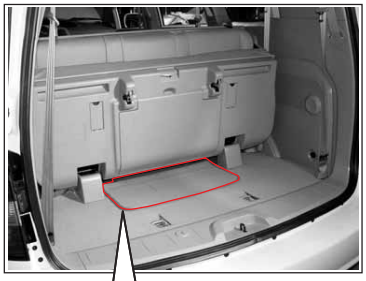
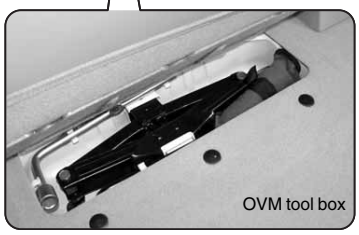
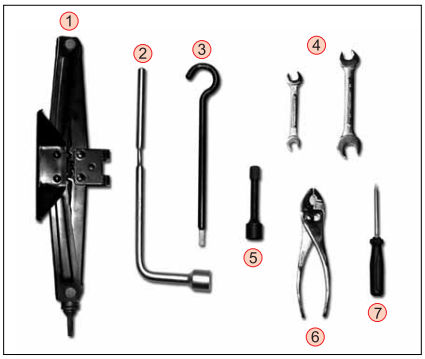
OVM TOOLS





The OVM tool box is located under the fourth row seat.
The OVM tool kit consists of:



1. Jack
2. Wheel nut wrench
3. Jack connection
4. Spanner (2)
5. Spare tyre connection
6. Pliers
7. Screwdriver (+ and -)

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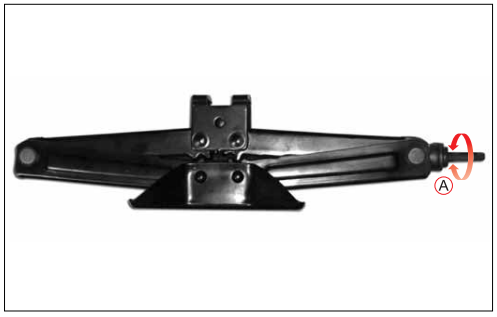
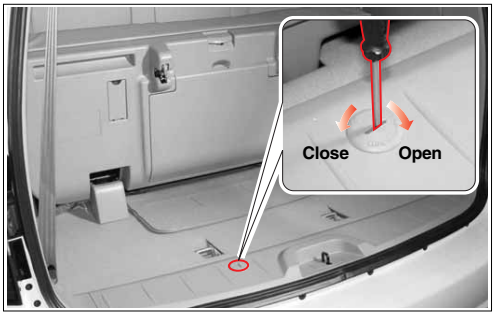
CHANGING A FLAT TYRE



1. Stop your vehicle to a safe place and turn on the hazard flasher and then apply the parking brake.
2. Block the front and rear of the wheel diagonally opposite to the wheel being changed.
3. Turn the ring (A) to remove the jack from the holder. Pull out other tools from tool box.

CAUTION

Put the tools into their own locations. Turn the ring (A) to tighten the jack into the holder.



4. Open the tailgate and remove the cap for spare tyre mounting hole with a screwdriver or coin.

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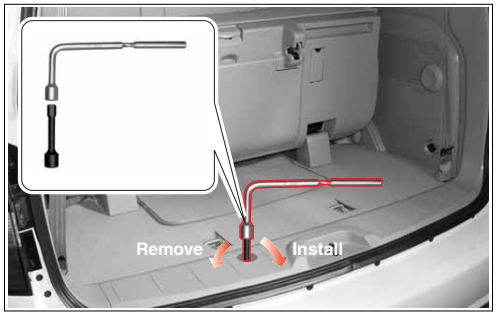

5. Combine the wheel nut wrench and the spare tyre connection, and insert it into the hole. Turn the wheel nut wrench to counter-clockwise to remove the spare tyre.

CAUTION

When refitting the spare tyre to the carrier, be sure to securely lock it at its location.

6. Pry off the wheel cap with a flat blade screwdriver.

CAUTION

When reinstalling the wheel cap, be sure to completely fit into its location.

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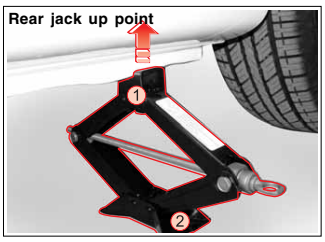
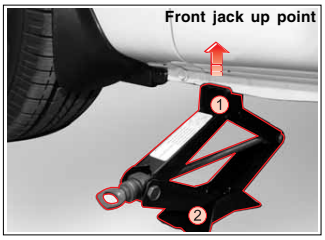
7. Loosen the wheel nuts one or two turns by turning counter-clockwise with the wheel nut wrench. Do not remove the wheel nuts until the tyre is off the ground.



- Locate the jack at a correct jack-up point.
- The jack-up point is reinforced. Before setting up the jack, check the jack-up point by hands.



① Jack head
② Base plate

8. Place the jack directly under the jack-up points so that top of the jack contacts the vehicle at the jack-up point. Align the center of both the jack head and the jack-up point by turning the connecting ring with hands.

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 persona; injury or a vehicle damage.

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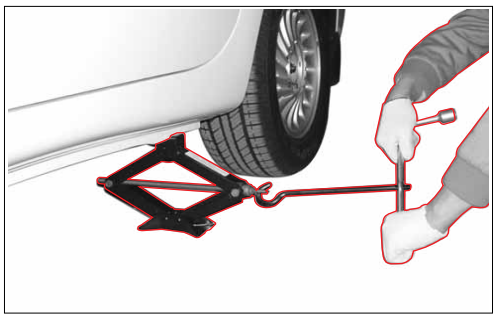

9. Combine the wheel nut wrench and the jack connection as shown in figure and hook it into the connecting ring. Jack up the vehicle by rotating combined wrench clockwise until the tyre is off ground about 3 cm.
10. Remove the wheel nuts by hands while the vehicle is stationary. For rear tyre, release the parking brake carefully.
11. Remove the tyre and put it under the vehicle body.
12. Fit the spare tyre and temporarily tighten the wheel nuts by hands.
13. Lower the vehicle by rotating the combined wrench counter-clockwise until the tyre touches the ground.
14. Remove the jack and tighten the wheel nuts securely by 2 or 3 steps in the sequence as shown in the figure.

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15. Put the removed tyre in the luggage compartment and put the tools into the tool box.

CAUTION

- If over tightened, the wheel nuts could be damaged. Do not over tighten the wheel nuts by pressing the wheel nut wrench by foot or using assist pipe.
- When the tyre has been replaced, retighten it after 1,000 km of driving.

WARNING

- As soon as possible, take your vehicle to a Ssangyong dealer or Ssangyong Authorized Service Operation and have the wheel nuts tightened according to Ssangyong specifications.
- Improperly tightened wheel nuts can cause the wheel to become loose and even come off. This could lead to an accident. Be sure to tighten the wheel nuts as specified.
- Mixing tyres could cause you to lose control while driving. Be sure to use the same size and type tyres of the same manufacturer on all wheels.

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CAUTIONS WHEN CHANGING THE TYRE

CAUTIONS WHEN CHANGING THE TYRE

Before changing the tyre

- Turn on hazard flashers and move off the road 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 jack.
- Have all passengers out of the vehicle and in a safe place from the traffic.

During changing the tyre

- Do not completely tighten a wheel nuts at a time. Tighten it with several times in a crisscross sequence.
- Never use oil or grease on studs or nuts. It may cause an over tightening of the nuts.

After changing the tyre

- Check, repair, and retighten the replaced tyre at nearest Ssangyong Authorized Service Operation or qualified tyre shop after emergency change.
- Store the repaired or new spare tyre at its location. When refitting the spare tyre, make sure that the outer surface of the tyre (wheel nut side) is facing down. And, check if the spare tyre is securely locked at the location without any looseness. Otherwise, it may be dropped on the road while the vehicle is moving.
- Retighten the wheel nuts after 1,000 km of driving.
- Check the wheel nuts tightening and tyre pressure before driving.

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WHEN THE ENGINE IS OVERHEATING

If the engine coolant temperature gauge shows an overheating condition or you have another reason to suspect the engine may be overheating, stop and park the vehicle.

Symptoms:

- Gauge indicates over the normal range (red zone),
- Emit steam from engine compartment
- Decrease the engine power

CAUTION

- 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.
- Engine and radiator may be damaged if you add cold water abruptly when the engine is still hot.
- Use only Ssangyong recommended antifreeze.
- If the antifreeze is not available, use the soft water temporarily. Change the coolant with correct concentration as soon as possible.
- If the problem continues, have the cooling system checked by Ssangyong Dealer or Ssangyong Authorized Service Operation.

1. Turn on hazard flashers and 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 P position (automatic transmission) or neutral position (manual transmission).
2. Turn off the air conditioning 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 normal range even in idling, stop the engine and cool it down.
5. Check the coolant level in surge tank. If it is too low, check for leaks in the radiator hoses and connections.
6. When fully cooled down, loosen the surge tank cap to reduce the vapor pressure, then remove the cap.
7. Add coolant into the reservoir tank if necessary. If the coolant level is normal, have the cooling system checked by Ssangyong Dealer or Ssangyong Authorized Service Operation.

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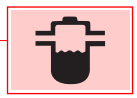
WATER SEPARATOR WARNING LIGHT AND ENGINE CHECK WARNING LIGHT

Water Separator Warning Light



When the water level inside water separator in fuel filter exceeds a certain level, this warning light comes on and buzzer sounds. If these conditions occur, immediately drain the water from fuel filter & 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 engine may get serious damage if you keep driving while the warning light is coming on. Prompt correction should be necessary.
- Before starting the engine, perform the pumping operation of priming pump until it becomes rigid to fill up the fuel pump with fuel.

CAUTION

When the water level inside water separator in fuel filter exceeds a certain level, this warning light comes on and buzzer sounds. Also, the driving force of the vehicle decreases. If these conditions occur, immediately drain the water from fuel filter & water separator. If the above conditions are still existing after draining the water, have the system checked by Ssangyong Dealer or Ssangyong Authorized Service Operation.

Engine Check Warning Light

This warning light comes on when the ignition switch is turned to ON and goes out if the engine is in normal condition. If the light stays on or comes on while driving, some of engine control components including sensors and devices are defective.

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 Ssangyong Dealer or Ssangyong Authorized Service Operation.

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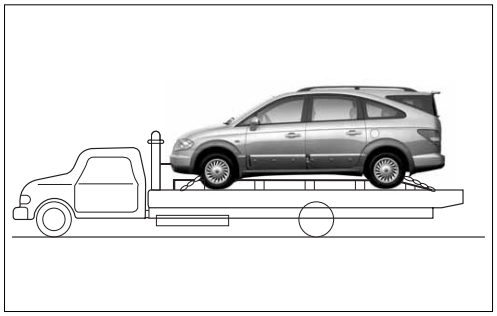
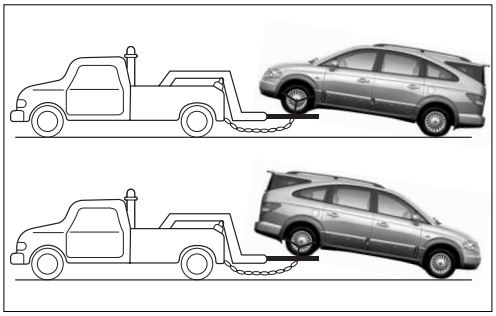
TOWING A DISABLED VEHICLE



Flat-bed equipment is the best method of moving a disable vehicle to avoid any damages. The vehicle equipped with the full-time four wheel drive (TOD) system should be towed by this way.

WARNING

If you tow the vehicle equipped with the full-time four wheel drive (TOD) system while front or rear tyres are rolling on the road, the drive system in the vehicle should be severely damaged.



If not available to use a car carrier, tow the vehicle as illustrated.

WARNING

The propeller shaft for the grounded wheels should be disconnected before towing.

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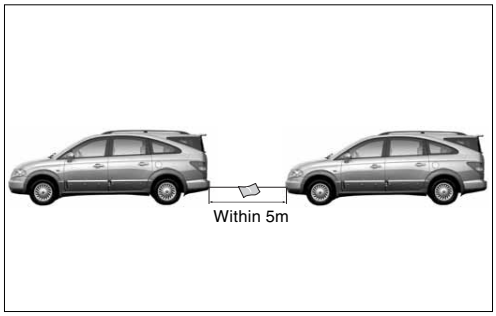
EMERGENCY TOWING



For emergency towing when a towing service is not available, your vehicle is equipped with the towing hooks under the front and rear of the vehicle for use with a tow rope.

When towing your vehicle with the tow rope:

- Secure the rope to both of the towing hooks under the front of the vehicle as tight as possible.
- To recognize the towing rope, bind a white colored cloth on the center of the rope.
- Switch on the hazard warning flasher of both vehicles.
- Place the gearshift lever in neutral and release the parking brake.
- Set the ignition in the ON position to release the steering column lock and to permit the operation of brake lamps, horn and windshield wipers.
- Only the driver should be in the towed vehicle to steer it and operate the brakes.
- To prevent the entry of exhaust fumes from the towing vehicles, close the windows and place the air intake lever to the recirculation mode.
- Drive off slowly and avoid jerky movements.
- The distance between the towing vehicle and the towed vehicle shouldn't be over 25 m and tow the vehicle within 25 km with 5 km/h of towing speed. The length of a rope should be less than 5 m.

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Locations of Towing Hook

CAUTION

- If you cannot use a professional towing service, get into the disabled vehicle during towing. But, never use this emergency towing when the electrical system, steering system, and brake system are not operative.
- You may allow horizontal direction force apply. The vertical direction force may cause damage to the vehicle.
- If there are steep hills or sharp turns in your towing, do not use this method.
- It requires more efforts of turning the steering when the engine is not running.
- 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 the heavier vehicle than yours.

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TRAILER TOWING*

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 140kg.

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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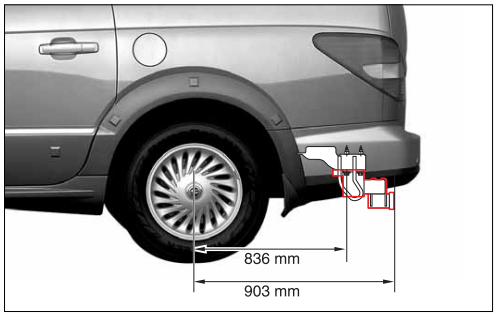

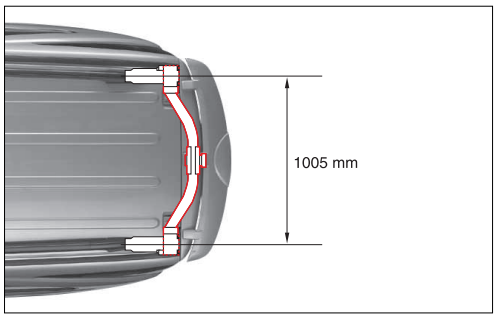

Maximum Load Limits (unit: kg)

Type		Trailer	Tongue
2WD	with brake	2,500	140
	without brake	750	
4WD	with brake	2,850	
	without brake	750	

The above dimensions are certified data to meet the following conditions.

On a 12% of uphill: Capable of 5 starts within 5 minutes (with trailer)

On a 18% of uphill: 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, after 1,000m height, permissible trailer loads should be reduced 10% every another 1,000m height.

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.

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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.location.
- 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.

TYRES

When towing trailers, be sure your tyres are properly inflated to the inflation pressure.

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.

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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.

DRIVING ON GRADES

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.

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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 TRAILER TOWING

Your vehicle will need service more often when you're pulling 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're trailering, 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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MOVING SELECTOR LEVER FROM “P” POSITION AND RESETTING SAFETY MODE

Moving Selector Lever From “P” Position

1. Turn the ignition key to “ON” position and depress the brake pedal.
2. For your safety, apply the parking brake.
3. Move the selector lever to other positions while pushing the shift lock release with a thin object such as ball-point pen.

WARNING

After emergency releasing the shift lever, have your vehicle repaired by Ssangyong Dealer or Ssangyong Authorized Service Operation as soon as possible.

Resetting Safety Mode

- Heavy shock when moving the selector lever
- Fixed gear position during driving* a hard shock during a shifting

If the symptoms as above are found, reset the transmission safety mode.

How To Reset The Safety Mode

1. Park the vehicle and place the selector lever to “P” position.
2. Stop the engine and wait for over 10 seconds.
3. Start the engine.

WARNING

If the gear is fixed at 2nd forward gear in “D” position or 2nd reverse gear in “R” position, have the system checked by Ssangyong dealer or Ssangyong Authorized Service Operation

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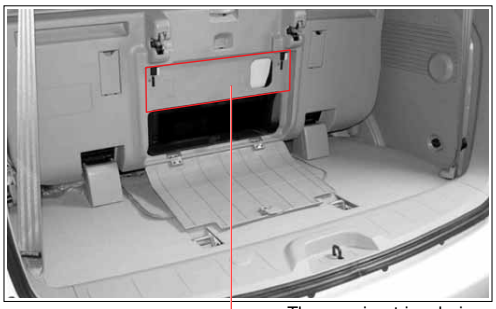
WARNING TRIANGLE



The warning triangle is under the fourth row seat.

NOTE
Check local, state and provincial laws for using the warning triangle.

When the vehicle has a serious problem during driving

1. Turn on the hazard flasher and move the vehicle off the traffic to a safe place. Set up the warning triangle behind your vehicle (over 100 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
- Move the vehicle off the traffic to a safe place. Turn on the hazard warning lamps and set up the warning triangle behind your vehicle to warn others.
- Have all passengers get out of vehicle and stand in a safe place.
- At night time, set up a warning lamp behind your vehicle (over 200 m) to warn others.
- On a curved road, provide a emergency hand signal to others at the point over 200 m behind your vehicle.

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MEMO

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13

Service and Maintenance

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DAILY CHECK LIST

Exterior

The following checks are recommended before driving to maintain safe and dependable vehicle operation.

1. Check the tyres 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.
5. Check the outside rearview mirrors and license plate for dirt or damage.

Interior

1. Check for steering wheel free play and looseness.
2. Check the parking brake lever travel.
3. Check the operation of the horn, windshield wipers and turn signals.
4. Check the operation of instruments and indicator warning lights.
5. Check level of fuel in the fuel tank against fuel gauge.
6. Check the position of the rearview mirrors.
7. Check the operation of the door locking mechanism.
8. Check the brake and clutch pedal free play, height and function.
9. Check the seat belts.

CAUTION

If in doubt about driving and operating conditions, have your vehicle checked at Ssangyong Dealer or Ssangyong Authorized Service Operation.

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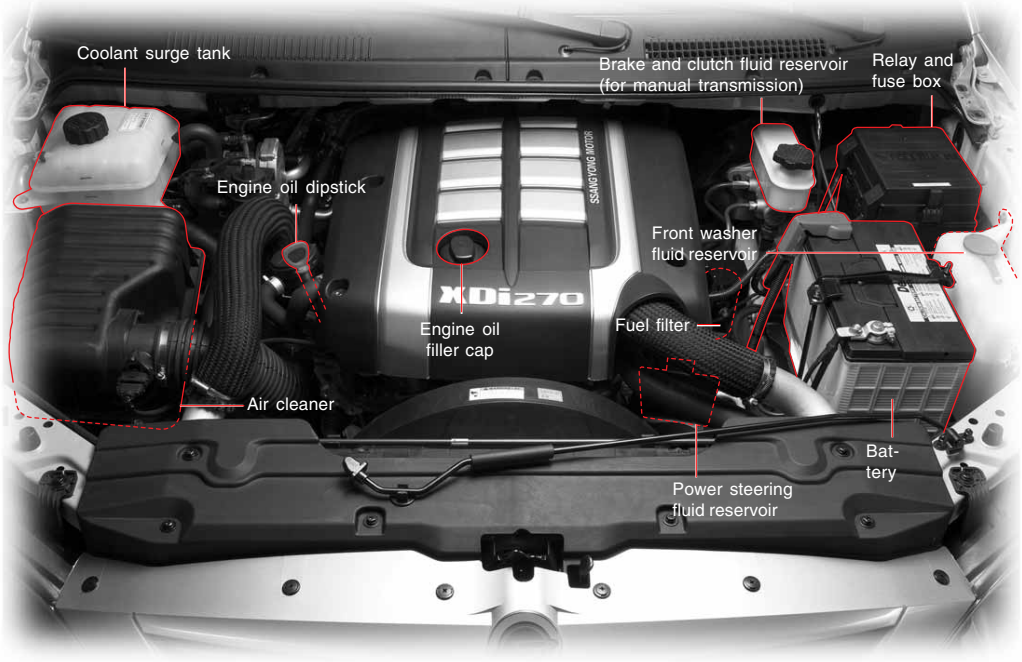
LOCATIONS IN ENGINE COMPARTMENT (EU)



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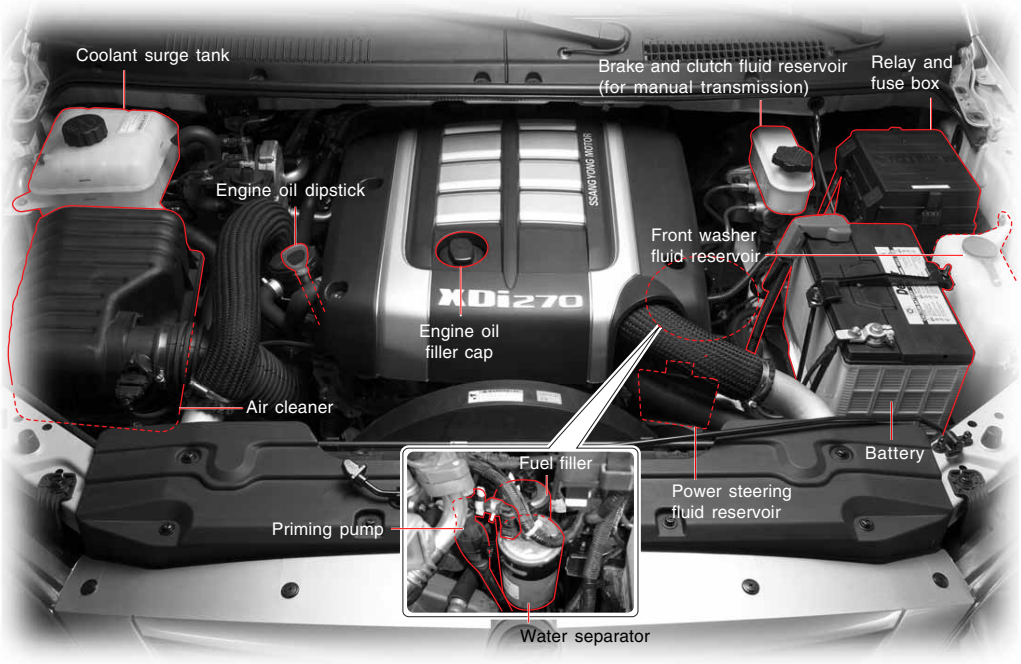

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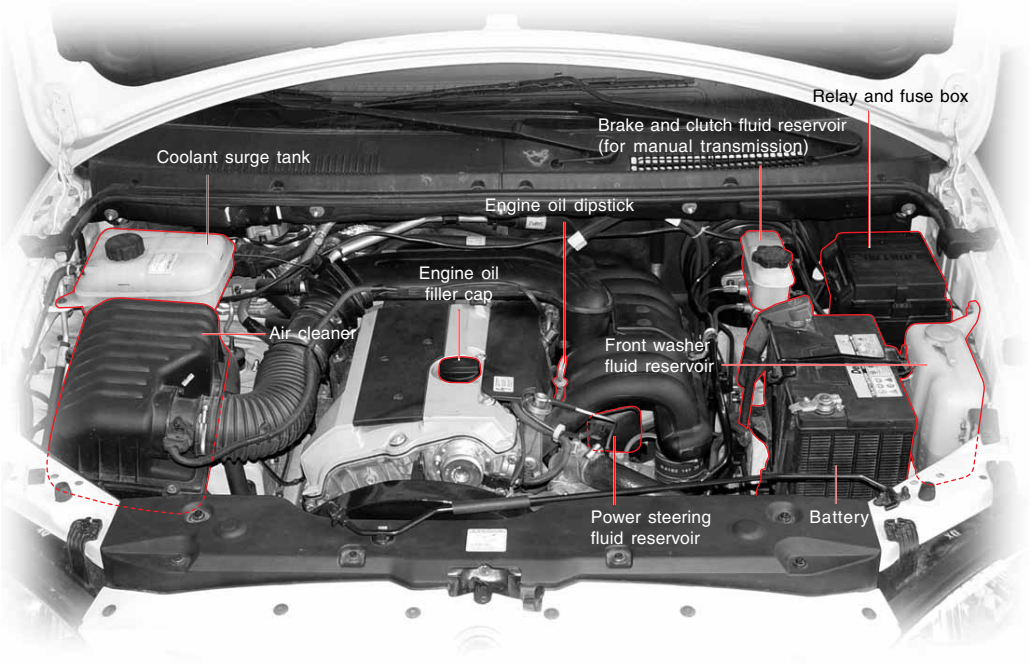

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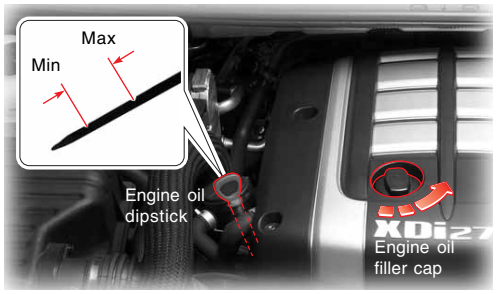
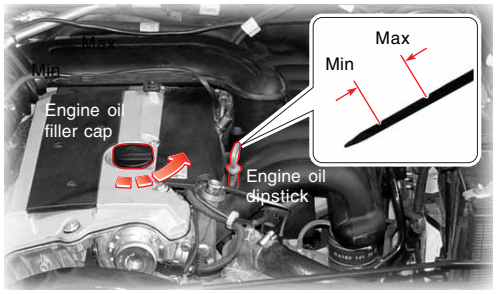
ENGINE OIL

Diesel Engine



Gasoline Engine



Level Check

1. Park the vehicle on a level ground and apply the parking brake.
2. Stop the engine and wait more than 5 minutes.
3. Remove the dipstick, wipe it clean with cloth.
4. Reinsert it all the way and remove it again.
5. The oil level is should be between the lower mark (Min) and the upper mark (Max) on the oil dipstick.

Replenishment

1. If the level gets to the lower point, open the filler cap on top of cylinder block and add genuine oil not to exceed the level of the upper mark.
2. Recheck the oil level after 5 minutes.

SPECIFICATION AND CAPACITY

Diesel Engine

Specification	Quality class**	API: CG grade or above, ACEA: B2, B3 or B4 MB sheet: 229.1/3 (preferable)
	Viscosity	MB sheet No. 224.1
Capacity	6.3 ~ 8.3 L	

Gasoline Engine

Specification	Quality class**	API: SJ grade or above, ACEA: A2 or A4 MB sheet: 229.1/3 (preferable)
	Viscosity	MB sheet No. 224.1
Capacity	7.0 ~ 9.0 L	

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WARNING

Use only Ssangyong genuine engine oil and filter. Use of non-recommended products could cause damage to the engine.

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

CHANGE

- The engine oil filter element should be changed at the same time with engine oil.
- Use only Ssangyong genuine engine oil and filter.

Diesel Engine

	Service Interval
EU	Initial check: 5,000 km and replenish if necessary, change every 15,000 km or 12 months (But, shorten the service interval under severe condition)
GENERAL	Initial change: 5,000 km, change every 10,000 km or 12 months (But, shorten the service interval under severe condition)

Gasoline Engine

Service Interval
Initial change: 10,000 km, change every 15,000 km or 12 months (But, shorten the service interval under severe condition)

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WARNINGS AND CAUTIONS WHEN CHECKING

WARNING

- Clean the dipstick with clean cloth so that any foreign materials cannot get into the engine.
- Use only 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 Ssangyong genuine engine oil if necessary.

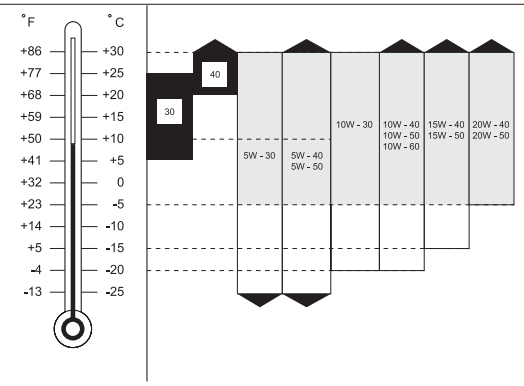
SAE VISCOSITY CLASSES

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.

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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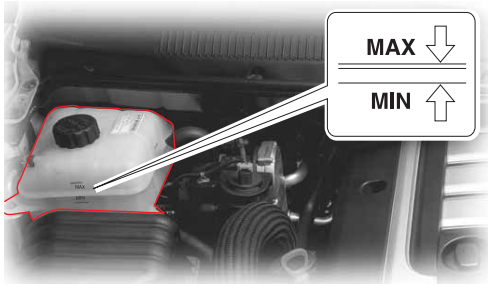
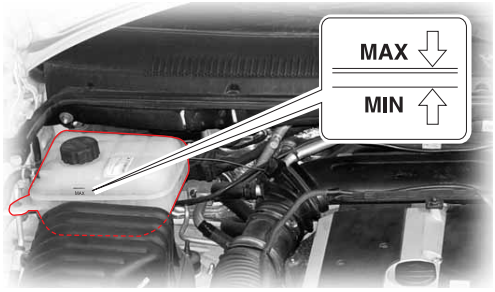
ENGINE COOLANT

Diesel Engine



Gasoline Engine



Level Check

Park the vehicle on a level ground and apply the parking brake. Stop the engine and wait until it cools.

1. The coolant level should be between MAX and MIN mark on the coolant surge tank.
2. If the coolant level is below "MIN", immediately add coolant up to the "MAX" level.

Replenishment

Use only 50/50 mixture of soft water and antifreeze 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 soft water and antifreeze specified up to "MAX" level.
4. Tighten the coolant surge tank cap and start and run the engine until the radiator hoses become hot.
5. Check the coolant level again and add if necessary.

Service Interval

Change every 60,000 km. And, inspect and replenish as necessary.

WARNING

- When the coolant level is too low, the engine can be overheated. If the coolant temperature gauge in instrument panel goes up abnormally, immediately check the coolant level.
- Use only Ssangyong recommended coolant and anti-freeze. Use of non-recommended coolant could cause damage to the cooling system.

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.

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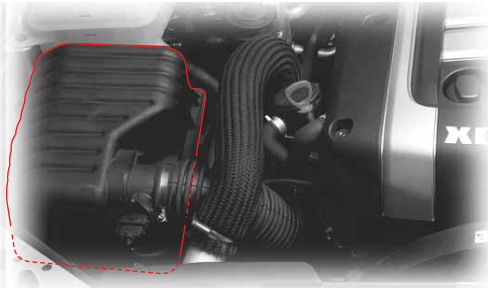
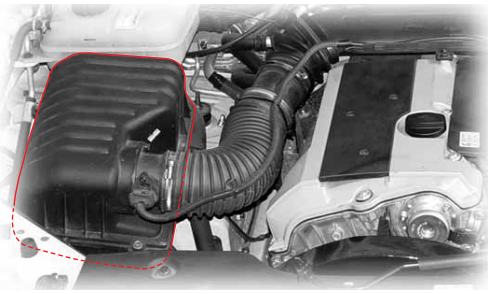
AIR CLEANER

Diesel Engine



Gasoline Engine



Change

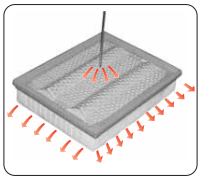
Change the air cleaner element at every 30,000 km of driving.

1. Unscrew the cover bolts and remove the cover.
2. Replace the air cleaner element with new one. Make sure that the element is correctly installed in the air cleaner housing.
3. Close the cover and tighten the bolts.

Cleaning

Deisel: Clean the air cleaner element at every 10,000 km of driving.

Gasoline: Clean the air cleaner element at every 15,000 km of driving.



Blow the compressed air through the element in the opposite direction to normal air flow to clean the element.

WARNING

- Do not drive your vehicle with improperly installed air cleaner element or without it. It may damage to the engine or may cause a fire.
- Do not let any objects enter the housing when cleaning the air cleaner. It may damage to the engine or may cause a engine stall.

CAUTION

If you blow the compressed air to normal air flow, the engine will be damaged due to entering the foreign materials.

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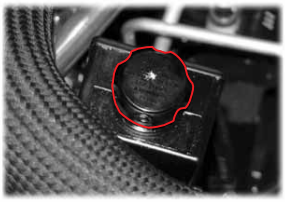
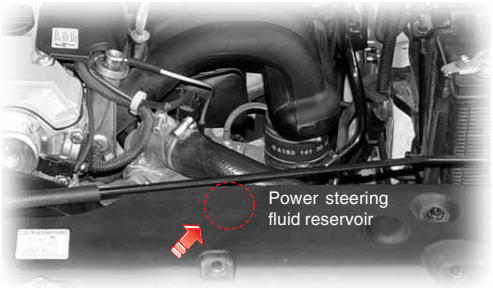
POWER STEERING FLUID

Diesel Engine



Gasoline Engine



Check fluid level on a level ground with 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, top up with the specified fluid. Use only specified fluid.

A zone: when the fluid temperature is hot.

B zone: when the fluid temperature is cold.

Specification	ATF DEXRON II or III

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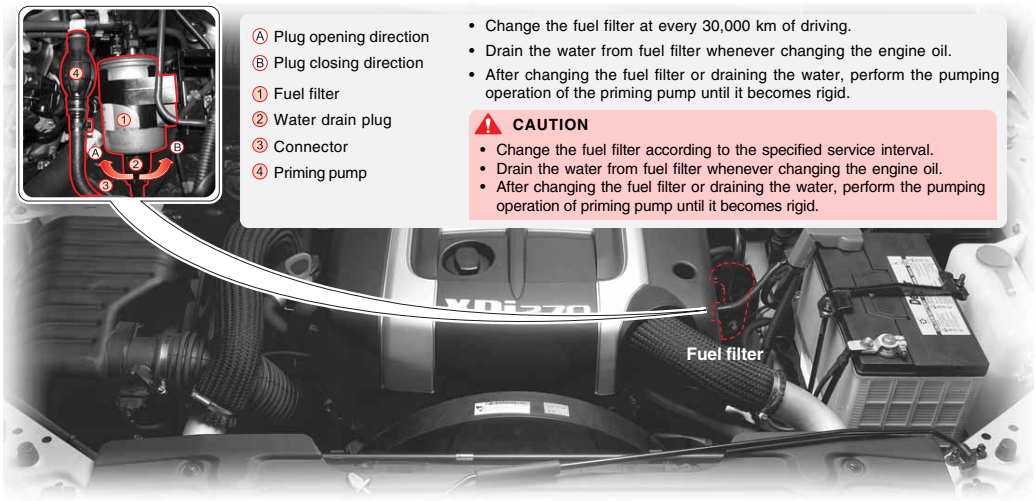
FUEL FILTER AND PRIMING PUMP (EU)



Ⓐ Plug opening direction
Ⓑ Plug closing direction
① Fuel filter
② Water drain plug
③ Connector
④ Priming pump

- Change the fuel filter at every 30,000 km of driving.
- Drain the water from fuel filter whenever changing the engine oil.
- After changing the fuel filter or draining the water, perform the pumping operation of the priming pump until it becomes rigid.

CAUTION

- Change the fuel filter according to the specified service interval.
- Drain the water from fuel filter whenever changing the engine oil.
- After changing the fuel filter or draining the water, perform the pumping operation of priming pump until it becomes rigid.

Water Separating Function

If the water in fuel gets into the engine and fuel system, it may cause serious damage to the fuel system. The fuel filter offers the water separating function to block the inflow of water. When the water level inside water separator in fuel filter exceeds a certain level, the warning light comes on the buzzer sounds. If these conditions occur, immediately drain the water from fuel filter. For draining procedures, refer to the "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 priming pump until it becomes rigid to fill up the fuel pump with fuel.

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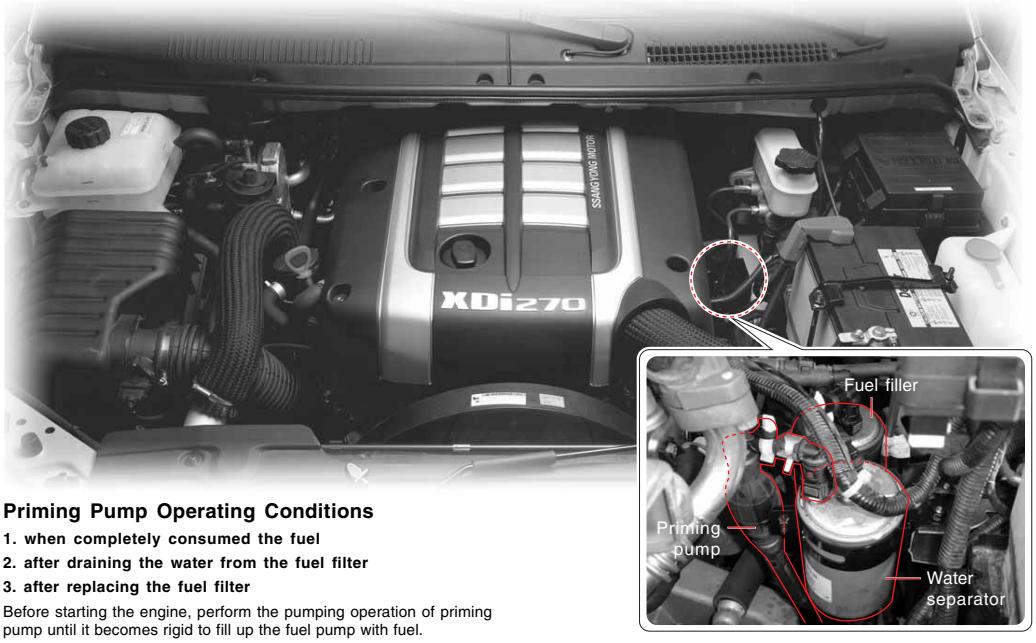

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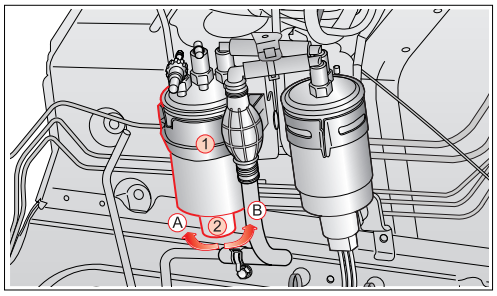
FUEL FILTER



1. Fuel filter
2. Drain plug

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

If the impurities in fuel gets 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.

Be careful not to get into the foreign materials while changing hen replacing the fuel filter, clean around it to prevent the impurities 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 fuel system, it may cause serious damage in 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 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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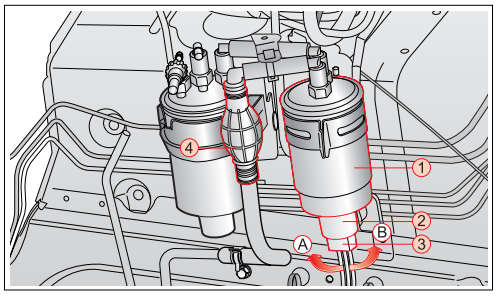
WATER SEPARATOR



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 water separator reaches a certain point, the water separator warning light in instrument panel comes on.

- Service Interval
  Change every 150,000 km or 5 year

Location:

Behind fuel filter (between fuel filter and dashpanel) in engine compartment (engine intake side)

Draining The Water From Water Separator

Drain the water from 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 fuel filter & water separator” in water separator warning light section.

CAUTION

- Replace the water separator according to the specified maintenance schedule.
- Drain the water from 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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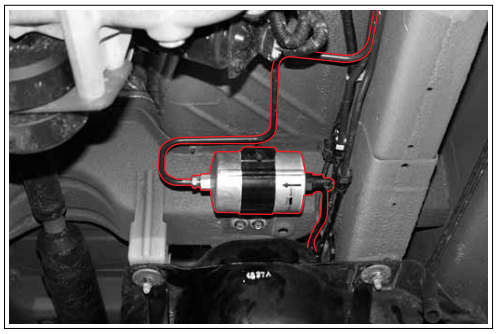
FUEL FILTER



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 60,000 km

CAUTION

Replace with a Ssangyong genuine part with specified intervals.

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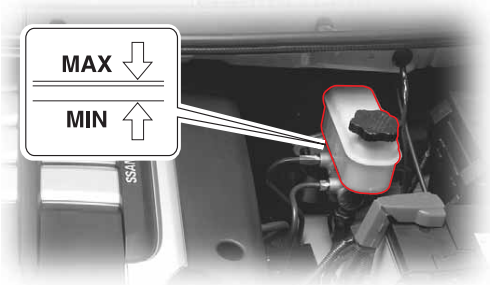
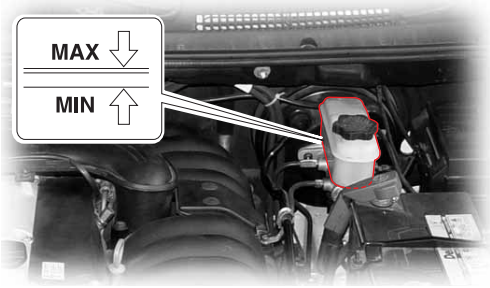
BRAKE AND CLUTCH FLUID

Diesel Engine



Gasoline Engine



- The fluid level should be between “MAX” and “MIN” level on the reservoir.
- If it drops to or below the MIN mark, top up with the specified fluid. Use only specified fluid.

Specification	DOT4
Service interval	Change at every 2 years

CAUTION

- Be careful not to enter any foreign materials when adding the fluid.
- Do not add the fluid above "MAX" level.
- Do not allow the fluid to make contact with body paintwork.
- After add the fluid, tighten the cap securely.
- If frequent addition is required, have the system checked by Ssangyong Dealer or Ssangyong Authorized Service Operation.

WARNING

- Use only Ssangyong recommended 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 the wear of the brake pads. A sudden drop of the fluid level may indicate the leaks in the system. In this case, have the system checked by Ssangyong Dealer or Ssangyong Authorized Service Operation.

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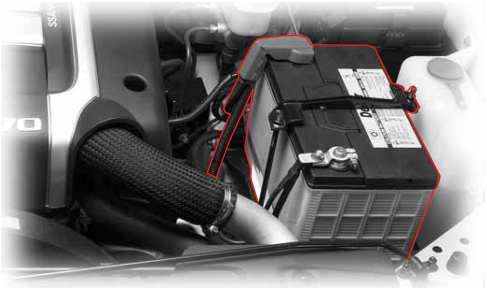
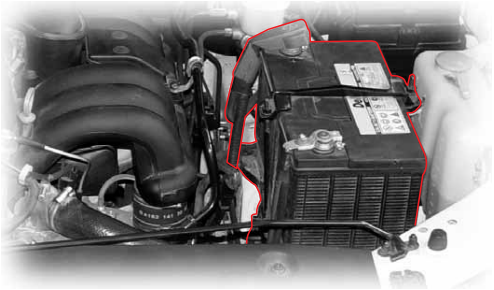
BATTERY

Diesel Engine



Gasoline Engine



- When the battery charge warning light (🔋) on the instrument panel 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 Ssangyong Dealer or Ssangyong Authorized Service Operation.
- The battery terminal should be disconnected when the ignition key is removed or placed at “LOCK” position.
- Always disconnect the negative (-) cable first and reconnect it last.
- Turn off all electrical devices before removing the battery.
- Check the battery terminals for corrosion (a white or bluish powder). To remove it, cover the terminals with a solution of baking soda and water. It will bubble up and turn brown. When this stops, wash it off with plain water. Dry off the battery with a cloth or paper towel. Coat the terminals with petroleum jelly to help prevent future corrosion. If the terminals are severely corroded, clean them with baking soda and water.

CAUTION

- If you disconnect the battery terminal when the engine is running, the electrical equipment could be damaged.
- The polarity of battery, i.e. the connections for positive and negative cables, must not be interchanged.

WARNING

The battery have acid that can burn you and gas that can explode. You can badly hurt if you are not careful.

- Keep naked flames, sparks and smoking items away from battery.
- Do not let any parts of body, clothes or paintwork contact the sulfuric acid.

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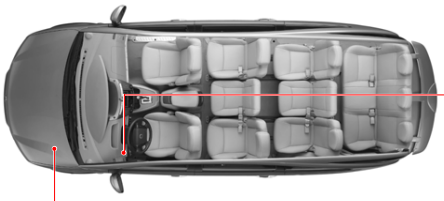
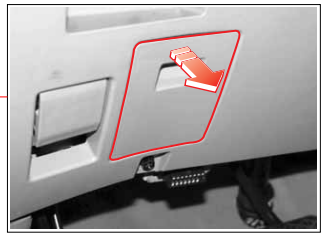
FUSE AND RELAY BOX



Interior Fuse Box



The fuse box is underneath the dash board on the driver's side. You can find the function, location and capacity for fuses from the back plate of the fuse box cover.

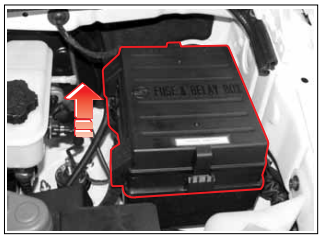
If any electrical device doesn't operate, check for an open fuse.

If any fuse is blown, replace it with a new fuse.

CAUTION

If a new fuse also opens, have the electrical system checked and repaired by Ssangyong Dealer or Ssangyong Authorized Service Operation.

Underhood Fuse Box



The underhood fuse box is located in the engine compartment on the driver's side. You can find the function, location and capacity for fuses and relays from the back plate of the fuse box cover.

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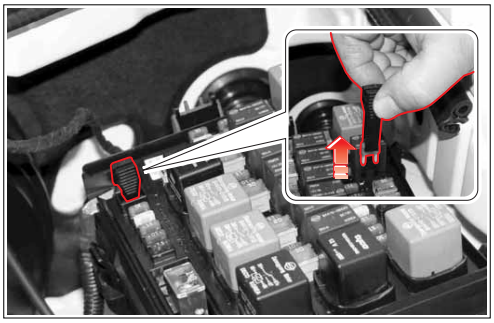
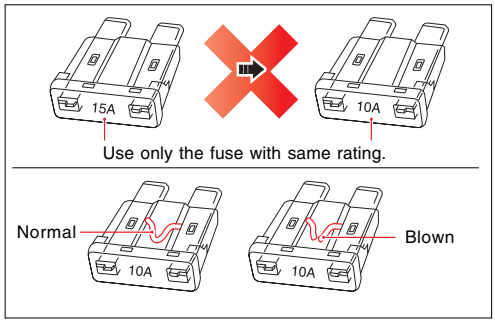
FUSE REPLACEMENT



1. Turn off all electrical equipment and set the ignition switch to “LOCK”.
2. Locate the defective fuse. Refer to the fuse label in this manual.
3. Open the fuse and relay box cover.
4. Pull out the relevant fuse by using the fuse puller.
5. Visually check whether it is blown off 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 different types or different rating fuses could cause damage to the electrical system and even start a fire.

- Always replace fuse with one with the same rating.
- Never use anything else but a fuse.
- Do not use anything metal to remove fuse.

CAUTION

If you remove the fuse when the electrical power is supplying, the electrical equipment could be damaged. Replace the fuse when the ignition key is in "LOCK" position.

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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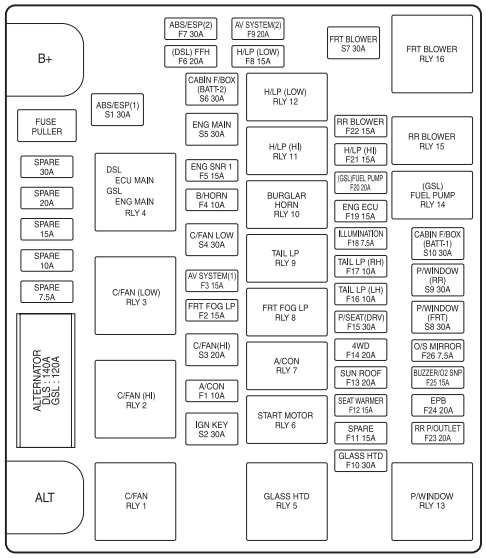
UNDERHOOD FUSE BOX LABEL



CAUTION	- PLEASE USE DESIGNATED FUSE AND RELAY - CONSULT OWNER'S MANUAL FOR FUSE AND RELAY SERVICE

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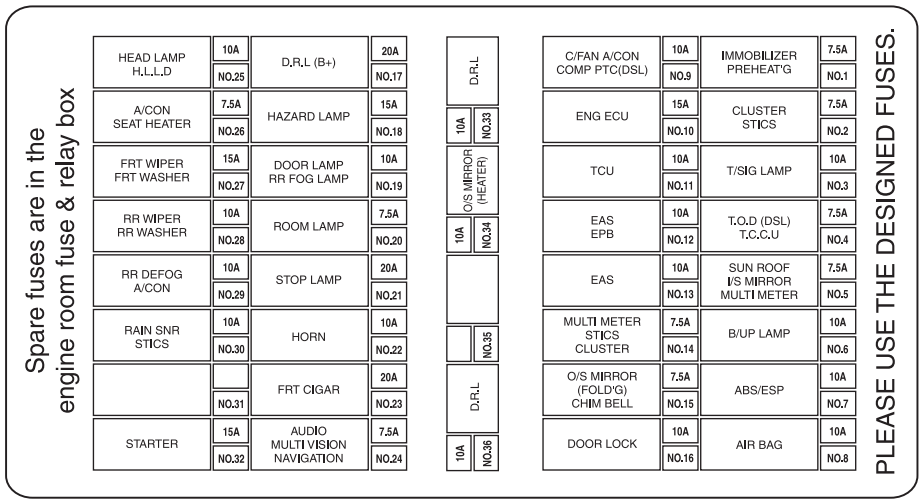
INTERIOR FUSE BOX LABEL



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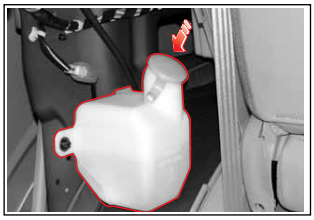
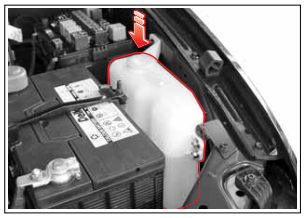
WASHER FLUID

Frequently check the washer fluid level and add the specified product as needed.

Rear Washer Fluid Reservoir



Front Washer Fluid Reservoir



WARNING

The washer fluid includes flammable materials to prevent freezing. There could be a fire when directly contacted with flames. When checking the washer fluid, avoid the flames near to washer fluid tank.

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 specified washer fluid.
- Check the washer fluid level before starting to drive.
- Do not operate the wipers when the washer fluid reservoir is empty. It may cause a damage to the glass when it is dry.
- Do not use radiator antifreeze in windshield washer. It can damage the washer system and paint.
- If you operate the washer switch without washer fluid, the motor could be damaged due to overloads. Therefore, if no washer fluid, do not operate the washer motor.
- Fill washer fluid tank only 3/4 full when it is very cold. This allows for expansion, which could damage the tank if it is completely full.

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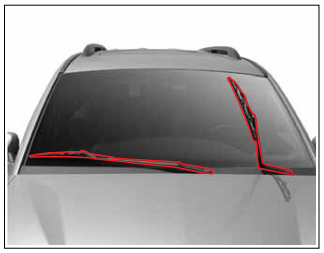
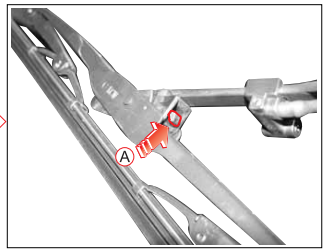
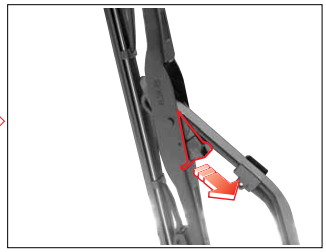
WIPER BLADE REPLACEMENT



1. Lift the wiper arm up from the windshield.



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 to its parking position.

Front wipers

Rear wiper

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.
- Since there is no way to successfully remove traces of oil or grease from any glass, be certain not to apply any 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 matter can reduce the effectiveness of the windshield wipers.

WARNING

- Never drive your vehicle when the wipers are not properly working.
- Do not touch the running wipers. It may cause a personal injury.

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TYRE INFLATION PRESSURE

Tyre Pressure

Specification			Pressure
	Tyre	Wheel	
7-Seaters	215/65R16	6.5J x 16	35 PSI (2.41 bar)
7, 9-Seaters	225/65R16		
11-Seaters	LT225/65R16		48 PSI (3.30 bar)

CAUTION

- Maintaining the specified tyre pressure is essential for driver comfort, driving safety and long tyre life. Incorrect inflation pressures will increase tyre wear and will impair safety, vehicle handling, comfort and fuel economy. The tyre inflation pressure should be followed by the specified pressure.
- Check and adjust the tyre inflation pressure, including the spare wheel, prior to any long journey (when the tyre is cold).

NOTE

Increase the tyre inflation pressure by 4~5 psi from the specified value prior to any long journey.

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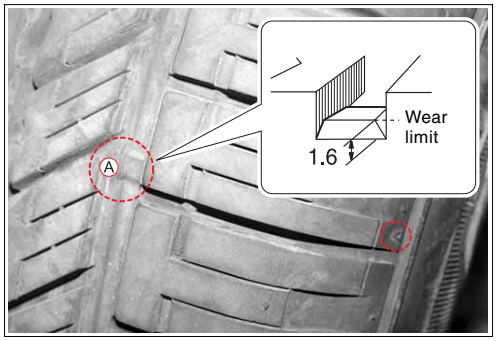
TYRE WEAR CHECK AND TYRE ROTATION

Tyre Wear Check



The tyres on your vehicle have built-in tread wear indicators (Ⓐ) that appear between the tread groove when the tread is 1.6 mm or less. The tyre should be replaced when the tread worn down as far as one of the wear indicators.

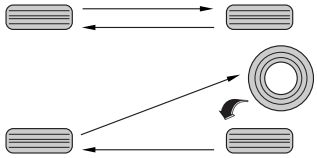
WARNING

- Driving on worn or damaged tyre is very dangerous and may cause an accident. Also, a damaged tyre could burst.
- Check tyres regularly for damage (foreign bodies, punctures, cuts, cracks, bulges in side walls) and replace if necessary.

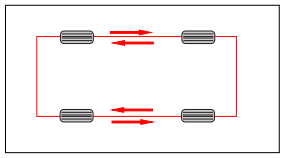
Tyre Rotation

To avoid uneven wear of tyres and to prolong tyre life, inspect and rotate your tyres every 5,000 km.

When using the spare tyre



When not using the spare tyre



WARNING

- Be sure to replace and rotate the tyres at Ssangyong Authorized Service Operation or professional tyre shops.
- Mixing tyres could cause you to lose control while driving. Be sure to use the same size and type tyres of the same manufacturer on all wheels.

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SPARE TYRE AND WINTER TYRE

SPARE TYRE

Check the tyre conditions and pressure as needed and keep it always available.

For replacing procedures, refer to "Changing a flat tyre" section in this manual.

CAUTION

- After replacing the tyre, be sure to adjust the pressure to the specified pressure of the tyre. Otherwise, the suspension system may be damaged.

WINTER TYRES

If winter tyres are used they must be fitted to all 4 wheels. Do not exceed the maximum speed specified by the tyre manufacturer.

When using winter tyres, the tyre pressures supplied by the tyre manufacturer must be adhered to.

WARNING

- When you didn't fit the snow tyres before driving on snow or icy road, drive in 4WD (4L, 4H) mode with low speed.
- The snow tyre with arrow direction marking on its side wall should be fitted according to the arrow direction.
- The snow tyres cannot guarantee your safety on the icy and slippery road. Drive with extra caution, avoiding sudden acceleration, braking or movements of the steering wheel.
- When the snow tyres are not needed anymore, replace them with ordinary tyres. Keep the removed snow tyres at cool and shady place. Be careful not to contact with any oil, grease, and fuel.

CAUTIONS WHEN CHECKING THE WHEEL AND TYRE

- Mixing tyres could cause you to lose control while driving. Be sure to use the same size and type tyres of the same manufacturer on all wheels. If you do not use same tyres on the TOD (4 wheel drive) system equipped vehicle, it may cause a serious damage to the vehicle's drive system.
- Check the inflation pressure, cracks and tearing of tyres 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 tyres and wheel before driving. If a wheel is damaged, the tyre inflation pressure can be decreased and the tyre can be damaged.
- If a tyre has been impacted by a stone or any others during a driving, have it checked by Ssangyong Dealer or Ssangyong Authorized Service Operation.

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WARNINGS AND CAUTIONS WHEN PERFORMING 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 the hot components such as engine, radiator, exhaust manifold, catalytic converter, and muffler when the engine is just stopped. They may burn you badly.
- Never get under a vehicle when it is jacked up. If the vehicle slips off the jack, you could be badly injured. If you have to work under the vehicle, support the vehicle with vehicle jack and safety stand.
- Always stop the engine and do not smoke or allow open flames (or sparks) near the vehicle when working for battery and fuel related components.
- Do not connect and disconnect the battery terminals when the ignition key is in "ON" position.
- The polarity of battery, i.e. the connections for positive and negative cables, must not be interchanged.
- Make sure that the ignition key is “OFF” when performing any works in an enclosed space such as a garage.
- Keep the used oil and coolant out of reach of children.
- Make sure to shift the transmission to "P" (automatic transmission) or "neutral" (manual transmission) before starting any operation.
- The electrical cooling fan can start to operate unexpectedly even when the engine is stopped. Disconnect battery cables while working on near around the radiator and cooling fan.

CAUTION

- Check the level of engine oil and every fluid including coolant daily. If you drive on while the fluid levels are low, you vehicle can be damaged and such damages will not be covered by warranty.
- Use only Ssangyong genuine 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 and coolant. Or the engine and transaxle 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 contact with dust while refilling.
- The oils could be spoiled after a certain period of time even with short traveling distances. In such a case, consult your Ssangyong Dealer or Ssangyong Authorized Service Operation.
- Improperly disposed engine oil and/or other fluids can pollute the environment. Dispose of used fluids in accordance with local environmental regulations.

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SPARK PLUGS

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 (G32D)	Change every 60,000 km

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MEMO

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14

Lamps

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BULB SPECIFICATIONS AND FUNCTIONAL CHECK

BULB SPECIFICATIONS

Description			Amount	Specification (EU)	Specification (General)
Exterior lamp	Headlamp	High beam	2	55W	55W
		Low beam	2	55W	55W
		Turn signal lamp	2	27W	27W
		Position lamp	2	5W	5W
	Front fog lamp		2	27W	27W
	Side repeater		2	5W	5W
	Rear combination lamp	Tail (stop) lamp	4	8W(27W)	8W(27W)
		Turn signal lamp	2	27W	27W
	Back-up lamp	EU	1	21W	-
		General	2	-	21W
	Rear fog lamp		1	27W	-
	License plate lamp		2	5W	5W
	High mounted stop lamp		1	16W	16W
Interior lamp	Front room lamp		2	10W	10W
	Glove box lamp		1	10W	10W
	Door courtesy lamp		4	5W	5W
	Side room lamp		4	5W	5W
	Foot lamp		1	5W	5W
	Rear room lamp		1	8W	8W

FUNCTIONAL CHECK

1. Check whether the lamp comes on or off when its switch operation.
2. Check the corresponding fuse when the lamp doesn't come on.
3. If the fuse is blown, replace it with new one. For replacing procedures, refer to "Fuse Replacement" section in this manual.
4. If the fuse is not blown, check the bulb and replace it with new one if needed.
5. If the bulb is not defective, have the system checked by Ssangyong Dealer or Ssangyong Authorized Service Operation.

CAUTION

- Use only a specified capacity bulb for replacement.
- Disconnect the negative cable on the battery before replacing the bulb.
- 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 when it is still illuminating.
- Do not touch a bulb with bare hands. Fingerprint, dust, or moisture stuck to bulb may shorten a bulb life or cause a bulb bursting. In this case, wipe the bulb glass with a soft cloth.
- Never try to adjust the headlamp aiming by yourself. It should be done by a qualified technician in Ssangyong Dealer or Ssangyong Authorized Service Operation.

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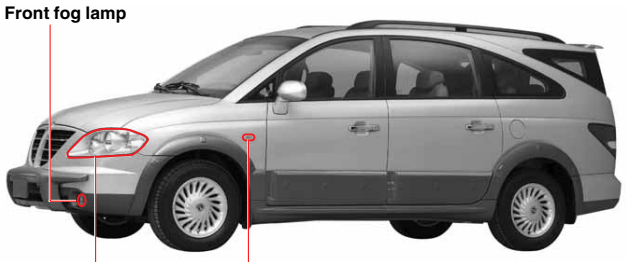
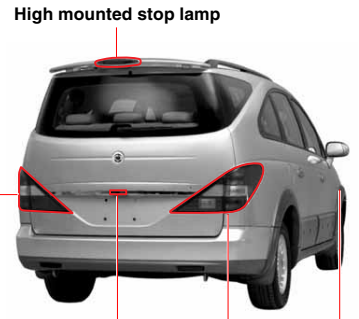
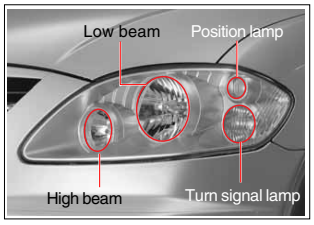
LOCATION OF EXTERIOR LAMPS



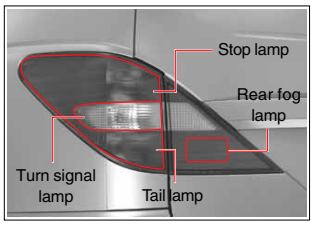


Headlamp

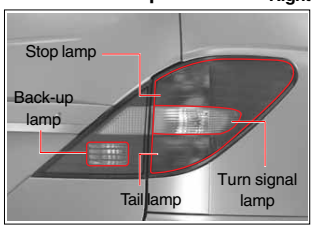


Rear Combination Lamp

Left



Right



*Rear fog lamp: Mandatory where required by regulation

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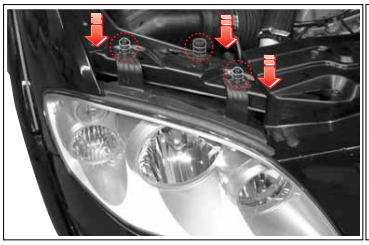
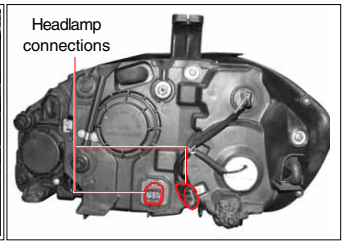
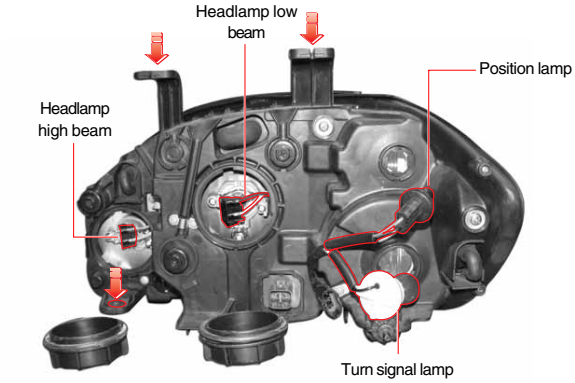
HEADLAMP

Headlamp (right side)

1. Disconnect the negative cable on the battery.
2. Disconnect two connectors from the headlamp.
3. Unscrew three mounting bolts and remove the headlamp housing from the vehicle.
4. Remove the cover and bulb from the headlamp housing.
5. Disconnect the internal connector and replace the burnt bulb with new one.
6. Install the headlamp in the reverse order of removal.







WARNING

For safety driving, do not adjust the headlamp aiming by yourself. It should be done by a qualified technician in Ssangyong Dealer or Ssangyong Authorized Service Operation.

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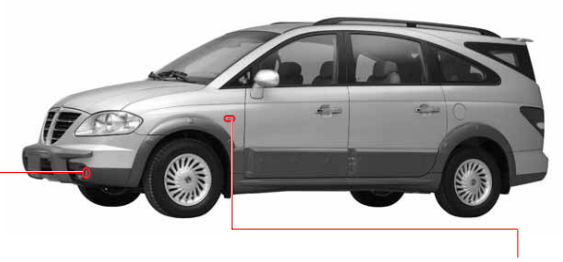
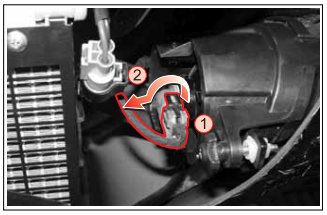
FRONT FOG LAMP AND SIDE REPEATER

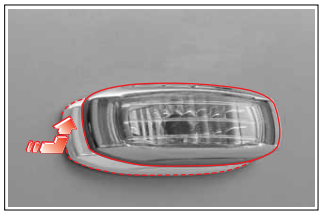


Front Fog Lamp



1. Disconnect the negative cable on the battery.
2. Disconnect the connector ①.
3. Turn the bulb ② to remove it.
4. Install the new bulb in the reverse order of removal.

Side Repeater



1. Disconnect the negative cable on the battery.
2. Remove the lamp housing by pushing it to the right, then disconnect the connector.
3. Turn the bulb to remove it.
4. Install the new bulb in the reverse order of removal.

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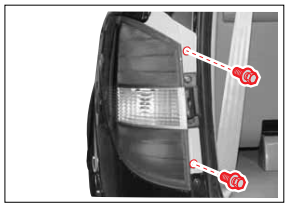
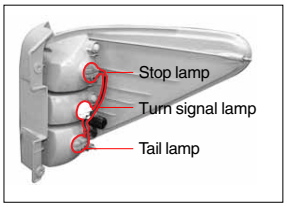
REAR COMBINATION LAMP

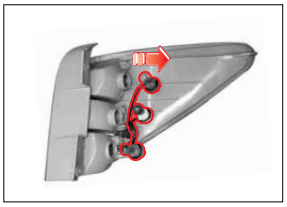
Turn Signal Lamp, Tail Lamp, Stop Lamp



1. Disconnect the negative cable on the battery.
2. Open the tailgate and disconnect two mounting bolts.



3. Disconnect the connector and remove the rear combination lamp housing.
4. Turn the lamp connector to remove it from the rear combination lamp housing.



5. Remove the bulb from the lamp connector while pushing and turning it.
6. Install the new bulb in the reverse order of removal.

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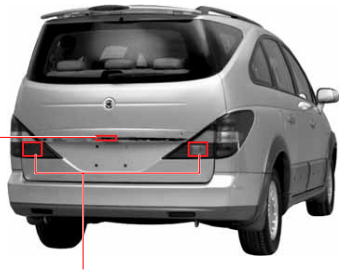
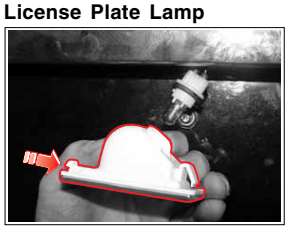
REAR FOG LAMP*, BACK-UP LAMP, LICENSE PLATE LAMP

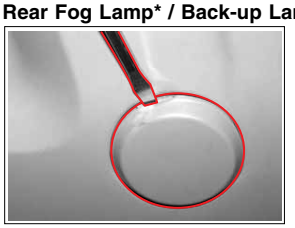


License Plate Lamp

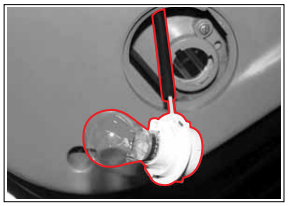


1. Disconnect the negative cable on the battery.
2. Remove the lamp housing by pushing it to the right.
3. Turn the bulb to remove it.
4. Install the new bulb in the reverse order of removal.

Rear Fog Lamp* / Back-up Lamp



1. Disconnect the negative cable on the battery.
2. Open the tailgate.
3. Pry off the cover with a flat blade screwdriver.



4. Turn the lamp connector to remove it.
5. Remove the bulb while pushing and turning it.
6. Install the new bulb in the reverse order of removal.

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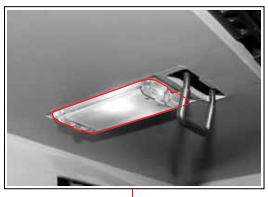
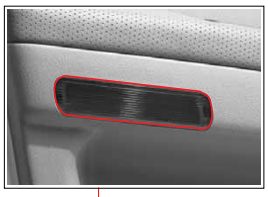
INTERIOR LAMPS

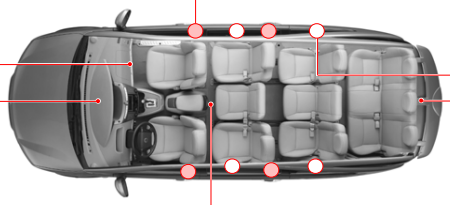
Glove Box Lamp



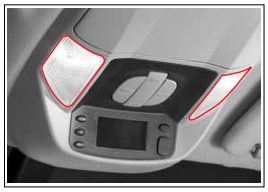
Door Courtesy Lamp



Side Room Lamp

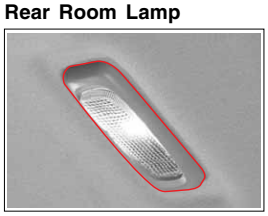


Front Room Lamp



Foot Lamp

Rear Room Lamp



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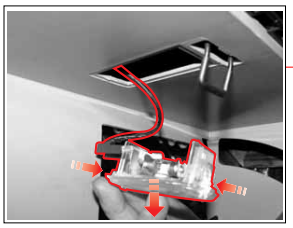
GLOVE BOX LAMP AND FRONT ROOM LAMP

Glove Box Lamp



1. Disconnect the negative cable on the battery.
2. Remove the lamp housing by pushing the holder.
3. Remove the bulb.
4. Install the new bulb in the reverse order of removal.

Front Room Lamp

1. Disconnect the negative cable on the battery.
2. Pry off the cover with a flat blade screwdriver.
3. Remove the bulb.
4. Install the new bulb in the reverse order of removal.

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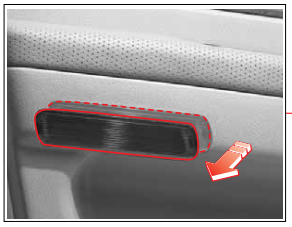
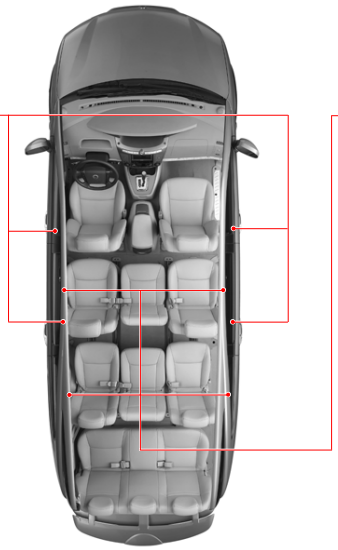
DOOR COURTESY LAMP AND SIDE REPEATER

DOOR COURTESY LAMP



1. Disconnect the negative cable on the battery.
2. Pry off the cover with a flat blade screwdriver.
3. Remove the bulb.
4. Install the new bulb in the reverse order of removal.



Side Repeater

1. Disconnect the negative cable on the battery.
2. Pry off the cover with a flat blade screwdriver.
3. Remove the bulb.
4. Install the new bulb in the reverse order of removal.

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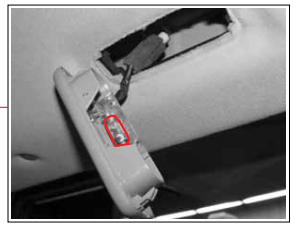
FOOT LAMP AND REAR ROOM LAMP

Foot Lamp

1. Disconnect the negative cable on the battery.
2. Pry off the cover with a flat blade screwdriver.
3. Remove the bulb.
4. Install the new bulb in the reverse order of removal.

Rear Room Lamp



1. Disconnect the negative cable on the battery.
2. Pry off the cover with a flat blade screwdriver.
3. Remove the bulb.
4. Install the new bulb in the reverse order of removal.

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MEMO

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15

Vehicle Care

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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 the good future performance, economy and long life of your vehicle.

- Allow the engine to warm up after starting.
- Avoid harsh operations such as abrupt fast start, 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, inside or outside 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 chemical 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 collect 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:

Safety Belt Care

- Keep belts clean and dry.
- Clean safety 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 glass cleaner or a liquid household glass cleaner will remove normal tobacco smoke and dust films sometimes caused by ingredients used in vinyl's and interior plastics.

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 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 washings.

Wash the vehicle in lukewarm or cold water.

Do not use hot water or wash your vehicle in the direct rays of the sun. Do not use strong soap or chemical detergent. All cleaning agents should be flushed 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 washes, may cause water to enter inside the 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. Washing with water is all that is usually needed.

Use special care with aluminum trim. To avoid damaging protective trim, never use automotive or chrome polish, steam, or caustic soap to clean aluminum. A coating of wax, rubbed to a high polish, is recommended for all bright metal parts.

Cleaning Alumimum Wheels, Rally 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. Regular cleaning is recommended. Do not use abrasive cleaners or cleaning brushes, as they could damage the finish.

CORROSION PROTECTION

Your car was designed to resist corrosion. Special materials and protective finishes were used on most parts of your car when it was built 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 see “Finish damage” which follows).

Foreign Material Deposits

Calcium chloride and other salts, ice melting agents, road oil and tar, tree sap, bird droppings, chemicals from industrial chimneys and other foreign matter 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 collect on the underbody. If these materials are not removed, accelerated corrosion (rust) can occur on underbody parts such as 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 areas where mud and other debris can collect.

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.

CAUTION

- When an engine is washed, fuel, grease and 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 of 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.
- On no account must any of these items be placed in the household refuse bins or the fluids poured down the drains.
- Everyone should be concerned about environmental protection.
- Help by doing your share.

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BEFORE DRIVING

For safe and comfortable driving, check each part of the vehicle before starting off your vehicle.

CAUTION
To inspect your vehicle effectively, park it on level surface and check it in the following order.

Checking Problematic Parts

Check those parts that you felt 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 side mirror and license plate for dirt or damage.
- Check all lights for damage or dirt.
- Check for oil stains under parked car.

Take Driver's Seat and Check the Following:

- 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 Seatbelt

Driver and all passengers must wear properly fastened seatbelts.

WARNING

- Children, pregnant or nursing women who fail to fasten their seatbelts properly might suffer an accident. Always use seatbelts as directed.
- Familiarize yourself with seats, seatbelts and airbags.

Taking Care of Children

▶ Children go to the rear seat

To prevent children from interfering with your driving by accidental movements or misuse of devices, put children to the rear seat.

▶ Adults adjust comfort and safety devices

When a child gets in the vehicle, an adult should take care of doors, windows, seatbelts and seats making sure not to hurt the child's hands, feet or neck.

Do Not Leave Children Alone in the Vehicle

When left alone in the car, a child might unintentionally start the engine or start a fire or cause another accident.

WARNING

- In 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 with no open windows.

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ON THE ROAD

If a Problem Occurs On the Road

- If a warning light goes 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 fuel leak or brake fluid spill and for damages to the car underbody.
- 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 tire 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 to the nearest Ssangyong Dealer or Ssangyong Authorized Service Operation to check and repair steering and suspension parts.

Avoiding Unnecessary Movements While Driving

- While driving, do not turn off the ignition key under no circumstances. Brakes and power steering will not work.
- While driving, do not put 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 and oil or other easily inflammable materials are kept.

CAUTION

While driving or after immediately driving, 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 transaxle 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; help children out of the car.

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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 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 the vehicle with manual transmission or set the gearshift lever in **P** for vehicle with 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 vehicle with manual transmission or set the gearshift lever in **P** for vehicle with 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 circulation, might result in death from carbon monoxide poisoning.

Things To Watch For When Backing Up

When backing up your vehicle, always make sure that there are no children or other obstacles behind the car.

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 and 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 low gear and apply your brake pedal together with engine brake.

NOTE

Engine brake allows for slowing of the 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 window as they might interfere with your driving. Attached accessory can work as a lens and start a fire or cause an accident.

Being Careful While Checking Your Coolant

When 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 parts number and seal.

CAUTION

- 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 greater 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 engine brake; apply your brakes only after you have slowed down considerably.
- When going downhill on a slippery road, use engine brake and drive slowly.

CAUTION

When traveling on snowy or icy road, use snow tires for safer driving.

Driving On Sandy or Muddy Road

- Keep your speed steady and 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 force between reverse and forward gear to allow inertia get your vehicle out.

CAUTION

- If your vehicle is stuck in sand or mud and you cannot get out, do not repeatedly step on the accelerator pedal. If possible, get another vehicle to tow you.

Driving On Unpaved and Mountain Roads

- Before driving, check road conditions such as if the road suddenly ends and 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 applying 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 you 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 inside your engine through 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 apply brakes several times so that frictional heat dries brake pads and disks. Check if the brakes work properly before continuing driving.

▶ **Checking your vehicle after going through water**

- Check 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 engine brake on an icy or slippery road, the vehicle might slide and get in an accident. Use engine brakes after fully accelerating your vehicle.

- On a steep downgrade, shift to the lowest gear to get the biggest engine brake effect.

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 bad, allow for the following distance that is twice as great as usual 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 electric, 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

Modifications such as coloring windows might cause leaks. Tinting all the windows in a vehicle with a navigation system might weaken the satellite signal and make it impossible to display the vehicle's current location.

Using Non-Spedified Tires and Wheels

If using non-specified parts, steering wheel feels heavier, fuel consumption increases, brake performance decreases and steering wheel might shake wearing out tires when you are traveling at a high speed.

Performing Regular Checks

Always check you vehicle following the inspection schedule, replace parts when necessary and record in your vehicle diary which parts were replaced.

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RODIUS / STAVIC (LHD)
OWNER'S MANUAL

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OVERSEAS A/S TEAM
SSANGYONG MOTOR CO., LTD.

150-3, CHILGOI-DONG, PYUNGTAEK-SI
GYEONGGI-DO, 459-711 KOREA

TELEPHONE : 82-31-610-2740
FACSIMILE : 82-31-610-3762

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