OWNER'S MANUAL

XLV

SSANGYONG

Recommended Fluids and Lubricants

Descriptions			Capacity	Specifications
Engine Oil	Diesel Engine	D16DTF	≒ 5.0 ℓ	Quality class (DPF): Ssangyong genuine engine oil or Approved by MB 229.51 5W30 or MB 229.52 5W30
	Gasoline Engine	G16DF	≒ 4.0 ℓ	Quality class: Ssangyong genuine engine oil or Approved by MB 229.51 5W30 or MB 229.52 5W30 or API SN / ILSAC GF-5 5W20
Engine Coolant	Diesel Engine	D16DTF	≒ 7.5 ℓ	Ssangyong genuine coolant Anti-Freeze: SYC-1025
	Gasoline Engine	G16DF	≒ 6.5 ℓ	Anti-Freeze:Water = 50:50 ORGANIC ACID TYPE, COLOR:BLUE
Automatic Transaxle Fluid	Diesel Engine	D16DTF	≒ 7.0 ℓ	Ssangyong genuine oil (AW-1)
	Gasoline Engine	G16DF	≒ 6.1 ℓ	
Manual Transaxle Fluid			≒ 1.95 ℓ	Ssangyong genuine oil (SAE 70W)
Transfer Case (PTU) Fluid (AWD)	Diesel Engine	A/T (M/T)	≒ 0.25 ℓ (≒ 0.5 ℓ)	Ssangyong genuine oil (SAE 80W/90, API GL-5)
	Gasoline Engine	A/T (M/T)	≒ 0.6 ℓ (≒ 0.5 ℓ)	
Rear Axle Oil		AWD	≒ 0.6 ℓ	Ssangyong genuine oil (SAE 80W/90, API GL-5)
Brake / Clutch Fluid			As required	Ssangyong genuine oil (DOT4)

⚠ WARNING

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

FOREWORD

This manual has been prepared to acquaint you with the operation and maintenance of your XLV 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 XLV 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

PYEONGTAEK, KOREA

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General Information

Unit: mm

Front View



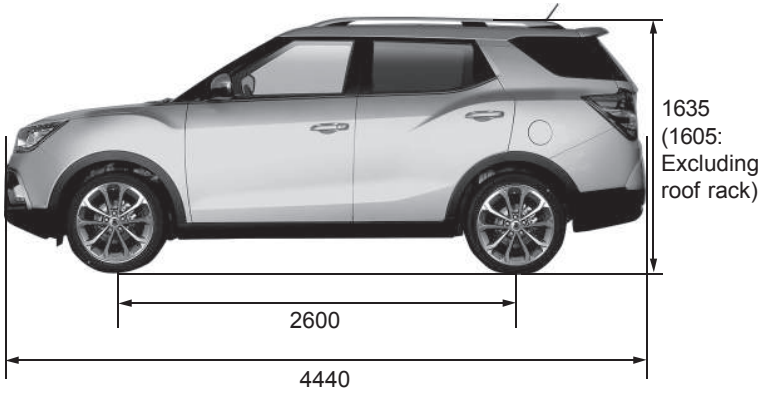
Top View



Rear View



Side View



* ( ) : Optional

SPECIFICATIONS (I)

* ( ) Optional

Descriptions			Diesel 1.6 Engine	Gasoline 1.6 Engine
General	Overall length (mm)		4440	←
	Overall width (mm)		1798	←
	Overall height (mm)		1605 (1635: including roof rack)	←
	Gross vehicle weight (kg)		4WD: 2060, 2WD: A/T-1970, M/T-1920	4WD: 1950, 2WD: 1870
	Curb vehicle weight (kg)	A/T	4WD: 1583, 2WD: 1475	4WD: 1515, 2WD: 1410
		M/T	4WD: 1558, 2WD: 1429	4WD: 1489, 2WD: 1389
	Fuel		Diesel	Gasoline
	Fuel tank capacity (ℓ)		47	←
Engine	Engine		D16DTF	G16DF
	Number of cylinders/Compression ratio		4 / 15.5:1	4 / 10.5:1
	Total displacement (cc)		1597	←
	Camshaft arrangement		DOHC	←
	Max. power		115 ps / 3400~4000 rpm	128 ps / 6000 rpm
	Max. torque		300 Nm / 1500~2500 rpm	160 Nm / 4600 rpm
	Idle speed	A/T	780 ± 50 rpm	690 ± 50 rpm
		M/T	780 ± 50 rpm	690 ± 50 rpm
	Cooling system		Water-cooled / forced circulation	←
	Coolant capacity (ℓ)		7.5	6.5
	Lubrication type		Variable oil pump with ON/OFF solenoid valve, forced circulation	←
	Max. oil capacity (ℓ) (when shipping)		5.0	4.0
	Turbocharger and cooling type		Turbocharger, Air-cooled	-

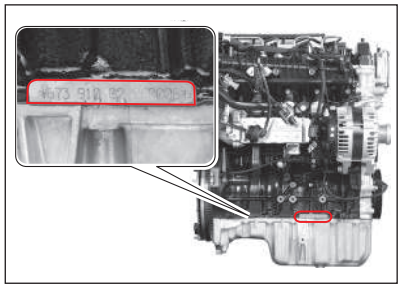
SPECIFICATIONS (II)

Descriptions			Diesel 1.6 Engine	Gasoline 1.6 Engine
Manual Transaxle	Operating type		Floor change type	←
	Gear ratio	1st	3.538	3.769
		2nd	1.913	2.080
		3rd	1.152	1.387
		4th	0.829	1.079
		5th	0.689	0.927
		6th	0.587	0.791
		Reverse	3.000	3.077
Automatic Transaxle	Model		Electronic 6-speed	←
	Operating type		Floor change type	←
	Gear ratio	1st	4.148	4.044
		2nd	2.370	2.371
		3rd	1.556	1.556
		4th	1.155	1.159
		5th	0.859	0.852
		6th	0.686	0.672
		Reverse	3.394	3.193
Transfer Case	Model		AWD	←
	Type		On demand type	←
Clutch (M/T)	Operating type		Hydraulic (CSC) type	←
	Disc type		Dry single diaphragm type	←

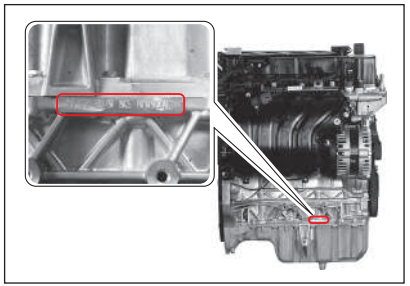
SPECIFICATIONS (III)

Descriptions			Diesel 1.6 Engine	Gasoline 1.6 Engine
Power Steering	Type		Rack and pinion (EPS)	←
	Steering angle	Inner	37.67°	←
		Outer	31.10°	←
Rear Axle	Drive shaft type	Independent suspension	Ball joint type	←
	Axle housing type		IRDA type	←
Brake	Master cylinder type		Tandem type	←
	Booster type		Vacuum assisted booster type	←
	Brake type	Front wheel	Disc	←
		Rear wheel	Disc	←
	Parking brake		Mechanical type	←
Suspension	Front suspension		Macpherson + Coil spring	←
	Rear suspension		Torsion bar/Multi link + Coil spring	←
Air Conditioner	Refrigerant (capacity)	EU	R-1234yf (500 ± 30g)	←
		GEN	R-134a (500 ± 30g)	←
Electrical	Battery type / Capacity (V-AH)	ISG	AGM / 12 - 70	←
		NON-ISG	MF / 12 - 80	MF / 12 - 60
	Starter capacity (V-KW)	ISG	12 - 1.8	12 - 1.4
		NON-ISG	12 - 1.7	12 - 0.9
	Alternator capacity (V-A)	ISG	14V - 140A	14V - 120A
		NON-ISG	14V - 120A	←

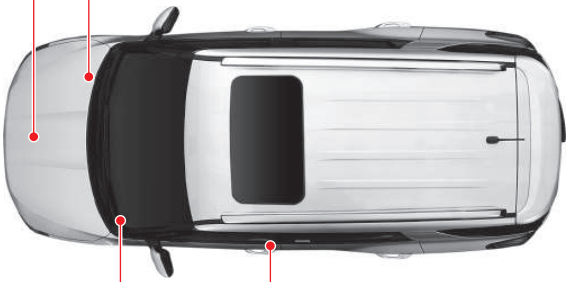
1. Engine Number



Diesel engine: The engine number is stamped on the lower area of cylinder block in intake manifold side.



Gasoline engine: The engine number is stamped lower area of cylinder block in intake manifold side.

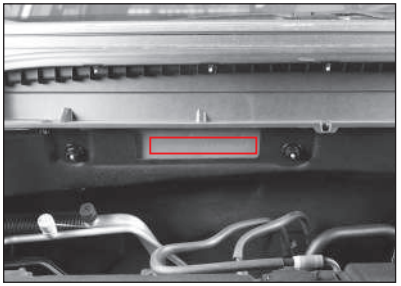


2. Visual VIN Label



Visual VIN label is located on the driver's side instrument panel.

4. VIN Number



The VIN number is stamped on the passenger side fire wall.

3. Certification Label

Type A

SsangYong Motor Co., Ltd.	
GROSS VEHICLE WEIGHT RATING	KG
GROSS VEHICLE WEIGHT TRAILER WITH BRAKE	KG
FRONT AXLE MAX WEIGHT RATING	KG
REAR AXLE MAX WEIGHT RATING	KG
BODY PAINT COLOR	
DATE OF MANUFACTURE	

Type B

SsangYong Motor Co., Ltd.	
	kg
	kg
1 -	kg
2 -	kg
BODY PAINT COLOR	
DATE OF MANUFACTURE	

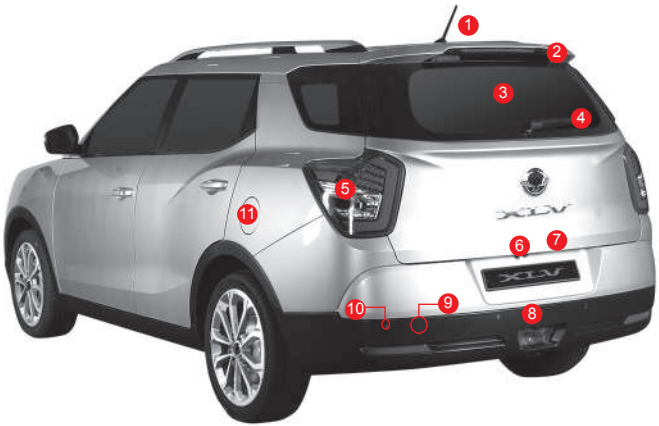
The certification label is located on the driver's door sill.

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※ Actual appearance may differ from the image shown above.

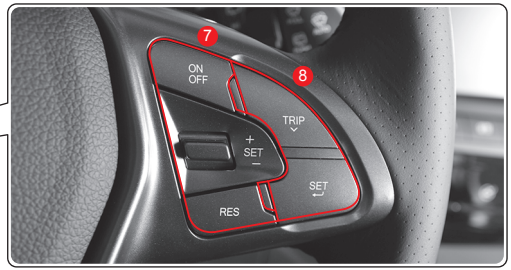


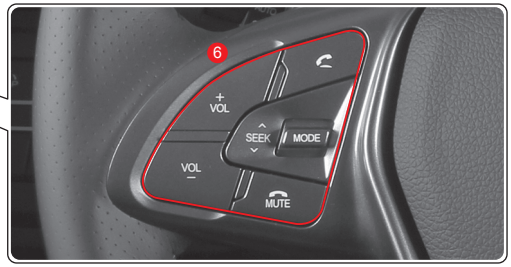
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※ Actual appearance may differ from the image shown above.

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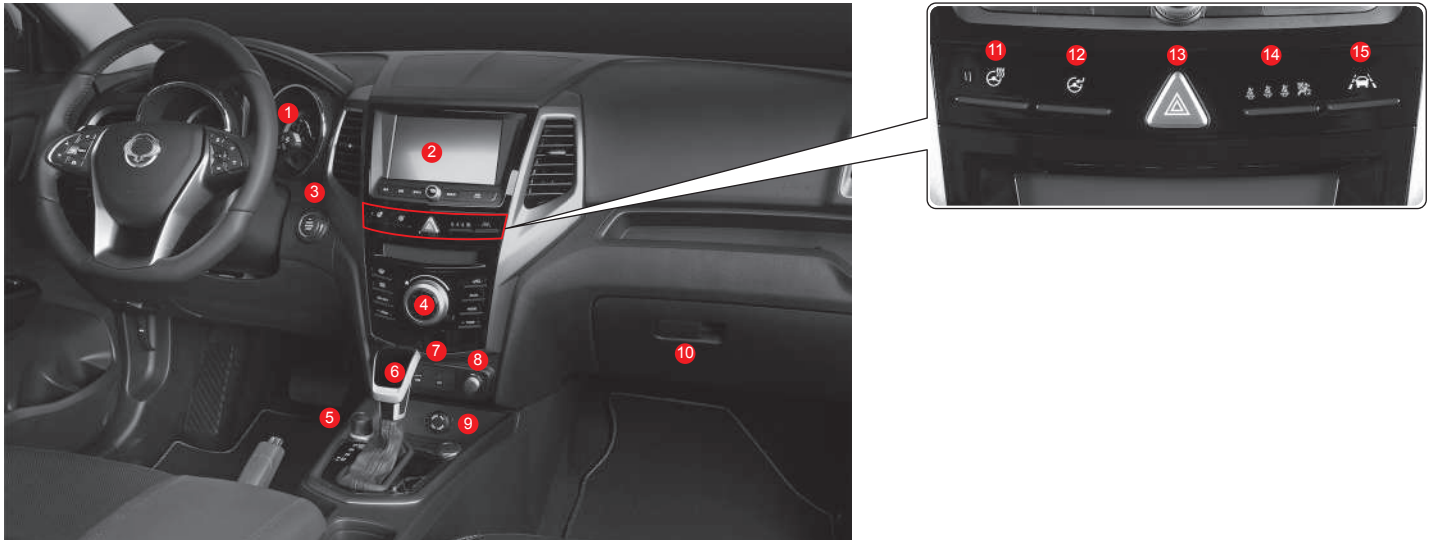




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※ Actual appearance may differ from the image shown above.
※ The image shown above is a vehicle equipped with the smart key system and AV system. It may differ from your vehicle depending on your model.

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※ Actual appearance may differ from the image shown above.
※ The image shown above is a vehicle equipped with the smart key system and AV system. It may differ from your vehicle depending on your model.

QUICK GUIDE (INTERIOR - LUGGAGE COMPARTMENT & REAR SEATS)

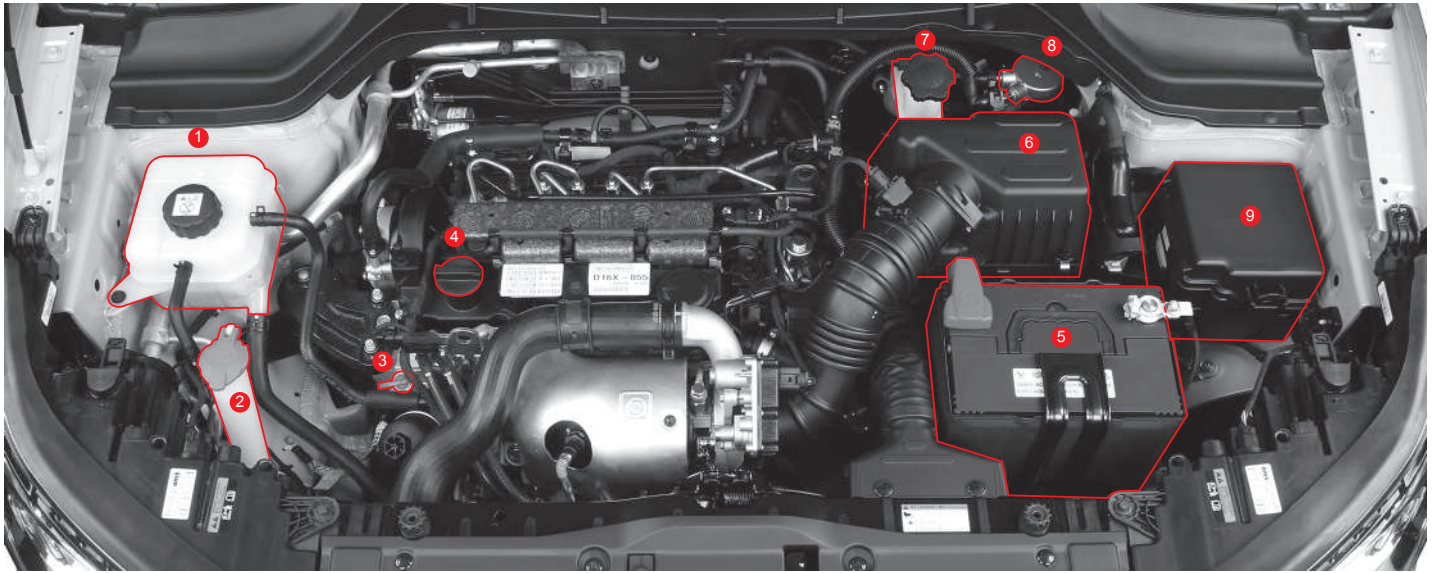




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※ Actual appearance may differ from the image shown above.

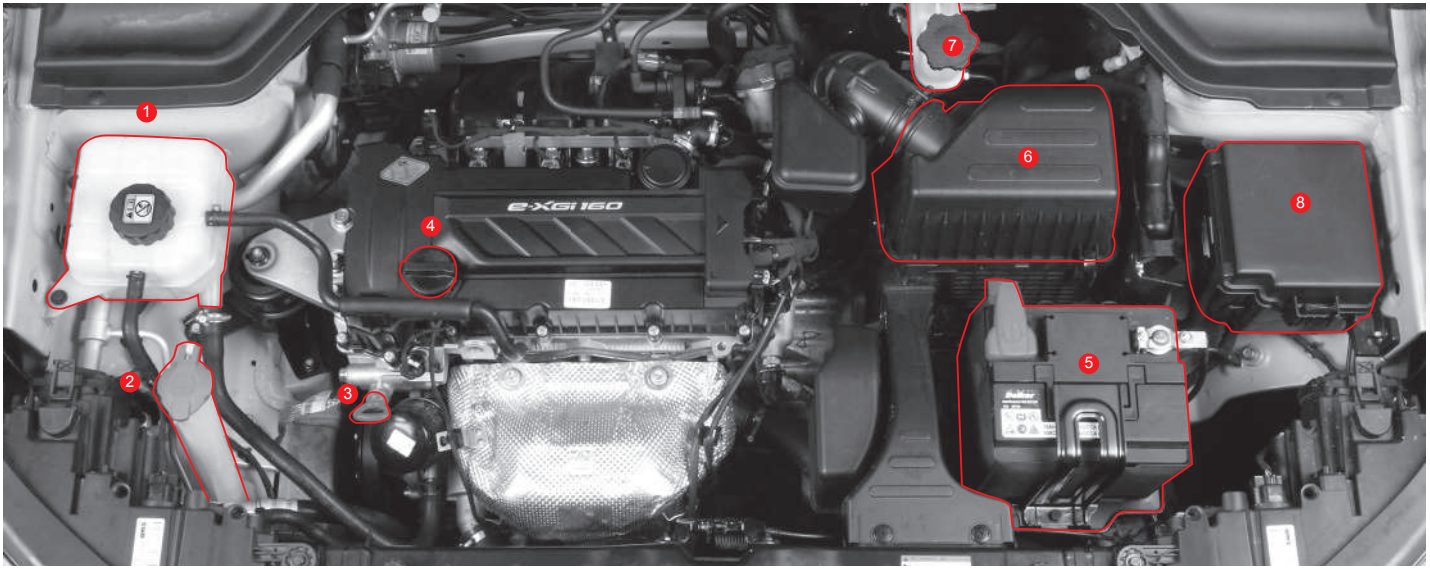
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※ Actual appearance may differ from the image shown above.

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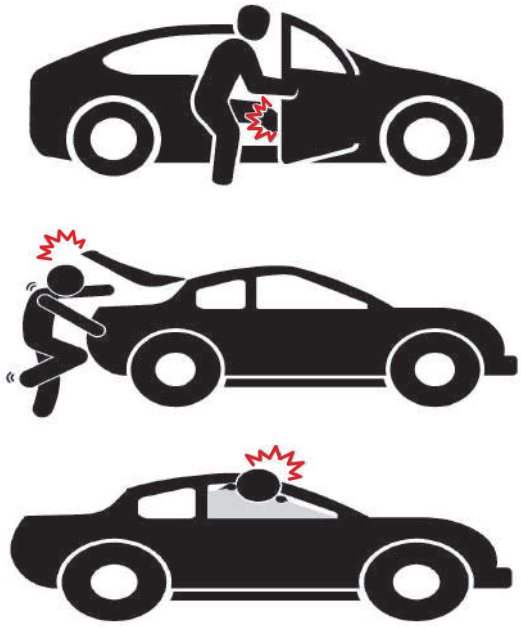
※ Actual appearance may differ from the image shown above.

QUICK GUIDE (WARNING AND INDICATOR LIGHTS)

								
Engine oil pressure warning light (D16DTF)	Engine overheat warning light	Water separator warning light (D16DTF)	EPS warning light	Charge warning light	Driver's seat belt reminder	Air bag warning light	Brake warning light	4WD check warning light (AWD)
								KEY IN/OUT
Door ajar warning light	Engine CHECK warning light	Low fuel level warning light	Glow plug light/warning light (D16DTF)	ABS warning light	ESP ON indicator/ warning light	ESP OFF indicator	Global warning light	Smart key check indicator
		AEBS OFF					WINTER	POWER
Immobilizer/ Smart key warning light	Rear fog lamp ON indicator	AEBS OFF indicator	AEBS warning light	Front fog lamp ON indicator	Illumination ON indicator	4WD LOCK ON indicator (AWD)	Winter mode indicator	Power mode indicator
READY	AUTO CRUISE					ESCL		
Auto cruise Ready indicator	Auto cruise ON indicator	Turn signal/hazard warning lamp indicator		LKAS indicator	High beam indicator	High beam assist system (HBAS) indicator	ESCL* (Electrical Steering Column Lock warning light)	ISG indicator (M/T)*
								
HDC ON indicator/warning light								

WARNING

When you open and close the doors/trunk/windows, some of your bodies may get stuck or hit against them and get injured.



- When you open and close the doors, some of your bodies such as your finger or head may get stuck or hit against them and get seriously injured. When you open or close the doors, care should be taken to prevent your bodies from being stuck or hit against them. Otherwise, you may get serious injure such as mutilation.
- When you open or close the trunk, some of your bodies such as your hands or head may get stuck or hit against it and get injured. Open or close the trunk only when it is safe to do so.
- The trunk is designed to be raised or lowered itself at certain level. Always be careful not to get your face, head or hands injured.
- When closing the rear windows, make sure that the rear seat passenger's hand or head is not out of the car window. This is especially important for children, who may get serious injury such as suffocation.
- If you continue to pull the switch to raise the window in the situation that something is pinched first without operating the one-touch auto close feature, anti-pinch protection does not work.
- Especially for children, even if some of their bodies is on the window, a certain amount of force (resistance) is not applied to the window, which may cause anti-pinch protection to not function properly. Be sure to check the rear seat and operate the switch prior to closing the rear windows.

WARNINGS FOR POTENTIALLY DANGEROUS SEAT BELT-RELATED GOODS

WARNING

It is recommended not to use any potentially dangerous seat belt-related goods for the safety reason.

	**Clip to disable seat belt alarm** Seat belt is recognized as fastened when this clip is inserted into buckle, resulting in seat belt warning lamp and alarm not activated
	**Seat belt stopper** When installed on webbing, it interferes normal operation of retractor, resulting in poor seat belt performance
	**Rear seat playroom mat** Makes rear seat occupant(s) not to use seat belt or car seat

The seat belt plays an important role in protecting the personal security of a vehicle occupant in the event of an accident.

All occupants should wear the seat belts at any road.

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.



This must absolutely be observed for safety precautions.

NOTE

NOTE

NOTE indicates information to assist maintenance and instructions.

For product design changes

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

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

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

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

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

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

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

CAUTIONS FOR ENVIRONMENT

Ssangyong Motor Company is pursuing environmental friendly policies and initiatives. This is the way we can save the natural resources and humankind can live harmoniously with nature.

You also can contribute to the protection of the environment while driving your Ssangyong vehicle.

The fuel consumption and engine speed, transaxle, brake and wear of the tires are subject to the following factors:

- Driving conditions
- Driving habits



You can contribute to the protection of the environment by following the below rules.

Driving Conditions

- Drive off the vehicle slowly.
- Avoid short trip.
- Keep the specified tire inflation pressure.
- Unload the unnecessary goods from luggage compartment.
- Always check the fuel economy.
- Have the maintenance service regularly.
- Visit Ssangyong Dealer or Ssangyong Authorized Service Center for maintenance service.

Driving Habits

- Do not depress the accelerator pedal when starting the engine.
- Keep the safe distance with vehicle ahead.
- Avoid abrupt and frequent acceleration.
- Shift the gear at proper time and do not overrun the engine in each gear.
- Turn off the engine when you stop the vehicle for a long time.

Recycling

- Information about eco-friendly product development and vehicle recycling can be found on the SYMC website www.smotor.com/en

1. TIRE PRESSURE MONITORING SYSTEM

CE	Hereby, Ssangyong, declares that the in-vehicle mounted radio systems are in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC	EU
FCC	Model: TSSSG4G5 and TSSRE4Db FCC ID: OYGTSSRE4DB ORD. No: 14778/DFRS19614/F-50 This device complies with Part 15 of the Federal Communications Commission (FCC) rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. **WARNING** Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.	AMERICA

CU TR	LOGO Certificate in the user manual due to product size **Tire Pressure Monitoring System** **Model: TSSRE4Db** The device passed all the conformity assesment procedures to CU TR. EAC mark in the user manual due to product size.	CIS
ANATEL	 **AVISO** Este equipamento opera em caráter secundário, isto é, não tem direito à proteção contra interferência prejudicial, mesmo de estações do mesmo tipo e não pode causar interferência a sistemas operando em caráter primário.	BRAZIL

2. FOB/FOLDING

FCC	FCC ID: DEO-MT-FLIP01 This device complies with Part 15 of the Federal Communications Commission (FCC) rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. **⚠ WARNING** Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.	AMERICA
TR	LOGO Certificate in the user manual due to product size	CIS

3. JACK LABEL

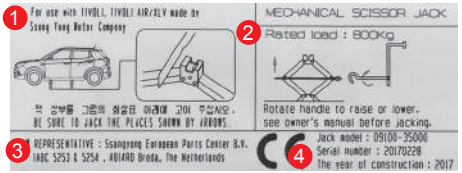
CE	 1 Model name 2 Maximum allowable load 3 Representative company and address 4 Production date **⚠ CAUTION** • When using the jack, set your packing brake. • When using the jack, stop the engine. • Do not get under a vehicle that is supported by a jack. • The designated locations under the frame • When supporting the vehicle, the base plate of jack must be vertical under the lifting point. • Shift into Reverse gear on vehicles with manual transmission or move the shift lever to the P (Park) position on vehicles with automatic transmission. • The jack should be used on firm level ground.	EU

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Safety Precautions

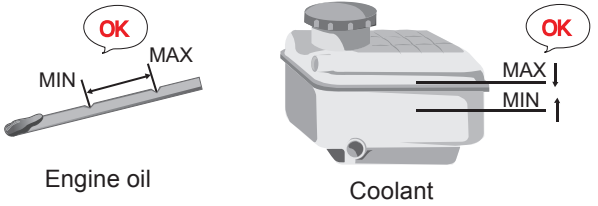
CHECK THE VEHICLE OUTSIDE



- Make sure to carry out the daily inspections before starting off your vehicle.
- Check the tire inflation and wear.Clean the windshield and rear glasses, side mirrors, and room mirror.
- Make sure that the engine hood and tailgate are properly closed.
- Make sure that there are no obstacles in the danger area around the vehicle.
- Make sure that there is not any trace of leak around the vehicle.

※ For details, refer to chapter 12 “Service and maintenance”.

INSIDE OF ENGINE COMPARTMENT



- Check the engine oil and other fluid/oil levels in the engine compartment.

CHECK THE TIRES

- Using wheel and tire other than the specified sizes could cause unusual handling characteristics and poor vehicle control, resulting in a serious accident.
- The use of tire sizes other than the specified sizes may cause abnormal operation of the steering wheel, increased fuel consumption, increase braking distance, vibration, improper operation of ABS/ESP, or uneven tire wear. It may also damage to the powertrain of the vehicle.
- Use only the same tires from same tire manufacturer for all the wheels. Otherwise, the powertrain may be damaged.
- Check the conditions and pressure of the temporary (spare) tire as needed and always keep it available. The temporary tire should be replaced with a regular tire as soon as possible.
- Check the conditions of the emergency puncture repair kit. The air compressor and sealant canister should be available at any time.
- Check the tire inflation and wear everyday and replace if necessary.
- Be sure to keep the specified tire inflation pressure.
- Check and adjust the tire inflation pressure, including the spare wheel, before any long journey. When driving the vehicle with insufficient tire inflation pressure, the tire could be blown out, because of standing wave symptom, resulting in severe injury and death.



NOTE

What is “Standing Wave”?

During driving, the rotating tire repeats deformation and restoring movement in its tread portion. However, when a tire with insufficient inflation pressure rolls on the road with high speed, a wave-like deformation occurs in the radial direction near and behind the tire tread portion. This wavy deformation is called “ standing wave”. If this symptom lasts for an extended period of time, the tire could be blown out in a short period of time.

CHECK THE VEHICLE INSIDE



- Adjust the driver's seat, headrest and steering wheel for comfortable driving.
- Adjust the outside and inside rear view mirrors.

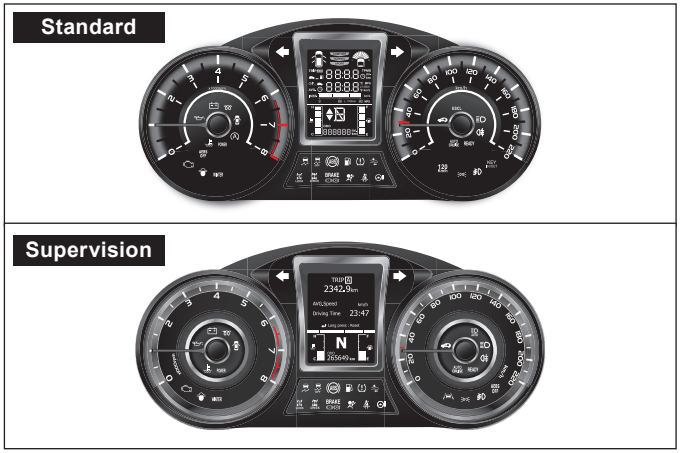
CAUTION

Do not attempt to adjust the driver's seat, headrest, rear view mirrors, or steering wheel while driving. Adjustments should be done before driving.

- Do not put anything under driver's seat.

CAUTION

- Do not leave empty bottles or cans near or under the driver's seat. If it hinders the brake or accelerator pedal operation, it may cause an unexpected accident.
- Only use a floor mat with the correct size for your vehicle. And, make sure not to move the mat while driving. If it hinders the brake or accelerator pedal operation, it may cause an unexpected accident.
- Do not wear the uncomfortable shoes such as high hills or slippers when driving.



- Check that all appropriate warning lights, indicators and gauges (fuel, vehicle speed, engine rpm) are operating when turning the ignition key to the “ON” position.



- Check the operations of the clutch pedal, accelerator pedal, and brake pedal.

CAUTION

Release the parking brake and check that the Brake warning light on the instrument cluster is turned off.

WARNING

When releasing the parking brake, firmly press the brake pedal so that the vehicle is completely stationary.



- Fasten the seat belts and be sure that all other occupants have fastened theirs properly.
- Do not drive with a twisted or tangled seat belt.
- Slide the latch plate of the seat belt into the buckle until you hear a “click”.

⚠ CAUTION

Do not recline the seatback with the seat belt fastened. You could slide under the seat belt, which could result in serious injury or death.



- Keep the safety precautions for seat belt (refer to chapter 8).
- Objects placed in the rear seat or luggage room must not exceed the height of the seat. It may fall down during the hard braking and could result in an unexpected accident.
- Make sure that there are no person or obstacles in the dangerous area around the vehicle.
- Keep the brake pedal depressed when releasing the parking brake.

INFANT, CHILD, OLD PERSON



- 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.
- To prevent children from interfering with your driving by accidental movements or misusing of devices, children should sit in the rear seat.
- Do not let children, infants, old people, or a pregnant woman sit in the front passenger seat with the airbag. The degree of shock of the airbag's expansion can be fatal or inflict serious injuries to such passengers. An infant or small child should always be restrained in a proper infant or child restraint in rear seat.

ANY CHILD MUST BE SEATED IN REAR SEAT WITH PROPER RESTRAINT SYSTEM



WARNING

Always transport children in the rear seat and use appropriate child restraints. Engage the child protection lock system of the rear doors, so that children in rear seats cannot open the rear doors. Sudden braking or a collision without proper child restraint can cause severe injury or death to children.

NO ALCOHOL, DRUGS!



- Avoid driving for an extended period of time. Driving continuously without rest makes you prone to dozing off and thus causes an accident. For your safety, take a rest every 2 hours.
- Driving under the influence of alcohol or drugs is prohibited. It impairs judgment, making driving highly risky. Drunk driving is also a legal offense.
- Driving after taking medicine can be more dangerous than the drunk driving depending on the medicine you took. Therefore do not drive the car after taking medicine.

WHEN SLEEPING IN YOUR VEHICLE

- Do not sleep in a parked car with closed windows. In particular, if you stay or sleep in the car with the engine running and the air conditioner or heater turned on, you can suffocate to death.
- Sleeping in a closed space with the engine running puts you at high risk of suffocation from the exhausts.
- While sleeping, you may accidentally touch the gear shift lever or accelerator and thereby cause an accident.
- While sleeping in the car with the engine running, you may accidentally step on the accelerator, thereby overheating the engine and exhaust pipe and causing a fire.

CABIN VENTILATION

- Volatile organic compounds, or VOCs, can be emitted from the materials in the cabin of the vehicle parked for a long time in direct sunlight. Therefore, to prevent the driver and passengers from being exposed to these harmful chemicals and keep the comfortable indoor environment, open all windows of the vehicle which is parked under the sun prior to entering.
- Prolonged driving without proper ventilation can cause headaches and dizziness. Set the air source selection switch to the fresh air intake mode for as long as possible or open the windows periodically while driving.

DO NOT DRIVE WITH TAILGATE OR DOORS OPEN

- Do not run the engine with the tailgate open to avoid exhaust gas entering into passenger compartment.
- If you drive your vehicle with the tailgate open, loose objects inside the vehicle may cause an accident.
- Driving the vehicle with the doors open puts the passenger at risk of being thrown out, which can cause serious injury.
- Always drive the vehicle with the doors and tailgate locked. Opening a door during driving, especially by children, may cause a serious accident.

DO NOT STICK ANY PART OF YOUR BODY OUT OF THE WINDOW OR SUNROOF



Do not stick any part of your body out of the window and sunroof while the car is running or while you are maneuvering to park.

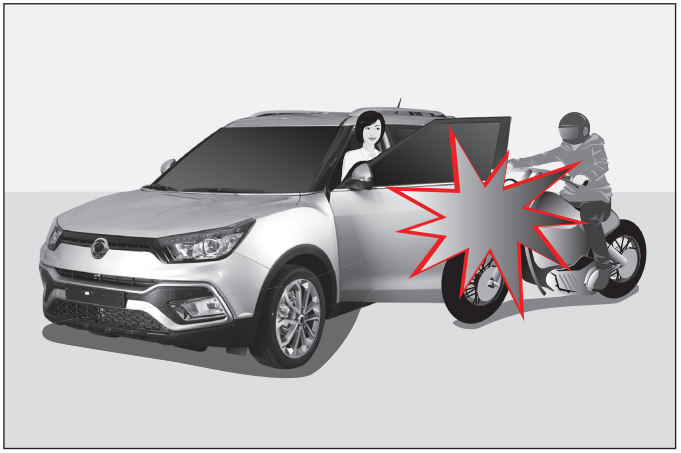
You might be hurt by the passing vehicles or other unseen obstacles.

POWER WINDOW



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

CHECK FOR ANY PASSING VEHICLE WHEN GETTING OFF



When getting off, check the rear and side of the car for passing vehicles or pedestrians.

Vehicles or motorcycles coming from the rear, if unchecked, might stumble on you when you open the door.

STOPPING AND PARKING THE VEHICLE

- 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.
- When parking the vehicle on a hilly road, apply the parking brake and chock the blocks under the wheels. And, place the gear shift lever in “R” (when parked downhill) or “1” (when parked uphill) for vehicles with the manual transaxle or place the gear shift lever in “P” for vehicles with the automatic transaxle.
- If possible, do not stop and park the vehicle on the steep road.
- If possible, do not park the vehicle in a humid area or enclosed area.
- Do not park in places where hay, foliage, paper, rags, oil, or other easily inflammable materials are kept. While driving or after immediately driving, the muffler and exhaust pipe are hot; inflammable materials near the vehicle might cause a fire.
- When running the engine while stopping, keep enough distance from the wall to avoid a fire and discoloration of vehicle.
- Apply the parking brake when you park the vehicle.
- Do not use “P” position as a parking brake. Securely apply the parking brake when you park the vehicle.

WARMING UP THE ENGINE

- Do not drive without warming up the engine. Driving immediately after starting the engine may decrease the engine’s life expectancy. Warm up the engine before moving your vehicle.
- Do not warm up the engine excessively. Warm up the engine just until the coolant temperature gauge begins to move.
- Excessive engine warming increases the fuel consumption and air pollution. An optimized warming up time is approx. 2 minutes.
- Do not warm up in an airtight space. Exhaust fume may result in toxicities.

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

DO NOT STOP THE ENGINE WHILE DRIVING

Do not stop the engine while driving. Otherwise, it makes the steering wheel heavier, the brake performance lower and, consequently, gets extremely dangerous.

PROHIBITION OF SUDDEN ACCELERATING, BRAKING AND STARTING

Do not accelerate, start and brake the vehicle suddenly. Otherwise, it may increase fuel consumption and cause risk of a car accident. Accelerate or decelerate softly.

DO NOT TURN THE STEERING WHEEL ABRUPTLY

Abrupt operation of steering wheel makes the vehicle unstable and may cause an accident.

DO NOT RUN THE ENGINE IN AN ENCLOSED AREA

Leaving the engine running in an enclosed place with no air ventilation, might result in death from carbon monoxide poisoning.

DO NOT USE A CELLULAR PHONE OR WATCH DMB INCLUDING DVD WHILE DRIVING

Using your cellular phone or watching DMB (including DVD) while driving will distract yourself and may cause an accident. If necessary, pull over your vehicle safely to use your cellular phone.

WHEN PASSING THE INTERSECTION OR RAILWAY CROSSING

When passing the intersection or railway crossing, stop the vehicle to check the safety and drive through as fast as you can while using low speed gear and without shifting the gear. If the engine is turned off in the middle of the intersection or railway crossing, get someone to help you and move the car to a safe place quickly.

HAZARDOUS MATERIALS

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

EXTINGUISHER

For safety, we strongly recommend that you have an extinguisher in your vehicle. Keep it ready for use at any time. Be familiar with how to use it.

ENGINE BRAKE

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

Fade?

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

Vapor Lock?

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

SYSTEM PROTECTION (DELAYED ACCELERATION)

Do not depress the brake pedal while driving with the accelerator pedal depressed. Otherwise, the response from accelerator pedal may be delayed. This symptom is the safety function to protect the vehicle's powertrain system. This symptom can be eliminated if you depress and release the accelerator pedal once with the brake pedal not depressed.

BEING CAREFUL WITH ACCESSORIES

Do not attach accessories or other unnecessary things to your car's windows as they might interfere with your driving. Attached accessories can work as a convex lens and cause a fire or cause an accident.

BEING CAREFUL WHILE CHECKING COOLANT

To avoid being scalded, do not remove the engine coolant reservoir cap when the engine is hot.

WARNING



Do not remove the coolant reservoir cap when the engine and the radiator are hot. The cooling system may spray hot coolant if the cap is removed, causing serious injuries.

ALWAYS USING SSANGYONG GENUINE PARTS

- You can maintain the safety and performance of your car by using only specified parts or Ssangyong genuine parts.
- You can distinguish specified parts by their part numbers and hologram.



Part numbers



Hologram

CAUTION

- The warranty does not cover problems caused by using non-Ssangyong genuine parts.
- You can distinguish an authentic Ssangyong genuine part by its hologram.

DRIVING ON A SNOWY OR ICY ROAD

- Shift to the lowest possible gear and drive slowly.
- Since your braking distance is longer than usual, allow a longer following distance.
- If you accelerate or brake too fast, your vehicle will slide and you might get in an accident, so drive with caution. When braking, use the engine brake; apply your brakes only after you have slowed down considerably.
- When going down a slippery downhill, use the engine brake and drive slowly.

CAUTION

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

DRIVING ON A SANDY OR MUDDY ROAD

- Keep your speed steady as low as possible.
- While driving, be careful not to accelerate or stop too quickly because you might get stuck in sand or mud.
- If your vehicle gets stuck in sand or mud, insert a rock or a piece of wood under the stuck wheel, lightly apply the accelerator pedal and gently shift back and forth between the reverse and forward gear to allow inertia to get your vehicle out.

CAUTION

When your vehicle is stuck in sand or mud and you step on the accelerator pedal excessively in order to get out of there, the tire slip may occur which results in the damage of the transmission and corresponding drive system. In that case, get another vehicle to tow you if possible.

DRIVING ON UNPAVED AND MOUNTAIN ROADS

- Before driving, check road conditions such as if the road suddenly ends, or if there is enough space for a U-turn in the middle of the road.
- It's easy to slide in a road covered with much sand or with much dry dirt. Keep your speed low and steady.
- There is a danger of driving off the mountain road, so stay alert.
- When coasting downhill, do not change gears; go down slowly by applying the engine brake.

WARNING

IN HIGH MOUNTAIN AREA

The operation stability of diesel engine is not guaranteed in high mountainous area over 2,500 meters. The short trip such as passing through tunnel in this area is acceptable. However, do not keep driving there for a long time. If you drive your vehicle in very high altitude for long time, the engine could be damaged. The engine power, climbing ability and emission are subject to the altitude.

GOING THROUGH WATER

- If water gets into the electric system or engine, it might cause irreparable damage to your vehicle. Please refrain from underwater driving.
- If going through water is unavoidable, choose a shallow spot where the exhaust outlet wouldn't get submerged in water and proceed slowly at a steady speed.
- Before going through water, get out of your vehicle and check the bottom of the river. Do not go through water if the bottom is sandy or covered with big rocks.
- If several vehicles are going through water together, the first vehicle might burrow into the bottom, so be careful and cross in a different place if possible.

► Important things to remember when going through water

- If the engine stops while you are going through water, do not try to restart. Get your vehicle towed.
- Be particularly careful not to allow water to enter into the engine through the air cleaner.
- Never change gears while going through water.

WARNING

If water gets into the brake system, the effectiveness of the brakes decreases. After going through water, move slowly and gently applying the brakes several times so that frictional heat dries the brake pads and discs. Check if the brakes work properly before continuing driving.

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

- Check the front, rear, right and left sides, transaxle, axle hubs, propeller shaft, oil and fluid levels, and underbody; if you discover problems, get your vehicle checked immediately.
- Check all lamps and other electrical devices. If necessary, replace damaged components and get your vehicle checked.
- Check for damages to the vehicle body and underbody; if you discover problems, get your vehicle checked immediately.
- If the vehicle body is very dirty, wash your car to protect it.

DRIVING ON HILL ROADS

Position the gearshift lever in accordance with the road conditions.

WARNING

- If you suddenly use the engine brake on an icy or slippery road, the vehicle might slide and get in an accident. Use the engine brakes after fully reducing your vehicle speed.
- 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.

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 weather conditions are adverse, double the distance between your vehicle and the vehicle running in front of you. And reduce your speed by half.

CAUTION

Do not idle the engine for a long time; it wastes fuel and causes environmental pollution.

- Drive at a slow speed for the first 2 km if possible.
- Do not load your vehicle with unnecessary stuff.
- Refrain from quick accelerating and abrupt braking, travel at a steady speed.
- When you park or stop for a long time, turn the engine off.
- Keep tires at the recommended pressure.
- Keep your vehicle in the best possible condition by periodically checking it and perform maintenance.

ENGINE STARTING (REKES)

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

CAUTION

- The engine in automatic transaxle equipped vehicle can be started only when the gear selector lever is at the **"P"** or **"N"** position. The engine in manual transaxle equipped vehicle can be started only when the clutch pedal is fully depressed.
- Do not turn the ignition key to the **"START"** position while the engine is running. It could result in serious start motor damage.

3. *** Automatic transaxle equipped vehicle**

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

   *** Manual transaxle equipped vehicle**

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

WARNING

Depress the brake pedal when the gear shift lever is at the **"P"** (A/T) or **"Neutral"**(M/T) position. Never depress the accelerator pedal.

4. *** Gasoline engine equipped vehicle**

   Insert the ignition key into the key cylinder and turn it to **"START"** position and hold it there without depressing the accelerator pedal until the engine starts (a maximum of 10 seconds), then release the key.

   *** Diesel engine equipped vehicle**

   Insert the ignition key into the key cylinder and turn it to the **"ON"** position. As soon as the glow indicator () goes out, turn it to **"START"** position and hold it there without depressing the accelerator pedal until the engine starts (a maximum of 10 seconds), then release the key.

CAUTION

If the engine fails to start, turn the key back to **"LOCK"** position and wait for 10 seconds. Then try again before any attempt to start the engine.

5. Warm up the engine properly according to the ambient temperature.

ENGINE STARTING (SMART KEY*)

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

CAUTION

- The engine in automatic transaxle equipped vehicle can be started only when the gear selector lever is at the **"P"** or **"N"** position.
- Do not press the engine start/stop button while the engine is running. It could result in serious start motor damage.

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

WARNING

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

4. Press the engine start/stop button and check that the indicator on the button comes on in green (Engine start/stop button ON position).
5. Press the engine start/stop button to start the engine with the engine start/stop button ON position (indicator ON). The indicator on the button goes out when the engine is started.

CAUTION

- Do not press the engine start/stop button for a long time even though the engine fails to start.
- If you leave the engine start/stop button in the **"ACC"** or the **"ON"** position for a long time when the engine is not running, the battery may be discharged.

WARNING

- The engine will start by pressing the engine start/stop button, only when the smart key is in the vehicle. Never allow children or any person who is unfamiliar with the vehicle to touch the engine start/stop button or related parts.
- If ESCL warning message appears on the display, immediately have the system checked by Ssangyong Authorized Service Center.
- Continuous driving with this message may cause serious damage to the steering system.

NOTE

- To make the engine start easy, start the engine as follows in very cold weather.
  1. Press the engine start/stop button twice without depressing the brake pedal.
  2. The engine start/stop button becomes ON and the preglow indicator on the instrument cluster comes on.
  3. Wait until the indicator goes out, and depress the brake pedal and press the engine start/stop button.
- In the vehicle equipped with ESCL (Electrical Steering Column Lock) system, you may hear an operating sound from motor when starting and stopping the engine. This is normal operating condition.

DRIVING OFF

1. Make sure that there are no persons or obstacles in the dangerous area around the vehicle.
2. Release the parking brake.
3. *** Automatic transaxle equipped vehicle**

   Keep the brake pedal depressed and shift into the **"D"** or **"R"** position. Make sure that the position indicator of **"D"** or **"R"** comes on. Slowly release the brake pedal to begin moving.

   *** Manual transaxle equipped vehicle**

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

STOPPING THE ENGINE

1. Depress the brake pedal to stop the vehicle.
2. *** Automatic transaxle equipped vehicle**

   Move the gear selector lever to the **"P"** position.

   *** Manual transaxle equipped vehicle**

   Move the gear shift lever to the Neutral position.
3. *** REKES system equipped vehicle**

   Turn the ignition key to the **"LOCK"** position.

   *** SMART Key equipped vehicle**

   Press the engine start/stop button.
4. Apply the parking brake.
5. Remove the ignition key from the key cylinder (REKES).

NOTE

Diesel engine learning mode: The learning mode of the fuel injector is performed while the vehicle is driven or stationary to maintain the optimized engine condition. Weak noise and vibration of the engine may be accompanied by this mode. But, it is normal operation.

CAUTION

- Starting the vehicle in the winter months or operating the A/C in the summer months increases the engine rpm. Drivers must be careful when driving at this time because the vehicle can move faster than normal.
- Any modifications or alterations to this vehicle, including installation of an electronic device such as after-market remote starting system, could seriously affect its performance and safety and may lead to a serious injury or death.
- Using a mobile telephone or two-way radio requires careful considerations. The electronic control system of the vehicle is subject to possible errors due to electronic interference caused by improper use of these devices, and the electromagnetic waves can be harmful to the human body.
- When leaving the vehicle unattended, always turn off the engine to prevent unexpected rolling away.
- Always apply the parking brake with the brake pedal depressed when the vehicle is stopped.
- Do not store personal belongs and valuables inside the vehicle. When leaving the vehicle unattended, always make sure all the doors including the tailgate are closed and locked.
- Improper alignment of vibration dampers for the exhaust system (rubber hanger bracket) may result in serious vibration problems. When reinstalling the exhaust system after undercoating, check the alignment of the dampers.
- Always check the accelerator and brake pedals with your right foot before starting the vehicle. Even an experienced driver can accidentally hit the wrong pedal if he/she drives different vehicles.
- Power unit of the vehicle operates independently of the braking system of the vehicle, so just calmly depress the brake pedal to stop the vehicle when it moves unintentionally due to the driver error including pedal misapplication or a malfunction.

CAUTION

- If your vehicle becomes stuck in snow, mud or sand, depressing the accelerator pedal harder only makes the tires slip more which in turn causes damage to the transmission. If this happens, tow the vehicle away or take other actions as appropriate.
- Always contact the nearest Ssangyong Dealer or Ssangyong Authorized Service Center for adding and changing transmission fluid. A non-genuine fluid can cause various problems including malfunction and performance deterioration of the transmission, and those damages are not covered by the warranty.
- The application of tint film, especially metallic film, may interfere with radio signals. Low visible light transmission (VLT) of the film can lead to malfunction in the headlamp. Also, make sure that no liquid solution for application of tint film flows into the electronic components of the vehicle to prevent error or malfunction.
- The tinted glass with very low VLT and enhanced solar control characteristics reduces visibility through the glass significantly, especially at night or in the rain, thereby causing unforeseen safety problems.
- The interior materials of the new vehicle within a year or use can emit volatile organic compounds (VOCs). Therefore, always open all the windows for sufficient ventilation before entering. Those chemicals can cause headaches and dizziness especially in the cabin of the vehicle parked for a long time in direct sunlight. Therefore, to prevent the driver and passengers from being exposed to these harmful chemicals and keep the comfortable indoor environment, set the air source selection switch to the fresh air intake mode for as long as possible or open the windows periodically while driving.

BREAK-IN PERIOD



There are no particular break-in rules for your new vehicle. However, following a few simple precautions for the first 1000 km can add to good future performance, fuel economy and long life of your vehicle.

- Allow the engine to warm up after starting.
- Avoid harsh operations such as abrupt starts, sudden acceleration and prolonged high speed driving.
- Do not race the engine.
- Do not maintain a single speed for long period of time. Varying engine speed is needed to properly break-in the engine.
- Avoid overload when climbing.
- Check the engine oil level more frequently until 5000 km of driving and add the oil if necessary.
- During the first 1000 km of towing a trailer, do not drive the vehicle over 80 km/h or do not drive off the vehicle with full acceleration. Otherwise, engine or its components could be damaged due to overload.

CLEANING AGENTS

Follow the manufacturer's advice whenever cleaning agents or other chemicals are used for the inside or the outside of the vehicle. Some cleaners may be poisonous or flammable, and improper use may cause personal injury or damage. When cleaning the inside or outside of the vehicle, do not use volatile cleaning solvents such as: acetone, lacquer thinners, enamel reducers, nail polish removers; or cleaning materials such as laundry soaps, bleaches or reducing agents, except as noted in the fabric cleaning advice on stain removal. Never use carbon tetrachloride, petrol, benzene, or naphtha for any cleaning purpose. Open all vehicle doors for ventilation when any cleaning agents or other chemicals are used in the interior. Overexposure to some vapors may result in a health problem which is more likely to occur in small, unventilated spaces. To avoid possible permanent discoloration of light colored seats, do not let materials with non-fast colors come in contact with seat trim materials until these materials are totally dry. This includes certain types of casual clothing, such as colored denims, corduroys, leathers and suedes; also, decorative paper, etc.

VEHICLE WASHING

To avoid corrosion, wash your vehicle as soon as possible after driving on a coastal road (salted road), on a road where the snow removal chemicals (calcium chloride etc.) has been spreaded, in the area where the atmospheric fallout/industrial pollutants are exist, or on a muddy or dusty road. Also, immediately wash your vehicle when things such as tree sap or bird droppings get on the painted surface.

Do not wash your vehicle under direct sunlight. Always wash your vehicle in the shade. If your vehicle has been parked under direct sunlight for a long period, let it cool sufficiently before washing.

How To Wash:

- Rinse the vehicle throughly with cool water to remove dust and loose dirt.
- Clean the vehicle throughly using a mild soap or detergent mixed with clean and lukewarm water. Start at the top and work your way down.
- Check whether the vehicle is smeared with tree sap, coal tar or other foreign materials. Rinse them off while paying particular attention not to damage the painted surface.
- Remove the moisture using a soft cloth. If you detect any stone chips or scratches in the painted surface, to prevent corrosion, touch them up immediately.
- You should allow enough space between a high-pressure water gun and your vehicle when washing the car with a high pressure cleaner. When the water gun is too close to the vehicle body, the high pressure of the water gun can cause painted surface damage of the panels or malfunction of the sensors on the bumper.

CAUTION

- Be careful not to damage the air spoiler when cleaning the vehicle in an automatic car wash.
- Wash your car by hand or using an automatic car washing machine. Avoid using a high pressure cleaner as much as possible to maintain and manage the car performance. The high water pressure can cause painted surface damage of the panels or malfunction of the sensors on the bumper. In case where using a high pressure cleaner is unavoidable, pay attention to the conditions of your car by allowing enough space between a high-pressure water gun and your vehicle.
- If the engine compartment is cleaned with water (or high-pressure car washing), the water may go into the electrical circuits or air ducts located on the engine compartment, which causes the vehicle not to maneuver properly.
- After washing the vehicle, check whether the brake is affected by water by testing the brake operation while driving the vehicle at low speed.

BUMPER WASHING

- Remove the dirt or dust first with water and a sponge.
- If the bumper is contaminated by engine oil or any lubricants, wipe it off using mild soapy water.

CAUTION

Do not use abrasive wax and strong cleaning materials such as steel wool which will scratch the vehicle body and bumper.

CARE AND CLEANING OF THE INTERIOR



With the use of modern trim materials, it is very important that you use proper cleaning techniques and cleaners. Failing to do this on the first cleaning may result in water spots, spot rings, or setting of stains or soils. All of which are more difficult to remove in a second cleaning.

Dust and loose dirt that are accumulated on interior fabrics should be frequently removed with a vacuum cleaner or soft bristle brush. Wipe vinyl or leather trim regularly with a clean damp cloth. Normal trim soils, spots or stains can be cleaned with cleaners.

CAUTION

- Use only the mild detergent or cleaning agent with a small amount of alcohol when cleaning the leather product (steering wheel, seats etc.). Strong acid/alkali detergent or the cleaning agent with plenty of alcohol may cause the discoloration and peeling of surface.
- The Leather Seat Maintenance is necessary on Quarter basis with dedicated Leather Milk or Cream in order to feed the Leather and avoid any cracks on the seats and conserving the original look and comfort of the seat.

WARNING

To prevent from burning and electric shock, turn off the interior lights before cleaning the vehicle interior.

Seat Belt Care

- Keep belts clean and dry.
- Clean seat belts only with mild soap and lukewarm water.
- Do not bleach or dye belts since this may severely weaken them.

GLASS SURFACES

Glass surfaces should be cleaned on a regular basis. The use of a glass cleaner or a liquid household glass cleaner will remove normal tobacco smoke and dust films.

Never use abrasive cleaners on any vehicle glass, as they may cause scratches. If abrasive cleaners are used on the inside of the rear window, any electric demister element may be damaged. Avoid placing decals on the inside rear window, since they may have to be scraped off later.

Cleaning the Outside of the Windshield

If your windshield is not clear after using the windshield washer, or if the wiper blade chatters when running, wax or another material may be on the blade or windshield, clean the outside of the windshield with cleaning powder or an equivalent non abrasive cleaner. Your windshield is clean if beads do not form when rinsing with water.

CAUTION

- Be careful not to damage the heated wire.
- Do not install the additional tinting film other than factory setting on the windshield and rear glass. Otherwise, it may affect the operation of heated wire in the glasses.
- The vehicle with the rain sensor and the auto light sensor on windshield should be handled carefully. If the sensor installation area is dirty or corrupted by agent, the sensor may not work properly.

WARNINGS FOR WINDOW TINTING

- All vehicles from our factory have tinted windshield and rear window which meet the specified percentage of visible light transmission (VLT). Do not tint the windows of the vehicle delivered from the factory. Tinted window with certain percentage of VLT might be a legal requirement.
- Make sure that no liquid solution for application of tint film flows into the electronic components of the vehicle to prevent error or malfunction.
- Do not modify or apply additional sun films on the windshield and rear window of the vehicle with heated window system. Sharp edge of a knife or work tool may damage the heated wire and cause electrical shocks.
- The tinted windshield and rear window with very low VLT and enhanced solar control characteristics reduce visibility significantly, especially at night or in the rain, causing unexpected safety problems.

CARE AND CLEANING OF THE EXTERIOR

Exterior Finish

The paint finish on your vehicle provides beauty, depth of color, gloss retention, and durability.

Washing your Vehicle

The best way to preserve your vehicle's finish is to keep it clean by frequent washing.

Wash the vehicle with lukewarm or cold water.

Do not use hot water or wash your vehicle under direct sunlight. Do not use a strong soap or chemical detergent.

All cleaning agents should be washed promptly from the surface and not allowed to dry on the finish.

Ssangyong vehicles are designed to operate under normal environmental conditions and to withstand the natural elements. However, unusual conditions, such as high pressure car washers, may cause water to enter the inside of your vehicle.

Polishing and Waxing

Periodic polishing and waxing is recommended to remove surface residue from your paint finish. Approved products are supplied through your Ssangyong Distributor.

Protecting Exterior Bright Metal Parts

Bright metal parts should be cleaned regularly to keep their luster.

Special care should be taken when cleaning the aluminum trim. To avoid damaging the protective trim, never use automotive or chrome polish, steam, or caustic soap to clean the aluminum trim. A coating of wax is recommended for all bright metal parts.

Cleaning Aluminum Wheels, Alloy Wheels, and Wheel Covers

- Do not use abrasive cleaners, polishes, solvents, wire brushes or cleaning brushes for cleaning, as they could damage the finish.
- Use neutral detergents for cleaning the wheel, as acid or alkaline detergents could damage the wheel cover.
- Clean the wheels after driving on a coastal road to prevent the wheel from being corroded.

⚠ CAUTION

Never clean the aluminum wheel or alloy wheel with acidic or alkalic detergents. Otherwise, wheel's protective finish could be damaged.

CORROSION PROTECTION

Your car was designed to resist corrosion. When it was built, special and protective finishes were used on most parts of your car to help maintain a good appearance, strength and reliable operation. Some parts which normally are not visible (such as certain parts located in the engine compartment and the underbody of the vehicle) are such that surface rust will not affect their reliability. Therefore, corrosion protection is not needed or used on these parts.

Sheet Metal Damage

If your car is damaged and requires body panel repair or replacement, make sure the body repair shop applies proper anticorrosion material to the parts repaired or replaced so that corrosion protection is restored. (Also refer to "Finish Damage" on the next page).

Foreign Material Deposits

Calcium chloride and other salts, deicing agents, road oil and tar, tree sap, bird droppings, chemicals from industrial chimneys and other foreign materials may damage vehicle finishes if left on painted surface. Prompt washing may not completely remove all of these deposits. Other cleaners may be needed. When using chemical cleaners, be sure they are safe for use on painted surfaces.

Finish Damage

Any stone chips, fractures or deep scratches in the finish should be repaired promptly. Bare metal will corrode quickly and may develop into a major repair expense. Minor chips and scratches can be repaired with touch-up materials. Larger areas of finish damage can be corrected in your Distributor's body and paint shop.

Underbody Maintenance

Corrosive materials used for ice and snow removal and dust control can accumulate on the underbody. If these materials are not removed, accelerated corrosion (rust) can occur on underbody parts such as the fuel lines, frame, floor pan, and the exhaust system even though they have been provided with corrosion protection. At least every spring, flush these materials from the underbody with plain water. Take care to clean any area where mud and other debris can accumulate.

Sediment packed in closed areas of the frame should be loosened before being flushed. If desired, your Ssangyong Distributor can do this service for you.

CAUTION

- When the engine is washed, fuel, grease or oil residues are washed off. Therefore you should use only a filling station or a Ssangyong Distributor who has oil separator equipment in the car wash bay.
- Used engine oil, brake fluid, transaxle fluid, antifreeze, batteries, and tires should be disposed by using the local authorized waste disposal facilities, or have them disposed of by the vendor who is under a statutory obligation to do so when you replace them.
- None of these items should be placed in the household recycling bins or poured into the sewage system.
- Everyone should be concerned about environmental protection.
- Help by doing your share.
- When a strong multi-purpose, acid, or alkaline detergent is used to clean up the surface of the painted body, side mirrors, windshield, plastic moldings or leather, changes, fading of colors or rusting can happen.
- When the windshield is cleaned with an oil-contained or waxed towel, strange sounds and vibrations may occur on the windshield surface when the wipers are operating. Also, decreased visibility, reflection at night, or poor removal of water on the windshield may happen. Do not clean the windshield with an oil-contained or waxed towel.
- An abrasive detergent may damage the painted surface of your vehicle, including the bumper. Do not buff or polish your vehicle with an abrasive detergent.
- An acid or alkaline detergent may damage the painted surface of the aluminum or alloyed wheels.
- When chemical products are used to clean up the interior, the chemical products may change some colors or distort the shape of some interior parts.
- When cleaning up interior parts, do not use chemical products such as acetone, enamel or bleach.

IGNITION KEY/REMOTE CONTROL KEY

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

SYSTEM SAFETY MODE

The protective measures including illumination of engine warning lamp and reduced engine power are taken (engine turned off in worst case) when there is a critical fault in the system or a malfunction in the major electrical or fuel system. This indicates the system entering the safety mode to protect the vehicle's drive system.

DANGER

- If the safety mode is activated, pull over and stop the vehicle to a safe location immediately and contact your Ssangyong dealer. Then drive slowly or have the vehicle towed to a Ssangyong Dealer or Ssangyong Authorized Service Center according to the dealer's instruction and have your vehicle checked by a mechanic.
- If you continue to drive in this state, normal driving is not maintained due to the fixed engine rpm and engine can stop. But even more importantly, continued driving with this state may damage the drive system.

TURBOCHARGER SYSTEM

Insufficient oil supply to the bearing assembly in turbocharger may cause the turbocharger to seize. Therefore, the following cares are necessary to prevent the seizure.

- Use only the specified engine oil and observe inspection and replacement intervals.
- Operate the engine over the idling speed only after normal engine oil pressure has been established. Forcing the turbocharger to operate before the bearings are adequately lubricated creates unnecessary friction.
- After starting the engine, let it run for approx. 2 minutes at idle speed (Avoid acceleration or driving off the vehicle).
- Do not stop the engine immediately after coming back from high load driving (such as high speed driving or driving on long slope). Let the engine run for approx. 1 minutes at idle speed to cool it down.
- After changing the engine oil and oil filter, start the engine and let it run for approx. 1 minutes at idle speed (Avoid acceleration or driving off the vehicle).
- Do not rev the engine at high speed without air cleaner element when checking the engine.

Turbocharger?

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 50000 ~ 160000 revolutions per minute and uses the energy of the exhaust gas to drive the compressor. The compressor, in turn, draws in fresh air which it supplies to the cylinders in the form of compressed air.

FUEL RECOMMENDATION

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

Diesel Engine

Use diesel fuel at 50 cetane rating or higher.

Gasoline Engine

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

⚠ CAUTION

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

⚠ CAUTION

Engine and exhaust system will be damaged.

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

It is not covered by warranty.

Do not Use Methanol

Fuel containing methanol (wood alcohol) which is not qualified EN228 and EN590 standards should not be used in your XLV. This type of fuel can reduce vehicle performance and damage components of the fuel system.

NOTE

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

Operation in Foreign Countries

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

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

Vehicle Fueling from Drums or Storage Containers

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

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

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

USING BIODIESEL FUEL AND LOW QUALITY FUEL

The fuel system of the common rail direct injection engine is precisely machined component. Using low quality fuel and excessive biodiesel fuel could result in a serious damage to the engine due to the water, impurities or suspended particles in fuel.

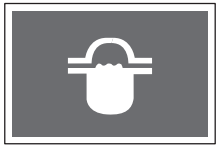
Using fuel mixed with too much biodiesel fuel can cause fuel filter clogging, power loss, engine idling problem, engine stall, difficulty with starting the engine in cold weather as well as damage to the engine and the fuel system, due to the naturally produced suspended particles.

Currently, the Ssangyong vehicle is designed so that only the mixed fuel of biodiesel and diesel with mixing ratio within the specified range can be used for safety. If any product in which the biodiesel fuel is exceeds the total amount of fuel is used or the aftermarket biodiesel fuel is added to the regular fuel, it can lead to malfunctions in the vehicle and this is not covered by warranty.

What is “Bio-diesel”?

The bio-diesel fuel is made by reacting vegetable oil extracted from beans, rapeseed, rice bran, etc. with alcohol. This can be solely used or used mixed with the diesel fuel for the diesel engine as its physical and chemical characteristics are similar to those of the diesel fuel. This is considered to be alternative energy to the diesel fuel nowadays.

FUEL FILTER WARNING LIGHT (DIESEL)



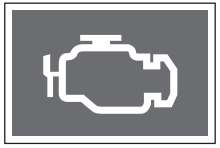
When the water in the fuel filter exceeds a certain level, this warning light and an alarming sound are activated. In addition, the driving force of the vehicle decreases.

Water separating interval: whenever changing the engine oil

WARNING

- If the fuel filter warning light comes on, have the system checked by a Ssangyong Dealer or Ssangyong Authorized Service Center.
- The fuel system in the engine may suffer serious damage if you keep driving while the warning light is on.

ENGINE CHECK INDICATOR



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

AIR BAG

- The airbags must never be impacted by hand or with tools.
- The air bag system serves as a supplement to the seat belt. Make sure that you and your passengers always fasten the seat belts properly even if the air bags are installed in the vehicle.
- Do not place any objects on the air bag inflation location. You may be injured by those objects during deployment.
- The air bag system should be inspected 10 years after installation regardless of its appearance and other conditions.
- Repairs to the air bag system should be done only by a Ssangyong Dealer or Ssangyong Authorized Service Center.
- 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.
- Never install a child restraint in the front seat. The children sitting in the restraint could be seriously injured by the air bag in a collision.
- The deployed air bag unit should be removed from the vehicle and replaced with a new one.
- When the air bag is deployed, the relevant components will be very hot, so do not touch them until they have cooled down.
- A person who is smaller than 140 cm should sit in the rear seat.

USING SSANGYONG DEALER OR SSANGYONG AUTHORIZED SERVICE CENTER

Have the vehicle serviced at Ssangyong Dealer or Ssangyong Authorized Service Center. The customer warranty may be void for any concerns with in your vehicle if the vehicle is serviced by a third party or another service center.

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.

PRECAUTIONS ON THE DASHBOARD CAMERA INSTALLATION

The battery may be depleted if the vehicle remains unused for a long time with the permanent power supplied dashboard camera.

Be sure to turn the dash camera off during a long period of vehicle inactivity.

CARING FOR YOUR VEHICLE UNDER 0°C (32°F)

During the winter, undesirable road conditions frequently happen. Therefore, appropriate preparations for emergencies should occur.

Before driving in suburban or rural areas, or on a snowing day, have bags of sand, snow chains, a shovel, gloves, and old clothes in your vehicle.

Coolant

Before it gets cold, check the coolant level.

The conventional coolant is the 50:50 mixture of water and antifreeze.

If only water has been added into the coolant reservoir, the engine and the cooling system of your vehicle may seriously be damaged when the water freezes as it gets below the freezing point.

CAUTION

- When the vehicle is shipped, the cooling system is filled with a four-season coolant.
- Before adding or refilling coolant, ensure that the coolant is a 50:50 mixture of water and antifreeze.
- Use only Ssangyong genuine coolant.

Washer Fluid

Use a genuine washer fluid that does not freeze on a cold day.

When non-recommended washer liquid is used, the liquid may form an ice. This will damage the wiper motor and hinder your safe driving.

Engine Oil

When the vehicle is shipped, the engine is filled with four-season engine oil.

Tires

Snow tires are more desirable on an icy or snow-covered road. Have snow tires installed on your vehicle before driving on such a road.

CAUTION

- When snow tires are installed, drive your vehicle at a lower speed than normal.
- Install snow chains correctly. Otherwise, the chains may damage the wheelhouses or the body of your vehicle.

Air Conditioner

When the air conditioner has not been used for an extended period of time, internal moving components may become seized because the lubricating system has not worked for a prolonged amount of time. As a result, the refrigerant may leak or rusting may happen to the system. Malfunction of the air conditioner may result.

To maintain its optimal operating condition, it is recommended that the air conditioner be turned on for approximately 5 to 10 minutes every week throughout all seasons.

CAUTION

Do not remove the refrigerant in winter, even though you do not use the air conditioner.

STARTING THE ENGINE AND DRIVING IN WINTER

Starting the Engine in Winter

During winter, the engine experiences increased resistance from the powertrain; the battery and the starter have a decreased capacity. Therefore, start the engine in an appropriate way.

After starting the engine, allow time to warm it up before driving the vehicle. Warming up the engine will increase its life expectancy and help you drive safely.

CAUTION

- The glow plugs of the diesel engine should sufficiently be warmed up before the engine starts.
- Change the engine oil and fuel filter according to the specified service intervals. Contaminated engine oil will decrease its viscosity and clog the fuel filter and oil filter, causing a difficulty of engine start at low temperature.
- Do not add any additives other than the genuine fuel for better startability at owner's disposal. The additive may decrease the lubricating ability of the internal fuel system; the additive may have a different flashing point. This will damage the fuel system or produce an excessive exhaust fume.

Driving in Winter

Maintain at least twice as long of a normal driving distance between your vehicle and the vehicle in front of you. When stopping, shift into a lower gear to use the engine brake.

Avoid speeding, abrupt acceleration, sudden braking, or drastic maneuvering of the steering wheel.

PARKING IN WINTER

When the parking brake is applied in cold weather, ice may form on the brake system and cause some difficulty moving the vehicle. When parking on a hill, first, apply the parking brake. Put the shift lever into the "1" or "R" position (Manual Transaxle) or into the "P" position (Automatic Transaxle). Put a chock under a tire and release the parking brake.

WARNING

When ice forms on the parking brake system, an attempt to move the vehicle without removing the ice may damage your vehicle. Wait until the ice melts away and gently move your vehicle.

OTHER MAINTENANCE

After driving on a calcium chloride (salt) spayed road, wash the bottom of your vehicle as soon as possible to avoid any rust.

When parking on a snow-covered road, the brake system may begin to have some ice on it. The ice will decrease your vehicle's braking ability. If this happens, drive at a low speed and use the brake frequently to remove the ice. After regaining the braking ability, drive your vehicle at a normal speed.

WARNING

- When there is ice on the wiper blades, turning on the wiper switch may put an extra burden on the wiper motor and damage it. Avoid using the wipers when ice is on the blades.
- When driving on a snow-covered road, a large amount of snow may build up under each wheelhouse. This buildup prevents the steering wheel from moving freely. Therefore, remove the snow buildup frequently.

Diesel Fuel in Winter

On an extremely cold day, paraffin, one of the chemicals in diesel fuel, may separate from the diesel fuel. This separation makes starting the engine difficult. During the winter season, Kerosene is added to diesel in some markets to prevent the paraffin separation and secure stable flow of the fuel through the fuel filter. The amount of added Kerosene into diesel can vary by location and their average winter temperatures. Therefore, to ensure an easy start on a cold day, park your vehicle inside of a garage. If possible, fill up the fuel tank after each driving to prevent ice from forming inside of the fuel system.

CAUTION

- Change engine oil and the fuel filter as scheduled. Contaminated engine oil will lose its viscosity, clog the fuel filter and oil filter and cause difficulties starting the engine.
- Do not add any additives other than the genuine fuel for better startability at owner's disposal. The additive may decrease the lubricating ability of the internal fuel system; the additive may have a different flashing point. This will damage the fuel system or produce an excessive exhaust fume.

Do not modify this vehicle.

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

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

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

- Unauthorized modification of the engine or parts for the exhaust is prohibited.

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

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

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

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

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

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

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

Do not use duplicate key

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

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

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

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

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

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

- When replacing the interior flooring of vehicle with laminated paper

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

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

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

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

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

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

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

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

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

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Ignition Key & Remote Control Key



Door Lock Button

Lock (briefly press)

- If you press this button briefly, all doors and the tailgate are locked and the theft deterrent mode is activated.
- When the theft deterrent mode is activated, the hazard warning flashers blink twice. However, if you press this button again in 4 seconds, the hazard warning flashers blink twice and the buzzer sounds once.

CAUTION

- To arm the theft deterrent mode, the ignition key should be removed from the ignition switch, all doors including the tailgate and the engine hood should be closed completely. If you press this button when either tailgate or engine hood is open, the doors will be locked but the theft deterrent mode will not be activated. In this case, when you close the opened tailgate or engine hood, the theft deterrent mode will be automatically activated with blinking the hazard warning flashers twice.
- To prevent REKES key damages, do not expose the key to high temperature or do not get the key wet.
- When the doors are locked using the REKES key, make sure to check if they are securely locked including tailgate, in order to prevent from theft.
- With one REKES key left in the ignition key hole, doors cannot be locked using another REKES key.

NOTE

- For the setting procedures of automatic folding of outside rearview mirrors, refer to Chapter 4.
- Locking the doors from the driver's door using the ignition key will work the same.

Panic Button

Panic Function (press and hold)

- If you press and hold this button for approx. 1 seconds the hazard warning flashers blink and the siren sounds for approx. 30 seconds.
- The panic function will stop when only panic button on the remote control key is pressed.

PANIC BUTTON (EU)

(Operative only when the ignition key is inserted)



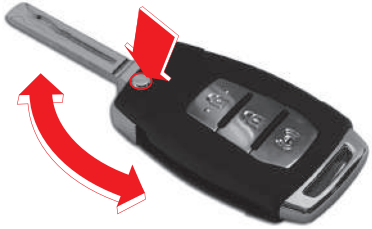
Door Unlock Button

Unlock (briefly press)

- If you press this button briefly, all doors and the tailgate are unlocked and the theft deterrent mode is deactivated.
- The outside rearview mirrors are unfolded when the automatic folding is selected.
- When the deterrent mode is deactivated, hazard warning flashers blink once.
- If a door, tailgate or the engine hood is not open within 30 seconds after unlocking doors using REKES key (ignition key) in theft deterrent mode, all doors will be automatically locked and the hazard warning flasher will blink twice with one warning buzzer sound. (change to theft deterrent mode)

NOTE

For the setting procedures of automatic folding of outside rearview mirrors, refer to Chapter 4.



To use the mechanical key:

Press the button. The mechanical key is automatically folded up.

To stow the mechanical key:

Press the button and push it into its slot.

CAUTION

The key can be broken when folding not to press button.

FUNCTIONS OF IGNITION KEY

ACC Position

- The steering wheel is unlocked and electrical accessories are operative.
- The ignition key cannot be removed.

ON Position

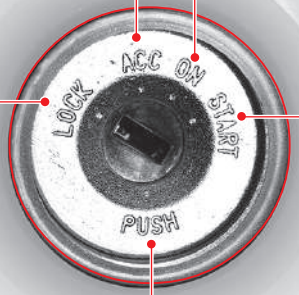
- The engine runs and all electrical accessories can be used.
- The steering wheel is unlocked.

START Position

Turn the ignition key to this position to start the engine. The engine will crank until you release the key; then it automatically returns to “ON” position.

LOCK Position

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



From ACC to LOCK Position

Turn the key to LOCK position from ACC position while pushing the key inward.

Unlocking the Steering Wheel

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

Key Hole Illumination

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

Key Reminder

The buzzer will sound if the driver’s door is opened while the key is left in the ignition switch (ACC or LOCK position).

CAUTIONS WHEN STARTING THE ENGINE

- To unlock the steering wheel, insert the key and gently turn it to the **"ACC"** position while slightly moving the steering wheel right and left.
- The engine in a manual transaxle equipped vehicle can only be started when the clutch pedal is fully depressed.
- Diesel engine equipped vehicle: Turn the ignition key to the **"ON"** position and wait until the glow indicator goes out. After then, turn the ignition key to the **"START"** position and hold it until the engine starts. But do not hold the ignition key at the **"START"** position for more than 10 seconds.
- The engine in an automatic transaxle equipped vehicle can be started only when the gear selector lever is at the **"P"** or **"N"** position.
- Keep the brake pedal depressed when starting the engine.
- If the engine fails to start, turn the key back to the **"LOCK"** position and wait for 10 seconds. Then try again before any attempt to start the engine.
- After starting the engine, let it run for approx. 2 minutes at idle speed. Do not accelerate the engine during the warming up period.
- A warning buzzer sounds when opening the driver's door with the key positioned at the **"ACC"** or **"LOCK"** position.
- Do not leave the key at the **"ACC"** or **"ON"** position when engine is not running. Otherwise, the battery could run down.
- Never depress the accelerator pedal while starting.
- Do not operate the starter for more than 10 seconds at a time. (The starter may be damaged.)
- To prevent any damage to the starter, put the ignition switch to the **"LOCK"** position and wait for at least 10 seconds before restarting the engine.
- Never turn the key to the **"LOCK"** position or remove the ignition key from the ignition switch while driving. The steering wheel will be locked and you may end up with serious injuries.
- Never use any duplicated key not provided from Ssangyong.
- The duplicated key might not turn back to the **"ON"** position. It may cause a fire due to an overload in the electric circuit. In addition, the engine with the immobilizer system cannot be started with the duplicated key.
- For a vehicle with automatic transmission, apply the parking brake with the gear selector lever in "P" position. Otherwise, the vehicle can roll away unexpectedly causing a serious accident.
- Do not operate ignition switch or other switches while driving. You will not be able to control the steering wheel or the vehicle and could be seriously or even fatally injured.
- Do not stack luggage or other cargo around the driver seat. Any such objects could interfere with your control of the vehicle and can cause harm.

OPENING AND CLOSING THE DOORS WITH IGNITION KEY



To Lock the Door:

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

NOTE

If outside rearview mirror Fold/Unfold switch is not pressed, the theft deterrent mode will be activated and the side mirrors will be folded.

To Unlock the Door:

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

NOTE

If outside rearview mirror Fold/Unfold switch is not pressed, the theft deterrent mode will be deactivated and the side mirrors will be unfolded.

To Open the Door:

Pull out the door handle lever.

CAUTION

When you unlock the door with the ignition key after the door is locked with the remote control (the theft deterrent mode), a warning buzzer sounds. Stop the buzzer by pressing any button on the remote control key.

Automatic Door Locking

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

Automatic Door Unlocking

- All doors will be automatically unlocked when the engine is switched off.
- Even though all doors are locked, they will be automatically unlocked when the driver's door is opened.
- In the event of air bag deployment resulting from a vehicle impact, all doors will be automatically unlocked.

WARNING

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

FUNCTIONS OF SMART KEY*

With the smart key, you can lock and unlock the vehicle doors including the tailgate, and the smart key enables starting of the engine as well.

The functions of the buttons on the smart key are similar to the remote keyless entry.



Door Lock Button

- All doors and tailgate are locked if the lock button is briefly pressed.
- The outside rearview mirrors are folded when the automatic folding is selected. (Outside rearview mirror Fold/Unfold switch is not pressed)
- If all doors and tailgate are locked, the hazard warning flashers blink twice and the buzzer sounds once to indicate that the theft deterrrent mode is activated.

NOTE

Locking the doors from the driver's door using a key will work the same.

CAUTION

- If any door (or tailgate) or the engine hood remains open, the doors will be locked, however, the hazard warning flashers and the buzzer will not operate. This means the anti-theft mode cannot be activated. If all doors (and tailgate) and the engine hood are closed after the lock button is pressed, the hazard warning flashers blink twice and the buzzer sounds once to indicate that the theft deterrent mode is activated.
- Keep the smart key away from water or any liquid. It could be inoperative due to exposure to water or liquids.
- To prevent from being stolen, after locking the doors and tailgate using the smart key, check the doors and tailgate have been securely locked.
- You cannot lock the doors with the smart key when the engine start/stop button is ON position or the engine is running.
- You can lock the doors with the smart key when the engine start/stop button is ACC position. At this moment, the engine start/stop button is turned to OFF position from ACC position.



Door Unlock Button

- All doors and tailgate are unlocked if the unlock button is briefly pressed.
- The outside rearview mirrors are unfolded when the automatic folding is selected. (Outside rearview mirror Fold/Unfold switch is not pressed)
- The theft deterrent mode is deactivated and the hazard warning lamps blink once and the buzzer sounds twice.
- If a door or tailgate is not opened within 30 seconds after unlocking the doors with the smart key in theft deterrent mode, all doors will be automatically locked again (change to theft deterrent mode)

NOTE

For the setting procedures of automatic folding of outside rearview mirrors, refer to Chapter 4.

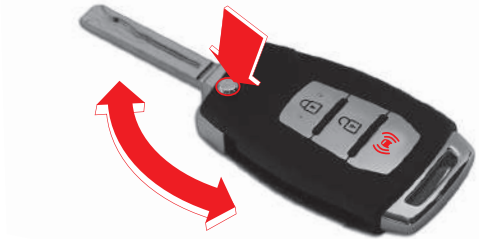
Panic Button

Panic Function (press and hold)

- If you press and hold this button for approx. 1 seconds the hazard warning flashers blink and the siren sounds for approx. 30 seconds.
- The panic function will stop when only panic button on the remote control key is pressed.

PANIC BUTTON (EU)

The panic button will work only if pressed inside of the vehicle.



To use the mechanical key:

Press the button. The mechanical key is automatically folded up.

To stow the mechanical key:

Press the button and push it into its slot.

CAUTION

The key can be broken when folding not to press button.

CAUTION

- Under the following conditions, the remote control key does not operate.
  - When the key is in the ignition switch
  - When you are too far from your vehicle (over 10 m)
  - When the battery in remote control key is discharged
  - When your vehicle is behind other vehicles or obstacles
  - In very cold weather
- The remote control key could be damaged easily by moisture and heat. Be sure to keep away from them.
- Operating range could be changed depending on the surrounding conditions. It is recommended to use the remote control key in 10 m from your vehicle.
- Under the following conditions, the remote control key may not work due to another radio wave. In these cases, open the doors using key and key hole in door.
  - In the place near police office, government office, broadcasting station, military base, transmitting tower, airport, and port
  - When you have the radio or mobile phone with the remote control key
  - When another remote control key is using near your vehicle
- If your remote control key is not working properly, have the system checked by Ssangyong Dealer or Ssangyong Authorized Service Center.
- Opening the tailgate will not trigger the theft deterrent alarm even in theft deterrent mode.

When a Remote Control Key is Lost

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

To prevent from being stolen by the lost key, Immediately take a recoding for new key when you lost a key.

CAUTION

If you lose your key, you have to replace the whole key set to prevent from theft.

WARNING

If you lose the smart key, you cannot open the doors and cannot start the engine. If you don't have any spare smart key, consult the Ssangyong Authorized Service Center.

Room Lamp ON

- Rekes Key

If the room lamp switch in overhead console is in DOOR position, the front and center room lamps come on for 30 seconds when you press the unlock button on the remote control key. The lamps immediately go off when the remote lock button is pressed.

- Smart Key

If the room lamp switch in overhead console is in DOOR position with all doors locked, the front and center room lamps come on for 30 seconds when you press the unlock button on the smart key or on the door handle. The lamps immediately go off when the lock button on the smart key is pressed.

Certification for FOB/Folding

FCC	FCC ID: DEO-MT-FLIP01 This device complies with Part 15 of the Federal Communications Commission (FCC) rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. **⚠ WARNING** Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.	AMERICA
TR	LOGO Certificate in the user manual due to product size	CIS

With the smart key, you can lock and unlock the vehicle doors including the tailgate, and the smart key enables starting of the engine as well.

The functions of the buttons on the smart key are similar to the remote keyless entry.





DOOR OUTSIDE HANDLE SWITCH LOCK*

1. Stay in a vehicle outside antenna area (within approx. 1 m) while carrying a smart key with all doors including the tailgate are closed.
2. Press on the door LOCK/UNLOCK button on the front/rear door outside handle.
3. The hazard warning lamp flashes twice and buzzer sounds once signifying that all doors including the tailgate are locked. (Theft deterrent system is armed.)

NOTE

Pressing the LOCK/UNLOCK button does not lock the doors in the following cases:

- When trying to lock the door with the smart key in the cabin
- Ignition switch in ACC/ON or engine running
- Any door is open

CAUTION

- Always check if the ignition switch is in OFF position and you are carrying a registered smart key after exiting your vehicle.
- Carry only one smart key.
- If the smart key which was last used is inside the vehicle and the vehicle is locked with another registered key, the door is locked properly but you cannot use the key inside the vehicle until the next start up. This is a safeguard against theft.

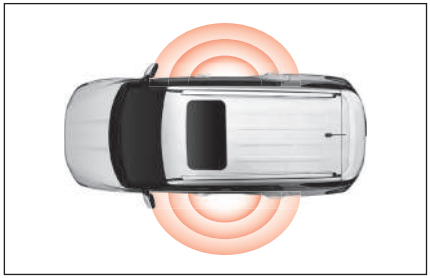
DOOR OUTSIDE HANDLE SWITCH UNLOCK (SAFETY UNLOCK DISABLED)

1. Stay in a vehicle outside antenna area (within approx. 1 m) while carrying a smart key.
2. Press on the door LOCK/UNLOCK button on the front/rear door outside handle.
3. The hazard warning lamp flashes once and buzzer sounds twice signifying that all doors including the tailgate are unlocked. Pull the lever to open the door.

CAUTION

If the doors are unlocked by using this function, anyone within the smart key actuation area can open the doors. Be aware of the theft.

SMART DOOR AUTO LOCK (AUTO CLOSE)



If you move a certain distance away from the vehicle while carrying a smart key with all doors including tailgate closed, all doors including tailgate will be locked and the theft deterrent system will be armed.

If you stay in the key detection area for 1 min. or more under the same conditions, the AUTO lock function is activated for theft protection.

The hazard warning lamp flashes twice and buzzer sounds once as soon as the theft deterrent is armed.

NOTE

- Refer to “Outside rearview mirror control switch” in Chapter 4 for details about setting the outside rearview mirror AUTO folding/unfolding control.
- If you want to restore to the factory setting, set the function by referring to HOW TO SET prior to use.

CAUTION

- The detection of smart key can vary depending on the walking speed and surrounding environment.
- When using the smart door AUTO lock function, always check the locked state of the doors and tailgate after seeing the flash of hazard warning lamp (twice) and hearing a buzzer sound (once).
- If there is any smart key left inside the vehicle, the smart door AUTO lock function will not be activated.
- When the smart key battery is fully depleted, the smart door AUTO lock function will be disabled automatically. Therefore, you should reset the vehicle setting in the instrument cluster after replacing the smart key battery.
- If the driver carrying a smart key moves to the tailgate with the smart door AUTO LOCK enabled, the smart door AUTO LOCK function can be activated.

CAUTION

- If the system cannot detect a valid smart key because of other circumstances including interference with surrounding wave field or low battery voltage, the AUTO door LOCK may not be activated.
- Always check the locked state of the door before leaving the vehicle.
- When you pump your own gas with the smart key carried, the lock may be activated by Auto Closing, which may prevent you from closing the filler cap. Unlock the vehicle using the unlock button on the smart key before closing the filler cap.
- In order to prevent unintentional door locking when you pump your own gas, leave the smart key in the vehicle or leave the door open.

SETTING SMART DOOR AUTO LOCK

- For vehicles with supervision cluster, smart door AUTO LOCK function can be enabled/disabled in User Settings menu → Comfort.
- For vehicles with standard cluster

  1) IGN ON

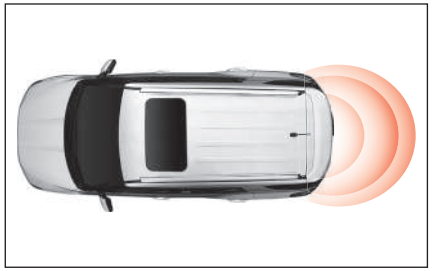
  2) Hazard warning lamp switch ON

  3) Press the LOCK button on the smart key 3 consecutive time within 2 seconds to enable or disable the function.
- When setting/unsetting, the corresponding sound is produced in the instrument cluster. Please determine whether the function is whether set or unset through the sound.
  - When set: notification sound (ascending notes)
  - When unset: notification sound (descending notes)

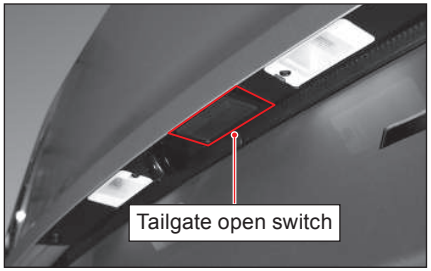
WARNING

If the smart key is in the deck or luggage compartment with the smart door AUTO LOCK enabled, the deck door may not be opened by the activation of the smart door AUTO LOCK. Do not place the smart key in the deck (luggage compartment) with the smart door AUTO LOCK enabled.

UNLOCKING THE TAILGATE



Make sure that you have the smart key and are in the operating range (approx. 1 m) from the smart key antenna in the tailgate handle.



To unlock the tailgate, touch the tailgate open switch inside the tailgate handle.

CAUTION

If the smart key is in the operating range of smart key antenna, anybody can unlock the tailgate by touching the tailgate open switch inside the tailgate handle. To prevent theft of your vehicle, pay particular attention when you are close to the tailgate with the smart key.



To open the tailgate, lift it up. If the vehicle was in the theft deterrent mode before opening the tailgate, the hazard warning flashers blink twice and the buzzer sounds once when closing the tailgate (theft deterrent mode will be activated again).

NOTE

If the smart key is inside the vehicle in the theft deterrent mode, the tailgate cannot be locked even when you close the tailgate. However, the buzzer sounds once to inform you.

POSITIONS OF ENGINE START/STOP BUTTON

Fully understand the functions in each position.

OFF Position



Indicator: OFF

- The electric power is not supplied to the electric systems and the steering wheel is locked.

To turn off the engine, press the engine start/stop button with the engine start/stop button ON and the gear selector lever in P position.

NOTE

When the engine start/stop button is in [ACC] position, it will be automatically turned to [OFF] position if the button remains in [ACC] position over 12 minutes or you open the driver's door.

ACC Position



Indicator: Orange

- Some electric accessories are operative.

Press the engine start/stop button when the button is in the OFF position without depressing the brake pedal. The steering wheel is unlocked and electrical accessories are operative.

ON Position



Indicator: Red

- Almost electric accessories are operative.

Press the engine start/stop button when the button is in the ACC position without depressing the brake pedal. Do not leave the button in the ON position if the engine is not running to prevent the battery from discharging.

START Position



Indicator: Green

- Engine starting position

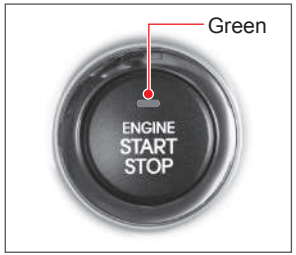
To start the engine, depress the brake pedal and press the engine start/stop button with the gear selector lever in P or N position.

CAUTION

- Do not press the engine start/stop button while the engine is running. Otherwise, the engine start system could be damaged. After engine start, the indicator on the engine start/stop button is turned in red.
- Make sure that the engine is turned off and the indicator on the engine start/stop button is off before leaving the vehicle.



Engine Starting



To start the engine, depress the brake pedal and press the engine start/stop button with the gear selector lever in P or N position.

1. Carry the smart key inside the vehicle.
2. Fasten the seat belts and be sure that all other occupants have fastened theirs properly.
3. Make sure the parking brake is firmly applied.
4. Turn off all electric accessories.
5. Place the gear selector lever in P position.
6. Depress the brake pedal fully. Check that the indicator on the button in green. And, press the engine start/stop button. The indicator goes out after starting the engine.
7. If you failed to start the engine, to prevent engine from damaging, put the ignition switch in “OFF” position and wait for more than 10 seconds.
8. Try to start the engine again (refer to step 6).
9. When the engine is not running, do not put the ignition switch in “ACC” or “ON” position for long time. In this case, do not use the audio system as well. This may cause the battery discharge.

CAUTION

- The smart key may not work properly when you put it in the blind spot such as under the pedals, on the floor or on the seat cushion.
- If the engine fails to start, refer to section “Emergency Engine Starting” or have the system checked at Ssangyong Authorized Service Center.

NOTE

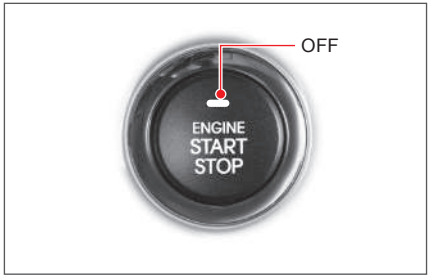
To make the engine start easy, start the engine as follows in very cold weather.

1. Press the engine start/stop button twice without depressing the brake pedal.
2. The engine start/stop button becomes ON and the preglow indicator on the instrument cluster comes on.
3. Wait until the indicator goes out, and depress the brake pedal and press the engine start/stop button.

WARNING

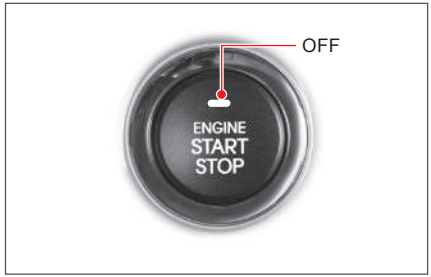
The engine will start by pressing the engine start/stop button, only when the smart key is in the vehicle. Never allow children or any person who is unfamiliar with the vehicle to touch the engine start/stop button or related parts.

Driving Off the Vehicle



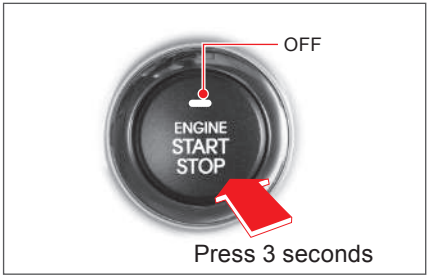
1. Make sure that there are no persons or obstacles in the dangerous area around the vehicle.
2. Release the parking brake.
3. Keep the brake pedal depressed and shift into the **"D"** or **"R"** position. Make sure that the position indicator of **"D"** or **"R"** comes on. Slowly release the brake pedal to begin moving.
4. When you stop your vehicle on a uphill, securely depress the brake pedal to prevent the vehicle rolling down.

Turning Off the Engine



1. Depress the brake pedal to stop the vehicle.
2. Move the gear selector lever to the **"P"** position.
3. Apply the parking brake firmly.
4. Press the engine start/stop button to switch off the engine.
5. Make sure that the engine is turned off before leaving the vehicle.

Turning Off the Engine While Driving



In an emergency situation while the vehicle is moving, you can turn off the engine by pressing the engine start/stop button for more than 3 seconds.

WARNING

If you are not in emergency situation, never press the engine start/stop button while the vehicle is in motion. This would result in loss of directional control and braking function, which could cause an accident.

CAUTIONS WHEN STARTING THE ENGINE WITH SMART KEY

- The engine can be started only when the gear selector lever is in “P” or “N” position.
- Keep the brake pedal depressed when starting the engine.
- Do not depress the accelerator pedal when starting the engine.
- If the engine fails to start, wait for more than 10 seconds. And, try to start the engine again.
- After starting the engine, let it run for approx. 2 minutes at idle speed. Especially in winter season, slowly drive your vehicle immediately after driving off.
- The warning message appears on the instrument cluster and the buzzer sounds if you leave the vehicle with the smart key when the engine start/stop button is in ON or START position.
- The engine will start by pressing the engine start/stop button, only when the smart key is in the vehicle. Never allow children or any person who is unfamiliar with the vehicle to touch the engine start/stop button or related parts.
- Make sure that the engine cannot be started when checking the engine compartment.
- Do not leave the button in the ON position if the engine is not running to prevent the battery from discharging.
- If you are not in emergency situation, never press the engine start/stop button while the vehicle is in motion.
- The smart key may not work properly when you put it in the blind spot such as under the pedals, on the floor or on the seat cushion.
- The engine may not be started when you place the smart key near your smart phone or when you charge your smart phone with the power outlet in the vehicle.
- When leaving the vehicle, turn the engine off and always take the smart key with you.
- If, for some reason, you happen to lose your smart key, you will not be able to start the engine. Tow the vehicle, if necessary, and contact Ssangyong Authorized Service Center.
- Keep the smart key away from water or any liquid. It could be inoperative due to exposure to water or liquids. In this case, it will not be covered by warranty.
- The smart key may not be recognized in some interior area of the vehicle. If this happens, try to start the engine by moving the smart key to other places or press the Start button with the smart key to start the engine directly.

BATTERY REPLACEMENT FOR REKES KEY / SMART KEY

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

The internal circuit of remote control key/smart key is vulnerable to static electricity. If you are not familiar with replacing the battery, replace it at Ssangyong Dealer or Ssangyong Authorized Service Center.

REKES KEY



SMART KEY



Replacing Procedures:

1. Remove the cover at the back side of the REKES key/smart key using a smallest flat-bladed screwdriver while taking care not to damage it.
2. Remove the rear cover and replace the battery.



3. Use only specified battery (CR2032). Make sure that the battery is installed in correct direction.
4. Install the battery in the reverse order of removal.

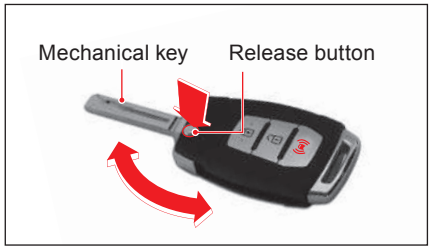
CAUTION

- Use only the specified battery. Otherwise, the remote control key may not work properly.
- Make sure that the battery is installed in correct direction.
- Dispose the used battery in accordance with local regulations.
- Both REKES key and smart key are not completely water-proof. Repairing or replacing a damaged key due to water exposure (e.g. Drink, moisture, etc.) will not covered by your warranty.

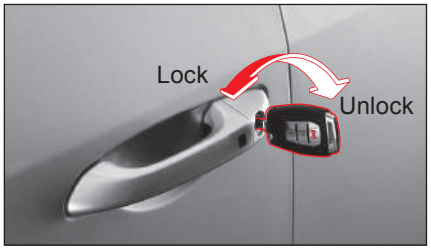
STARTING ENGINE WITH BATTERY DISCHARGED SMART KEY

*** Engine Start:** When the engine would not start even with the smart key in the vehicle due to its battery discharge, you are still able to start the engine using the smart key.

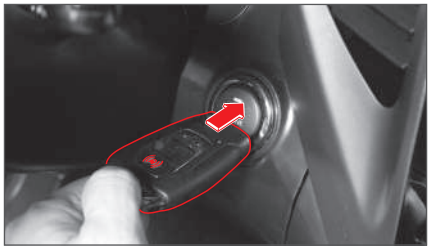
Take the temporary steps described below, before replacing the battery or inspecting the smart key.



1. Unfold the mechanical key by pressing the release button.



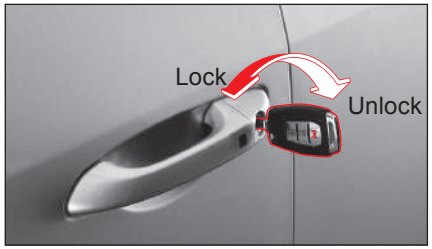
2. Unlock the door with the mechanical key by inserting it into key hole on the driver's door and turning it clockwise.



3. With the gear selector lever placed in P or N position, depress the brake pedal and push the ignition switch using the smart key. The warning buzzer will stop if it was on.

NOTE

When the door opens after engine start with battery discharged smart key, a warning message will appear as "Smart key is not detected". The message will go off if you stop and restart the engine.



4. To lock the door, put the mechanical key in the key hole of the driver's door and turn the key counterclockwise. Now the theft deterrent mode is activated.

CAUTION

- If the currently used smart key is still in the vehicle, the smart key will be temporarily inoperative; when locking the doors with another smart key (e.g., spare smart key) or the door lock button on the outside door handle. To resume the function of inoperative smart key, deactivate the theft deterrent mode by pressing the unlock button on the smart key or the unlock button on the outside door handle.
- If the ignition is not turned on even though, the smart key is placed in the vehicle or carried with you, press the ignition switch using the smart key while depressing the brake pedal.
- Under the following conditions, the smart key may not work properly:
  - The smart key is close to a radio transmitter such as a radio station or an airport which can interfere with normal operation of the smart key.
  - You keep the smart key near a mobile two-way radio system or a mobile phone.
  - Another vehicle's smart key is being operated close to your vehicle.
- The smart key may not work properly when you put it in the blind spot such as under the pedals, on the floor or on the seat cushion.
- The Smart key may not work properly when you keep two smart keys together in a key chain.
- Keep the spare Smart key in a safe place, not in the vehicle. Make sure to take the smart key out of the vehicle when you lock the doors with the door lock button on the outside door handle.
- The engine will start by pressing the engine start/stop button, only when the smart key is in the vehicle. Never allow children or any person who is unfamiliar with the vehicle to touch the engine start/stop button or related parts.
- When leaving the vehicle, turn the engine off and always take the smart key with you.
- Keep the smart key away from water or any liquid. It could be inoperative due to exposure to water or liquids.
- If, for some reason, you happen to lose your smart key, you will not be able to start the engine. Tow the vehicle, if necessary, and contact Ssangyong Authorized Service Center.
- Do not drop the smart key or expose it to direct sunlight to prevent damage.
- When the smart key is inside the vehicle, pressing the engine start/stop button starts the vehicle. Leaving an adult who is not used to this system or a child inside the vehicle can result in unexpected accidents or problems. Always carry the smart key when leaving the vehicle.
- Only 3 smart keys can be registered to one vehicle. If a registered key is lost, bring the other key to the nearest Ssangyong Dealer or Ssangyong Authorized Service Center to solve the problem and protect the vehicle from theft.

IMMOBILIZER SYSTEM*

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

Standard



Supervision



Immobilizer Key

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

CAUTION

- Avoid impact to the transponder inside of the key. The transponder could be damaged.
- With a damaged transponder, the engine cannot be started.
- Do not install any metal object near the ignition switch and on the remote control key. Otherwise, they may disturb the signal between ignition switch and remote control key and result in engine starting problem.

Immobilizer Indicator



If the immobilizer/smart key indicator blinks, this means that the immobilizer or smart key system is defective. Have the system checked and serviced by a Ssangyong dealer or Ssangyong authorized service center.

NOTE

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

CAUTION

- In addition, any remote engine starter cannot be installed to the vehicle equipped with the immobilizer system. So never install any remote engine starter.
- The immobilizer system should be inspected, replaced, serviced, or coded by only qualified service personnel in a Ssangyong Dealer or Ssangyong Authorized Service Center.
- When an old code should be replaced or another key is added, please observe the process personally.
- If you fail to start the engine due to the reason (ex, key chain) other than key itself, remove the key from the ignition switch and wait for around 10 seconds. And, try to start the engine again.

WARNING

In any case, the immobilizer system cannot be removed from the vehicle. Do not attempt to alter this system or add other device to it. Electrical problems could result that may make your vehicle inoperable.

ENGINE DOES NOT START DUE TO COMMUNICATION ERROR

If there is a communication error in immobilizer system, you cannot start engine. In this case, the immobilizer indicator in meter cluster blinks.

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

- When two or more immobilizer keys come into contact with (each) other(s).
- When the key is close to any device sending or receiving electromagnetic fields or waves.
- When the key is close to any electronic or electric devices such as lighting equipment, security keys or security cards.
- When the key is close to a magnetic or metal object or a battery.
- When you start the engine before completing the pre-glow process.

CAUTION

- If you fail to start the engine due to the communication error or early start before completion of pre-glow, clear the reason and wait for around 10 seconds. And, try to start the engine again.
- If the indicator remains blinking, have the immobilizer system checked by a Ssangyong Dealer or Ssangyong Authorized Service Center.

When the Transponder is Damaged

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

When You Lost The Key

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

THEFT DETERRENT SYSTEM

The theft deterrent system is activated when locking the doors using the remote control key or Smart key. When somebody tries to open the door, tailgate or engine hood with any other way other than using remote control key or Smart key, the hazard flashers blink and the siren sounds.

ARMING THE THEFT DETERRENT SYSTEM

- When locking the vehicle with remote control key or Smart key (including lock button on door handle), the anti-theft mode will be activated.
  - Remote control key: When the theft deterrent system is armed, the hazard flashers blink twice. However, if you press this button once again in 4 seconds, the hazard flashers blink twice and the buzzer sound once.
  - Smart key: When the theft deterrent system is armed, the hazard flashers blink twice and the buzzer sound once.
- If a door is not opened within 30 seconds after unlocking the doors with remote control key or Smart key in theft deterrent mode, all doors will be automatically locked again (back to theft deterrent mode).
- If you lock the doors using the key hole on the door, the theft deterrent mode is activated and O/Side mirrors are folded. (if Folding/Unfolding SW Auto Mode is ON)
- If you unlock the doors using the key hole on the door, the theft deterrent mode is deactivated and O/Side mirrors are unfolded. (if Folding/Unfolding SW Auto Mode is ON)

CAUTION

Smart key: To arm the theft deterrent system, the ignition key should be in {OFF} or {ACC} position and all doors including the tailgate and the engine hood should be closed completely. If the ignition switch is in {ACC} position, the switch will be automatically changed to {OFF} position when arming the theft deterrent mode. When the ignition switch is in {ON} position, the theft deterrent mode cannot be activated.

ALARM

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

- When one of the doors or the tailgate is opened with the ignition key while the deterrent system is armed, the alarm will be activated.
- The engine hood or the tailgate is opened from the outside while the deterrent system is armed, the alarm will be activated.
- When the alarm is activated, the buzzer sounds and the hazard flashers will blink for 30 seconds.
- The alarm stops when (while keeping theft deterrent mode):
  - Remote control key: pressing “Lock”, “Unlock”, “Panic” button on the remote control key, or turning the ignition switch to “ON” position
  - Smart key: pressing “Lock” or “Unlock” button on the Smart key, pressing the “Lock/Unlock” button on the outside door handle, or turning the ignition switch to “ON” mode by pressing it.

DISARMING THE THEFT DETERRENT MODE

- If you unlock the doors using the key hole on the door, the theft deterrent mode is deactivated and O/Side mirrors are unfolded. (if Folding/Unfolding SW Auto Mode is ON)
- If a door is not opened within 30 seconds after unlocking the doors with remote control key or Smart key in theft deterrent mode, all doors will be automatically locked again (back to theft deterrent mode).

MEMO

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Opening and Closing



Door Lock/Unlock Knob ①

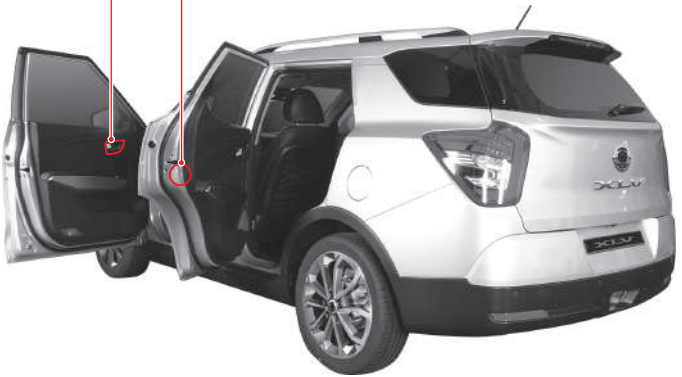
All doors will be locked/unlocked when moving the knob to the respective lock/unlock direction (only available at driver's and front passenger's door).

Door Opening Lever ②

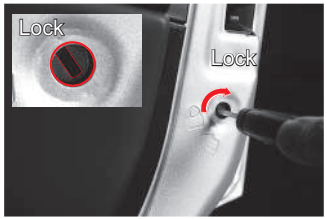
Pull the door opening lever to open the door.

NOTE

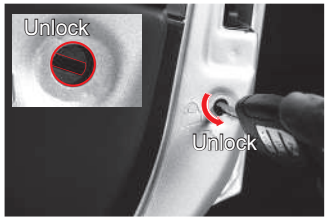
- Even though all doors are locked, they will be automatically unlocked when opening the driver's door.
- The door lock/unlock knob on the rear right or rear left door can only lock or unlock its respective door.



Child Safety Door Lock



Unlocked



Locked

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 **(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.

Central Door Lock/Unlock Switch



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

⚠ WARNING

- Always check that all doors including tailgate are securely locked before driving off. Opening a door during driving, especially by children, may cause a serious accident.
- Even though all doors are locked, they will be automatically unlocked when opening the driver's door. Opening the driver's door may cause a serious accident. Pay particular attention not to open the door during driving.
- When getting off, check the rear and side of the car for passing vehicles or pedestrians. Vehicles or motorcycles coming from the rear, if unchecked, might stumble on you when you open the door.
- Never leave infants and children unattended in the vehicle with the doors locked. They can be suffocated in especially hot weather.

NOTE

- The vehicle cannot be locked when any of doors is open with any method (door lock knob, door lock/unlock switch, remote control key, Smart key).
- This switch is not available when any of doors are not fully closed and the vehicle is in theft deterrent mode.
- The doors are automatically unlocked when turning off the engine.

Automatic Door Locking

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

CAUTION

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

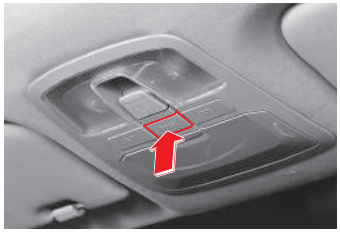
Automatic Door Unlocking

In the event of air bag deployment resulting from a vehicle impact, all doors will be automatically unlocked.

WARNING

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

Room Lamp Coupled Operation



When you open any door with the front room lamp switch pushed in, the front and center room lamps come on. When you close the door, the lamps are dimmed out. If you want to stop the room lamp coupled operation, push the switch again.

CAUTION

Do not open the door for an extended period of time while the room lamp switch is pushed in with the engine stopped. The battery could be discharged.

WARNING

- Close the door properly. Otherwise it can be re-opened.
- If you do not pay attention to closing or opening a door, your fingers may be caught between the door and the vehicle body by accident.
- When you exit your vehicle, look for other vehicles, motorcycles, bicycles, or pedestrians before opening the door. Other people can be injured by the doors suddenly flung open.
- Make sure that all the doors are firmly closed before driving. It is extremely dangerous if any door is opened while the car is moving.
- Do not leave children or animals unattended in parked vehicles. The temperature in the vehicle gets too high or too low according to the outside temperatures, and a child or an animal could die or be seriously injured from suffocation.
- The drive door may be opened by pulling the inside door handle even if the doors are locked, depending upon the model. Do not open the door while driving, as it can be fatal. Failure to do so can result in an accident.
- Lock the all doors using the central door lock switch on the driver side before starting off the vehicle. In particular, do not forget to lock the doors when driving with children. It is very dangerous if any door is opened unintentionally during driving.
- A child can be severely injured or killed by opening a door while the vehicle is moving. Use the child protection door lock system for your child to prevent him/her from opening a door.

CAUTION

Do not apply excessive force to any door and door handle. It can cause them to break.

Driver's Door Window Switch

▶ When opening the window

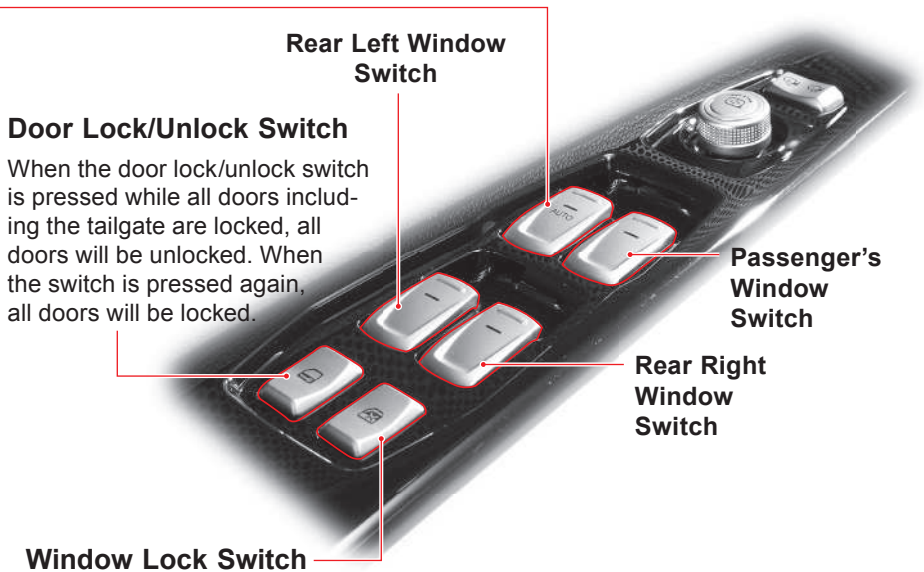
- When the front of the switch is lightly pressed, the window will be lowered while the switch is pressed.
- When pressed to its end, the window will open automatically until it is fully open. If you want to stop the window while automatic lowering, lightly press the switch again or pull the switch up.

▶ When closing the window

- When you lightly pull the switch up, the window will move up only while the switch is being operated.
- When pulling the switch up to its end, the window will be fully closed (auto-up operation (If equipped)). If you want to stop the auto-up function, pull up or gently press the switch again.
- If the front side of the switch is pulled all the way up, even when there is an obstacle blocking the path of the window, the safety feature does not engage. (this is to protect the driver from any potential external threats)

⚠ CAUTION

- Do not operate two or more windows at a time.
- This may cause the damage or disorder of window system. Also, do not operate the window on passenger's door to opposite direction with the window on driver's door simultaneously.



If the window lock switch is pressed down, only driver's window is operative. Front passenger's and rear windows cannot be operated by its own switch.

⚠ WARNING

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

⚠ CAUTION

When closing the front 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.

Anti-Trap System for Driver's Window*

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



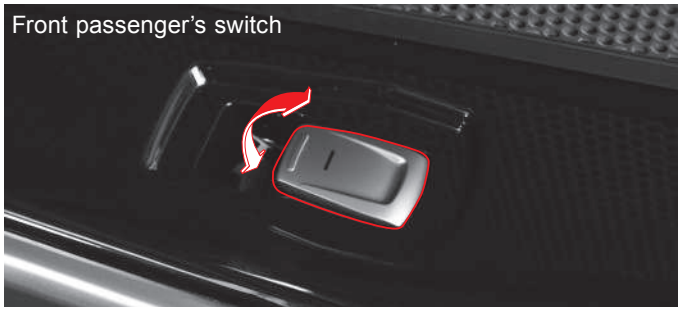
CAUTION

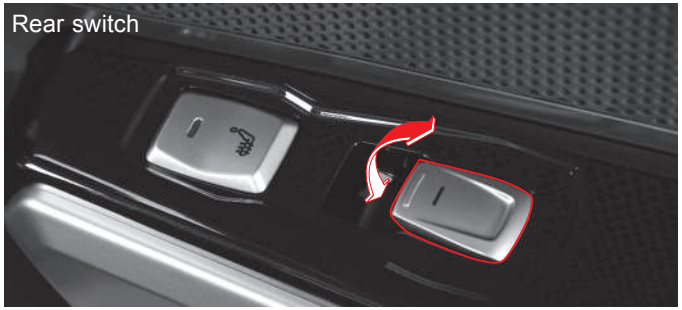
- The anti-trap safety system is available only for the driver's window equipped with the automatic rolling up (Auto-up) function.
- The anti-trap system does not operate where the space between top of the glass and window frame is very close.
- If the window is stuck in very cold weather, anti safety function may work. In this case, fully close the window by switch.

Time Lag of Window Operation

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

Front Passenger's and Rear Window Switch





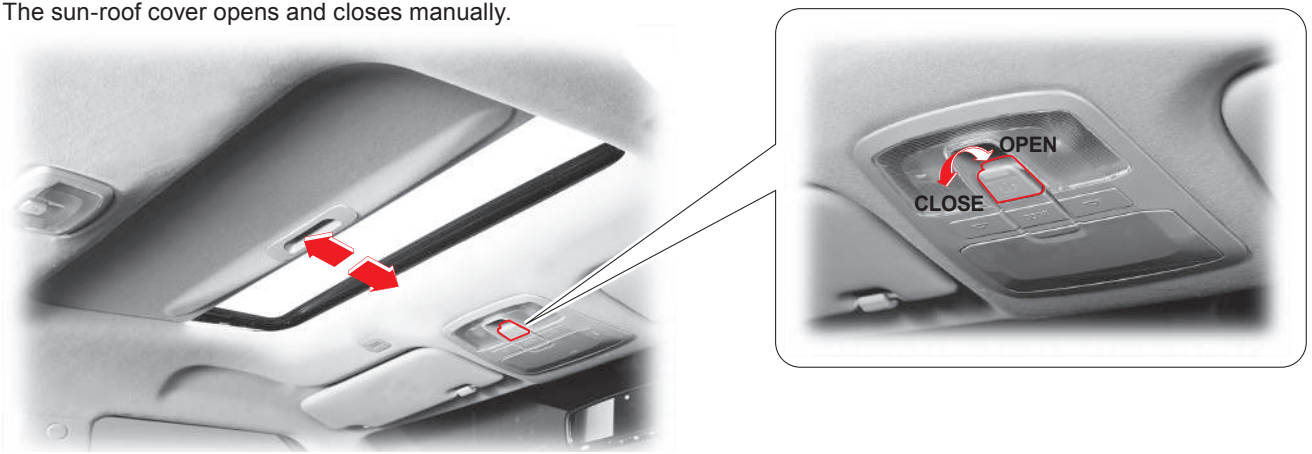
To move windows up or down, pull up or press the corresponding switch for the window.

WARNING

- Before operating the power windows, make sure that nothing can be trapped (such as heads, hands, or fingers) in the window.
- Make sure that passengers do not stick out their hands or heads from the vehicle while driving.

SUNROOF SWITCH

The sun-roof cover opens and closes manually.



⚠ CAUTION

- Even though the sunroof can be operated when the ignition key is in the ON position (the engine is not running), operating the sunroof repeatedly with the engine turned off will run down the battery. Operate the sunroof while the engine is running.
- When a desired sunroof operation is completed, release the switch. If you keep pressing the switch, it could cause a malfunction. Especially in winter, never operate the sunroof if moving areas are iced. Wait until the areas are deiced.
- When leaving the vehicle unattended, be sure to completely close the sunroof. Otherwise, there is a great risk of vehicle theft. Or, the interior of the vehicle will be wet when it rains or snows.
- When the sunroof is slid to its complete open position, the wind buffet phenomenon can increase. If this happens, adjust by opening the sunroof or only open two thirds of the sunroof by using only the first step of the opening system.
- When operating the sunroof, be aware of safety conditions before operation. Parts of the body can be trapped.
- Clean up the circumference of sunroof regularly. Otherwise, operating the sunroof may cause a noise due to foreign material and dirt.

CAUTION

- Opening the sunroof or driving with the sunroof open after a car wash or rain may lead to water entering
- Close the sunroof while driving in the dusty environment. The dusts or particles entered can cause operating problems.
- If a roof rack system is installed on the vehicle roof or any cargo is secured to the roof rack, do not operate the sunroof. If you are required to operate the sunroof, carefully check that the roof rack system does not interfere with the sunroof and it is safe to open the sunroof.

WARNING

- Make sure that no passenger sticks out head, hand or any part of his/her body out of the sunroof opening while driving. There is a risk of personal injury when the vehicle is stopped suddenly.
- Before operating the sunroof, make sure that no head, hand, finger, or any object is capable of being trapped. There is a risk of personal injury or even death.

SUNROOF SLIDING OPERATION



► Open: 2-Step Opening

- Push up the switch briefly: 2-step auto sliding open

  When pushing up the sunroof switch briefly, the sunroof is automatically opened by two third of its travel (first step). When pushing up and holding the sunroof switch again, the sunroof is completely opened (second step).
- Push up and hold the switch: manual sliding open

  The sunroof is opened as long as pushing up the switch.

► Close

- Pull down the switch briefly: auto sliding close

  When pulling down the sunroof switch briefly, the sunroof is automatically closed completely. To stop the sunroof, pull or push the switch at desired position while moving.
- Pull down and hold the switch: manual sliding close

  The sunroof is closed as long as pulling down the switch.

SUNROOF TILTING OPERATION



► Tilt Up

The rear side of the sunroof is tilted up when pulling down the sunroof switch with the sunroof closed.

► Tilt Down

The rear side of the sunroof is tilted down when pushing up the sunroof switch with the sunroof tilted up.

Anti-Pinch Function*

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



CAUTION

- This safety function is available for the auto sliding sunroof close.
- The anti-Pinch function is deactivated just before the sunroof closes.
- Sunroof safety function is supplemental and not always operable depending on circumstances (e.g. any electrical device in the vehicle, etc.), therefore the driver should check safety at all times before operating the sunroof.

WARNING

- When operating the sunroof, be aware of safety conditions before operation. Parts of the body can be trapped.
- Do not stick out any part of your body out of the sunroof even in stationary.

Sunroof Open Warning Buzzer

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

Wind Buffeting

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

Battery Discharge or Power Failure while Operating Sunroof

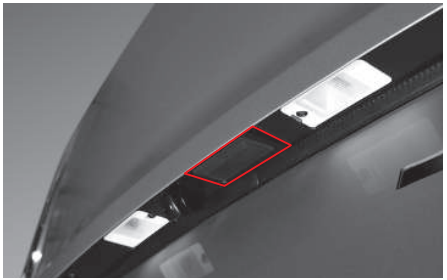
If the sunroof is stopped midway due to a discharged battery or power failure, you need to re-calibrate the starting point of the sunroof. In addition, the following cases need the re-calibration.

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

Recalibrating the Sunroof Starting Point

- If you pull and hold the Close switch for 5 seconds while the rear side of the sunroof is tilted up, the sunroof starting point will be recalibrated with a thumping sound.
- If the sunroof still does not operate properly after recalibrating the start point, bring your vehicle into a Ssangyong dealer or Ssangyong authorized service center for an inspection.

TAILGATE OPENING SWITCH



The tailgate is locked/unlocked when locking/unlocking the doors.

To open the tailgate, touch the opening switch inner side of the tailgate door handle with the tailgate unlocked, and then lift it up.

In theft deterrent mode, you can unlock only the tailgate by pressing the tailgate open button on the smart key. The tailgate will be locked again when closing it.

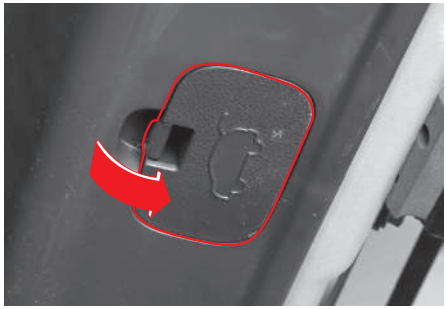
⚠ WARNING

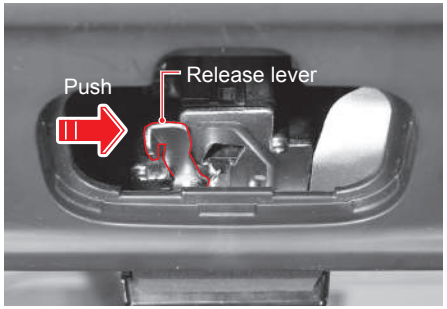
- Before closing the tailgate, ensure that none of your body parts are trapped. Also, because the tailgate is heavy, it might unexpectedly fall down and close. To prevent any injury, close the tailgate with caution.
- The tailgate swings upward. Make sure no objects or people are near the rear of the vehicle when opening the tailgate.
- Occupants should never ride in the rear cargo area where no restraints are available. To avoid injury in the event of an accident or sudden stops, occupants should always be properly restrained.
- If you drive with the tailgate open, you will draw dangerous exhaust fumes into your vehicle which can cause serious injury or death to vehicle occupants. If you must drive with the tailgate open, keep the air vents and all windows open so that additional outside air comes into the vehicle.

⚠ CAUTION

- Cargo can fall out of an open tailgate while the vehicle is in motion, resulting in an unexpected accident. Do not travel with the tailgate open.
- Make sure that you close the tailgate before driving. Possible damage may occur to the tailgate lift cylinders and attached objects if the tailgate is not closed prior to driving.
- Remove any obstacles to interrupt closing the tailgate securely.

SAFETY RELEASE LEVER





Your vehicle is equipped with the emergency tailgate safety release lever located on the bottom of the tailgate. When someone is inadvertently locked in the luggage compartment.

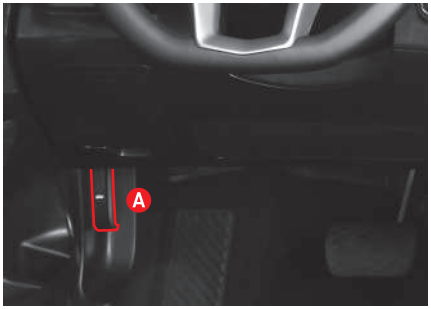
You can open the tailgate inside vehicle.

1. Open the cover.
2. To unlock the tailgate, push the emergency safety release lever inside the trim panel to right side.
3. Push the tailgate to open.

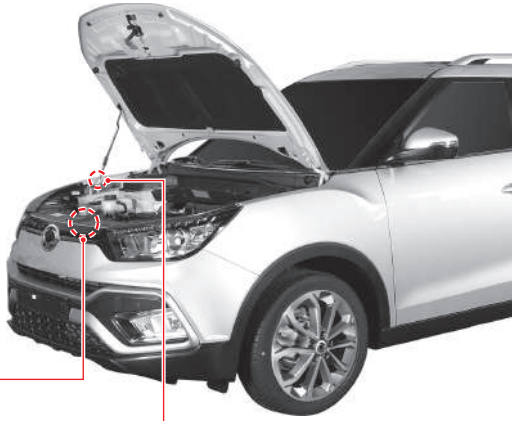
⚠ WARNING

- Use the release lever for emergencies only. Use extreme caution, especially while the vehicle is in motion.
- For emergencies, be fully aware of the location of the emergency tailgate safety release lever in this vehicle and how to open the tailgate if you are accidentally locked in the luggage compartment.
- Do not allow children to play in cargo area. If they open the tailgate with the opening lever abruptly, it may cause a serious personal injury.
- No one should be allowed to occupy the luggage compartment of the vehicle at any time. The luggage compartment is a very dangerous location in the event of a crash.

OPENING THE ENGINE HOOD



1. Pull the release lever (A) located on the lower left side of the steering wheel to unlatch the engine hood.

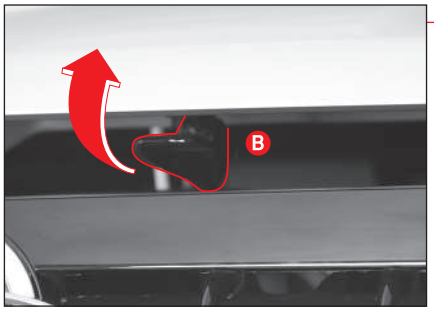


CAUTION

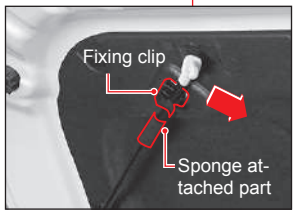
Do not push or hang on the engine hood after inserting the prop rod into the slot. The panel of the engine hood could be damaged.

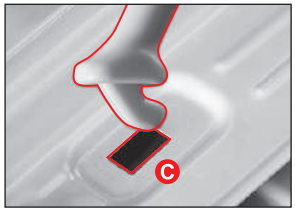
WARNING

- Be cautious about strong wind that may cause a sudden close of the engine hood, resulting in serious injuries.
- To prevent from being burnt, hold the sponge in the prop rod.



2. Hold the engine hood slightly open to pull the safety latch lever (B) up using your fingers and lift up the engine hood completely.







3. Holding the engine hood open with one hand, grip on the sponge attached to the prop rod to remove the rod from its clip by pushing it to the right direction (refer to the image above), and insert the free end of the rod into the slot (C) so that the rod supports the hood securely.

CLOSING THE ENGINE HOOD

1. Hold the engine hood with one hand and separate the prop rod with another hand.
2. Install the prop rod in its place in engine compartment.
3. Lower the engine hood by approx. 30 cm from engine compartment, then release it. The engine hood should be closed with its own weight.
4. Check if the engine hood is securely closed.

CAUTION

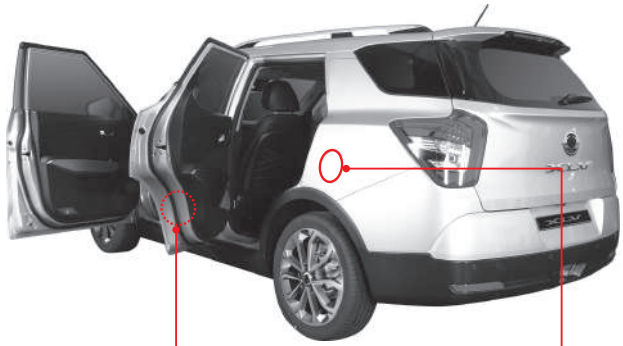
- Before closing the engine hood, ensure that all the caps are in place.
- Before closing the engine hood, ensure that nothing left in engine compartment.
- Keep head clearance in work at hood open position.



WARNING

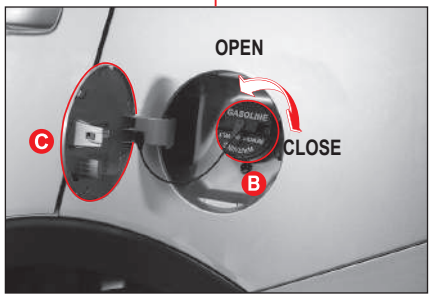
- When you open the hood while the engine is running, extra caution is needed to avoid any injuries by the moving parts in the engine compartment.
- Before driving, try to pull up the front edge of the hood to check that the hood is securely latched.
- When it is windy, extra caution is needed to prevent personal injury. Wind might be able to lift up the hood and the prop rod may be disengaged from its slot. This may result in an unexpected closing of the hood.
- Before closing the engine hood, ensure that none of your body parts are trapped.
- Before opening the engine hood, turn the engine OFF in flat terrain and move the gear selector lever to the “P” (Park) position with the parking brake pedal applied.
- Open the engine hood with the engine turned OFF, unless otherwise specified. If working with the engine running is necessary, make sure that loose clothing such as ties, handkerchiefs, scarves, or sleeves do not contact with the radiator fan. Failure to do so can result in severe personal injury and damage to the vehicle. Remove any watch, necklaces, rings and bracelets.

OPENING FUEL FILLER DOOR

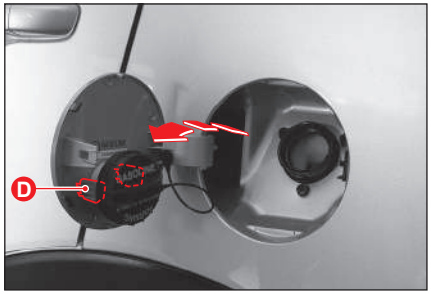




1. Open the fuel filler door by pulling up the release lever (A) located on the lower left side of the driver seat.



2. Open the fuel filler cap (B) by turning it counterclockwise.



3. Hang the fuel filler cap (B) on the holder (D) mounted on the back of the lid.
4. After refueling, turn the cap clockwise until you hear a “click”, and close the lid (C) by pushing it back.

Information - Fuel label

- **PETROL TYPE OF FUEL**

  E10 The shape for a petrol- type fuel is a circle (“E” stands for specific bio-components present in petrol)

- **DIESEL TYPE OF FUEL**

  B7 The shape for a diesel-type fuel is a square (“B” stands for specific bio-diesel components present in diesel)

Gasoline Engine

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

CAUTION

Engine and exhaust system will be damaged.

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

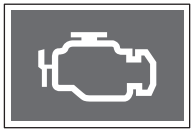
CAUTION

- Fuel damages paintwork. If fuel spills onto paintwork, immediately wash the affected area with cold water.
- The fuel filler door may not open in cold weather. Gently tap the fuel filler door to open.
- When you need to replace the fuel filler cap, use only the Ssangyong genuine part.
- For correct octane rating setting and other use of gasoline (ex. Leaded), consult your Ssangyong Dealer.

WARNING

- Gasoline vapor is highly flammable.
- It burns violently and that can cause very bad injuries.
- When refueling,
  - Switch off engine.
  - No smoking.
  - No naked flame.
  - No sparking material.
- In hot weather, there could be a difference between the pressure in the fuel reservoir and the atmospheric pressure. To remove the cap, turn it one turn and wait until the “hissing” sound is not heard to prevent fuel from spraying out and possible personal injury. Then remove the cap.
- Contact a metalic part to remove the static electricity from your body before opening the fuel filler cap. Otherwise, you may get burnt due to a discharging spark from the static electricity.
- Do not get in the vehicle during refueling. It may generate the static electricity on your body, resulting in a fire.
- If you must use a portable container for refueling in emergency situation, put the container on the ground other than on vehicle or in cabin. Otherwise, it may cause a fire due to the static electricity.
- Always stop the engine before refueling.
- Use only the designated fuel and low sulfur diesel. Otherwise, engine could be seriously damaged.
- Keep open flames and smoking materials away from the vehicle.
- If you use inappropriate grade fuel or put improper fuel additives into the fuel tank, the engine and catalytic converter may seriously be damaged.
- Aviod using a mobile phone at gas station. The current or electromagnetic from the phone can cause a fire with the vaporized fuel.
- If a fire breaks out, immediately escape from the gas station and get help from a fire station.

Engine Check Warning Light ON Due To Unclosed Fuel Filler Cap



In order to reduce exhaust emissions, various systems are applied to your vehicle. One of the systems is the emission control system to monitor the pressure in the fuel tank. If the fuel filler cap is not fully tightened, engine check warning light will turn on. Therefore, if the engine check warning light comes on while driving after refueling, it is necessary to check the fuel filler cap to make sure it is properly tightened.

Knock

Knock is a state describing an incomplete combustion caused by a premature detonation or an abnormal ignition. When knock occurs, pounding sound can be heard or unusual vibration can be sensed along with engine power reduction.

Octane Rating

Octane rating indicates gasoline's quality and ability of anti-Knock. Gasoline with higher octane rating will resist engine damaging "Knock" better and the fuel will combust properly. Therefore, unleaded gasoline with high octane rating needs to be used for vehicles with high speed and high power.

Fuel Recommendation

Type	Unleaded gasoline (Octane number 95 or higher)

For normal engine performance, it is recommended to use unleaded gasoline with octane number 95 or higher for your XLV. Using gasoline with octane number lower than 95 may cause engine knocking, resulting in poor acceleration and fuel consumption.

CAUTION

- Do not use low grade gasoline with octane number unspecified, otherwise it may cause engine power reduction, poor fuel consumption, excessive exhaust emissions, abnormal vibration and etc.
- Avoid using gasoline additives. Aftermarket fuel additive products are not tested according to Ssangyong's strict regulations. Damage or malfunction due to fuel additive use is not covered by the warranty.
- Always use unleaded gasoline specified in this booklet in order to prevent damages on engine and emission control system.

MEMO

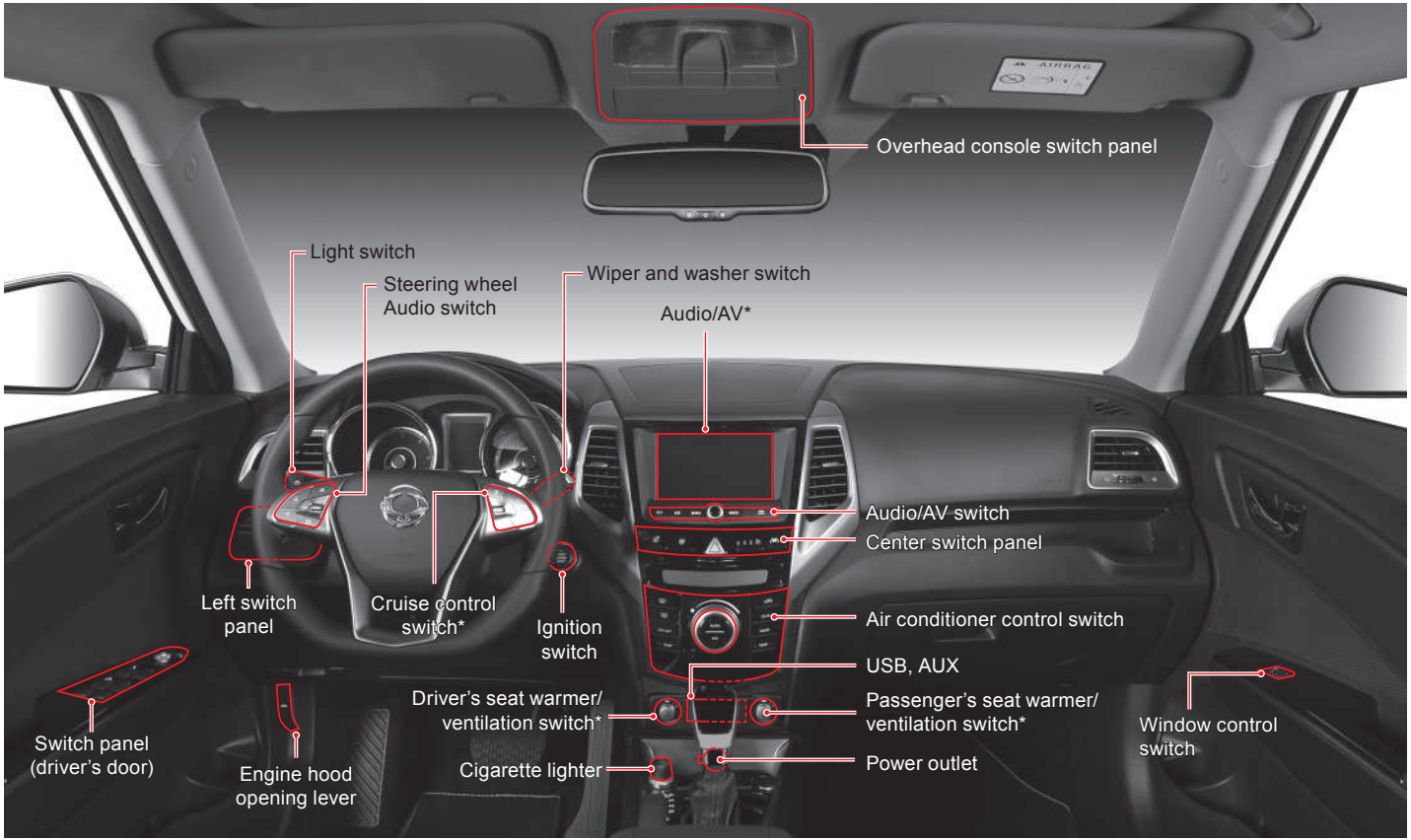
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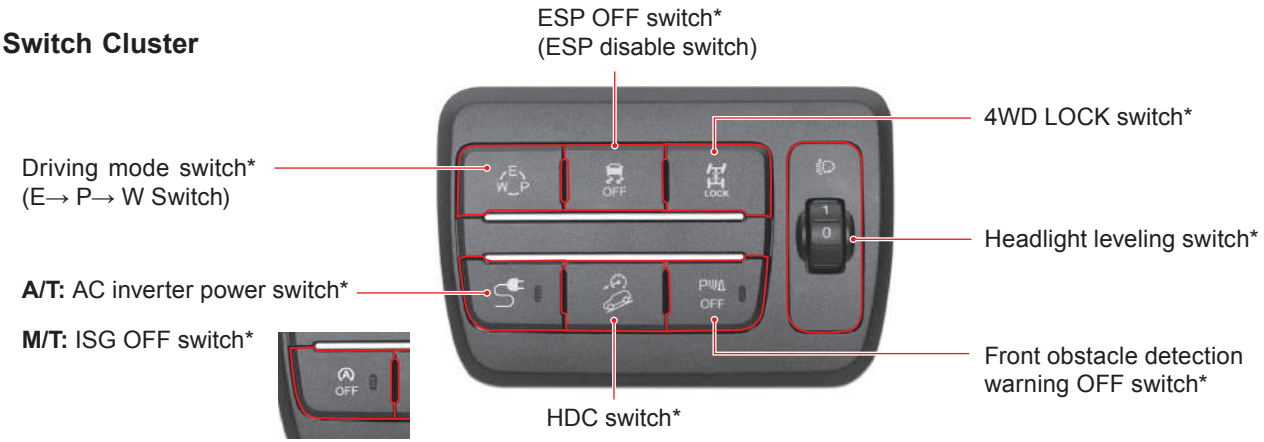
Interior Switches

INTERIOR SWITCHES

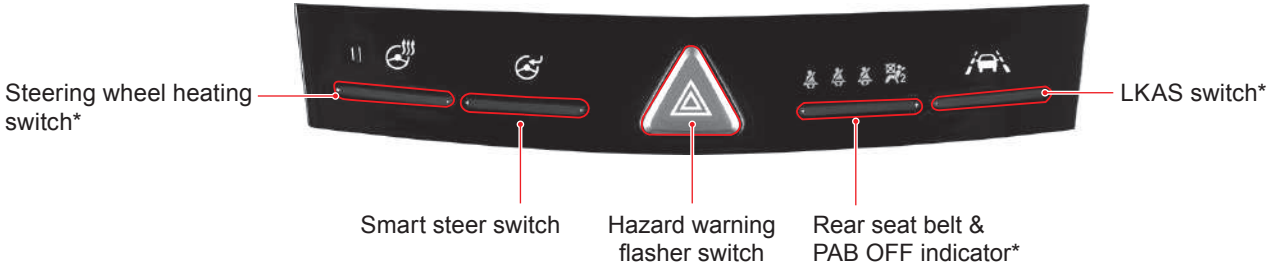


※ Actual appearance may differ from the image shown above.
※ The image shown above is a vehicle equipped with the smart key system and AV system. It may differ from your vehicle depending on your model.

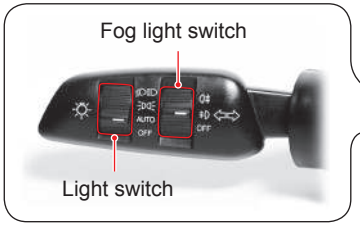
Left Switch Cluster



Center Switch Cluster



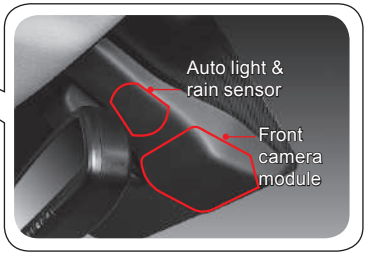
Light Switch



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



Auto light and Rain sensor* & FCM



Integral auto light sensor/rain sensor





Daytime Running Light*

If DRL equipped, the headlights will turn on automatically to make your vehicle more visible to other drivers, when the ignition key is turned from ACC to IGN ON or engine ON position.

Daytime running light operation

- With the key in IGN ON position (regardless of engine start), DRL will operate at all times if the fog lights/headlamps switches are OFF.
- Compared to the tail lamps, the DRL offers brighter light, although the DRL and the tail lamps share the same light bulb.
- While the DRL is operating, the tail lamps of rear combination lamp and license plate lamp will turn on simultaneously.

The DRL will not operate when:

1. IGN OFF
2. ACC
3. Headlights or fog lights are ON
4. Light switch is turned OFF and parking brake is applied with vehicle stopped.

NOTE

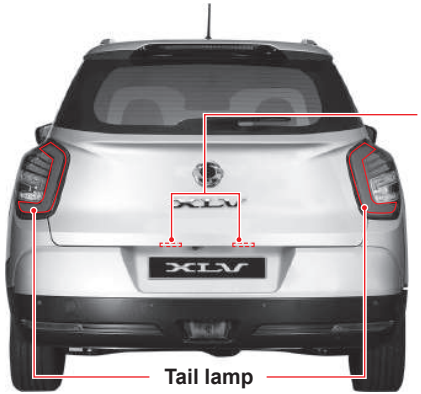
Auto light feature operates in the same way.

CAUTION

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



Daytime Running Light (DRL)*
(Same location to tail lamp)



AUTOMATIC LIGHT*



The auto light and rain sensor 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”.

CAUTION

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

AUTOMATIC LIGHT & RAIN SENSOR*

W/FCM



W/O FCM



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

CAUTION

Do not shake and impact the sensor. It may not work properly. On uneven road, Auto Light may work improperly due to impacts and vibrations from the ground.

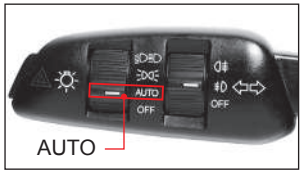
NOTE

- In AUTO position (Light switch and Wiper switch), the head lamps are turned on when the wipers are started to operate by rain sensing.
- For vehicles with front camera module, pushing the light switch lever toward the instrument panel with the light switch in AUTO position activates the High Beam Assist System (HBAS). (HBAS indicator (AUTO) on the instrument cluster comes on at this time)

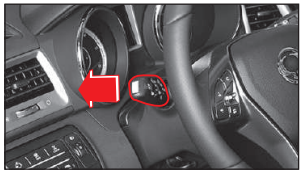
HBAS (HIGH BEAM ASSIST SYSTEM)*

HBAS automatically switches high beams to low beams when approaching vehicles travelling in the opposite direction or a preceding vehicle so that the drivers of these vehicles are not dazzled.

HOW TO TURN ON HBAS



1. Turn the light switch to AUTO position.



2. The light switch will be returned to original position when you push it in the direction of the arrow (setting indicator comes on) and release. (self-return type switch)

HBAS INDICATOR



When the HBAS is activated, the HBAS indicator on the instrument cluster is illuminated.

► Operating Conditions

HBAS is activated when all of the following conditions are met.

- HBAS turned ON
- Vehicle driving at 35 km/h or higher
- It is considered to be night because of darkened environment.
- There is no oncoming traffic or preceding vehicle.
- While the high beam assist system is in operation, the headlamp operates according to the light switch operation as follows:
  1) Sliding the light switch towards the instrument cluster will change to the high beam constant on position and the HBAS will be deactivated.
  2) Pulling the light switch with the high beam turned off, the high beam turned on without deactivating the HBAS. (When you release your hand in this state, the switch moves to the center and the high beam turns off.)
  3) When you pull the light switch with the high beam turned on by the HBAS, the low beam turns on and the system is deactivated.
  4) When you rotate the light switch from the automatic position to the headlamp position (), the low beam turns on and the HBAS will be deactivated.

NOTE

- Delay Time for High-Beams to turn OFF after Switching to Low-Beams
  - After switching to low-beams, in that case that the high-beams have been turned ON by the HBA (High Beam Assist) system, the high-beams are automatically switched OFF after a few seconds.
- When the smart HBA (High Beam Assist) system is activated, the conditions for switching back to low-beams are as follows:
  - HBAS detects that the vehicle ahead does not have its lights ON
  - Headlights of oncoming traffic are detected
  - There are streetlamps or other sources of roadside light
  - Tunnel lighting systems are detected
  - Vehicle speed is 25 km/h or lower

⚠ CAUTION

HBAS may not be activated in the following situations:

- The lamps of the oncoming or preceding vehicle are damaged.
- The oncoming or preceding vehicle is blocked from your vision.
- The windshield is contaminated (dust, fogging, sticker, snow, etc.) or damaged.
- The body of the oncoming or preceding vehicle is partially concealed at road intersections or on sharp-curved roads.
- Driving through a construction zone with reflective materials and light sources.
- There is a light source or reflection resembling that of headlamps ahead of the car



LIGHT SWITCH

(Headlamps ON)

(HBAS ON*)

Headlamps, side marker lights, tail lamps, license plate lamps, front fog lamps (with front fog lamp switch ON), and other interior lights are turned on.

(Tail lamps ON)

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

AUTO **(Automatic light ON)**

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

OFF **(Lights OFF)**

All lights are off.

Battery Saver (Automatically turns off the lights)

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

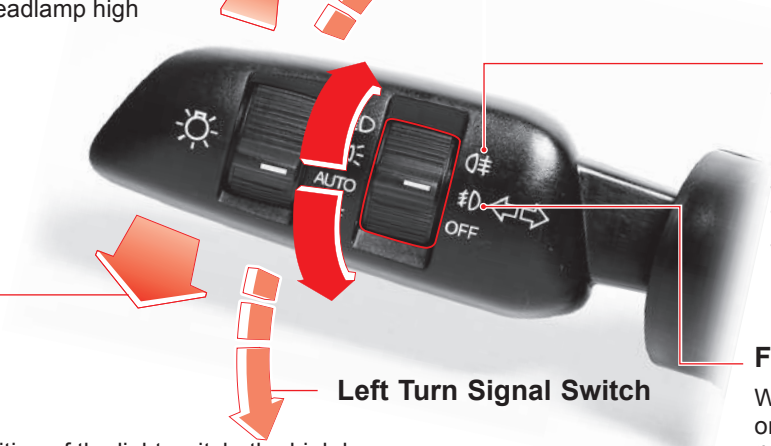
Headlamp High Beam

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

Right Turn Signal Switch

NOTE

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



Rear Fog Light Switch

With the headlights turned on, if the switch is turned in ≡D position, the switch will return in front fog light position and the rear fog lights will be on. The front and rear fog lights turn on at the same time.

Front Fog Light Switch

With the headlights or tail lamps turned on, the front fog lights come on when the switch is turned in ≡D position.

For vehicles with DRL equipped, the fog lights turn on when the fog light switch is turned in ON position during IGN ON.

Passing

Regardless of the position of the light switch, the high beam passing lights stay on as long as you hold the switch lever toward you. The high beam indicator also illuminates on the instrument cluster during the hold.

Left Turn Signal Switch

WARNING

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

DAYTIME RUNNING LIGHT (DRL): DRL Regulation Region Only

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

FRONT WIPER SWITCH

MIST

If you move the wiper switch to “MIST” position and release it, the windshield wipers operate one wiping cycle. The wipers will operate continuously if the switch is held in this position.

OFF

Wipers are not in operation.

AUTO

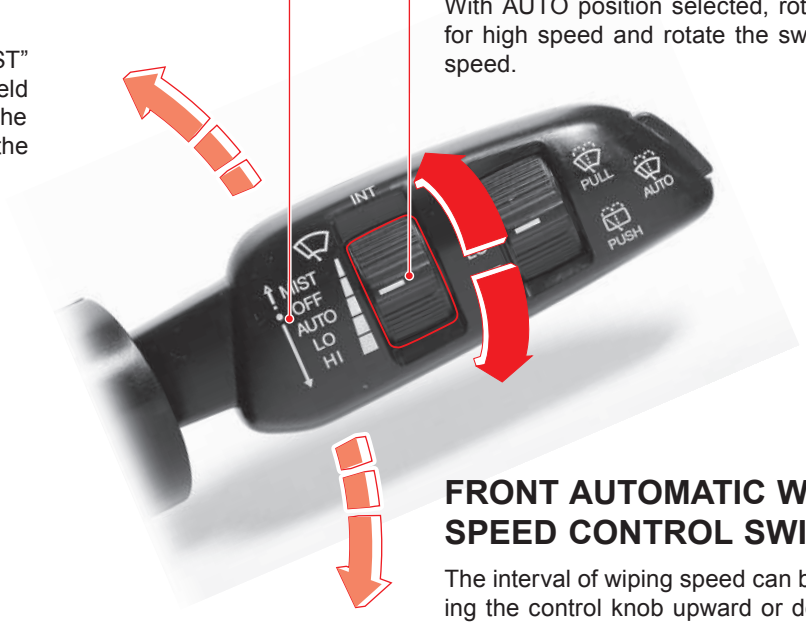
Operates automatically according to the vehicle speed and amount of rainfall.

LO

Continuous wipe, slow operation

HI

Continuous wipe, fast operation



FRONT WINDSHIELD WIPER SPEED CONTROL SWITCH

With AUTO position selected, rotate the switch upward for high speed and rotate the switch downward for low speed.

FRONT AUTOMATIC WIPING SPEED CONTROL SWITCH

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

Fast: Fast interval

Slow: Slow interval

REAR WIPER SWITCH

HI

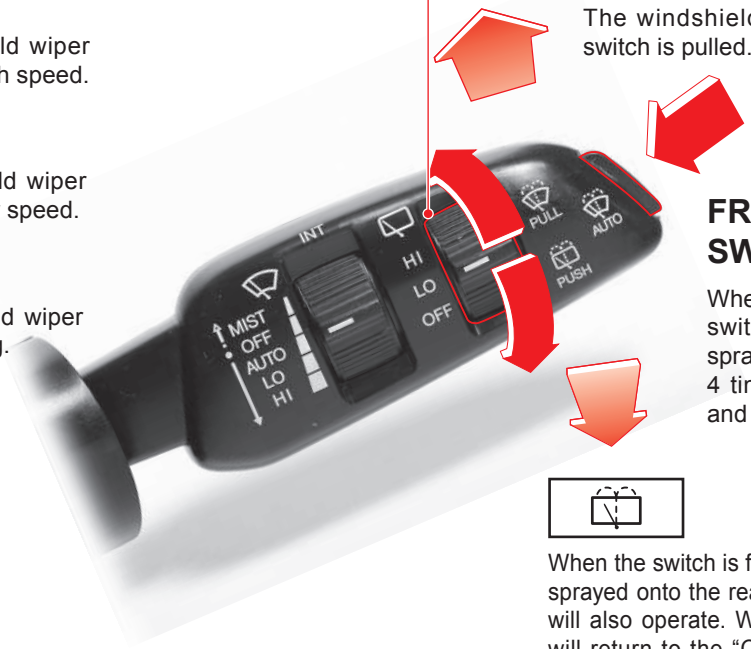
Rear windshield wiper operates in high speed.

LO

Rear windshield wiper operates in low speed.

OFF

Rear windshield wiper stops operating.



Front windshield and washer fluid linkage

Pulling the switch for less than 6 seconds: windshield wipers operate once with washer fluid sprayed

Pulling the switch for longer than 6 seconds; windshield wipers operate 3 times with washer fluid sprayed

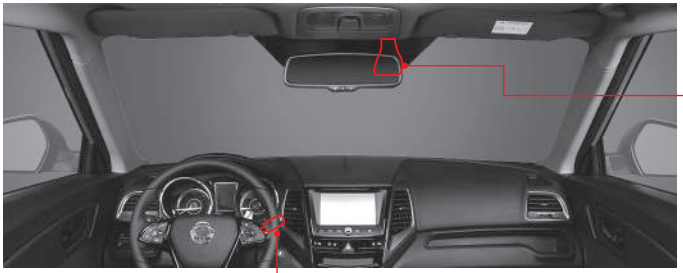
The windshield wipers operate constantly while the switch is pulled.

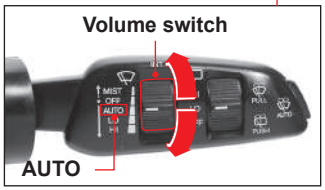
FRONT AUTO WASHER SWITCH

When you press this switch with the front wiper switch in “OFF” position, washer fluid will be sprayed and the wiper will automatically operate 4 times. Then, the fluid will be sprayed again and the wiper will automatically operate 3 times.

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

WIPER AUTO POSITION





The wiping speed is adjustable by the volume switch with the wiper switch in **AUTO** position.

CAUTION

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

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

AUTOMATIC LIGHT & RAIN SENSOR*

With front camera module



Without front camera module



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

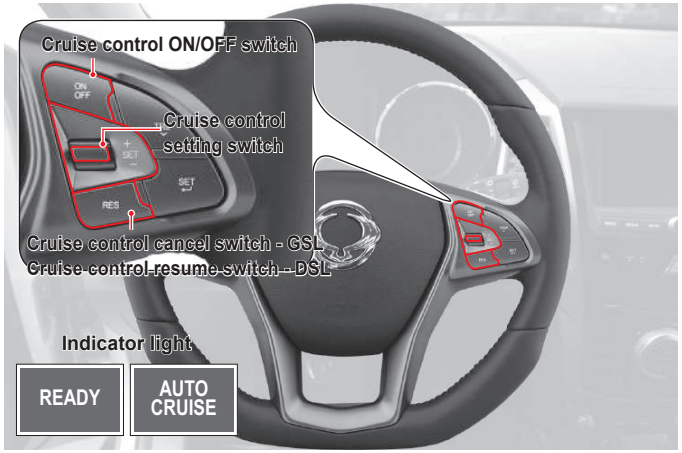
WARNING

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

NOTE

- When the light and wiper switches are in the **"AUTO"** position, headlights come on if the rain sensor detects any rain. The headlights stay on for 3 minutes after the rain stops.
- The speed of the wipers becomes a little faster when it is dark enough to turn on the automatic lights.
- When the ignition key is in the **"ON"** position, the wiper will automatically operate once if the wiper switch is turned from the **"OFF"** to the **"AUTO"** position.

CRUISE CONTROL



The cruise control is an automatic speed control system that maintains a desired driving speed without using the accelerator pedal. READY or AUTO CRUISE indicator will come on in the instrument cluster depending on the operation of the cruise control switch.

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

CAUTION

The cruise control system is a supplementary system, which helps the driver to drive the vehicle at a desired speed without using the accelerator pedal under the traffic condition where the vehicle-to-vehicle distance meets the legal requirement.

Auto cruise ready light READY

When the cruise control ON/OFF switch is pressed, READY indicator light appears on the instrument cluster. (Cruise control is now ready to operate)

Auto cruise control indicator light AUTO CRUISE

With the READY indicator appeared on the instrument cluster, if you push the cruise control setting switch up or down, READY indicator turns off and AUTO CRUISE indicator will turn on (Min. vehicle speed is 40 km/h for operation).

Traffic Conditions for Using Cruise Control

Use the cruise control system only when the traffic is not jammed, driving on motorways or highways where there is no sudden change in the driving condition due to traffic lights, pedestrian, etc.

CAUTION

Improper use of the cruise control could be dangerous.

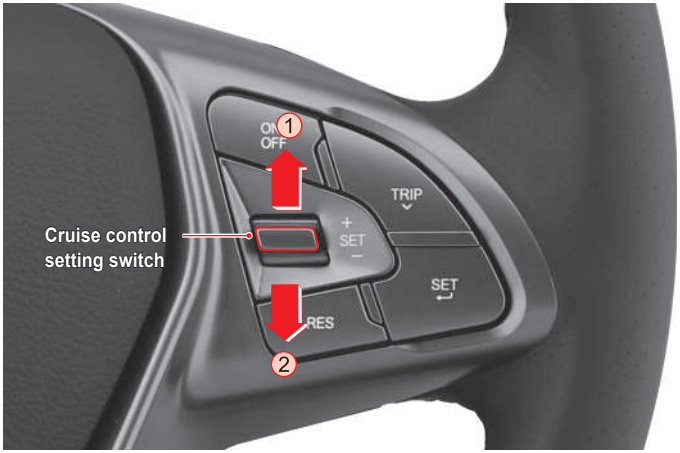
- Do not use on winding roads.
- Do not use in heavy traffic.
- Do not use on slippery, wet roads.

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

NOTE

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

CRUISE CONTROL (SETTING THE SPEED)



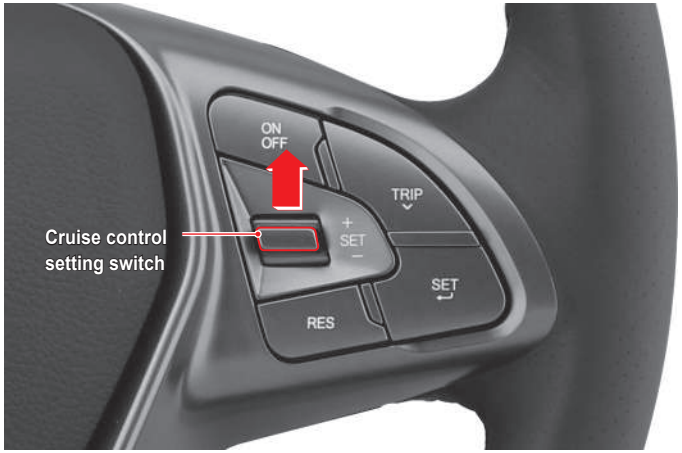
1. Press the cruise control ON/OFF switch. (READY indicator comes on)
2. In order to activate the cruise control system, depress the accelerator pedal until the vehicle speed reaches to the proper range.
   - Cruise control speed range: between 38 km/h and 185 km/h
   - For vehicles with manual transaxle, the cruise control will be available only when the gear shift lever position is in 3rd or higher.
3. **Gasoline**: Maintaining the vehicle speed in the specified range, set the desired speed by pushing the switch up in **SET+** direction (move the lever to position (1)). Remove your foot from the accelerator pedal slowly.

   Diesel: Maintaining the vehicle speed in the specified range, set the desired speed by pushing the switch up in **SET+** or **SET-** direction. Remove your foot from the accelerator pedal slowly.
4. Take your fingers off the cruise control switch.
5. Now the vehicle is cruised with the set speed (the speed set at the moment when the cruise control starts operating) without depressing the accelerator pedal.
6. To reset the speed during cruise control operation, slowly press the accelerator pedal down until the desired speed is reached, and repeat the step 3.
7. Refer to the following contents for operation details depending on vehicle conditions.

CAUTION

Never use the cruise control system until you get used to it.
Improper use or not fully aware of this function could result in collision and/or personal injuries.

ACCELERATING WITH THE CRUISE CONTROL SYSTEM



While the cruise control system is in operation

1. To increase the set speed during cruise control operation, push the cruise control switch up in SET+ direction until reached to the desired speed without depressing accelerator pedal.

   Continue pushing the switch up until the desired speed is reached.
2. Remove your finger from the control switch once the desired speed is reached.

While the cruise control system is not in operation

Following steps will describe how to set the speed by accelerating and start the cruise control while the cruise control system is not running.

1. Press the cruise control ON/OFF switch. (READY indicator appears in the instrument cluster)
2. Depress the accelerator pedal over 40 km/h to set the cruise control speed.
3. Push and hold the cruise control switch up in SET+ (SET-) direction. Release the accelerator pedal slowly when the desired speed is reached.
4. Take your finger off the cruise control switch.

Increasing the set speed while the cruise control system is in operation

If you want the fine increase of the control speed during the cruise control system operation, follow the steps below.

1. The speed will increase by approx. 1 km/h each time the cruise control switch is tapped up in SET+ direction (within 0.5 second).
2. If you want to increase the control speed by 10 km/h while driving with cruise control running, tap the control switch up in SET+ direction 10 times.

DECELERATING WITH THE CRUISE CONTROL SYSTEM



While the cruise control system is in operation

1. To decrease the control speed during cruise control operation, push the cruise control switch down in **SET-** direction until reached to the desired speed without pressing brake pedal.

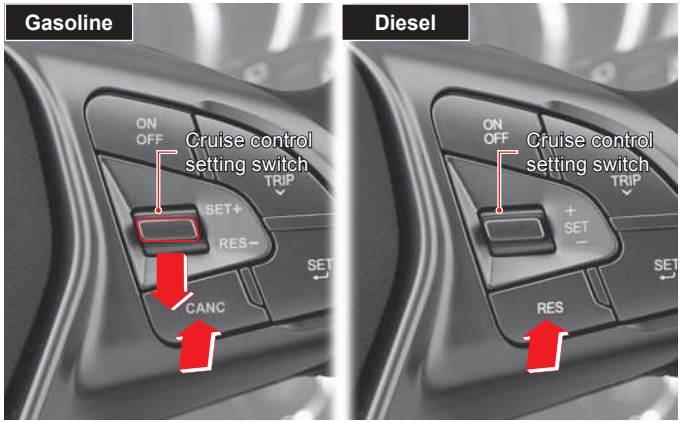
   Continue pushing the switch down until the desired speed is reached. Be informed that the cruise control system will be deactivated when the vehicle speed gets lower than approx. 34 km/h.
2. Remove your finger from the control switch once the desired speed is reached.

Decreasing the set speed while the cruise control system is in operation

If you want the fine decrease of the set speed during the cruise control system operation, follow the steps below.

1. The speed will decrease by approx. 1.0 km/h each time the cruise control switch is tapped down in **SET-** direction (within 0.5 second).
2. If you want to decrease the set speed by 10 km/h while driving with cruise control running, tap the control switch down in **SET-** direction 10 times.

RESUMING THE SET SPEED (RESUME)



Gasoline

If the cruise control is cancelled during its operation (with READY indicator ON), following conditions should be satisfied to resume the set speed.

Maintaining the vehicle speed over 40 km/h without brake and accelerator pedal interventions, push the cruise control switch down in **RES-** direction.

The set speed saved before the cruise control is OFF will be resumed with the AUTO CRUISE indicator light appeared on the instrument cluster, if the recovery conditions are met.

CAUTION

In order to response to a sudden speed change after resuming the set speed, you should always recognize how fast the saved speed is. If the vehicle speed increases rapidly, step on the brake pedal to control the speed.

Diesel

If the auto cruise stopping conditions are met during the activation of the auto cruise, the function of the cruise control is deactivated. But the last set speed memorized in the ECU will be resumed when the RES button is pressed.

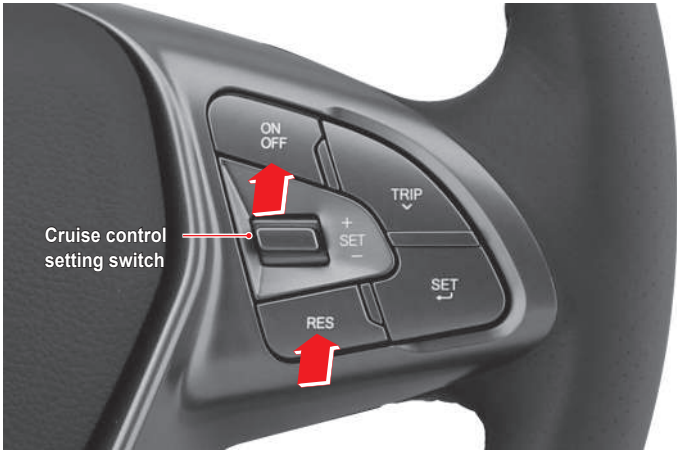
The speed should be 40 km/h and the brake or accelerator pedal should not be depressed. (Deactivation by cruise control OFF switch will not restore the previous set speed.)

NOTE

Auto cruise stopping conditions (CANCEL)

- The brake pedal is depressed or ESP is activated.
- Drive the vehicle at less than 38 km/h.
- Parking brake is applied while driving.
- Depress the clutch pedal to change the gear.
- ON/OFF switch operation (once) during auto cruise activation (ON/OFF switch operation in auto cruise ready mode deactivates cruise control)

DEACTIVATING THE CRUISE CONTROL SYSTEM



The cruise control system is deactivated by pressing ON/OFF switch or **CANC** switch.

When using ON/OFF switch (READY indicator OFF)

The cruise control system will be initialized without memorizing the set speed.

When using CANC switch (READY indicator ON) - GSL

The cruise control system memorizes and resumes the set speed saved before the system is OFF (by pushing the cruise control switch down in RES- direction).

According to the vehicle conditions, the cruise control will be cancelled when:

1. The brake pedal is depressed or ESP is activated.
2. The speed is decelerated below 34 (38) km/h.
3. Parking brake is applied while driving.
4. Clutch pedal is depressed to shift (M/T only).
5. The speed increases or decreases drastically.
   - when driving at more than 20 km/h above the set speed
   - when driving at less than 20 km/h below the set speed
   - when driving at 140 km/h or more for 4 minutes or longer
6. The cruise control switch malfunction occurs
7. The brake switch malfunction or disconnection occurs
8. The shift lever is moved to the neutral position.

If the cruise control is cancelled without normal conditions described above, or an intermittent malfunction occurs, stop the engine and remove the key. The system will reset and is back on when restarting the engine.

CAUTION

When not using the cruise control, press the cruise control ON/OFF switch and then the READY indicator light will go off.

CAUTION

- Abnormal changes of the gear selector lever can damage the engine. Do not move the gear shift lever to Neutral while driving at the set speed. Automatic transaxle damage may result.
- 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.
- Always keep the safe stopping distance and depress the brake pedal when necessary.

Using the Cruise Control on Hills

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

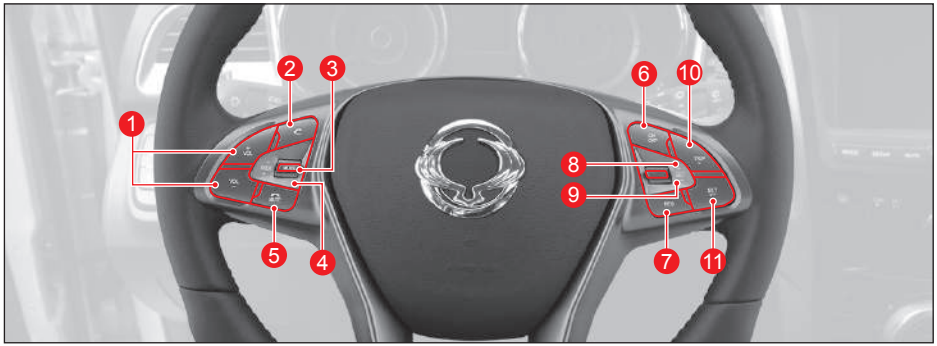
When going up steep hills, you may have to depress the accelerator pedal to maintain your speed. When going downhill, you may have to brake or shift to a lower gear to keep your speed down.

Applying the brake takes you out of the cruise control.

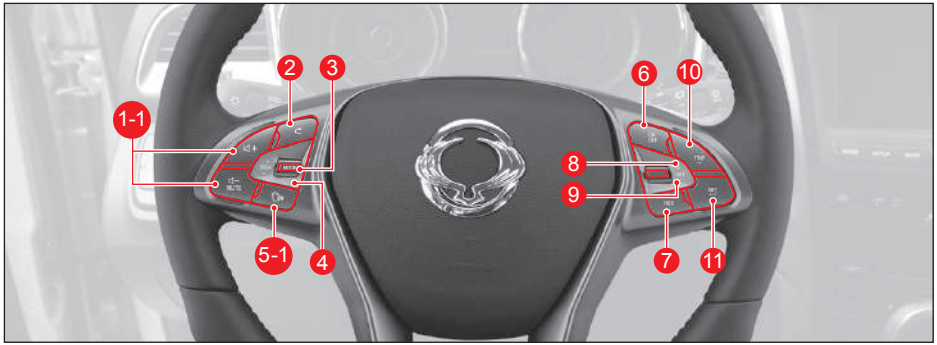
STEERING WHEEL REMOTE CONTROL SWITCH*

You can control audio and cruise control systems by using the remote control switches mounted on the steering wheel.

TYPE A



TYPE B



1 **+ VOL / VOL −**

Volume UP/DOWN

1-1 **◁+ / ◁− MUTE**

- Turning volume up/down
- When you press (◁− MUTE) during handsfree call, the microphone will be disabled.
- Pressing and holding (◁− MUTE) when you're not on a call mutes volume.

2 **Bluetooth Handsfree**

Phone switch using Bluetooth handsfree for mobile phone use

NOTE

For more detailed information on audio and bluetooth handsfree system, refer to Audio Operating Manual provided separately.

3 **MODE**

Press and hold the switch to change the audio mode (AM, FM1, FM2 and etc.).

4 ∧ SEEK / SEEK ∨

- **In file play mode**
- Press the mode switch UP/DOWN: Moves to PREVIOUS/NEXT file of MP3 and video playing
- **In radio mode**
- Press the mode switch UP/DOWN briefly: Manual search, moves to selected channel
- Press and hold the mode switch UP/DOWN: Auto search

5 (POWER/MUTE)

Press and hold the switch to turn audio off.

While audio system is ON, press the switch briefly to mute and press it again to unmute.

5-1

- Voice recognition is activated / deactivated.
- In Apply CarPlay mode
  - operates Siri.
- In Android Auto mode
  - operates Google Voice.

6 ON/OFF

Cruise control switch to prepare the operation. READY indicator comes on when pressed.

- Cruise control system is deactivated by pressing this switch.

7 CANC (gasoline) / RES (diesel)

CANC (gasoline)

- Press the switch to cancel the cruise control system.

RES (diesel)

- Press the switch to resume the speed set before cancellation.

8 SET + (gasoline/diesel)

- Cruise control system is activated by pressing this switch with READY indicator ON. (Vehicle speed should be 40 km/h or higher)
- Increase the speed set to the cruise control system.

9 RES - (gasoline) / SET - (diesel)

- Resume the speed set before cancellation with the READY indicator ON. (for gasoline only)
- Decrease the speed set to the cruise control system.

NOTE

Refer to Chapter 4, Cruise control switch for detailed information.

10 TRIP Switch

Each time the trip switch (TRIP) is pressed shortly, applicable information (Trip (A) → Trip (B) → Distance to empty → , , ,) is shown on LCD display in specified sequence.

11 SET Switch

By pressing the trip switch, move and select the relevant information. Then press and hold the set switch to initialize or set the applicable data.

OUTSIDE REARVIEW MIRROR CONTROL

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

CAUTION

- To prevent from the mirror surface being damaged, do not scrape the ice when the mirrors are frozen.
- If the frozen outside rearview mirrors are not moving, do not try to move them with excessive force by hands. Otherwise, the mirrors could be damaged.
- The outside rearview mirrors can be folded and unfolded even after shutting off the engine.
- To prevent the battery from being discharged, do not operate the outside rearview mirrors with the ignition OFF.
- The mirror folding operation is not available when the vehicle speed exceeds 30 km/h. However, unfolding operation is available.
- Do not fold or unfold the outside rearview mirrors manually. It may cause a malfunction of the mirror folding system.
- The mirror cannot move beyond its operating range but the motor continues running as long as the switch is pressed. To prevent the motor being damaged, stop operating the switch when the mirror is at desired position.
- If you directly spray high-pressured water to the electric remote-controlled outside mirrors, this may cause some malfunctions in the mirror system.

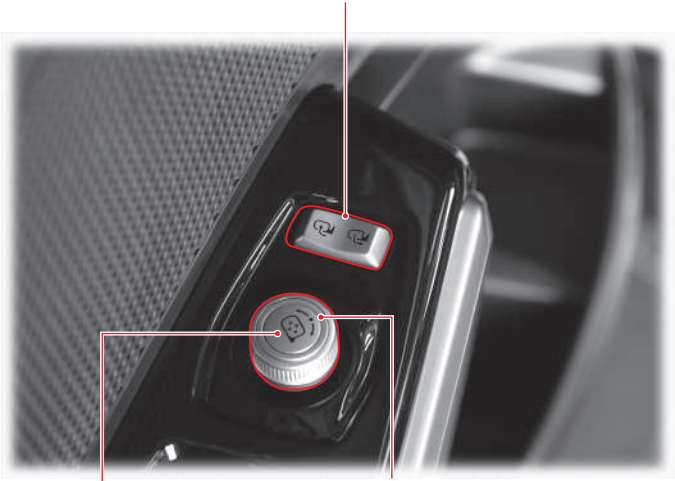
WARNING

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

Outside Rearview Mirror Folding/Unfolding Switch

To fold outside rearview mirror, press the right side of the switch down ( ).

To unfold outside rearview mirror, press the left side of the switch down ( ).



Mirror Selection Switch

- “L”: Driver side mirror
- “R”: Passenger side mirror

Aiming Switch

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

Outside Rearview Mirror Auto Folding/Unfolding Mode

While outside rearview mirror Folding/Unfolding switch is in neutral position (not pressed ( )), the outside rearview mirrors are automatically folded when doors are locked by lock button on REKES/Smart key (theft deterrent mode activated), and the mirrors are unfolded when doors are unlocked (theft deterrent mode deactivated). This mode is activated as follows:

- REKES key:

- When pressing the Lock/Unlock button on the REKES key
- When inserting the ignition key of the REKES key into the key hole to unlock the door

- Smart key:

- When pressing the Lock/Unlock button on the smart key
- When touching the Lock/Unlock button on the outside handle of the front door
- When inserting the mechanical key of the smart key into the key hole to unlock the door

NOTE

The outside rearview mirror Auto Folding/Unfolding mode will not work while the switch is pressed in any position. (left ( ) or right ( ))

CAUTION

The outside rearview mirror Auto Folding/Unfolding mode is not available when the theft deterrent system is not armed.

- The doors are locked with the REKES key or emergency key of the SMART key.
- One of the doors including tailgate and engine hood is not closed completely.
- The ignition switch is not set to ON position (for vehicles with SMART key).

Setting



- Activation of Auto Folding/Unfolding mode

  This mode is activated with the outside rearview mirror Folding/Unfolding switch in neutral position (not pressed( )).

- Deactivation of Auto Folding/Unfolding mode

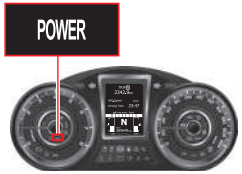
  This mode is deactivated with the outside rearview mirror Folding/Unfolding switch pressed in any position (right ( ) or left ( )).



E (ECO) Mode

Economy mode used during general driving. No indicator light comes on.

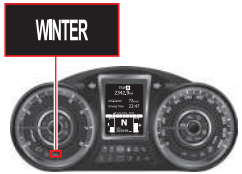
P (POWER) Mode



The driving power of the vehicle is partly increased with this mode.

In E mode, pressing the drive mode switch once will change current mode into P mode, and the POWER indicator light will appear.

W (WINTER) Mode



W mode lets the vehicle starting off in 2nd gear to prevent the tires from being slipped on icy road in winter season.

In P mode, pressing the drive mode switch once more will change from P mode to W mode, and the WINTER indicator light will turn on.

CHANGING THE DRIVE MODE

Depending on the circumstances, the drive mode can be changed by pressing the drive mode switch in order of E (ECO general driving) → P (POWER) → W (WINTER) → E (ECO general driving)

When the ignition switch is turned OFF and back ON, E (ECO) mode is automatically applied to the vehicle.

CAUTION

If the POWER and WINTER mode indicator lights appeared on the instrument cluster at the same time, bring your vehicle in our dealer for checkup.



ESP OFF Switch

If you press the ESP OFF switch, ESP function is deactivated and the ESP OFF indicator in the instrument cluster comes on.

To resume the ESP function, press this switch again. At this time, ESP OFF indicator goes out.

ESP Indicator/Warning Lamp



Blinking: When ESP is operating

On: When ESP system is defective.

When ESP is activated, this indicator blinks.

If this indicator stays on (ESP warning lamp), immediately have the system checked by Ssangyong Dealer or Ssangyong Authorized Service Center.

NOTE

When you hit the brake while driving at more than 50 km/h or when ESP is in operation, the hazard warning flasher will blink for approx. 10 seconds to inform the emergency situation to the vehicles around.

ESP OFF Indicator



Press and hold the ESP OFF switch (for more than 3 seconds) to deactivate ESP.

The switch will light up to indicate ESP deactivation.

ESP (ELECTRONIC STABILITY PROGRAM) SYSTEM

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

Stopping ESP Function With ESP OFF Switch

When there is continuous slip detected in the left and right drive train wheels during snowy or icy road conditions, because engine power is cut from the system and RPMs are prevented from rising, there can be difficulties or a delay in departure even when the accelerator pedal is pressed.

Pressing and holding the ESP OFF switch (for more than 3 seconds) will deactivate the ESP system (deactivation will be indicated by an 'ESP OFF' indication light in the instrument panel), which will allow easy and more immediate departure.

Sensing ESP System In Operation

When ESP is activated (ESP indicator light blinks) due to sharp cornering and etc., you will sense that the corresponding tire is put on the brake, and brake pedal vibration and other noises can occur due to hydraulic pressure change in the system. Also the engine torque may not increase even with the accelerator pedal depressed, due to engine power control function.

Vehicles equipped with ESP system have more auxiliary functions to reinforce the driving safety, other than major functions below.

BAS (Brake Assist System) Function

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

HSA (Hill Start Assist) Function

This function prevents the car from rolling away when trying to pull away on an up or down gradient, simulating a "handbrake hill start". This system engages automatically when a certain gradient is detected; it then acts to hold the vehicle stationary for few seconds after the brake is released giving the driver time to depress the accelerator pedal.

ARP (Active Rollover Protection) Function

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

CAUTION

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

CAUTION

- If ESP indicator comes on after engine starting, ESP related system is defective. Make sure to check the vehicle at the nearest Ssangyong Dealer or Ssangyong Authorized Service Center.
- The ESP system does not operate during reverse driving.
- The ESP system is activated when the vehicle is unstable to correct the vehicle stability. When the ESP indicator is blinking, reduce the speed and pay extra attention to the road.
- The ESP system is only a supplementary device for the vehicle. When the vehicle exceeds its physical limits, it cannot be controlled. Do not rely on the system. Keep driving safely.
- When ESP is applied, you may feel some noise or vibration from the brake pedal or other relevant systems. They are caused by pressure changes in the relevant systems.
- Do not drive off the vehicle immediately after starting the engine. The ESP system needs approx. 2 seconds to perform self-diagnosis. If the system could not complete the self-diagnosis, the ESP system cannot be activated even when the vehicle is in unstable conditions.
- Do not press the ESP OFF switch when the ESP system is in operation. Stopping the ESP function on the slippery road may cause a serious accident. To deactivate the ESP function, press the ESP OFF switch only on a long straight road.

4WD: Four Wheel Drive

Compared with two-wheel drive vehicles, 4WD system provides more stable driving conditions and higher traction on unpaved, rugged, steep, sandy, wet or slippery roads. 4WD system in this vehicle is called AWD system.

AWD: All Wheel Drive

AWD system provides the engine torque to the front wheels and rear wheels according to the driving conditions.

This enhances the driving safety and performance in forward driving and turning of the vehicle. Therefore, AWD system provides, compared to 2WD system, more stable and higher traction on snowy, rainy and sandy roads.

If you need highest traction, you can use 4WD LOCK mode (fixed at 4WD LOCK mode. For details, refer to “4WD LOCK switch”)

Tight Cornering Symptom

When cornering with low speed in 4WD condition, there could be tire dragging, some mechanical shocks and resistances in vehicle’s drive train. These are normal conditions due to internal resistance in the drive train when the 4WD system is properly working.

WARNING

To avoid an accident, do not turn your vehicle sharply with low speed in 4WD condition on a normal paved road.

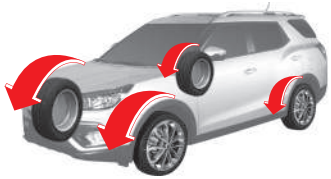
DRIVING MODE

4WD AUTO



2WD

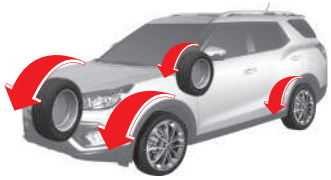
Normal driving mode



4WD

Automatically change to this mode when the vehicle needs higher traction.

4WD LOCK



This mode provides the highest traction. Use this mode when you are driving on unpaved, rugged, steep, sandy, wet or slippery roads.



4WD CHECK Warning Indicator



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

When the vehicle is driven in 4WD mode excessively, this indicator may blink. In this case, 4WD mode is temporarily deactivated and the vehicle can be driven only in 2WD mode. Normally, after short period of time, the vehicle restores 4WD function and the indicator goes off.

4WD LOCK Indicator



This indicator comes on when 4WD LOCK mode is working.

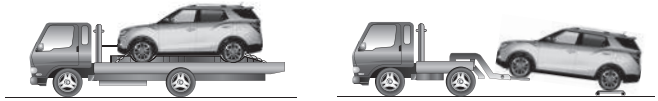
4WD LOCK Switch

Press to toggle between 4WD LOCK mode (4WD LOCK indicator ON) and 4WD AUTO mode (Indicator OFF).

In 4WD LOCK mode, if the rear wheel speed exceeds 40 km/h, 4WD LOCK mode is canceled and 4WD AUTO mode is activated. If the speed is decreased below 40 km/h, 4WD LOCK mode is resumed.

CAUTION

- Always use 4WD AUTO mode on a normal paved road. Using 4WD LOCK mode on a normal paved road, especially when cornering, may cause noises, vibrations or system failure.
- When driving on a normal paved road, especially when cornering a curved road with low speed, in 4WD LOCK mode, there could be noises and vibrations in drive train. But, these are normal conditions. When returning to 4WD AUTO mode, noises and vibrations will be disappeared.
- When returning to 4WD AUTO mode from 4WD LOCK mode on a uphill/downhill, there could be a small shock. But this is normal condition when disengaging the driving torque to rear wheels.
- If 4WD CHECK warning indicator comes on, have the system checked by Ssangyong Dealer or Ssangyong Authorized Service Center.
- The vehicle equipped with AWD system should be towed by flat-bed truck. If it is impossible to load the vehicle on a flat-bed truck, tow the vehicle after placing dollyies under all tires. If you tow the vehicle equipped with AWD system while front or rear tires are rolling on the road, the drive system in the vehicle should be severely damaged.



Dolly

- In the vehicle equipped with AWD system, use only the tires with same specifiactions from a manufacturer for all wheels.

AC INVERTER POWER SWITCH (A/T)*



AC inverter power switch*

When this switch is pressed, with the engine started or ignition on, the indicator lamp comes on and voltage of 220 V is applied. Pressing the switch again turns off the indicator lamp and the inverter.

The switch maintains its status even if the ignition switch is turned off and back on.

CAUTION

- Always start the engine in order to use the AC inverter and unplug it after use. The battery may be flat when you use it with the engine stopped or when plugging in the electrical appliance for a prolonged time.
- When you use the AC inverter in an enclosed or unventilated place, there is a risk of poisoning by the exhaust gas. Keep the engine at idling at the well-ventilated place and you have to air the vehicle out.



ISG OFF Switch (M/T only)

1. Press the ISG OFF button. ISG mode is now deactivated with its indicator light OFF in the button and the instrument cluster shows “AUTO STOP OFF” message for 5 seconds.

   For safety, press the ISG OFF button always with depressing the brake pedal.
2. ISG mode runs normally when repressing the ISG OFF button and the indicator light turns off in the button.

CAUTION

External equipment without batteries could be initialized during automatic engine start, if using the cigarette lighter jack and AUX jack to charge.

HDC (HILL DESCENT CONTROL)*



HDC (Hill Descent Control)?

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

HDC Switch

Pressing the HDC switch turns on the HDC indicator on the instrument cluster and set the HDC system in READY mode. Pressing the HDC switch again turns off the HDC indicator and deactivates the HDC function.

HDC Indicator



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

Green light blinking: HDC is being applied.

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

CAUTION

If driving on a level road with HDC on and ready for use, HDC may be applied during sharp cornering or passing over a speed bump. Therefore, do not activate HDC while driving on normal roads.

HDC Operating Conditions

1. HDC switch ON (green HDC indicator on instrument cluster comes on)
2. Gradient of more than specified value and vehicle speed between 5 and 50 km/h
3. ESP (including BAS) not activated

HDC Deactivation Conditions

1. HDC switch OFF (green HDC indicator on the instrument cluster goes off)
2. Gradient of less than specified value
3. Vehicle speed of below 5 km/h or above 70 km/h
4. HDC malfunction
5. HDC system overheated

NOTE

While the HDC is activated, you can drive the vehicle at a speed between 5 and 30 km/h by depressing the brake pedal (deceleration) or accelerator pedal (acceleration). If the vehicle speed is below 5 km/h or above 70 km/h, the HDC is deactivated.

HDC Operation

If the conditions for activating the HDC are met, HDC is activated and the green HDC indicator blinks on the instrument cluster. The HDC is deactivated when the vehicle speed is below 5 km/h or above 70 km/h or the gradient of the slope becomes gentle while it is in operation. It is normal that strong vibrations and noise occur from the brake system when the HDC is in operation.

CAUTION

- HDC is designed to be used when driving on off-road with steep grades (downhill).
- Unnecessary usage of HDC can cause malfunctions in the brake system or ESP system. Do not use HDC when driving on normal roads.
- If driving on a level road with HDC ON and in ready state, the HDC function can be operated during sharp cornering or passing over a speed bump. Therefore, do not activate the HDC while driving on normal roads.
- If the red HDC indicator is turned on, the HDC system is overheated or faulty. If the red indicator stays on even after the HDC related systems have been cooled down, have the vehicle checked and service at the nearest SSangyong authorized dealer or SSangyong service center.
- It is normal for the HDC related system including the brake pedal to emit operating sounds and vibration when HDC is operated.

FRONT OBSTACLE DETECTION WARNING OFF SWITCH*



Operation indicator
(light ON: deactivated,
light OFF: activated)

Front Obstacle Detection Warning OFF Switch

With ON/OFF switch, you can control the warning sound occurred when any obstacle is detected by the sensor (normally within 60 cm, but varies depending on vehicle condition, obstacle shape and weather condition), while the vehicle moves forward/backward.

Front obstacle detection warning mode is activated only at the speed of 15 km/h or less.

CAUTION

The parking aid system is a supplementary system to help your parking and cannot replace your attention. Always check visually in every direction for safe parking.

Front Obstacle Detecting Sensor



Two of obstacle detecting sensors are mounted on the front bumper (Right/Left).

NOTE

The warning buzzer sound will stop when the vehicle speed exceeds 15 km/h.

LED lamp OFF (Front obstacle detection system in operation)

The warning buzzer sounds in two stages according to the distance from the obstacle. If you press the switch once, LED lamp will turn on (Switch ON).

LED lamp ON (Front obstacle detection system not in operation)

The warning buzzer does not sound even if an obstacle is detected. If you repress the switch, LED lamp will turn off (Switch OFF).

NOTE

- While the LED lamp is ON (Switch OFF) with the front obstacle detection warning beep OFF, the parking aid system is still working normally in the instrument cluster.
- Refer to Chapter 6. Parking aid system for detailed information.

HEADLIGHT LEVELING SWITCH*



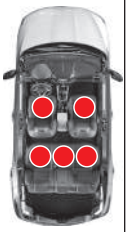
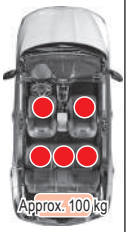
Headlight Leveling Switch*

With the headlights ON, the level of headlight can be adjusted by turning the switch when the vehicle heights of front and back are different due to the number of passengers and the loading conditions of the vehicle.

4 stages (level 0 ~3) are available.

- To raise the level of headlight: press the button down (level 0 direction)
- To lower the level of headlight: press the button up (level 3 direction)

Headlight leveling guide (if a passenger weighs 75 kg)

Level 0	Level 1		Level 2	Level 3
1 or 2 passenger(s) (Normal driving)	1 or 2 passenger(s) / 90 kg load	4 to 5 passengers	4 to 5 passengers / 100 kg load	1 passenger / 400 kg load
				

CAUTION

- For safety, perform the headlight leveling before driving your vehicle.
- Adjust the level of headlight referring to the guide above, according to the number of passengers and the loading conditions.

WARNING

Inappropriate cases of leveling

- Driving with level 3 under level 0 conditions (lower the level): When an emergency occurs on the road ahead, safe driving may be affected by late recognition of the emergency.
- Driving with level 0 under level 3 conditions (Raise the level): Driving visibility for the vehicle driving ahead or opposite side road may be interrupted by your inappropriate leveling.

STEERING WHEEL HEATING SWITCH*



Steering Wheel Heating Switch

To heat the steering wheel, press this switch. To stop the heating, press it again.

CAUTION

- Do not install the supplemental steering device. It may cause to damage the heated wire inside the steering wheel.
- Take care not to damage the grip surface of the steering wheel with a sharp object. The built-in heater could be damaged.
- When cleaning the steering wheel, do not use organic solvents such as thinner, alcohol or gasoline. These solvents can damage the heater and the surface of the steering wheel.



SMART STEER SWITCH

When pressing the smart steer switch, current steering mode comes on the display.

You can change the steering mode in sequence (COMFORT => NORMAL => SPORT) as shown on the right, by pressing the smart steer switch once more within 4 seconds. If the smart steer switch is not pressed within 4 seconds, the system will return to the previous mode.

The selected steering mode is still maintained after the ignition switch turned OFF and back ON.

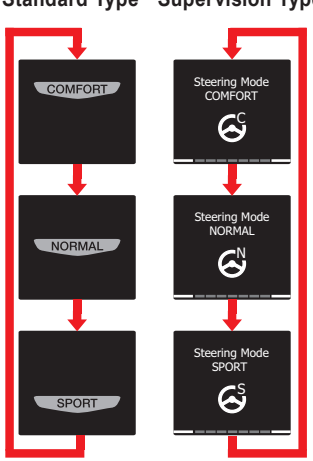
CAUTION

EPS (Electronic Power Steering) system is mounted in the steering handle. This system includes functions to compensate the steering power, interlocking with ESP, the supplementary driving safety system, when cornering or braking on the road with different friction. You may feel the difference in steering when these functions are in operation.

Smart Steer

The smart steer system allows adjusting the steering power according to driver's preference or road conditions.

3 levels (COMFORT, NORMAL, SPORT) of steering modes are available to select using the smart steer switch.



COMFORT mode can be selected if you want smoother and more comfortable driving than NORMAL mode.

NORMAL mode is used for general driving with normal steering power.

SPORT mode is suitable for sporty driving or while driving on a high way.

CAUTION

- Be careful with changing the steering mode while driving according to road conditions.
- If attempting to change the steering mode while operating the steering wheel, the steering power may not be changed immediately even though the selected mode comes on display. The mode will change when you stop handling the steering wheel.
- The smart steer function will not be available if the EPS system is defective.



Emergency Stp Signal Function

When ABS system is operating (or sudden braking), the hazard warning flashers will blink for 10 seconds to inform the emergency situation to the vehicles behind.

The hazard warning flashers will go off:

- When you press the hazard warning flasher switch
- After 10 seconds
- When the vehicle speed increases by 10 km/h

NOTE

Emergency stop signal operates according to the vehicle speed and driving conditions.

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.

To turn off the hazard warning flashers, push the switch again.

CAUTION

To prevent the battery from being discharged, use only in emergency situation.

NOTE

Turn signal lamps will not be functional while the hazard warning flasher is operating.

REAR SEAT BELT & PAB OFF INDICATOR*



Rear Seat Belt Indicator

If the rear seat belt is not fastened when the engine is turned on, this indicator comes on for 30 seconds and goes off.

If the rear seat belt is unfastened after fastened while the engine is running, the warning buzzer sounds and the indicator comes on for 30 seconds until it goes off.

PAB OFF Indicator

This indicator comes on when turning the passenger air bag ON/OFF switch to “OFF” position to disable the passenger air bag.



LKAS

LKAS uses the camera located on the upper side of the windshield to detect the lane boundaries and control the steering wheel in order to ensure the vehicle remains inside the driving lane.

When the LKAS (Lane Keeping Assist System) switch is pressed, a LKAS standby indicator ( ) will light up in the instrument panel.

With the LKAS standby indicator ( ) showing, when the LKAS is activated, the LKAS activation symbol ( ) is indicated.

For detailed operation, please refer to the LKAS (Lane Keeping Assist System) section in Chapter 6.

WARNING

- LKAS does not continuously control the vehicle via steering and should only be used as a steering aid.
- The driver is responsible for safe driving of the vehicle by maneuvering the steering wheel.



When enabled	When activated
	
White: LKAS in ready status	Green: LKAS in operating status

ELECTRIC POWER STEERING

Electric power steering system uses the electric motor to assist you in steering the vehicle. Even if the engine is off or if the power steering system is defective, the vehicle may still be steered, but it will require increased steering effort.

CAUTION

- The steering wheel becomes heavier after turning the steering wheel to its end and holding it for a certain period of time. However, this is a safety mode for protecting the EPS system, and the steering wheel will return to its normal condition.
- If the EPS warnign light comes on while driving, have the system checked by Ssangyong Dealer or Ssangyong Authorized Service Center.
- In stationary or during low speed driving, you may hear an operating sound from motor when rotating the steering wheel. This is normal condition.

EPS Warnign Light



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

If this warning light comes on while driving, have the system checked by Ssangyong Dealer or Ssangyong Authorized Service Center.

CAUTION

If the EPS warning light does not come on, following symptoms may occur during normal vehicle operation:

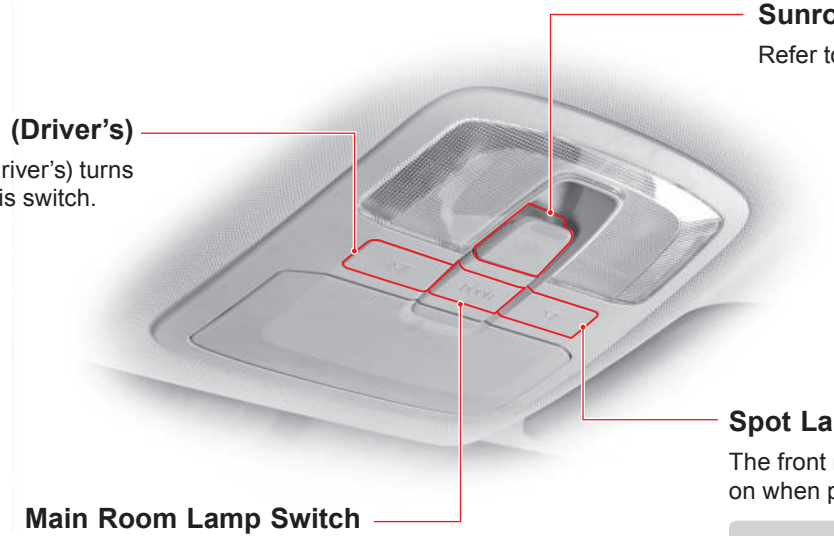
- The steering wheel becomes heavier for approx. 2 seconds after starting the engine. This happens when the EPS system performs the self diagnosis. When the self diagnosis is completed and the system is normal, the steering wheel will return to its normal operating condition.
- To prevent a serious accident, the EPS system stops its operation when the the malfunction in the system is detected. In this situation, the steering effort could be suddenly increased.
- Click noise may be heard from the EPS relay after the ignition switch is turned to ON or LOCK position.
- Motor noise may be heard when the vehicle is at a stop or is driving at a low speed.
- Motor noise may be heard when the vehicle is driving in cold weather.

Sunroof Switch

Refer to Chapter 3.

Spot Lamp Switch (Driver's)

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



Spot Lamp Switch (Passenger's)

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

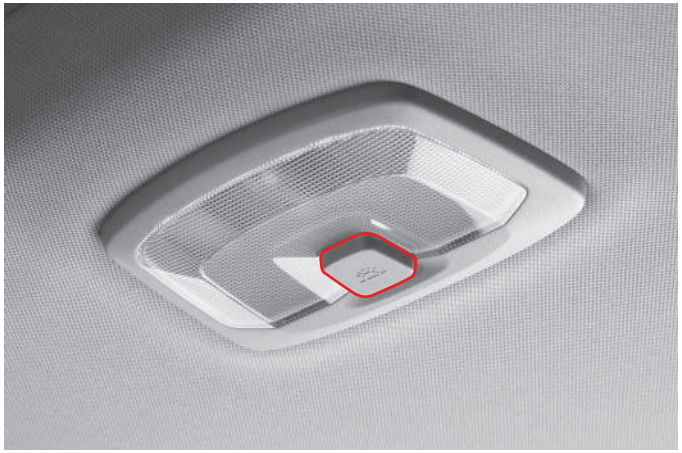
Main Room Lamp Switch

The front room lamp and second room lamp come on/go out when opening/closing a door with the switch pressed in (door coupled operation mode).

NOTE

If the room lamps are turned on after removing the ignition key, they will turn off in approx. 10 minutes to prevent battery discharge.

CENTER ROOM LAMP SWITCH

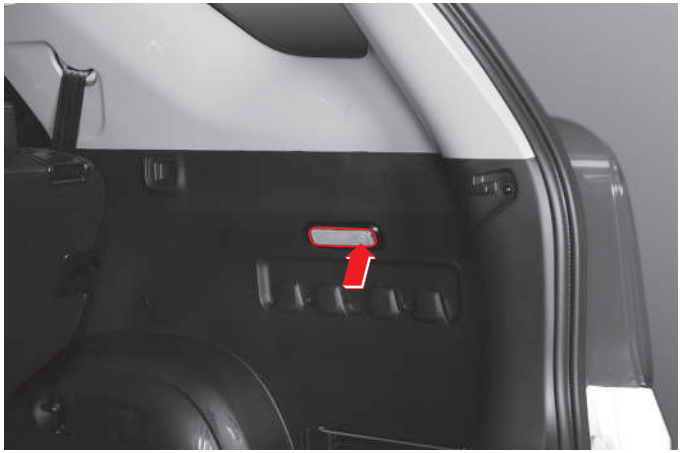


The center room lamp comes on when pressing in this switch. It goes out when preesing in the switch again. However, if the main room lamp switch is in door coupled operation position, this lamp comes on/goes off when opening/closing a door.

CAUTION

Do not open the door for an extended period of time while the room lamp switch is pressed in with the engine stopped. The battery could be discharged.

LUGGAGE ROOM LAMP SWITCH



The luggage compartment lamp is a self-return type, which is turned on/off by pressing the switch to the direction shown by the arrow.

CAUTION

Do not open the tailgate for an extended period of time while the luggage room lamp switch is pressed in with the engine stopped. The battery could be discharged.

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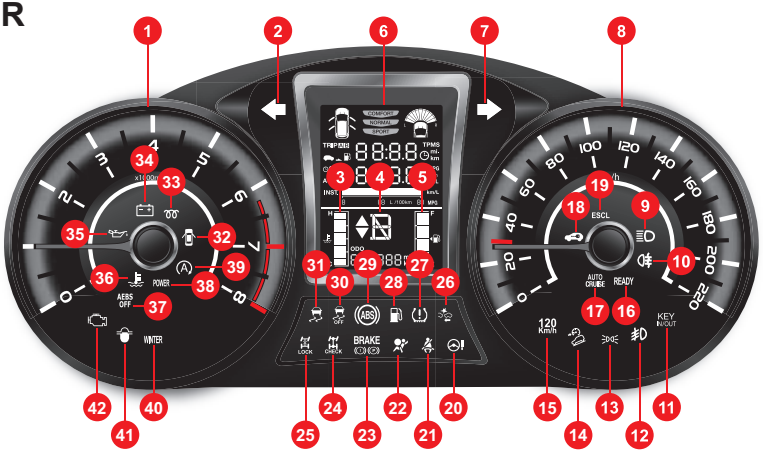
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Instrument Cluster

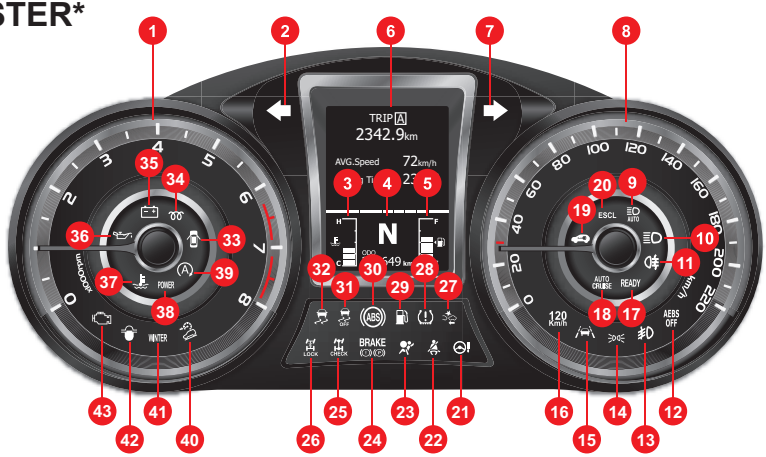
* The image shown below is based on the manual transaxle vehicle w/ full option, and may differ from your vehicle.

STANDARD CLUSTER



1. Tachometer
2. Left turn signal indicator
3. Coolant temperature gauge
4. Gear position indicator
5. Fuel gauge
6. LCD Display
7. Right turn signal indicator
8. Speedometer
9. High beam indicator
10. Rear fog light indicator
11. Smart key check warning light
12. Front fog light indicator
13. Light indicator
14. HDC ON indicator/warning light
15. 120km/h speed warning light (GCC)
16. Auto cruise Ready indicator
17. Auto cruise indicator
18. Immobilizer/Smart key warning light
19. ESCL warning light
20. EPS warning light
21. A. Seat belt reminder (driver's seat)
    B. Seat belt reminder (driver's seat & passenger's seat)
22. Air bag warning light
23. Brake warning light
24. 4WD CHECK warning light
25. 4WD LOCK indicator
26. AEBS warning light
27. Global warning light
28. Low fuel level warning light
29. ABS warning light
30. ESP OFF indicator
31. ESP indicator/warning light
32. Door ajar warning light
33. Glow indicator (DSL)
34. Battery charge warning light
35. Engine oil pressure warning light
36. Engine overheat warning light
37. AEBS OFF indicator
38. Power mode indicator
39. ISG indicator (M/T)
40. WINTER mode indicator
41. Fuel filter warning light (DSL)
42. Engine check warning light

SUPERVISION CLUSTER*



1. Tachometer
2. Left turn signal indicator
3. Coolant temperature gauge
4. Gear position indicator
5. Fuel gauge
6. LCD Display
7. Right turn signal indicator
8. Speedometer
9. HBAS Indicator
10. High beam indicator
11. Rear fog light indicator
12. AEBS OFF indicator
13. Front fog light indicator
14. Light indicator
15. LKAS indicator
16. 120km/h speed warning light (GCC)
17. Auto cruise Ready indicator
18. Auto cruise indicator
19. Immobilizer/Smart key warning light
20. ESCL warning light
21. EPS warning light
22. A. Seat belt reminder (driver's seat)
    B. Seat belt reminder (driver's seat & passenger's seat)
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25. 4WD CHECK warning light
26. 4WD LOCK indicator
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28. Global warning light
29. Low fuel level warning light
30. ABS warning light
31. ESP OFF indicator
32. ESP indicator/warning light
33. Door ajar warning light
34. Glow indicator (DSL)
35. Battery charge warning light
36. Engine oil pressure warning light
37. Engine overheat warning light
38. Power mode indicator
39. ISG indicator (M/T)
40. HDC ON indicator/warning light
41. WINTER mode indicator
42. Fuel filter warning light (DSL)
43. Engine check warning light

TACHOMETER



Standard cluster



Supervision cluster

The tachometer indicates engine speed in revolutions per minute. Multiply 1000 to the current number, then it will be the current number of engine revolutions.

WARNING

Do not operate the engine within the red zone. This may cause severe engine damage.

SPEEDOMETER



Standard cluster



Supervision cluster

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

NOTE Based on Standard cluster



Speedometer-KPH



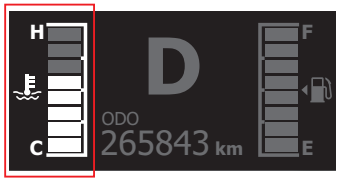
Speedometer-MPH

COOLANT TEMPERATURE GAUGE

Standard cluster



Supervision cluster



The temperature gauge indicates the temperature of the engine coolant.

If the gauge moves beyond the normal operating range toward “H” mark. it indicates the engine overheating that may damage the engine. Allow engine to cool.

WARNING

If the engine is overheated, continued operation of the vehicle may seriously damage the engine.

FUEL GAUGE

Standard cluster



Supervision cluster



This gauge indicates the level of fuel remaining in the fuel tank. Fill up the fuel tank before the gauge pointer reaches “E”. The gauge may slightly move during braking, turning, accelerating, or going up or down hills.

◂⛽ : This symbole indicates that the fuel filler is located on the left side of vehicle.

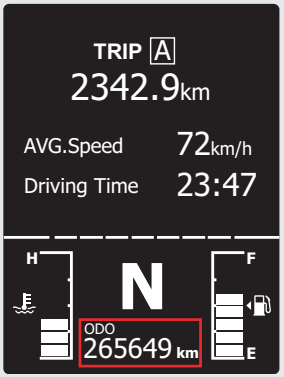
WARNING

Always stop the engine before refueling.

CAUTION

- Use only the designated fuel and low sulfur diesel. Otherwise, engine could be seriously damaged.
- If you use inappropriate grade fuel or put improper fuel additives into the fuel tank, the engine and catalytic converter may seriously be damaged.
- Do not drive your vehicle when the fuel level is low. Otherwise, the catalytic converter could be damaged due to imcomplete combustion.

Odometer

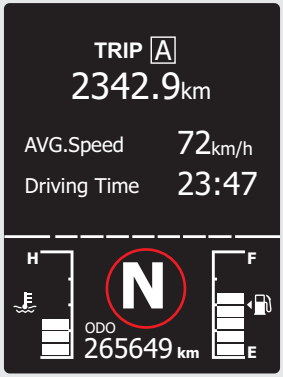
Standard cluster	Supervision cluster
	

The total distance the vehicle has been driven is displayed in kilometers.

Maximum number of kilometers is 999999 km.

Odometer is always shown on the bottom in the display.

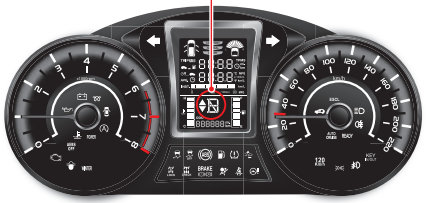
Shift lever indicator

Standard cluster	Supervision cluster
	

- For vehicles with automatic transaxle, the current position of shift lever is displayed.
- For vehicles with manual transaxle, the indicator shows up only when the gear shifts or the shift lever is in R position.
- For the manual mode of auto transaxle vehicles or manual transaxle vehicles, the optimal shift point is indicated by an arrow according to vehicle speed and rpm condition.

SELECTOR LEVER POSITION INDICATOR

Standard cluster



Supervision cluster



Automatic transaxle



Gear position is shown in automatic transaxle.

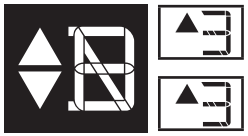
6 position automatic transaxle indicator:
P, R, N, D

Gear position indicator when switched to manual mode (M): 6, 5, 4, 3, 2, 1

P: Parking	6: 6th gear position
R: Reversing	5: 5th gear position
N: Neutral	4: 4th gear position
D: Driving (1st ~ 6th gear shift)	3: 3rd gear position
	2: 2nd gear position
	1: 1st gear position

Gear shift point indicator

Gear shift point indicator is a supplementary function indicating the optimal shift point for fuel efficiency. To operate this function, manual gear shift control is necessary according to road and driving conditions.



- **Manual transaxle:** indicates 3rd gear (target) shift point which is the optimum shift range, while driving in 1st or 2nd gear position
- **Automatic transaxle (M mode):** indicates 4th gear (target) shift point which is the optimum shift range, while driving in 3rd gear position

NOTE

While driving in 1st ~ 5th gear position without shifting gear in automatic transaxle (M mode) vehicle, the transmission may automatically shifts up to protect the system if the engine RPM gets high



- **Manual transaxle:** indicates 3rd gear (target) shift point which is the optimum shift range, while driving in 4th or higher gear position

NOTE

While driving in 2nd ~ 6th gear position in automatic transaxle (M mode) vehicle, the indicator ▼ (arrow) does not appear on display when downshifting. Drive shifting manually according to driving conditions. If driving without manual shift, RPM will get low and the system will shift down.

Manual transaxle display



Automatic transaxle display



NOTE

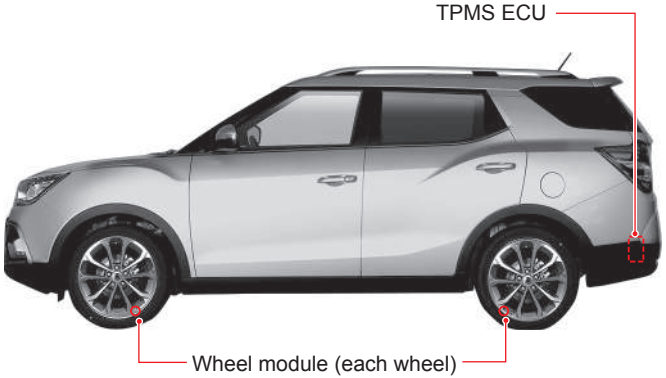
For vehicles with manual transaxle, the indicator shows up only when the gear shifts or the shift lever is in R position.

TIRE PRESSURE MONITORING SYSTEM (TPMS)*

This unit explains based on standard tire pressure 35 psi for 16 in. tire and supervision cluster. The standard tire pressure is 32 psi for 18 in. tire.

What's TPMS?

As an additional safety feature, your vehicle has been equipped with a tire pressure monitoring system (TPMS) that illuminates an abnormal tire pressure telltale when one or more of your tires are significantly under-inflated or over-inflated.



TPMS ECU receives the tire pressure temperature data from wheel module in each wheel and displays the tire pressure on the instrument cluster

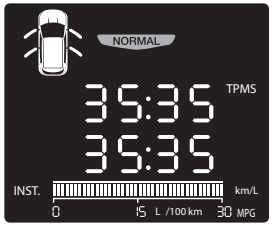
Proper tire pressure: (16 in : 35 psi, 18 in : 32 psi)

The tire pressure should be checked when there is nobody inside the vehicle and the tires are cold (approx. 20°C).

NOTE

Refer to Chapter 12 for recommended tire pressure for this vehicle.

Standard cluster



Supervision cluster



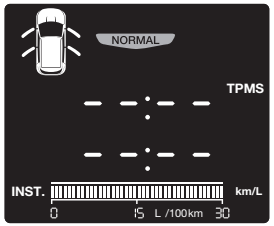
Tire pressure display (unit: psi)

The tire pressure for all wheels is displayed on the LCD display.

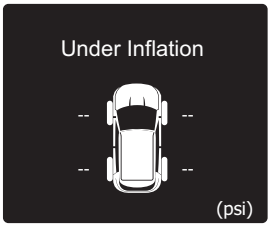
Tire Pressure

TPMS start to recognize the tire pressures in 5 minutes of continuous driving (over 20 km/h) after starting the engine. If the system is not ready yet, LCD display shows “--”.

Standard cluster



Supervision cluster



CAUTION

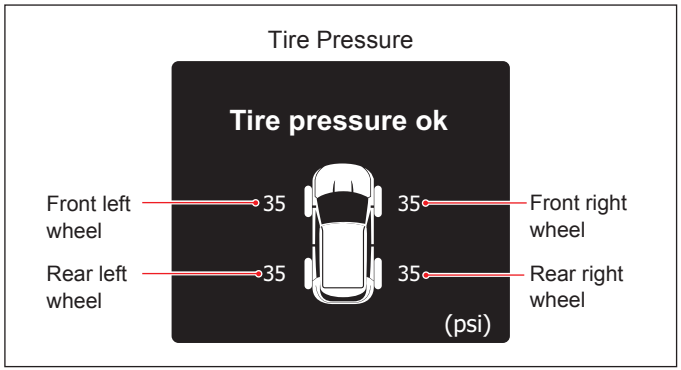
- If the vehicle is in stationary after starting the engine, the tire pressure cannot be displayed on LCD display.
- The tire pressure can be displayed after 5 minutes of driving with 20 km/h of vehicle speed.
- The tire pressure on LCD display may vary according to the external factors such as driving condition and, number of passengers.
- When inflating the tire, the tire pressure may vary until the air temperature is balanced.

Trip switch

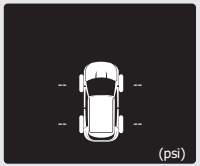
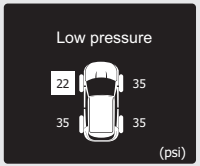
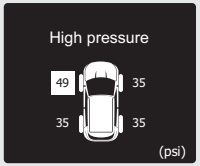


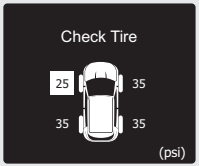
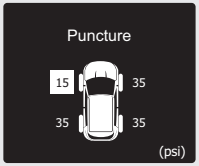
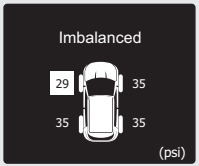
With ignition switch ON, the tire pressure indicator appears on display by pressing the trip switch in order. If all tires have proper inflation, the LCD display will show “NORMAL” message along with each tire’s pressure. The screen will return to TRIP A after a few seconds.

If one or more tires have abnormal inflation, global warning light turns on or the applicable tire light blinks and then stays on in the cluster.



TPMS WARNING INDICATIONS (SUPERVISION)

Condition	Message	Definition
No text		Tire pressure is not recognized
Normal		Tire pressure is normal
Low pressure		Tire pressure needs to be checked. Affected tire symbol comes on.
High pressure		Tire pressure is too high. Affected tire symbol comes on.

Condition	Message	Definition
Check tire		Tire pressure needs to be checked. Affected tire symbol blinks for 70 seconds (1s interval) and then comes on.
Puncture		Tire pressure significantly goes down or tire is flat. Affected tire symbol comes on.
Imbalanced		Imbalanced tire pressure between front wheels and rear wheels. Comes on front wheel symbols and rear wheel symbols by turns.

NOTE

- If the tire pressure is not recognized, the symbol of '--' will be displayed. If the TPMS is defective, the Global warning light will blink and stays ON. Have your vehicle checked and serviced at Ssangyong service center.
- The standard cluster only shows each tire's pressure in LCD display, and "--" symbol comes on in the position of abnormal tire.



GLOBAL WARNING LIGHT

Standard cluster



Supervision cluster





Global warning

This light blinks or stays on when tire pressure or TPMS system (including sensor) has problem.

- TPMS system (including sensor) malfunction: global warning light blinks (for approx. 70 seconds) and stays on
- Tire pressure abnormality (underinflated / overinflated / flatten): global warning light turns on

WARNING

- If the global warning light comes on in the cluster, stop the vehicle as soon as possible and check the tires and their pressures.
- If the global warning light does not go off after checking tire pressures and driving for more than 10 minutes with the speed over 20 km/h, have your vehicle checked and serviced at Ssangyong service center.

CAUTION

- Even with proper inflation of tire pressure, the global warning light ( ) can be illuminated due to the difference between interior and ambient temperatures. This is because the tire pressure gets lower in proportion to the temperature and does not mean TPMS system is defective.
- If you need to drive while the ambient temperature rises or drops sharply, make sure to check and adjust your tire pressure before driving.
- For safe driving, do not depend solely on the tire monitoring system; instead check your tire pressure regularly.

WARNING

- Sudden tire damages by external factors (nails, road debris and etc.) will not be detected immediately. If you feel instability of the vehicle while driving, reduce your speed and move your vehicle at a safe place to check.
- Do not remodel or modify your vehicle in any way to avoid interrupting TPMS system operation.
- For safety, always use genuine wheels mounted with tire pressure monitoring system.

WHEN CHANGING A TIRE

Changing Tire Locations

The TPMS automatically resets new location of tires after continuous driving (over 20 km/h) for around 5 minutes.

CAUTION

- The TPMS warning light may come on when you change the location of tires and tire pressure sensor.
- The resetting time for new location of tires varied according to the driving conditions.
- Do not use any waterproof products on the tire with a tire pressure monitoring system. It can damage the tire pressure monitoring sensors.

WARNING

- If you have injected sealant into one of your tire for repairing, drive the vehicle to a Ssangyong Authorized Service Center within a driving distance of 200 km at a speed of 80 km/h or slower and replace the repaired tire with a new one.
- When replacing the sealant injected tire, the TPMS sensors should be checked for appearance and abnormality at a Ssangyong Authorized Service Center.

When Spare Tire Is Used

The spare tire is not equipped with a TPMS module on its wheel. Thus, if a spare tire is installed, the Global warning lamp comes on and the TPMS does not operate.

CAUTION

When the vehicle is driven with the deflated tire placed in the cargo area after the spare tire is installed, the tire pressure monitoring system can detect the pressure of the deflated tire and display “low tire pressure” message or turn on the global warning light.

When Low Tire Pressure Detected

- The global warning light ((!)) and the low pressure tire position indicator on the instrument cluster come on when a significantly under-inflated tire is detected. If this occurs, slow down and have your vehicle checked and serviced at a Ssangyong Authorized Service Center.
- If you drive continuously without replacing a inflated tire with a new one, the operating performance of the vehicle, breaking force and tire life will be adversely affected and fuel economy will decrease.
- If you cannot take the vehicle to a Ssangyong Authorized Service Center, check and follow the instructions for the service kit (emergency puncture repair kit).

CAUTION

- If the TPMS sensor is covered by some foreign materials such as snow or mud, the TPMS may not communicate with the TPMS unit. This may cause an abnormal operation of TPMS.
- If the snow chains are installed on the wheel, the TPMS may not work properly.
- If the vehicle is moving around electric power supply cable or radio transmitter which can interfere with normal operation of TPMS, the TPMS may not work properly.
- If you use the tire without TPMS sensor, the TPMS warning light comes on and the TPMS does not operate.
- The TPMS cannot alert you to severe and sudden tire damage caused by external factors such as a nail on the road. If you feel any vehicle instability, immediately take your foot off the accelerator and slowly move to a safe position off the road.
- Unauthorized modification or alteration of the vehicle that may affect the performance of TPMS is not permissible.
- Tampering with, modifying, or disabling the TPMS components may interfere with the system's operation and may cause the TPMS malfunctions.
- Make sure not to damage the tire pressure sensor while changing a tire.
- Use only genuine TPMS specific tire with tire pressure sensor.
- After changing a tire or TPMS sensor, check the tire pressure and adjust the pressure to the specified value (32 psi or 35 psi) if necessary.
- In order to detect a low tire pressure precisely, each wheel should be built with a TPMS sensor. The warning indicator may come on if the TPMS sensor is installed in any place (including the spare tire) other than wheels.

CAUTION

- Adjust the tire pressure when the tire is cold. Cold tire is defined as the tire of the vehicle that has not been driven for at least 3 hours, or driven less than 1.6 km.
- Even if you have adjusted the tire pressure, the low tire pressure warning lamp can be turned ON in the cold weather. This is because the tire pressure falls below the low pressure limit for low temperature effects, and is not cause for concern.

  Check the tires and adjust the tire pressure, if necessary.
- If you need to drive when the temperature falls down or rises up rapidly, check the tire pressure before driving and adjust it to the recommended pressure, if necessary.
- All tires of the vehicle including the spare tire should be checked for proper pressure periodically.
- The tire pressure monitoring system may pick up electrical disturbances around the police stations, radio stations, military facilities, towers, etc. At this time, the tire pressure warning lamp can be turned on after flashing for a certain time.
- Also, the tire pressure warning lamp can be turned on after blinking when an after-market equipment, including a laptop, cellular phone charger, audio/navigation system, remote starting system, or wireless communication device, is used or installed to the vehicle.
- If another vehicle with a properly functioning tire pressure monitoring system drives near your vehicle, your tire pressure warning lamp may not be turned on temporarily even when the tire pressure monitoring sensor is malfunctioning.
- Do not use any waterproof products on the tire with a tire pressure monitoring system. It can damage the tire pressure monitoring sensor.

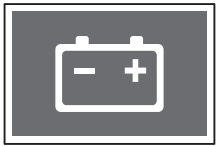
CAUTION

- The tire pressure monitoring system cannot detect a sudden failure of tires due to nails, metal debris, etc. on the roads.
- Never attempt to adjust or modify any components of the tire pressure monitoring system. The system may not work properly.
- The tire pressure monitoring sensors should be installed on each wheel to detect which tire has low pressure. The tire pressure monitoring sensor installed to a position on other than the wheels can turn on the tire pressure warning lamp.
- Make sure that the tire pressure monitoring sensors are not lost or damaged when replacing tires.

WARNING

- Driving with low tire pressure for an extended time can result in tire overheating and burst failure. It may also decrease the tire life, braking force, fuel economy and stability of the vehicle. Consult with the nearest Ssangyong Dealer or Ssangyong Authorized Service Center for the recommended tire pressure.
- Sudden tire damage due to external factors will not be detected immediately. If the vehicle is unstable, immediately release the accelerator pedal, move the vehicle to the safe place and check the vehicle.
- Do not carry out any modification or alteration disrupting the operation of the tire pressure monitoring system.
- The wheels on the market have no tire pressure monitoring sensor. Always use a genuine wheel with tire pressure monitoring sensor for your safety.

BATTERY CHARGE WARNING LIGHT



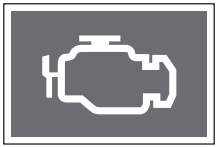
This warning light comes on when the ignition switch is turned on and it goes off when the engine is started.

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

CAUTION

Continued driving with the battery charge warning light illuminated will lead to a sudden stop of vehicle, causing an accident and serious injury.

ENGINE CHECK WARNING LIGHT



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

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

CAUTION

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

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 nearest Ssangyong Dealer or Ssangyong Authorized Service Center.

AIR BAG WARNING LIGHT*



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

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

NOTE

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

ENGINE OVERHEAT WARNING LIGHT



When the engine coolant temperature is abnormally hot, the engine overheat warning light blinks and a warning buzzer sounds. When this happens, stop the vehicle in a safe place and let the engine cool down. For more information, refer to Chapter 11 "When the engine is overheating."

CAUTION

If you keep driving the vehicle with the warning light and buzzer on, the engine could be damaged and lead to a fire. After completely cooling down, have the system checked by Ssangyong Dealer or Ssangyong Authorized Service Center.

ENGINE OIL PRESSURE WARNING LIGHT



This warning light comes on when the oil pressure drops because of low engine oil level.

If this light turns on while driving, safely pull over and stop the vehicle to check the engine oil level. Add engine oil, if necessary, to maintain the proper oil level.

Continuous driving with this light on may lead to engine failure.

CAUTION

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

IMMOBILIZER/SMART KEY WARNING LIGHT*



REKES key: blinks when immobilizer system has malfunction

Smart key: blinks when smart key system has malfunction or key authentication fails

CAUTION

If blinking continues, it means the system is defective. Bring your vehicle to Ssangyong service center for checkup and servicing.

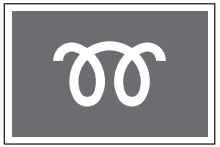
SEAT BELT REMINDER



This warning light blinks and the warning buzzer sounds for 6 seconds when the ignition switch is turned to the “ON” position unless the driver & passenger (EU) seat belt is securely fastened. This reminding operation stops when the driver fastens the seat belt even during its operation period.

When the vehicle speed exceeds 10 km/h (general: 10 km/h) without fastened driver’s seat belt, this indicator comes on and the alarm sounds.

GLOW INDICATOR (DSL ONLY)



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

CAUTION

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

DOOR AJAR WARNING LIGHT



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

WARNING

Before driving, check that the door ajar warning light is off. When a door is not completely closed, it may accidentally open while driving.

LOW FUEL LEVEL WARNING LIGHT



This warning light indicates that the fuel level in the tank is getting exhausted. The illuminating point of this warning light varies according to the driving conditions such as driving angle and road conditions. If this warning light comes on while driving, immediately refuel the tank. However, it is recommended that fuel should be added before this warning light will come on.

CAUTION

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

HDC INDICATOR*



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

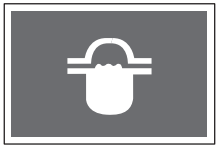
When HDC is applied, the green HDC indicator blinks.

When the red HDC indicator is on, the HDC system is overheated or malfunctioning. For more information, refer to Chapter 3, HDC Switch.

CAUTION

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

FUEL FILTER WARNING LIGHT (DSL ONLY)



This warning light comes on when the ignition switch is turned to “ON” and should go off in a few seconds. When the water inside the water separator in the fuel filter exceeds a certain level, this warning light comes on and a buzzer sounds. Also, the driving force of the vehicle decreases. If this warning light comes on while driving, have the system checked by Ssangyong Dealer or Ssangyong Authorized Service Center.

CAUTION

- The fuel system in the engine may get serious damage if you keep driving while the warning light is on. Prompt correction should be necessary.
- Using low quality fuel could result in serious damage to the engine due to the water or impurities in fuel. Never use low quality fuel.
- If the amount of water in the fuel filter exceeds the specified level, the warning lamp comes on, a chime sounds or the engine power decreases.

ELECTRONIC POWER STEERING WARNING LIGHT (EPS)



This light comes on when the ignition switch is turned on, and goes off with engine start.

When malfunction occurs in EPS, this warning light turns on.

If EPS warning lights on while driving, this indicates that the system is defective, therefore bring your vehicle to Ssangyong service center for checkup and servicing.

CAUTION

- While the vehicle is stationary, if the steering wheel is rotated all the way to the right or left over some period of time, the steering force gets heavy to prevent overload of the electric motor, and EPS warning light blinks. This is a safety feature which will become normal after a while.
- EPS (Electronic power steering) system is installed in your steering handle. Interlocking with ESP, the supplementary driving safety system, EPS compensates the steering power while cornering or braking on the road with different friction. You may feel the difference in steering when this function is in operation.

ESP OFF INDICATOR*



The warning light prompts “ON” when the vehicle is started and turns off after about 4 seconds.

Pressing and holding the ESP OFF switch (for more than 3 seconds) will light up the dashboard ESP indicator to show that the ESP function has been deactivated.

For detailed operation of ESP (Electronic Stability Program), please refer to the ESP OFF switch setting and ESP System sections in Chapter 4.

ESP INDICATOR/WARNING LIGHT*



This warning light comes on when the ignition switch is turned to “ON” and should go off in a few seconds.

This indicator blinks when the ESP system is operating.

If this warning light comes on while driving, have the system checked by Ssangyong Dealer or Ssangyong Authorized Service Center.

For detailed information for ESP (Electronic Stability Program) system, refer to Chapter 4.

ABS WARNING LIGHT*



This warning light comes on when the ignition switch is turned to “ON” and should go off in a few seconds.

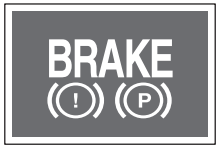
⚠ WARNING

- If this light stays on after starting the engine or comes on while driving, have the system checked by Ssangyong Dealer or Ssangyong Authorized Service Center. In this case, the ABS function is not available, but the conventional brake system is properly working.
- ABS is a device that prevents wheels from locking during braking to allow steering. However, the ABS system does not shorten the stopping distance.

⚠ CAUTION

ABS system performs self diagnosis by transferring hydraulic pressure to the brake units for few seconds after starting the engine. This may cause some noise and vibrations. This means ABS is properly functioning.

BRAKE WARNING LIGHT



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

⚠ CAUTION

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

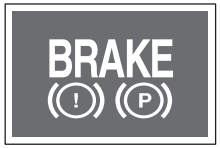
⚠ WARNING

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

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

EBD WARNING LIGHT*





If the ABS warning light and the brake warning light come on simultaneously, EBD (Electronic Brake force Distribution) system is defective. In this case, ABS system also cannot be activated.

If this happens, have the system checked by Ssangyong Dealer or Ssangyong Authorized Service Center.

⚠ WARNING

When the EBD system is not functioning, the vehicle could be unstable during hard braking. Therefore, you must pay particular attention to the driving conditions while this warning light is on.

4WD WARNING LIGHT*



This warning light comes on when the ignition switch is turned to “ON” and should go off in a few seconds.

If this light stays on after starting the engine or comes on while driving, have the system checked by Ssangyong Dealer or Ssangyong Authorized Service Center.

CAUTION

If the 4WD system is overheating, 4WD CHECK warning light blinks to prevent the coupling from being damaged. If the warning light blinks, do not depress the accelerator pedal excessively and cool down the 4WD system immediately. When the 4WD system is sufficiently cooled down, the warning light goes off and it will start working normally again. If the 4WD CHECK warning light stays on, have the 4WD system checked by the nearest Ssangyong Authorized Service Center.

4WD LOCK INDICATOR*



This warning light comes on when the ignition switch is turned to “ON” and should go go off in a few seconds.

This indicator comes on when pressing the 4WD LOCK switch to use 4WD LOCK mode.

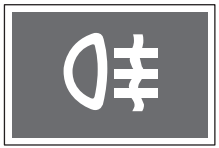
This indicator goes off when pressing the switch again to release 4WD LOCK mode.

FRONT FOG LIGHT INDICATOR*



This indicator comes on when the front fog light is switched on.

REAR FOG LIGHT INDICATOR*



With the headlights turned on, if you rotate the switch in position, rear fog lights turn on and the switch returns back in front fog light position. Rear and front fog lights turn on simultaneously.

HIGH BEAM INDICATOR



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

⚠ WARNING

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

HBAS INDICATOR*



Pushing the light switch lever toward the instrument panel with the light switch in AUTO position activates the High Beam Assist System (HBAS) and turns on this indicator.

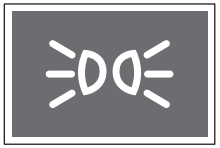
⚠ WARNING

HBAS is activated only when the vehicle is driven at a speed of at least 35 km/h.

HBAS may not be activated in the following situations:

- The lamps of the oncoming or preceding vehicle are damaged.
- The oncoming or preceding vehicle is blocked from your vision.
- The windshield is contaminated (dust, fogging, sticker, snow, etc.) or damaged.
- The body of the oncoming or preceding vehicle is partially concealed at road intersections or on sharp-curved roads.
- Driving through a construction zone with reflective materials and light sources.

LIGHT INDICATOR



This indicator comes on when the tail lamp or headlamp is switched on.

CRUISE CONTROL INDICATOR*



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

AUTO CRUISE READY INDICATOR*



This indicator comes on when the cruise control ON/OFF switch is turned on.

READY indicator will go off when pressing the cruise control ON/OFF switch once more.

WINTER MODE INDICATOR*



Pressing the mode switch (E → P → W) on the switch panel located to the left switch cluster twice turns on the winter mode indicator.

POWER MODE INDICATOR*



Pressing the mode switch (E → P → W) on the switch panel located to the left switch cluster once turns on the power mode indicator.

CAUTION

If both the power mode and winter mode indicators flash simultaneously because of the system failure, see a Ssangyong Authorized Service Center and have the vehicle serviced.

GLOBAL WARNING LIGHT*



This warning light comes on when the ignition switch is turned to “ON” and should go off in a few seconds.

If the tire pressure is too low, this warning light blinks for 70 seconds and then ON.

WARNING

When this warning light comes on, one or more of tires is significantly under-inflated. Immediately reduce the vehicle speed, avoid hard cornering and anticipate increased stopping distances. If this happens, have the tire inflation pressure checked by nearest service center. If necessary, locate the under-inflated tire by using the tire pressure indicator and replace the under-inflated tire with spare tire.

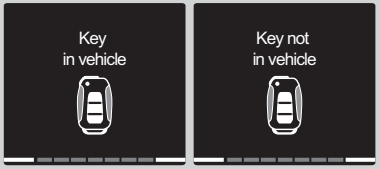
SMART KEY IN WARNING LIGHT*



- When the door lock/unlock button on the outside door handle is pressed after the doors are closed with the smart key inside the vehicle, the doors will not be locked, this warning light will flash, and the buzzer will sound.
- This warning light comes on when a driver carrying an invalid smart key presses the engine start/stop button.
- This warning light flashes when a driver carrying a valid smart key opens a door and gets off the vehicle with the ignition switch ON or the engine running. Closing the door under this condition triggers the buzzer and flashing indicator.

NOTE

For supervision type, the key warning message appears on the LCD display instead of warning light.



ESCL* (ELECTRICAL STEERING COLUMN LOCK WARNING LIGHT)



This is the device which has the electronic control of the locking and unlocking of the steering wheel in the vehicle with the smart key. If the ESCL warning lamp comes on, the vehicle may not be started and driven. In this case, have the system checked by a Ssangyong dealer or Ssangyong Authorized Service Center.

OVER SPEED WARNING LIGHT (GCC ONLY)



The warning light flashes with repeated (5 times) buzzer sound when the vehicle speed exceeds 120 km/h.

If the warning light flashes, slow down for your own safety.

ISG INDICATOR (M/T)*



ISG system stops the engine temporarily when the vehicle is stationary (e.g. waiting at a traffic light) to improve fuel consumption and control exhaust emissions. ISG system always operates when you start the engine.

ISG system can be deactivated by pressing the ISG OFF switch.

CAUTION

Some warning lights (ABS, brake, ESC, ESC OFF) may come on while the ISG system is running, due to instant energy consumption during engine restart which is a normal function.

※ ISG is the abbreviation of Idle Stop and Go.

AEBS WARNING LIGHT*



AEBS warning light is turned on when the ignition switch is turned to the ON position. The lamp stays on for a short period of time and then goes out.

Stays on: Malfunction in AEBS

Flashing: AEBS in operating status

(flashes only for 5 seconds in the event of a potential collision)

AEBS OFF INDICATOR*



AEBS OFF indicator is turned on when the ignition switch is turned to the ON position. The lamp stays on for a short period of time and then goes out.

The lamp comes on when the AEBS is turned OFF, indicating the system is deactivated.

NOTE

This indicator also comes on when the ESP system is deactivated by pressing the ESP OFF switch.

LKAS INDICATOR*



LKAS indicator is turned on when the ignition switch is turned to the ON position. The lamp stays on for a short period of time and then goes out.

When the LKAS (Lane Keeping Assist System) button is pressed, the LKAS standby indicator (white) will light up in the instrument panel, and when the LKAS system is activated, the activation symbol (green) will light up

TRIP SWITCH (1)

Each time the trip switch is pressed, the applicable information appears in LCD display in specified sequence as shown on next page.



SET SWITCH (2)

- When the LCD display shows the trip odometer and the average fuel consumption, they can be initialized by pressing and holding the set switch.
- When the LCD display indicates illumination, the illumination level (1~6) of instrument cluster will be changed by pressing the set switch briefly.
- When the LCD display indicates the ambient temperature, the unit of temperature will be changed between ºC and ºF by pressing and holding the set switch.

Standard cluster



Supervision cluster

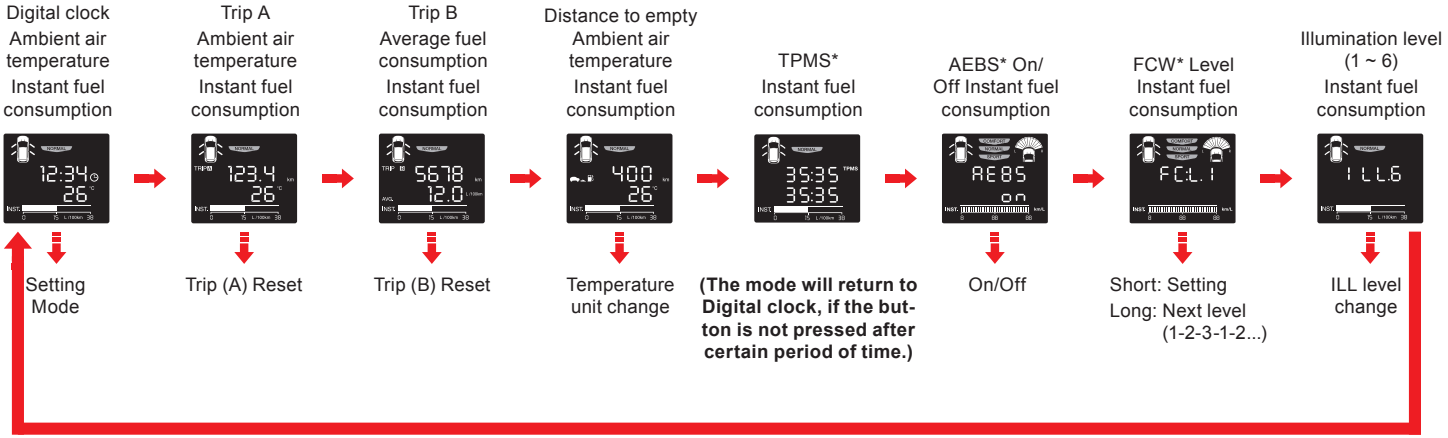


MODE SEQUENCE I (STANDARD CLUSTER)

The LCD display shows important information of your vehicle, and each time you press the trip switch briefly (less than 1 second), the indicator will change as shown below.

Trip (TRIP) button – move between menu

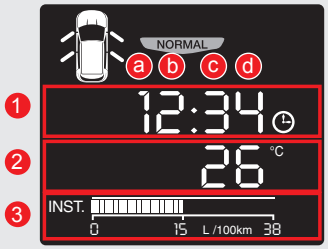
Set (SET) button – select/reset



MODE DESCRIPTION I (STANDARD CLUSTER)

Acquaint yourself with the description of each mode displayed on LCD screen, for comfortable and safe driving.

Digital clock / Ambient air temperature / Instant fuel consumption



1 : Digital clock setting

To enter into setting mode: press and hold the SET button



With a corresponding number blinking, press the SET button briefly: the number increases by 1 at a time

Press and hold the SET button: the number becomes to 0

If you press the TRIP switch briefly, the next number will blink.

When the last number is blinking, press the TRIP button to complete the setting.

Pressing and holding the TRIP button will finish setting at any point.

NOTE

If the battery is removed and reinstalled or replaced due to vehicle servicing and etc., the digital clock needs to be reset.

2 : The LCD display indicates the ambient air temperature.

To switch the temperature unit between ºC and ºF, press and hold the Set switch with the ambient air temperature mode shown.

⚠ CAUTION

The indicated temperature maybe slightly different from the actual air temperature according to engine and driving conditions.

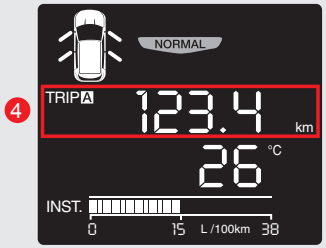
3 : The instant fuel consumption is calculated and indicated based on the distance and the fuel used.

This information is displayed while driving with the speed over 10km/h.

The indication range is 0~30(L/100km) and always displayed on the LCD screen.

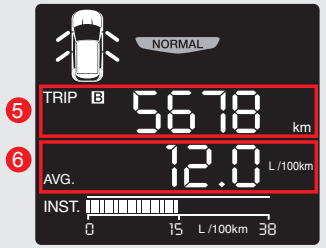
As a bar graph indicator, the graph is not initialized.

Trip A / Ambient air temperature / Instant fuel consumption



4 : The maximum indication of Trip A is 999.9km. The distance will be reset to 0.0km if exceeding the maximum number.

Trip B / Average fuel consumption / Instant fuel consumption



5 : The maximum indication of Trip B is 9999km. The distance will be reset to 0.0km if exceeding the maximum number.

6 : This mode indicates the average fuel consumption computed based on the total amount of fuel used and the distance driven since reset (--.-).

The fuel consumption in liters per 100km is displayed.

The average consumption will be calculated continuously if the engine is turned ON even when the vehicle is not in move.

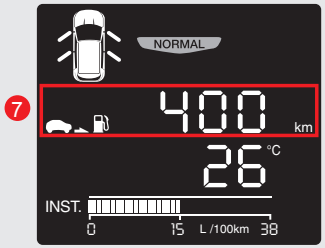
Resetting the average fuel consumption

- Press and hold the Set switch with the average fuel consumption mode shown. The indication will be reset to "__._" and the gauge will restart calculating.
- The average fuel consumption is automatically reset when driving over 1km/h after refueling.

NOTE

The average fuel consumption may not be initialized if small amount of fuel is added.

Distance to empty / Ambient air temperature / Instant fuel consumption



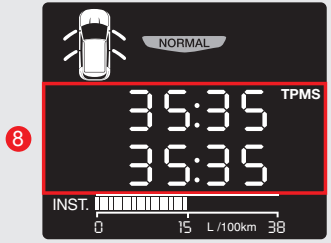
7 : Distance to empty mode indicates the estimated distance that can be driven based on the current amount of fuel in fuel tank, average fuel consumption and accumulated information of driving pattern.

The indication range is 0~1500km, and "---" symbol displays constantly if the estimated distance is less than 50km.

CAUTION

The actual amount of fuel remaining in the fuel tank may differ from the amount estimated by the trip computer due to leveling condition and driving conditions of the vehicle. Therefore, it is recommended to refuel before the fuel warning light comes on.

TPMS* / Instant fuel consumption



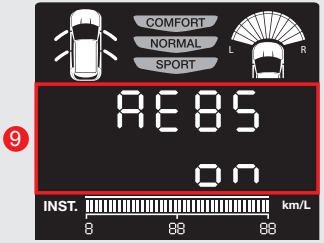
8 : TPMS mode indicates each tire's pressure by detecting it with the sensor.

If either Trip or Set switch is not pressed in 15 seconds in TPMS mode, the screen will automatically return to Digital clock mode.

NOTE

For detailed information, refer to TPMS section in this chapter.

AEBS* On/Off Instant fuel consumption

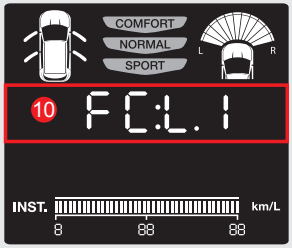


9 : Selecting User Setting, Driving Assist, and AEBS in order from the instrument cluster menu with the ignition ON turns on the AEBS and the system is set to ready status. To deactivate the system, deselect AEBS from the instrument cluster menu.



Deactivating the system will cause the AEBS OFF indicator on the instrument cluster to be illuminated. The ON/OFF status of the system can be viewed in the User Setting menu on the instrument cluster. If the indicator is illuminated continuously with the AEBS enabled, have the vehicle checked at a Ssangyong Dealer or Ssangyong Authorized Service Center.

FCW* Level
Instant fuel consumption



10 : FCW uses data from the camera of LDWS to ensure a safe distance from the vehicle in front and provides the driver with an audible warning in the event of a potential frontal collision.

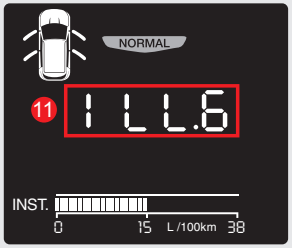
To set the sensitivity of FCW system to Late, Normal, or Early, select Settings, Driving Assist, AEBS, FCW level in order from the instrument cluster menu with the ignition ON and choose between 3 different options.

- When the FCW is set to Early, the system will give an early warning. If you think the warning is given too early, change the sensitivity of the system to Normal.
- Choose Late setting option only when the traffic is light and the vehicle is driven at a low speed.
- If the vehicle ahead brakes unexpectedly, it may seem as if the warning is given too late even if the system is set to Early.

FCW level (sensitivity) setting

- Short press of SET button: Selecting FCW level menu
- Long press of SET button: Selecting FCW level between 1, 2, and 3 in order

Illumination /
Instant fuel consumption



11 : This mode indicates the illumination level (1~6).

To adjust the level of brightness, press the Set switch briefly in Illumination mode. The brightness can be selected between level 1 and 6.

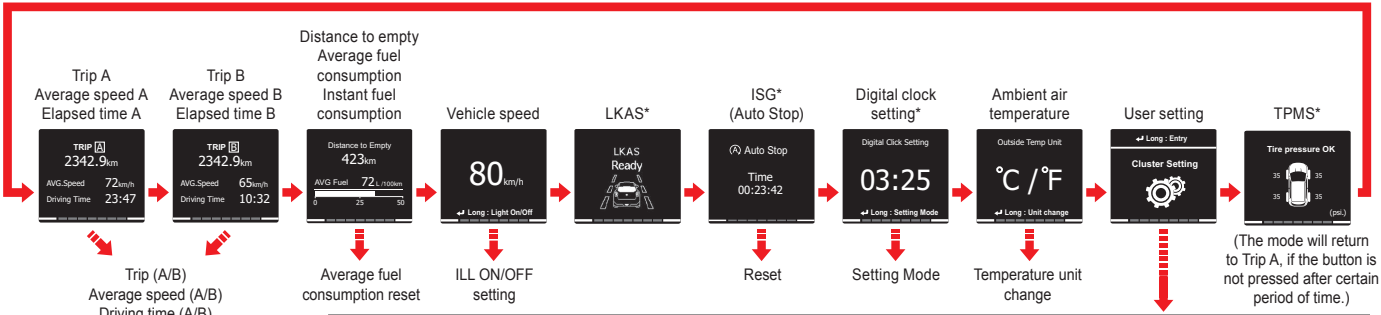
If either Trip or Set switch is not pressed in 5 seconds illumination mode, the screen will automatically return to Digital clock mode.

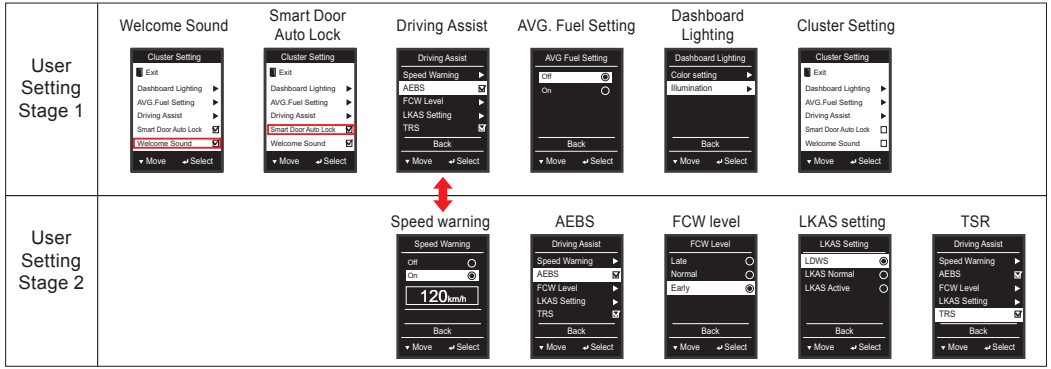
MODE SEQUENCE II (SUPERVISION CLUSTER)

The LCD display shows important information of your vehicle, and each time you press the trip switch briefly (less than 1 second), the indicator will change as shown below.

Trip (TRIP) button – move between menu

Set (SET) button – select/reset



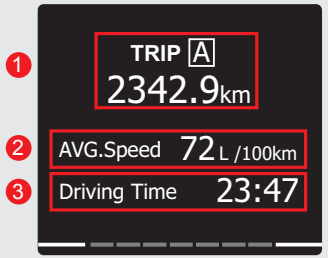


[TRIP: move, SET: select]

MODE DESCRIPTION II (SUPERVISION CLUSTER)

Acquaint yourself with the description of each mode displayed on LCD screen, for comfortable and safe driving.

Trip A / Average speed / Elapsed time A



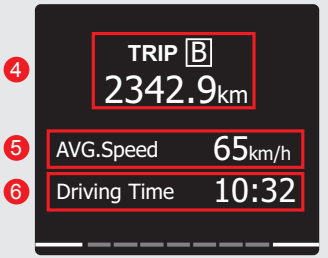
The LCD display indicates Distance of individual trip (km(mile)) / Average speed (km/h(MPH)) / Traveled time of individual trip A (hh:mm).

1 : The maximum indication of Trip (A) is 9999.9km. The distance will be reset to 0.0km if exceeding the maximum number.

2 : The average speed (A) is calculated based on time and distance, and re-newed every 10 seconds on the display.

3: The working range of Elapsed time (A) is from 00:00~99:59. This will be reset to 00:00 if exceeded.

Trip B / Average speed B / Elapsed time B



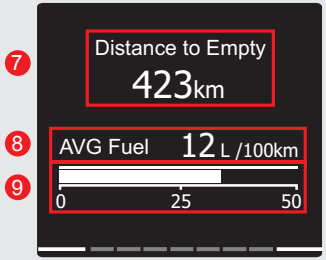
4 : The maximum indication of Trip (B) is 9999.9km. The distance will be reset to 0.0km if exceeding the maximum number.

5 : The average speed (B) is calculated based on time and distance, and re-newed every 10 seconds on the display.

6: The working range of Elapsed time (B) is from 00:00~99:59. This will be reset to 00:00 if exceeded.

To measure the Trip/Average speed/ Traveled time, press and hold the SET switch with the Trip A or Trip B mode shown in the display. The Trip odometer/ Elapsed time (hh:mm) indicator will be initialized to “0.0km”/ “---” / “0:00”, and the gauge will restart measuring.

Distance to empty / Average fuel consumption / Instant fuel consumption



7 : Distance to empty mode indicates the estimated distance that can be driven based on the current amount of fuel in fuel tank, average fuel consumption and accumulated information of driving pattern.

The indication range is 0~1500km (mile), and "---" symbol displays constantly if the estimated distance is less than 50km.

CAUTION

The actual amount of fuel remaining in the fuel tank may differ from the amount estimated by the trip computer due to leveling condition and driving conditions of the vehicle. Therefore, it is recommended to refuel before the fuel warning light comes on.

8 : This mode indicates the average fuel consumption computed based on the total amount of fuel used and the distance driven since reset (--.-).

The fuel consumption in liters per 100km is displayed.

The average consumption will be calculated continuously if the engine is turned ON even when the vehicle is not in move.

Resetting the average fuel consumption

- Press and hold the Set switch with the average fuel consumption mode shown. The indication will be reset to "__._" and the gauge will restart calculating.
- The average fuel consumption is automatically reset when driving over 1km/h after refueling.

NOTE

The average fuel consumption may not be initialized if small amount of fuel is added.

9 The instant fuel consumption is calculated and indicated based on the distance and the fuel used.

This information is displayed while driving with the speed over 10km/h.

The indication range is 0~30L/100km and always displayed on the LCD screen.

As a bar graph indicator, the graph is not initialized.

Vehicle speed



Current speed is displayed.

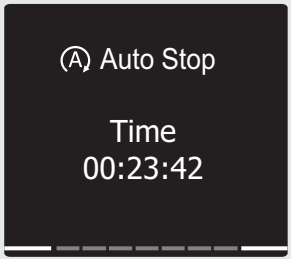
In this mode, if you press and hold the Set switch, the instrument cluster lights OFF. If the mode is changed or event message appears, the light comes back ON.

LKAS



The current activation state of the LKAS (Lane Keeping Assist System) is displayed.

ISG (Auto Stop)

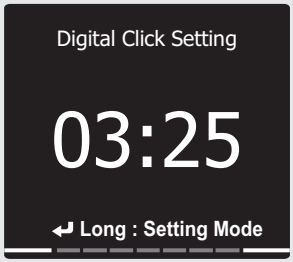


Auto stop cumulative time

This mode indicates the cumulative time while the engine is automatically turned OFF by ISG system.

The cumulative time will be initialized when you press and hold the Set button.

Digital clock setting



To enter into setting mode: press and hold the SET button

12 : 34
a b c d

With a corresponding number blinking, press the SET button briefly: the number increases by 1 at a time

press and hold the SET button: the number becomes to 0

If you press the TRIP switch briefly, the next number will blink.

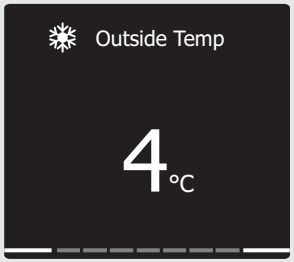
When the last number is blinking, press the TRIP button to complete the setting.

Pressing and holding the TRIP button will finish setting at any point.

NOTE

If the battery is removed and reinstalled or replaced due to vehicle servicing and etc., the digital clock needs to be reset.

Ambient air temperature

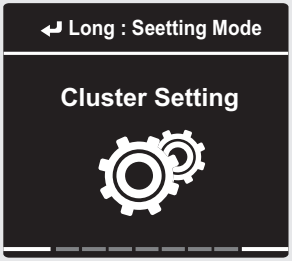


This mode indicates the outside temperature while the engine is turned on.

The temperature unit can be changed (°C =>°F, °F =>°C) by pressing and holding the Set switch.

Cluster Setting Order (Stage 1)

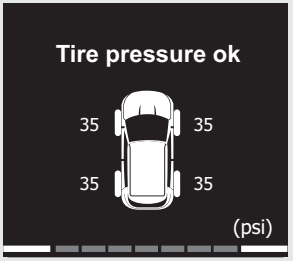
Cluster setting



This mode allows setting and initializing the items such as light, brightness, color of the instrument cluster, average fuel consumption reset, speed warning, welcome sound and etc.

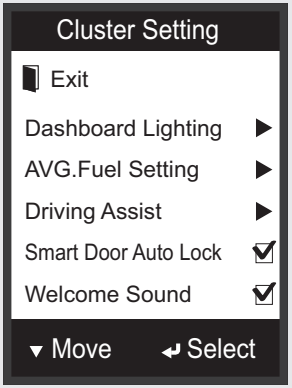
In this mode, if you press and hold the Set switch, user setting mode is displayed.

TPMS



If all tire pressures are ok, NORMAL message will appear on the display. If any abnormal tire pressure is recognized, the symbol located on the affected tire will blink and come ON.

Cluster setting



When the power is turned on, the driver can set and initialize items such as Dashboard Lighting, AVG.Fuel Setting, Driving Assist (3 levels of user settings), Smart Door Auto Lock, Welcome Sound, etc.

NOTE

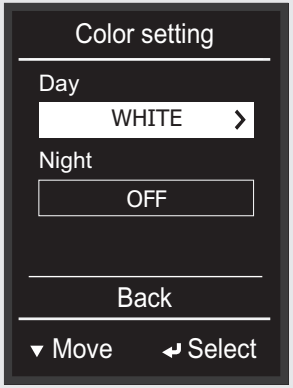
For the vehicle without driving assist, speed warning settings are available in the driving assist setting screen.

Dashboard Lighting



Set the illumination color and its brightness for the instrument cluster.

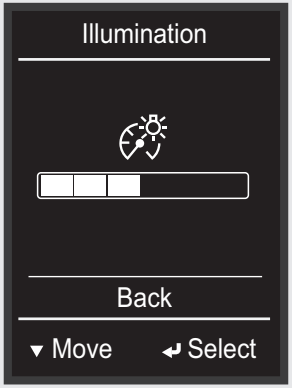
Color



You can select the color of the cluster within 6 colors divided into daytime and nighttime.

The gradation light on trims around RPM gauge on the left and speed gauge on right side of the cluster turns ON in selected color (white, yellow, red, blue, sky blue or OFF).

Brightness



The illumination level of the instrument cluster can be selected between 1 and 6.

Average fuel consumption reset

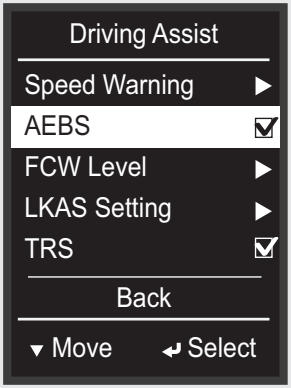


If set to “initialize after refueling”, the average fuel consumption will be reset every time you refuel the vehicle.

NOTE

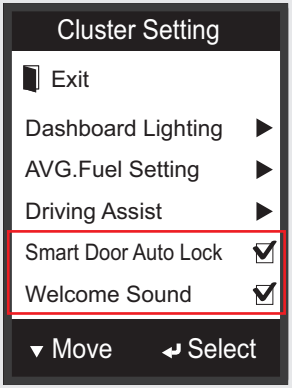
The average fuel consumption may not be initialized if small amount of fuel is added.

Driving assistance*



On the vehicle with driving assistance* system, driver can set over speed warning, Advanced Emergency Braking System (AEBS), sensitivity of Forward Collision Warning (FCW) and Lane Keeping Assist (LKA) on the screen of the system (user setting stage 2).

Smart door AUTO lock / Welcome sound



Smart door AUTO lock

You can tick (on) / untick (off) the smart door AUTO lock in the cluster setting menu.

Welcome sound

If checked in the cluster setting, welcome sound is outputted when you get in your vehicle and close the door with the theft deterrent mode deactivated. Goodbye sound is outputted when the ignition is switched OFF.

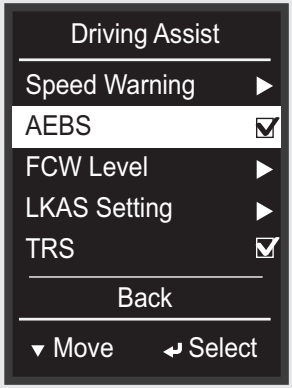
Order of Cluster Setting (User Setting Stage 2)

Speed warning



If the speed increases to the set speed while driving with the speed warning set (km: 60~120, mile: 20~80), the colored lights (gradation) around the RPM and speed gauges will turn off.

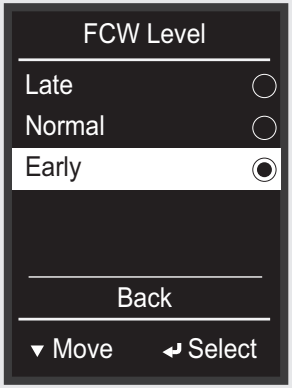
Driving assistance



Driver can select activate or deactivate the Advanced Emergency Braking System (AEBS).

When the AEBS is activated, the system is always ready to operate. When it is deactivated, the system stops working and the AEBS OFF warning lamp comes on the instrument cluster.

Sensitivity of Forward Collision Warning (FCW)

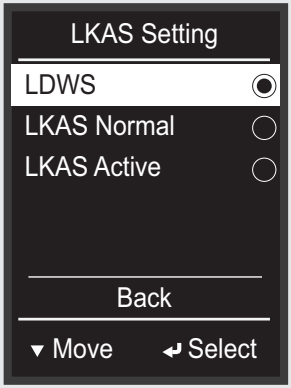


When the AEBS is operated, driver can set the sensitivity of Forward Collision Warning to three levels; slow, medium and fast.

NOTE

The sensitivity of Forward Collision Warning is set as ‘Fast’ at the factory.

Setting of Lane Keeping Assist System (LKAS)



You can select a LKAS option under User Setting menu. When Driver Assist under User setting menu is selected with the vehicle stationary or being driven, the menu relevant to driving assist function will appear. There are 3 options under the LKAS menu. You can choose between LDWS, LKAS Normal, and LKAS Active.

NOTE

The LKAS is set as 'LKAS Normal' at the factory.

► Options available in LKAS menu

• LDWS

Lane Departure Warning function only warns the driver of a detection of exiting lane without maneuvering the vehicle when the vehicle is about to move out of the lane boundaries.

• LKAS Normal

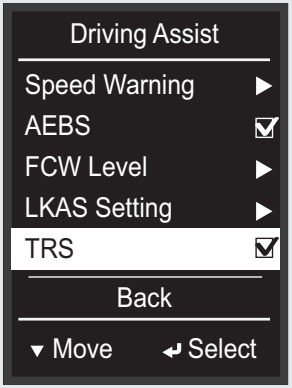
Lane Keeping Assist function helps the driver to stay within the driving lane.

The system controls the steering wheel to ensure the vehicle remains within the driving lane when the vehicle approaches the lane limit lines.

• LKAS Active

Active Steering Assist function actively manages the steering wheel movement to enhance the driver convenience in case of a prolonged driving.

TSR



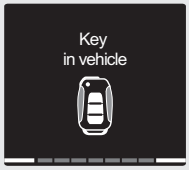
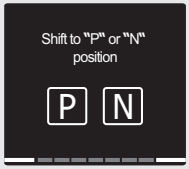
Traffic Sign Recognition system recognizes the speed limits and road signs in various environmental conditions and displays them on the instrument cluster.

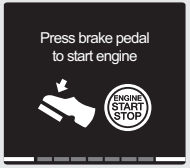
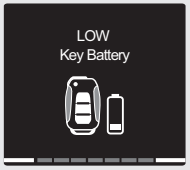
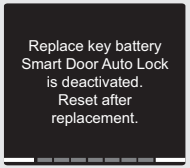
NOTE

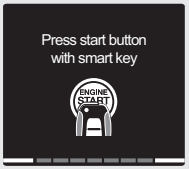
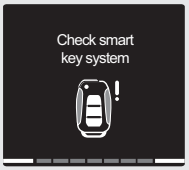
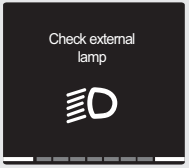
Recognizable sign type: Vienna Convention Sign

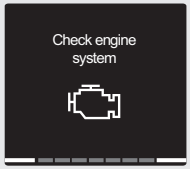
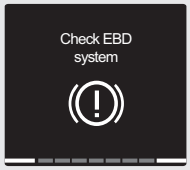
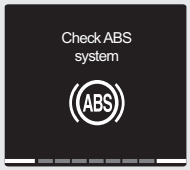
MESSAGES ON LCD DISPLAY (SUPERVISION CLUSTER)

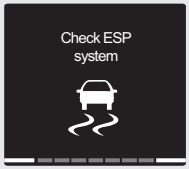
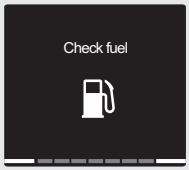
Take proper actions according to the conditions if the LCD display shows following messages.

Description	Message	Condition
Smart key warning		When a smart key is left inside the vehicle and all doors are closed, LCD display shows this message for 10 seconds if you lock the door using the other smart key.
		When AUTO lock is activated and 2 or more valid smart keys are detected inside the vehicle with IGN OFF and any door except for tailgate and hood open, this message is displayed for 10 seconds.
		LCD display shows this message if you leave the vehicle with the smart key when the engine Start/Stop button is ON or Start position.
		To inform you that the gear selector lever should be in P or N position when you press the engine Start/Stop button, LCD display shows this message for 10 seconds if you start the engine when the gear selector lever is not in P or N position.

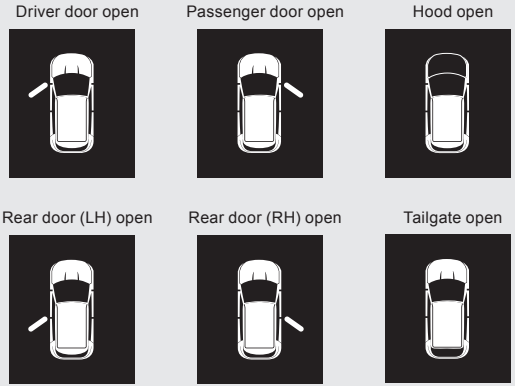
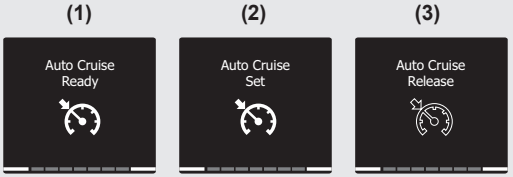
Description	Message	Condition
Smart key warning		To inform you that the brake pedal should be depressed when starting the engine, LCD display shows this message when the engine Start/Stop button becomes in ACC position over two times, because you keep pressing the engine Start/Stop button without depressing the brake pedal.
		LCD display shows this message for 10 seconds if the smart key battery is weak when you press the engine Start/Stop button. Replace the battery with new one.
		• If low smart key battery is detected with AUTO lock activated, this message is displayed on the LCD screen for 10 seconds. • This message is also displayed for 10 seconds if the AUTO lock is changed from Disabled to Enabled when the smart key battery voltage is low.

Description	Message	Condition
Smart key warning		LCD display shows this message when engine start fails due to the battery discharged smart key and etc.
		LCD display shows this message for 10 seconds when there is malfunction on the engine Start/Stop button or smart key system. If the message appears constantly, bring your vehicle to Ssangyong dealer for check-up.
Tail lamp warning		**Vehicles w/ REKES key**: LCD display shows this message with the warning buzzer sound if you open the driver door after the ignition OFF and KEY OUT with the tail lamp switch turned ON. **Vehicles w/ Smart key:** LCD display shows this message with the warning buzzer sound if you open the driver door when the engine Start/Stop button is in OFF or ACC position with the tail lamp switch turned ON.

Description	Message	Condition
Engine oil pressure		When the ignition switches ON, this message appears on LCD display as a normal logic by self-diagnosis. The message goes off when the engine starts. If this message comes on while driving, have your vehicle checked and serviced at Ssangyong dealer.
Engine check		LCD display shows this message when there is malfunction in engine and manual transaxle system. Have the system checked and serviced at Ssangyong dealer
ABS		LCD display shows this message when there is malfunction in EBS system. Have the system checked and serviced at Ssangyong dealer.
		LCD display shows this message when there is malfunction in ABS system. Have the system checked and serviced at Ssangyong dealer.

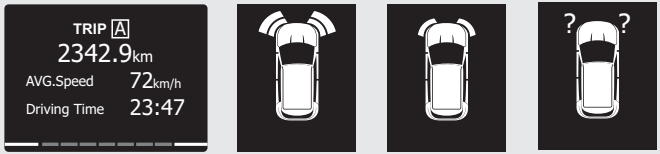
Description	Message	Condition
ESP		LCD display shows this message when there is malfunction in ESP system. Have the system checked and serviced at Ssangyong dealer.
Sunroof		**Vehicles w/ REKES key**: LCD display shows this message with the warning buzzer sound if you open the driver door after the ignition OFF and KEY OUT with the sunroof open. **Vehicles w/ Smart key**: LCD display shows this message with the warning buzzer sound if you open the driver door when the engine Start/Stop button is in OFF or ACC position with the sunroof open.
Low fuel		LCD display shows this message when the small amount of fuel is left in the fuel tank. Refuel your vehicle as soon as possible.

Description	Message	Condition
Welcome sound		LCD display shows this message when you lock or unlock the driver's door and deactivate the theft deterrent mode.
		LCD display shows this message for 2 seconds right after the ignition switches OFF.
		LCD display shows this message for 4seconds once. If the message appears constantly, bring your vehicle to Ssangyong dealer for check-up and servicing.

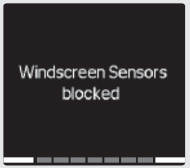
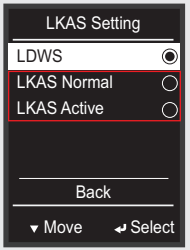
Description	Message	Condition
Door/Hood/ Tailgate		LCD display shows this message when the door, hood or tailgate is open.
Cruise control		LCD display shows the message (1) when you turn the ignition ON and press the cruise control ON/OFF switch. The message (2) appears when you operate the set switch of the cruise control, and if you switch off the cruise control, the message (3) comes on the display.

Description	Message	Condition
Steering mode	**Standard cluster**  **Supervision cluster**  	LCD display shows the steering mode you have selected from the steering mode setting menu. 3 modes are available. (Comfort, Normal, Sport)

Description	Message	Condition
Tire direction	**Standard cluster** Level 5 LH / Level 3 LH / Level 0 / Level 3 RH / Level 5 RH  **Supervision cluster** Level 5 LH / Level 3 LH / Level 0 / Level 3 RH / Level 5 RH 	• LCD display shows the tire direction so that the driver can anticipate the driving off direction. • When the ignition switch is turned to ON from OFF position, the level number between 0 and 5 is indicated according to the tire direction. • The symbols for level 0 to 2 come on for 5 seconds, and the symbols for level 3 to 5 stay on. • This message can be shown when the gear selector lever is in P or N position for vehicles w/ automatic transaxle, when the gear selector lever is in N position with the parking brake pulled up for vehicles w/ manual transaxle. • This symbol is not available when the EPS check warning message comes on.

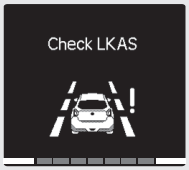
Description	Message	Condition
Front/Rear sensor	**In R position** <Level 0> <Level 1> <Level 2> <Level 3> <Error>  **In D position** <Level 1> <Level 2> <Level 3> <Error> 	• LCD display shows the bar indicator by each sensor working according to the position and the distance of any obstacle detected in front of the vehicle with the gear selector lever in D position while the engine is running. • The front obstacle detection sensor does not work when the vehicle speed is over 15km/h. • LCD display shows the bar indicator by each sensor working according to the position and the distance of any obstacle detected behind the vehicle with the gear selector lever in R position while the engine is running. • If malfunction occurs at rear sensor, “?” symbol appears on affected sensor location. If you see this message on LCD display, have your vehicle checked and serviced at Ssangyong dealer.

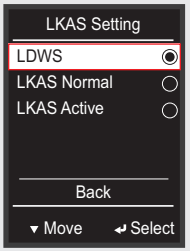
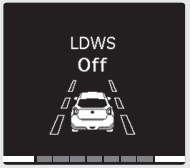
Description	Message	Condition
Cluster setting		If a vehicle speed greater than 0 km/h is detected after you enter the Cluster Setting menu, LCD display shows this warning message for 4 seconds and returns to the User Setting screen.
Autonomous emergency braking system (AEBS)		• When AEBS is activated, “Collision waning” is displayed on the LCD display of the instrument cluster for 5 seconds and the AEBS indicator flashes for 5 seconds. • If the conditions for displaying warning message are met again during the 5 seconds of the message display, the new warning message will be displayed for 5 seconds with the same flashing of the AEBS indicator.
		LCD display shows this message when the vehicle has stopped with full braking after the AEBS is activated.

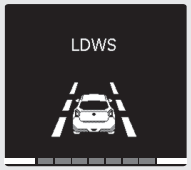
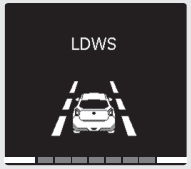
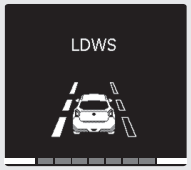
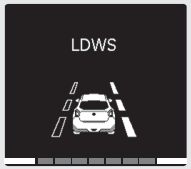
Description	Message	Condition
Autonomous emergency braking system (AEBS)		LCD display shows this message after the first 5 seconds of starting the engine when there is a fault in the AEBS. This message will stay on for 5 seconds.
		LCD display shows this message when the front camera module cannot detect the lane markings, preceding vehicles, people, etc. because of the ice, snow, slush, mud, dirt or debris on the windshield glass.
		Lane keeping assist system can be activated by selecting “LKAS Normal” or “LKAS Active” under the LKAS menu. Lane Departure Warning function provides only the warning signals.

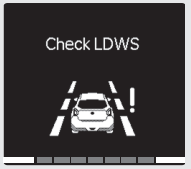
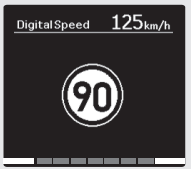
Description	Message	Condition
Lane keeping assist system (LKAS)		LCD display shows this message when the LKAS is turned off.
		LCD display shows this message when any of the following conditions are met with the LKAS turned on: • Vehicle speed of 60 km/h or less • Front camera module cannot detect both lane markings
		LCD display shows this message when the LKAS can control the electric power steering (EPS).

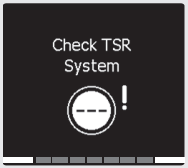
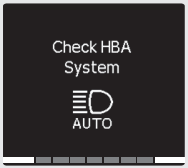
Description	Message	Condition
Lane keeping assist system (LKAS)		LCD display shows this message when the LKAS cannot control EPS.
		LCD display shows this message when only the left lane marking has been detected.
		LCD display shows this message when only the right lane marking has been detected.
		LCD display shows this message when the system does not meet any of the operating conditions.

Description	Message	Condition
Lane keeping assist system (LKAS)		LCD display shows this message after the first 5 seconds of starting the engine when there is a fault in the LKAS. This message will stay on for 5 seconds.
		When the driver operates the vehicle for a pre-programmed duration of time without touching the steering wheel, the Hands Off Warning is indicated. Indication of the Hands Off Warning can be delayed according to varying road conditions. Please make sure to safely operate the vehicle with two hands on the steering wheel at all times.
		LCD display shows this message when the system is deactivated.

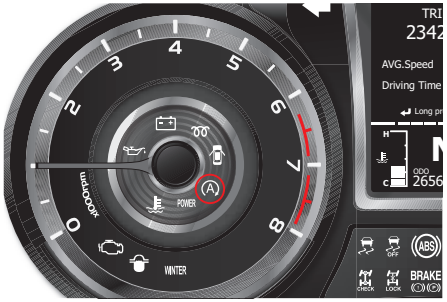
Description	Message	Condition
Lane departure warning system		Lane departure warning system can be activated by selecting "Lane Departure Warning" under the LKAS menu.
		LCD display shows this message when the lane departure warning system is turned off.
		LCD display shows this message when the vehicle is driven at a low speed with the lane departure warning system is turned on.

Description	Message	Condition
Lane departure warning system		LCD display shows this message when the operating conditions for the lane departure warning system are met.
		LCD display shows this message when the front camera module detects both lane markings.
		LCD display shows this message when only the left lane marking has been detected.
		LCD display shows this message when only the right lane marking has been detected.

Description	Message	Condition
Lane departure warning system		LCD display shows this message when the system does not meet any of the operating conditions.
		LCD display shows this message after the first 5 seconds of starting the engine when there is a fault in the lane departure warning system.
		LCD display shows this message when the system is deactivated.
TSR		LCD display shows the speed limits and road signs recognized by the TSR system for about 5 seconds.

Description	Message	Condition
TSR system check required		LCD display shows this message after the first 5 seconds of starting the engine when there is a fault in the TSR system.
High beam assist system (HBAS)		LCD display shows this message after the first 5 seconds of starting the engine when there is a fault in the high beam assist system.

ISG SYSTEM (M/T ONLY)



ISG system stops the engine temporarily when the vehicle is stationary (e.g. waiting at a traffic light) to improve fuel consumption and control exhaust emissions. ISG system always operates when you start the engine.

CAUTION

When ISG system is in operation, some warning lights (ABS, brake, ESP, ESP OFF) maybe turn on due to a momentary loss of current when you restart the engine. This is normal and not systems malfunction.

Auto Stop



If the vehicle speed becomes “0km/h” with the brake pedal depressed, the engine stops automatically with ISG indicator light (Green) turned on, and the “AUTO STOP” message appears on LCD display.

1. While waiting at a traffic light
2. Place the gear selector lever in N position with the brake pedal depressed.
3. When the engine stops, ISG indicator light (Green) turns on with the “AUTO STOP” message on the display.

CAUTION

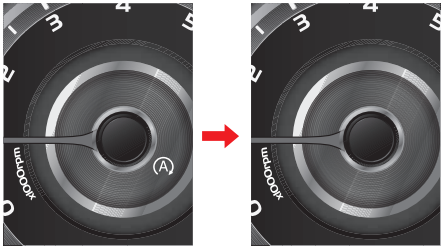
- When the engine stopped automatically, if you unfasten the seat belt or, the door or hood is open, the engine will not start automatically for safety, instead the warning buzzer will sound. If this happens, you must use your REKES key/Smart key (if equipped) to start the engine.
- ISG system does not operate on a sloped road, because a quick acceleration or slip can occur. This is normal for your safety, and not system malfunction.

Auto Stop cumulative time

Auto Stop cumulative time is displayed in the trip mode.

Auto Stop cumulative time is indicated in hh:mm:ss format, and is cumulated until reset by pressing the Trip set switch.

Auto Start



If the following conditions are met when the engine stopped, the engine will restart with the ISG indicator light (Green) OFF.

1. When traffic light changed
2. Shift the lever to 1st gear while the clutch pedal is depressed.
3. ISG indicator light (Green) goes off with the engine restart.

Conditions for engine auto restart

- When the clutch pedal is depressed
- When the brake pressure gets low
- When the A/C is operating with high blower speed
- When the battery is not charged sufficiently
- When the ISG OFF button is pressed with the brake pedal depressed
- When Auto Stop state lasts for a long period of time
- When the vehicle speed is generated

Auto System OFF



ISG system OFF

- Press the ISG OFF button. ISG function is now deactivated with the indicator light turned on, and the LCD display shows the message, “AUTO STOP OFF”, for 5 seconds.
- ISG systems operates normally by pressing the ISG OFF button with the indicator light turned off (if conditions satisfied).
- If you want to deactivate ISG function when the engine stopped automatically, press the ISG OFF button while depressing the brake pedal. The engine will restart for safety and ISG system is deactivated.

CAUTION

External navigation without battery built in could be reset upon auto restart if using the cigarette jack to power on.

CAUTION

- The navigation with no battery built in can be initialized if connected to the cigarette jack or multi-purpose socket upon Auto Start.
- Use only specified power line (RV 12V, current consumption below 2.3 A)
- Connecting the power line to cigarette jack, multi-purpose socket or other wiring and equipment of the vehicle can make the audio system inoperable.

Conditions for ISG system activation

- The driver's seat belt is fastened.
- The driver door (including engine hood) is closed.
- When brake negative pressure is proper
- When the battery is sufficiently charged and the temperature of battery fluid is appropriate
- When the outside temperature is -6°C
- When ISG conditions are satisfied in ECU
- When the vehicle stops again after driving with the speed over 10km/h
- When A/C conditions are satisfied
- When the coolant temperature is over 50°C after the ignitions switched ON
- When no error found in parts related to ISG system

Auto Stop Deactivated



If the conditions for ISG system activation are not satisfied, the LCD display shows the message, "AUTO STOP deactivated", and the ISG function is inoperable.

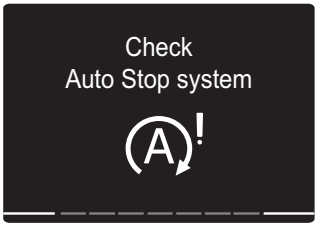
While the engine stopped automatically, ISG system will be deactivated(limited) with the warning buzzer sound in conditions as follows:

- The seat belt is unfastened
- The door is open

CAUTION

If "AUTO STOP deactivated" message appears several times continuously, The ISG system and the battery need to be checked.

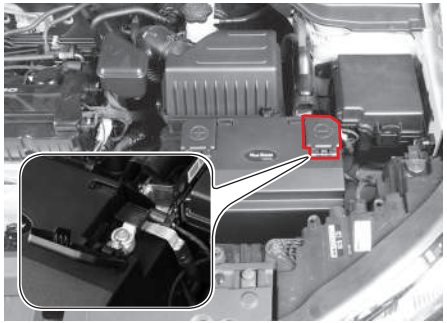
Check Auto Stop System



1. The ISG system cannot be operated if the sensor or the system related to ISG system has malfunction.
2. When the malfunction occurs, ISG indicator light (Yellow) turns on.

Have the system checked and serviced at Ssangyong dealer or Ssangyong authorized service center.

Battery Sensor Deactivation



The battery sensor is deactivated when the power connector of the sensor installed in the battery is disconnected or the battery is removed from (-) pole and replaced.

The ISG function can be limited by battery sensor deactivation. Therefore, you should activate the battery sensor after that, referring to activation conditions.

Conditions for battery sensor activation

The battery sensor will be activated when you start the engine 2 to 3 times after the vehicle was remained in ignition OFF state over 1 hours.

After removing the key from the vehicle in IGN OFF state, make sure to disconnect all kinds of equipment (e.g. navigation, black box and etc.) from the vehicle other than built-ins.

The batter sensor might not be activated if the power is connected.

CAUTION

ISG function will not operate with the conditions as follows:

- The part in ISG system is defective.
- The charging condition of the vehicle battery is not satisfied.
- The brake negative pressure is low.

Have your vehicle checked and serviced at Ssangyong dealer or Ssangyong authorized service center.

WARNING

Always use the genuine ISG system battery manufactured by Ssangyong. If not, ISG system could be inoperable in normal conditions.

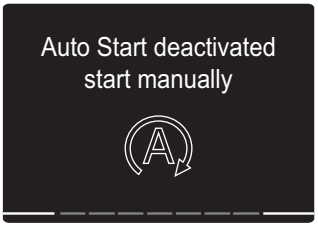
Do not charge the ISG system battery with a universal charger to prevent the battery from being damaged or exploded.

Do not open or remove the battery cap. Doing so may cause an electrolyte leakage resulting in body injuries.

ISG system warning message

Function for optimum vehicle conditions and effective use of ISG system

Auto Start Deactivated Start Manually



Start the engine.

While the engine stopped automatically, ISG system will be deactivated(limited) with the warning buzzer sound in conditions as follows:

- The hood is open
- The system has malfunction

If you want to restart the engine while the ISG system is deactivated, use your REKES key or smart key with the brake pedal depressed.

WARNING

- You must depress the brake pedal when starting the engine, otherwise an unpredictable accident may occur by the sudden movement of the vehicle.
- For driver and passenger's safety, always fasten the seat belt to prevent serious injuries when an unpredictable accident occurs.

WARNING

If you start the engine on uphill or downhill, you should depress the brake pedal until the engine starts completely to prevent your vehicle from slipping.

MEMO

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6

Transaxle and Brake

SHIFT LEVER IN MANUAL TRANSAXLE

The manual transaxle in your vehicle has 6 forward gears and 1 reverse gear. To change gears, fully depress the clutch pedal. Then, move the gearshift lever into a desire gear. After shifting, release the clutch slowly.

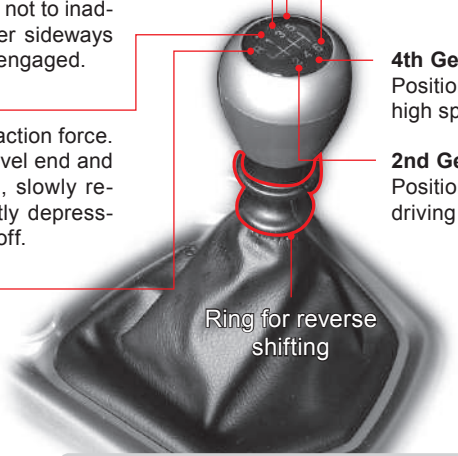
5th Gear
Position for high speed driving on a highway. When down-shifting from 5th gear to 4th gear, particular caution should be taken not to inadvertently press the gear shift lever sideways in such a manner that 2nd gear is engaged.

3rd Gear
For low- or mid-speed driving.
When upshifting from 2nd gear to 3rd gear, particular caution should be taken not to inadvertently press the gear shift lever sideways in such a manner that 5th gear is engaged.

1st Gear
Position for driving off and high traction force. Depress the clutch pedal to its travel end and move the shift lever to "1". Then, slowly release the clutch pedal while gently depressing the accelerator pedal to drive off.

Reverse Gear
Position for reverse driving. The ring (1) located below the shift knob should be pulled upward while moving the shift lever to "R" position.

Neutral Position
Position for engine start, vehicle stop, and parking

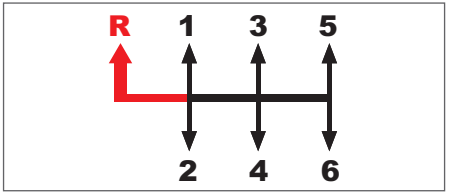


6th Gear
Position for very high speed driving on a highway.

4th Gear
Position for normal and high speed driving

2nd Gear
Position for low speed driving

NOTE
Your vehicle is equipped with the gear shift point indicator, which can be shown on LCD display. Refer to Chapter 5. Instrument cluster for details.



: The ring (1) should be pulled up while shifting to "R" position

: The gear shift lever can be moved without pulling the ring (1)

Manual Gear Shift Indicator



This indicates the most appropriate timing for shifting to the 3rd gear (target) when the vehicle is driven in 1st to 2nd gear.

This indicates the most appropriate timing for shifting to the 3rd gear (target) when the vehicle is driven in 4th gear or higher.



DOWNSHIFTING

When you need to slow down in heavy traffic or while driving up steep hills, downshift the gear to release the load to the engine. Downshifting reduces the chance of stalling and gives better acceleration when you need to increase the vehicle speed again. When the vehicle is driving down steep hills, downshifting provides a safe speed and prolongs the life span of brake system.

GEAR POSITION WHEN PARKING

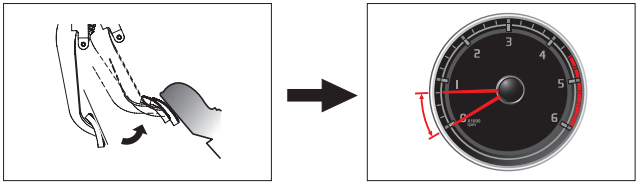
Always apply the parking brake fully and shut the engine off after parking. Shift the transaxle into 1st gear when the vehicle is parked on a level ground or uphill grade, and shift into “R” on a downhill grade.

USING THE CLUTCH

The clutch pedal should be depressed all the way to its travel end before shifting. The clutch pedal should be fully released while driving. Do not rest your foot on the clutch pedal while driving. This can cause unnecessary wear in clutch system. Do not operate the clutch pedal rapidly and repeatedly.

DRIVING TIPS FOR NORMAL STARTING OFF OR STARTING OFF ON UPHILL

1. Depress the clutch pedal and the brake pedal, start the engine and move the shift lever to the 1st gear (reverse gear in reversing) position.
2. If the clutch pedal is released slightly with the brake pedal depressed, the engine rpm increases. (The increase in engine rpm varies depending on the road inclination).



Release the clutch pedal slightly Increase in engine rpm

3. The vehicle starts to move smoothly if you depress the accelerator pedal while releasing the brake pedal after checking that the engine rpm is raising.
4. Release the clutch pedal completely after the vehicle starts off.

NOTE

- The vehicles equipped with ESP system has HSA (Hill Start Assist) function, which keeps the brake pressure for a certain period of time to prevent the vehicle from slipping on a steep uphill when starting the engine so that you can move your vehicle more safely. HSA system is automatically deactivated after operating for approx. 3 seconds, or the vehicle starts moving with accelerator pedal depressed.
- HSA function does not work when you start the vehicle parked on an uphill in reverse gear, or when you start the vehicle parked on downhill in drive gear.

CAUTION

Because the HSA operation on the brake is automatically cancelled after approx. 3 seconds, you have to release the brake pedal intentionally and depress the accelerator pedal so the vehicle does not slip down the hill.

PARKING BRAKE OPERATION WHEN DRIVING UPHILL

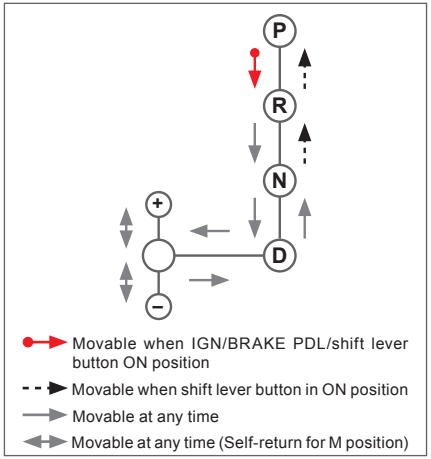
When driving on a steep uphill, it is safer to use the parking brake as follows: Apply the parking brake, follow steps (Vehicle with M/T: steps 1 - 3, and release the parking brake when the vehicle starts to move.

CAUTION

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

GEAR SELECTOR LEVER IN AUTOMATIC TRANSAXLE*





A Gear Position

- **P** : Parking
- **R** : Reverse
- **N** : Neutral
- **D** : Driving

B Operation of Automatic Transmission

► Functions for each shift position

The automatic transmission shifts automatically from 1st gear to 6th gear depending on the position of the shift lever, vehicle speed, and position of the accelerator pedal. The shift lever position is indicated on the instrument cluster.

When the shift lever is in D or R position or the transmission in manual mode (+, -), the vehicle will move forward or backward if the brake is simply released without pressing the accelerator pedal. Be sure to depress the brake pedal when you want to stop the vehicle in this state.

⚠ WARNING

Make sure to check the gear position indicator on the instrument cluster and corresponding indicator by the shift lever during shifting.

⚠ WARNING

Avoid operating the engine brake (i.e., downshift) suddenly on the slippery roads. There is a risk of tire slipping.

To shift into any other positions from the “P” or “N” position after stopping the vehicle, you have to depress the brake pedal with the ignition switch “ON”.

C Selection of Manual/ Automatic Shift Function

- **D** : Automatic shift according to the driving condition
- **(+/-)** : Manual shift

Starting and Driving Off

1. Always start the engine while the selector lever is in **"P"** and the brake pedal is depressed. For your safety, avoid starting the engine from **"N"** even though you can do so.
2. Check whether or not the engine speed is in a normal operating range (below 1000 rpm). Keep the brake pedal depressed and shift into **"D"** or **"R"**.
3. Depress the brake pedal, release the parking brake, and move the gear selector lever to **"D"** position. Wait for a while several seconds before driving off with the brake pedal depressed.
4. To move the vehicle, release the brake pedal and depress the accelerator pedal gradually.

CAUTION

- For safe driving, there is P lock (P to R) function, in which the gear shift lever only works with the brake pedal depressed.
- When you depress and release the brake pedal, the sound can be heard when the shift lever is locked and released. This is caused by P-lock function and is normal.

WARNING

- For your safety, always depress the brake pedal before moving the gear selector lever with the vehicle stopped.
- Never depress the accelerator pedal when moving the gear selector lever.
- If you have to stop on a hill, depress the brake pedal securely.
- When starting the engine with the accelerator pedal depressed, your vehicle may abruptly move and cause an accident.
- When the parking brake is released while the engine is running at a high rpm, your vehicle may abruptly move. Therefore, wait until the engine speed becomes stable.
- To avoid any mechanical damages or accidents, never shift into **"P"** or **"N"** while the vehicle is in motion.
- When driving at a high speed, any sudden attempt to shift from a higher to a lower gear can severely damage the vehicle. In addition, your vehicle may lose its stability and be at a high risk.
- A high engine speed can cause your vehicle to move abruptly from the parked position. To avoid this, wait until the engine rpm becomes stable.
- Do not abruptly drive off or sharply accelerate the vehicle after shifting into **"D"**. Otherwise, the transaxle will be damaged. Especially, when you start off on a hill after stopping and parking the vehicle, wait for a while until the **"D"** shift indicator comes on with the brake pedal depressed.
- Do not abruptly drive off or sharply accelerate the engine after shifting into **"D"**. Otherwise the transaxle will be damaged. Especially, when you start off after stopping, wait for a while until the **"D"** shift indicator comes on with the brake pedal depressed.
- When driving on a downhill, never shift the selector lever to **"N"**. If you try to shift the lever to **"D"** from **"N"**, a sudden gear engagement can damage the drive train.
- Even though you can start the engine with the selector lever in both **"P"** or **"N"**, for your safety, always start the engine with the selector lever in **"P"**.
- Never shift into **"R"** when the vehicle is moving.

Creep Phenomenon

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

CAUTION

- On a steep decline or incline, your vehicle may move in the opposite direction of the intended direction in spite of the creep effect. When stopping on a steep hill, always depress the brake pedal.

Kickdown Function

If you need to accelerate rapidly, depress the accelerator pedal to its travel end. Then, a lower gear will be automatically engaged. This is called the Kickdown function.

CAUTION

- Do not use the kickdown function while driving on slippery or sharply curved roads.
- If you use the kickdown function too frequently, the durability and fuel economy of the vehicle will get worse.

Engine Brake

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

CAUTION

- Do not excessively apply the brake pedal while going down a long slope. The brake system will overheat, experience vapor lock or the fade phenomenon, and lose the braking force.
- Be aware that the engine brake does not work when the gear selector lever is in the "N" position.
- Avoid any abrupt engine braking on slippery roads, or the tires may slip.

P: PARK POSITION



Use this position to park your vehicle, start the engine, warm up the engine, or stay in a location for an extended length of time. To shift into any other position, depress the brake pedal with the ignition switch in the **"ON"** position.

WARNING

- Never shift into "P" when the vehicle is moving, or the transaxle will be damaged. Stop the vehicle completely before shifting into "P".
- To shift from the "P" position to another position, the ignition switch must be turned to the "ON" position and the brake pedal should be depressed. Any forcible attempts to move the selector lever from "P" without these two procedures may damage the selector lever and transaxle.
- Do not use the "P" position in place of the parking brake. Always make sure the shift lever is in "P" position and apply the parking brake fully.

SHIFT LOCK



It is a device designed to enable shifting only when the brake pedal is depressed in order to prevent the driver from erroneously operating the shift lever of the automatic transmission when the driver wants to shift from the "P" (park) position to the "R" (reverse) position.

In order to shift from "P" position to "R" position, proceed as follows:

1. Depress and hold the brake pedal.
2. Turn the ignition on.

3. Press the shift lever button and move the shift lever to other positions.

- When you depress and release the brake pedal repeatedly with the shift lever in P (park) position, the sound can be heard when the shift lever is locked and released. This is normal.
- Always start the engine when the shift lever is in P (park) position since the shift lock does not operate when you shift from N (neutral) position to D (drive) position.
- In order to release shift lock, be sure to operate in the following order: Press the brake pedal first and move the shift lever.

When shift lever does not move

If the battery is discharged or the ignition switch is not in the ON position, the shift lever does not move from the P (park) position to the R (reverse) position when the brake pedal is depressed. In this case, you can move the shift lever to other positions by pressing the shift lever button while pressing the SHIFT LOCK RELEASE button (1) located in front of the shift lever.

R: REVERSE POSITION



Use this position to reverse the vehicle.

To shift into **"R"** from **"P"** or **"N"**, completely stop the vehicle and depress the brake pedal. When the selector lever is in **"R"**, the parking aid system will be activated (If equipped).

WARNING

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

N: NEUTRAL POSITION



No power is transferred in this position.

At this position, the engine does not transfer power to the wheels and the vehicle will not move on a flat road. However, for safety, apply the brake when the gear is in this position.

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

WARNING

- Warm up the engine for approx.3 minutes when the ambient temperature is below -15°C. Otherwise, the gear selector lever may not be moved smoothly (N→R). It is designed for protecting the vehicle and is not a fault.
- Never shift into “N” from the “D” position or vice versa when the vehicle is moving, or the transmission will be damaged.
- If you have to stop on a hill and would like to use this neutral position, depress the brake pedal firmly.
- Never attempt to move the gear selector lever to “N” when the vehicle is in motion.
- Never leave a child or pet alone in the vehicle when stopping and parking the vehicle with the ignition ON and the shift lever in neutral “N” position. Move the shift lever to the park “P” position or turn the ignition off in order to prevent the safety accident due to an unintentional operation.

If necessary, to park the vehicle in front of another vehicle allowing the vehicle to be pushed or pulled, perform the following procedure:

CAUTION

Always put the shift lever in P (park) position and apply the parking brake for safety except for emergency parking.

Version Without Smart Key

1. Move the shift lever to N (neutral) position while depressing the brake pedal and turn off the engine.
2. Place wheel chocks under the wheels.
3. Release the parking brake.

   The P (park) position is where the shift lever is locked and the vehicle can’t be moved easily.
4. Depress the brake pedal with the ignition switch in ON position and put the shift lever to N (neutral) position.



Version With Smart Key

1. Apply the parking brake, move the shift lever to P (park) position while depressing the brake pedal and turn off the engine. The START button can be turned off only when the shift selector is in P (park) position.
2. Place wheel chocks under the wheels.
3. Release the parking brake.
4. Depress and hold the brake pedal.
5. Depress the brake pedal and put the shift lever to the N (neutral) position while pressing the SHIFT LOCK RELEASE button.

D: DRIVE POSITION



Use this position for normal driving conditions. The transaxle is automatically shifted from 1st gear up to 6th gears according to the level of depression on the accelerator pedal and the vehicle speed.

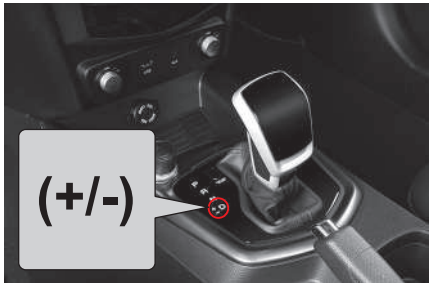
WARNING

- Do not abruptly drive off or sharply accelerate the vehicle after shifting into “D”, or the transaxle will be damaged. Especially, when you start off on a hill after stopping and parking the vehicle, wait for a while until the “D” shift indicator comes on with the brake pedal depressed.
- Even while the gear is in “D”, the vehicle can roll down on an uphill according to the gradients, so you have to depress the brake pedal.

CAUTION

- Please note that the vehicle may slowly move forward on level ground when the selector lever is in “D”.
- Shifting to “D” position must be carried out with the vehicle completely stopped. Otherwise, the transmission can be damaged.
- Shifting from “N” to “D” position when the ignition is turned ON without the brake pedal depressed is possible. But move the gear shift lever with the brake pedal depressed as much as possible for your own safety.

A/T SELECTOR LEVER IN MANUAL (+/-) MODE POSITION



When the selector lever is in manual (+/-) mode position, the driver can change the gear position (1st to 6th) manually by pushing or pulling it.

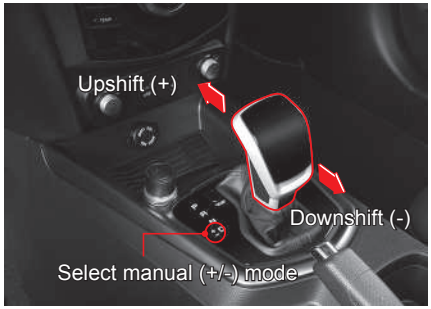
WARNING

If the gear selector lever is moved to the **(+/-)** position accidentally during driving, the currently engaged gear may be shifted to another gear which endangers driving safety. Be careful not to touch the selector lever while driving (especially in winter season).

CAUTION

Upshifting should be done properly according to the road conditions, taking care to keep the engine speed below the red zone.

SHIFTING GEAR POSITIONS



When the selector lever is moved from D position to manual (+/-) mode position, the driver can change the gear position manually; push the selector lever to (+) direction to upshift by one gear at a time and pull the selector lever to (-) direction to downshift by one gear at a time.

NOTE

- If the driver move the selector lever into manual (+/-) mode position while the vehicle is stationary, you can shift to the lower gear and the 2nd gear start is possible on snowy or rainy road. (WINTER mode)
- In some cases, the gear change may not be made to secure the driving performance when changing up. In addition, it may not be made to prevent the engine from over-revving when the driver shifts down the gear depending on the vehicle speed.

HOW TO USE ENGINE BRAKE

In order to use the engine brake, move the selector lever to the manual (+/-) mode position and shift the gear down by one step by operating the selector lever.

CAUTION

- Push or pull the selector lever only once at a time. Please note that multiple gears can be shifted with one operation when you keep pushing or pulling the shift lever.
- Using the engine brake abruptly may cause an unstable driving condition. Avoid using sudden engine brake, especially when driving on snowy or icy road.
- Be aware of that when you use the engine brake, the gear shift may be made in different manner than usual and shift quality may be deteriorated.

GEAR POSITION DISPLAY ON INSTRUMENT CLUSTER



- 1st gear position

  Use on a rugged road, mountain path and steep hill. Engine braking effect on steep hill is available.



- 2nd gear position

  Use on a long and gentle slope. Engine braking effect is available.



- 3rd gear position

  Use on a long and gentle slope. Engine braking effect is available.



- 4th gear position

  Use on a long and gentle slope.

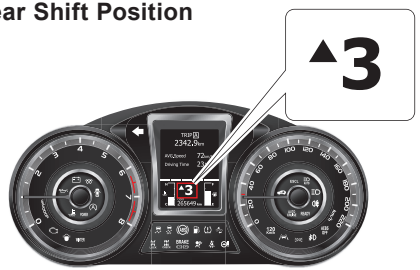


- 5th gear position



- 6th gear position

Manual Gear Shift Position



NOTE

Your vehicle is equipped with the gear shift point indicator which comes on in the cluster at a right shift point. Refer to chapter 5, instrument cluster.

⚠ WARNING

- Do not downshift abruptly (3rd, 2nd or 1st) when the vehicle is driven at high speed (D or 4th), or vehicle may be severely damaged. Also, the vehicle may slip, resulting in an accident (especially on a slippery road).
- If low-range maximum speeds are exceeded when the selector lever is in low gears, the transaxle could be damaged.

⚠ CAUTION

- If you press and hold the tip switch, the gear may be shifted through several steps in series.
- Please note that the gear may be upshifted if you fully depress the accelerator pedal while driving with 1st, 2nd, 3rd, and 4th gear.
- If you apply excessive force to the tip switch, the gear may not be shifted into other gears to protect the vehicle system. Soft and smooth operation is recommended.

SYMPTOMS

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

When the transaxle is defective, the symptoms that can occur are as follows:

- Heavy shock when moving the selector lever
- Decreased driving force while driving at high speed
- Fixed gear position during driving (cannot accelerate the vehicle)

CAUTION

- If abnormal operation of the transaxle (fixed at the 4th forward gear in **"D"**) still exists, have the system checked by Ssangyong dealer or Ssangyong Authorized Service Center.
- If the mechanical or electrical problem still exists, have the system checked by Ssangyong dealer or Ssangyong Authorized Service Center.

PARKING ASSIST SYSTEM I (FRONT/REAR OBSTACLE DETECTION SYSTEM)*

Front/Rear obstacle detection system is a parking aid system working when the gear shift lever is in D or R position, to inform the driver with warning buzzer if an obstacle is detected by the ultrasonic sensor built in each bumper.

Front sensor location



Left Right

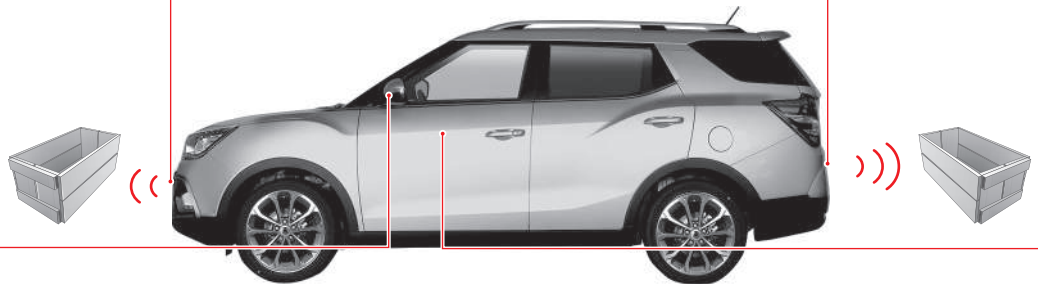
- Front obstacle detecting sensor (2EA)
- Operates when moving forward/backward
- Operates with the speed below 10 km/h

- Rear obstacle detecting sensor (4EA)
- Operates when moving backward only
- Operates with the speed below 10 km/h

Rear sensor location



Left Center Right



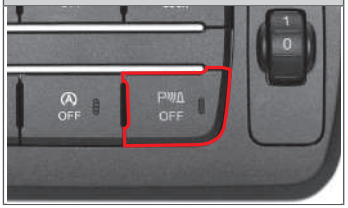
Instrument cluster



Indicates distance from the obstacle on LCD display with audible signal - Supervision type

Warning buzzer ON/OFF switch for front obstacle detection system with LED light OFF

Front obstacle warning buzzer OFF switch



FRONT/REAR OBSTACLE DETECTION SYSTEM WARNING BUZZER

Front/Rear obstacle detection system is a parking aid system working when the gear shift lever is in D or R position, to inform the driver with warning buzzer if an obstacle is detected by the ultrasonic sensor built in each bumper.

If an obstacle is detected, the corresponding segment indicating the distance and the position will blink.

When driving forward (D)	Obstacle detecting sensor (2EA)



Front sensor operates in drive mode (D)

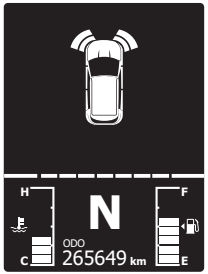
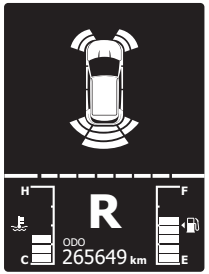
When driving backward (R)	Obstacle detecting sensor (6EA)

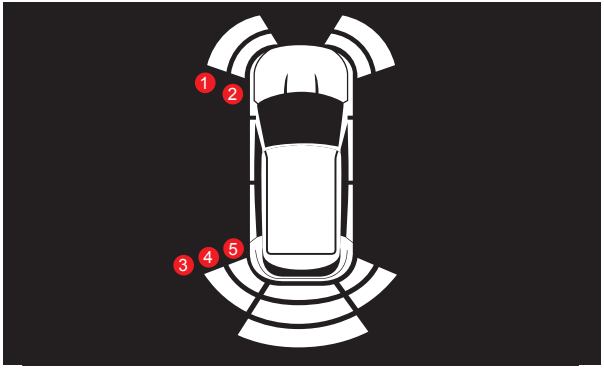


Front/Rear sensor operate in reverse mode (R)

Supervision type



Instrument cluster	
Drive mode	**Reverse mode**
	
LCD display (Front obstacle detected segments blink)	LCD display (Front/Rear obstacle detected segments blink)



When no obstacle detected while Front/Rear detection system is running,



Front/Rear detection range of sensors is shown without blinking and warning buzzer sound

When an obstacle detected in 40cm at front left side,



Line ❶ removed and line ❷ blinks with warning buzzer sound

When an obstacle detected in 60cm at rear right side,



Line ❸ removed and line ❹ blinks with warning buzzer sound

Front obstacle detecting sensor

Distance to obstacle		Warning buzzer interval	
	Over 60cm	No buzzer	
❶	50cm ~ 60cm	Approx. 0.5 second	
❷	30cm ~ 50cm	Continuous	

The warning buzzer sounds (in 2 stages) as shown above depending on the distance from the obstacle while the front sensor is running.

Rear obstacle detecting sensor

Distance to obstacle		Warning buzzer interval	
	Over 120cm	No buzzer	
❸	80cm ~ 120cm	Approx. 1 second	
❹	50cm ~ 80cm	Approx. 0.5 second	
❺	30cm ~ 50cm	Continuous	

The warning buzzer sounds (in 3 stages) as shown above depending on the distance from the obstacle while the front sensor is running.

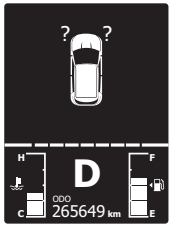
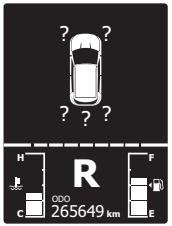
NOTE

The obstacle detection indicator on LCD display can be shown in supervision type of cluster.

SENSOR AND SYSTEM MALFUNCTION

Supervision type



LCD display	
Drive mode	**Reverse mode**
	

If malfunction occurs at front/rear sensor, “?” symbol appears on affected sensor location. If you see this message on LCD display, have your vehicle checked and serviced at Ssangyong dealer.

CAUTION

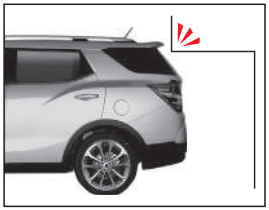
- The alarm does not sound if the distance between sensor and obstacle is less than 30 cm. However, if the sensor detects the obvious obstacle, the alarm stays on.
- The distance to the obstacle may be different from the actual distance by approx. ±10cm when the warning buzzer sounds.
- Do not rely on the parking aid system while gear selector lever is in **“R”** position. Drive backward while checking the rear side of your vehicle.
- If the buzzer sounds abnormally or sounds for over 3 seconds when placing the gear selector lever to **“R”** position, the parking aid system is defective. Have the system checked at Ssangyong Dealer or Ssangyong Authorized Service center.

CAUTION

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

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

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



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

▶ Certain obstacles that sensors cannot detect

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

▶ Sensor Cannot Detect

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

▶ Weak Sensing Scopes

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

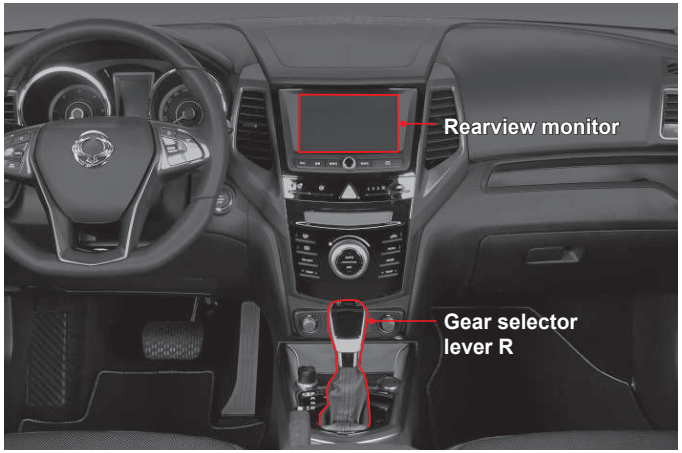
▶ Not Defective But Improperly Working

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

▶ When Towing Trailer

- The sensor detects the trailer and the warning beep may sound continuously.

REARVIEW CAMERA SYSTEM*



The monitor shows the view behind the vehicle when the gear selector lever is in R position.

Precautions for rearview camera system

- The actual distance may differ from what you see from the monitor because the rearview camera uses a wide-angle lens to have a large clear view. Therefore, you should check the rearview mirrors and the area behind the vehicle before and while moving backward.
- The rearview camera does not show the entire area behind the vehicle.
- Keep the camera lens clean using a camera lens cleaner so that the lens is free of foreign matter.

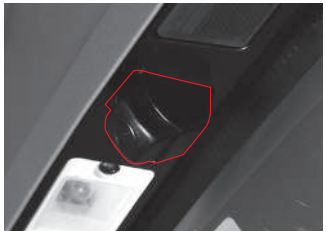
The rearview camera system is a supplementary function for safe driving to display the condition behind the vehicle while the gear selector lever in R position.



Rearview monitor



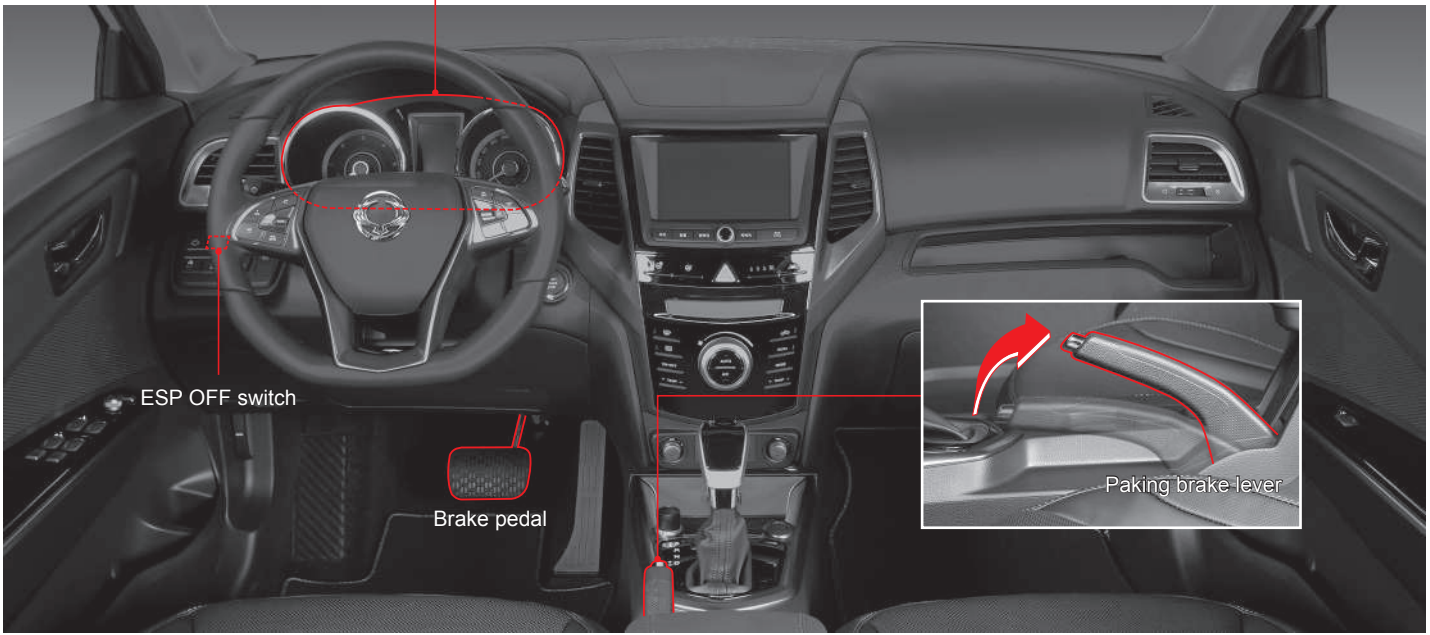
Rearview camera



The rearview monitor is applied depending on the vehicle specifications.

Warning Light and Indicator Related to Brake

ABS warning light	Brake warning light	EBD warning light	ESP warning light	ESP OFF indicator	AEBS warning light	AEBS OFF indicator	HDC indicator



※ Actual appearance may differ from the image shown above.

BRAKE PEDAL (FOOT BRAKE)

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

CAUTION

If you're driving the vehicle on the slippery road such as icy or snowy roads, use the engine brake properly to reduce the vehicle speed.

Engine brake?

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

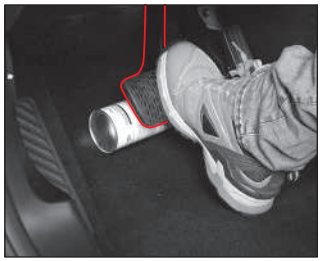
Fade?

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

Vapor Lock?

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

Nothing Under Driver's Seat



Do not leave empty bottles or cans near or under the driver's seat. If it hinders the brake or accelerator pedal operation, it may cause an unexpected accident.

Brake Disc

Check the brake discs at every 10000 km of driving, and replace if necessary.

The replacement intervals of the brake pad and disc may depend on the driver behavior and driving style. Replace the both pads at the same time in pairs when replacing.

CAUTION

If you hear screeching sound when the brake pedal is depressed, have your vehicle checked and serviced at the nearest SsangYong Authorized Service Center. Otherwise, the brake will not work, which may lead to serious accidents.

When the Foot Brake Is Not Working

When the foot brake is not working, decelerate the vehicle speed by using the engine braking effect, then stop the vehicle by applying the parking brake slowly.

ABS(ANTI-LOCK BRAKE SYSTEM)

ABS (Anti-Lock Brake System)?

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



ABS Warning Light

This warning light comes on when the ignition switch is turned to “ON” and should go off in a few seconds.

WARNING

If this light stays on after starting the engine or comes on while driving, have the system checked by Ssangyong Dealer or Ssangyong Authorized Service Center. In this case, the ABS function is not available, but the conventional brake system is properly working.

WARNING

- ABS is designed to secure more safety and increase the control of steering wheel during emergency braking situation. The braking distance for vehicles equipped with an ABS may be longer than for those without it on uneven, gravel, rough or snow-covered roads. While driving on these roads, reduce the vehicle speed and maintain a safe distance from a proceding car.
- To get the maximum benefit from ABS in an emergency situation, do not pump the brake pedal.
- Even a vehicle equipped with ABS has a risk of skidding sideways. Therefore, always maintain a safe distance from the vehicle ahead and drive at low speed on slippery surfaces.
- While driving on the uneven, gravel, rough or snow-covered roads, reduce the vehicle speed maintain a safe distance from a proceeding car.

CAUTION

- ABS system performs self diagnosis by transferring hydraulic pressure to the brake units for few seconds after starting the engine. This may cause some noise and vibrations. This means ABS is properly functioning.
- When the ABS is operating, you may feel pulsations from the brake pedal along with noise. This is normal and indicates that the ABS is functioning properly.

ESP (ELECTRONIC STABILITY PROGRAM)*

ESP SYSTEM?

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

ESP Indicator/Warning Light



ON

This warning light comes on when ESP system is defective.

Blinking

This indicator blinks when the ESP system is operating.

⚠ WARNING

For your safety, reduce the vehicle speed when the indicator is blinking or you are driving on a slippery or curved road.

⚠ CAUTION

- ESP system performs self diagnosis by transferring hydraulic pressure to the brake units for few seconds after starting the engine. This may cause some noise and vibrations. This means ESP is properly functioning.
- When the ESP is operating, you may feel pulsations from the brake pedal along with noise. This is normal and indicates that the ESP is functioning properly.

ESP OFF Indicator



This indicator comes on when pressing the ESP OFF switch to deactivate the ESP function.

When the wheels are slipping on a snow-covered or iced road, you can stop ESP function by pressing ESP OFF switch. This may help to drive off the vehicle.

⚠ CAUTION

- The vehicles equipped with ESP perform self-diagnosis on the system when the vehicle starts to move after engine start. During that time, a slight vibration can be felt which means ESP is properly functioning.
- When the ESP system is operating, you may feel the slight pulsation. This is normal and indicates that the ESP is functioning properly.

NOTE

For details, refer to ESP OFF switch and ESP system in Chapter4.

EBD (ELECTRONIC BRAKE-FORCE DISTRIBUTION)*

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 fastest front wheel and the rear wheel are over 1 km/h. If ABS is engaged, it does not operate.

EBD Warning Light*



If the ABS warning light and the brake warning light come on simultaneously, EBD (Electronic Brake force Distribution) system is defective.

CAUTION

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

ESS (Emergency Stop Signal)*

Emergency Stop Signal?

The hazard warning flashers very rapidly blink to inform the emergency situation to the vehicles behind when your vehicle is braked suddenly or ABS is operating.

The hazard warning flashers will go off:

- When you press the hazard warning flasher switch
- After 10 seconds
- When the vehicle speed increases by 10 km/h

NOTE

- The ESS does not work when the hazard warning flashers are already ON.
- Operation of ESS is subject to the vehicle speed and driving conditions.

PARKING BRAKE LEVER



Parking Brake Operation

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

Parking Brake Release

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

BRAKE WARNING LIGHT



- This warning light comes on when the parking brake is applied and/or the brake fluid level is lower than a specified level.
- If you drive the vehicle without releasing the parking brake, the brake warning light blinks and the buzzer sounds to warn the driver when the vehicle speed exceeds 10 km/h for more than 2 seconds. When this happens, stop the vehicle immediately and release the parking brake.

CAUTION

- Before driving off, be sure to check that the brake warning light is turned off.
- Driving with the parking brake applied could damage the rear brake system. Before driving, fully release the parking brake.
- If the brake warning light (BRAKE) doesn't go out after releasing the parking brake, have the brake system checked by a Ssangyong Dealer or Ssangyong Authorized Service Center.
- Place the gear selector lever to "P" or "N" position when applying the parking brake.
- The parking brake cable should be checked and adjusted regularly.
- Do not use "P" position as a parking brake. Securely apply the parking brake when you park the vehicle.

CAUTION

- Before driving off, be sure to check if the parking brake warning lamp or brake fluid low warning lamp is turned on.
- Driving with parking brake applied could damage the brake system. Before driving, fully release the parking brake.
- If the parking brake should be applied while driving the vehicle, move the gear selector lever to the P or N position for safety.
- If the brake warning lamp (BRAKE) stays on after the parking brake is released, have the vehicle checked and serviced at a Ssangyong Dealer or Ssangyong Authorized Service Center.
- For vehicles with A/T, never use the gear position P (parking) as a substitute for the parking brake. When parking/stopping the vehicle, always apply the parking brake.
- To park the vehicle with gear selector lever in the N position, turn the ignition switch off with the gear in the P position and move the gear selector lever to the N position after pressing the lever lock release button.
- If the gear selector lever of the parked/stopped vehicle is in a place other than the P position, the vehicle can be rolled away based on the external force applied or slopes of the road. Therefore, always move the gear selector lever to the P position unless other gear position is required.

CAUTION

- When parking on an uphill, turn the front wheels away from the curb.

Parking on uphill



- When parking on a downhill, turn the front wheels toward the curb.

Parking on downhill



- If you park on a hill you should apply parking brake firmly to make sure the vehicle secure.

AEBS (AUTONOMOUS EMERGENCY BRAKING)*

The Autonomous Emergency Braking System (AEBS) helps the driver avoid a possible collision and reduces the risk of collision. The system detects the distance between your vehicle and the vehicle ahead or a pedestrian by using the camera and warns the driver by means of visual and acoustic warnings on the basis of the collision risk level. The system enhances the brake control to protect the occupants.



To Set System

Selecting Cluster Setting, Driving Assist, and AEBS in order from the instrument cluster menu with the ignition ON turns on the AEBS and the system is set to ready status.

To deactivate the system, deselect AEBS from the instrument cluster menu. Deactivating the system will cause the AEBS OFF indicator on the instrument cluster to be illuminated.

AEBS Warning Light



Deactivating the system will cause the AEBS warning light on the instrument cluster to be illuminated. The ON/OFF status of the system can be viewed in the User Setting menu on the instrument cluster. If the indicator is illuminated continuously with the AEBS enabled, have the vehicle checked at a Ssangyong Dealer or Ssangyong Authorized Service Center.

AEBS OFF Indicator



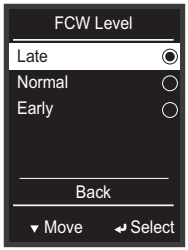
The lamp comes on when the AEBS is deactivated and when the ESP system is deactivated by pressing the ESP OFF switch.

The ON/OFF status of the system can be viewed in the Cluster Setting menu on the instrument cluster. If the AEBS OFF Indicator is illuminated continuously, have the vehicle checked at a Ssangyong Dealer or Ssangyong Authorized Service Center.

CAUTION

- For safety reasons, activate or deactivate the AEBS only when the vehicle is stationary.
- If you switch off the ESP when the AEBS is activated, the AEBS will also be turned off and the AEBS menu will be unavailable on the instrument cluster.

To Set FCW Sensitivity



To set the sensitivity of FCW system to Late, Normal, or Early, select Cluster Setting, Driving Assist, FCW level in order from the instrument cluster menu with the ignition ON and choose between 3 different options.

NOTE

- The factory default setting for FCW level is Normal.
- When the FCW is set to Normal, the system will give an early warning. If you think the warning is given too early, change the sensitivity of the system to Normal or Late.

CAUTION

If the vehicle ahead brakes unexpectedly, it may seem as if the warning is given too late even if the system is set to Normal.

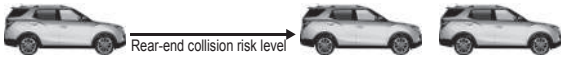
Operating Conditions

The AEBS will be active when the system is turned on through the menu in the instrument cluster and the following conditions are met:

- Detects a pedestrian: at a vehicle speed between 8 km/h and 60 km/h
- Forward collision warning: at a vehicle speed between 8 km/h and 180 km/h.

AEBS Warnings and Controls

The AEBS warns the driver by means of visual and acoustic warnings on the basis of the collision risk level when the vehicle ahead brakes unexpectedly, your vehicle is too close to the vehicle ahead, or there is a risk of collision with a pedestrian. The system enhances the brake control to protect the occupants.

Category	Collision alert (Level 1)	Collision alert (Level 2)	Emergency braking (Level 3)	Vehicle stop
				
LCD display on instrument cluster				
Buzzer	A series of 7 beeps for 1 second	Continuous tone	Continuous tone	-
Vehicle control	-	-	Full brake control during pre-crash braking	Braking capacity reserved for 2 seconds after vehicle stop

⚠ WARNING

- It is impossible to avoid a collision with the AEBS and the emergency braking (level 3) may not be available when driving at a speed of 60 km/h or higher.
- Your vehicle could collide with another vehicle, or person even if the Emergency braking control (level 3) is activated depending on the condition of the road when driving on straight or slightly curved roads at a speed of 60 km/h or less.
- When driving on straight or slightly curved roads at a speed of 180 km/h or less, only the visual and audible warnings are provided and the Emergency braking control is not available.
- If the AEBS detects a pedestrian when driving at a speed of 70 km/h or higher, the Emergency braking control will not be activated.

► Operating Conditions

After turning the AEB (Autonomous Emergency Braking) System ON, the system operates normally when:

- AEB System is ON
- ESP is ON
- Normal recognition of passengers and other vehicles up ahead by the FCM (Front Camera Module) is confirmed
- Vehicle speed is above 8 km/h and below 60 km/h

► Deactivation Conditions

After turning the AEB (Autonomous Emergency Braking) System ON, the system is automatically deactivated and the AEB System is turned OFF when:

- AEB System is turned OFF
- ESP is turned OFF
- Vehicle speed is below 8 km/h or above 60 km/h
- There is steering wheel input
- Transmission gear selector is put into “P” or “R”
- Accelerator pedal is depressed

NOTE

- The AEB (Autonomous Emergency Braking) System is in a standby state to respond to emergency (and dangerous) situations, and is an assistive system that enables quickly reactions when the driver engages the brake pedal.
- When activated, the AEB (Autonomous Emergency Braking) System delivers optimal braking power that is required to decrease the speed of the vehicle.
- When the emergency (and dangerous) situation passes, the AEB (Autonomous Emergency Braking) System disengages control.
- The primary warning operates for vehicle speeds of up to 180 km/h.

CAUTION

The AEBS cannot detect the followings:

- Bicycles, two-wheeled vehicles
- Buildings, overpasses, tunnels, guard rails, tollgate houses, container, etc.
- Trees, garden fences, streetlights, traffic lights, median barriers, traffic signs, bus stop schedule signs, etc.
- Crosswalks, tunnel entry and exit points, markings on the roads, shadow under overpasses
- Man-made structures other than vehicles

CAUTION

AEBS cannot detect a pedestrian who:

- does not stand up straight
- is shown less than 70% of the body with the rest of the body blocked by the surrounding objects on the image captured by the front camera module
- is outside the front camera angle of view

WARNING

- The AEBS is only an aid which helps the driver in cases of extreme emergency and does not guarantee your safety in any condition.
- The AEBS does not recognize all emergency situations.
- The AEB (Autonomous Emergency Braking) System does not engage under all circumstances. Refrain from testing the system against people or objects. This can and will lead to serious injuries and death.
- The AEBS does not automatically brake the vehicle or avoid a potential collision. The safe manoeuvring and controls are always the driver's responsibility.
- Always keep the safe braking distance and reduce the vehicle speed by depressing the brake pedal, if needed.
- The AEBS detects the distance between your vehicle and the vehicle ahead or a pedestrian, relative speed and driver's reactions to determine the most suitable operation.
- The AEBS uses the front camera module to recognize the driving situation. The system may not work properly in driving conditions where the capability of the camera cannot cover.
- The AEB (Autonomous Emergency Braking) System is automatically turned ON by default when the vehicle is on, and the system can be manually turned OFF from the instrument panel menu settings.
- Because unsecured passengers can be injured due to emergency braking applied by the AEB system, please take the proper precautions and operate your vehicle with care.

CAUTION

- Extra care must be taken even if no warning messages are displayed or warning signals sound.
- Take care not to collide with the surrounding environment during Emergency braking operation, paying attention to road conditions.

CAUTION

The AEBS may not respond normally or malfunctions may occur when:

- driving on a steep hill or sharp corners
- driving under specific conditions which cause severe vehicle vibration
- driving behind a vehicle with tail lamps off
- the tail lamp illumination of the preceding vehicle is unsymmetrical
- a vehicle or a pedestrian recklessly cuts in front of you
- there is an animal in front of your vehicle or there is a vehicle coming from the opposite lane of travel
- there is an approaching or reversing vehicle
- there is a pedestrian who blends well into the surrounding environments or exhibits unusual behavior
- there is a vehicle with arbitrary shape
- there is rapid change of illumination, for example at tunnel entry and exit points
- you cannot see the shape of a object because of the shadow under overpasses
- the visibility is poor, such as when it is snowing or raining heavily
- fog or mist appears on the windshield
- the front camera module cannot work properly because of the reflections on the windshield from inside (objects on top of the instrument panel)
- it is very hard to recognize other vehicles and pedestrians because of poor visibility

NOTE

- The AEBS is set to ready status when it is enabled to act rapidly under critical control situations.
- The AEBS is an aid for braking which provides the optimal braking force during the Emergency braking operation.
- The AEBS will be deactivated when the driver depresses the accelerator pedal or carries out a fast steering in an emergency.
- The AEBS will be disabled after the emergency situation is released.

System Malfunction



- If the warning message is displayed (stays on for a certain period of time), there is a fault in the AEBS. Have the vehicle checked at a Ssangyong Dealer or Ssangyong Authorized Service Center.
- When the ESP warning lamp is illuminated, the AEBS warning message may be displayed.

WARNING

- The AEBS is an aid to ensure the driver convenience. The safe manoeuvring and controls are always the driver's responsibility. Never drive the vehicle in a dangerous or reckless manner relying on the AEBS. Always keep the safe braking distance and reduce the vehicle speed by depressing the brake pedal, if needed.
- Under certain circumstances, unnecessary warnings and braking force can be provided. And the sensors of the system does not always fully recognize complex conditions because of its limitations, which can result in missing warnings and braking force applied.
- Your vehicle may collide with the vehicle ahead which stops suddenly if the braking force is insufficient during the Emergency braking operation.

WARNING

- Take care not to endanger the occupants of the vehicle during the Emergency braking operation.
- The AEBS may not work when the driver depresses the brake pedal in a possible crash situations.
- Even when the AEBS is defective, normal braking is still effective. In this case, Emergency braking feature is not available.
- The AEBS is available only when the vehicle is driven forward and detects vehicles ahead and pedestrians. The system cannot detect animals or vehicles coming from the opposite lane of travel.
- The AEBS cannot detect a vehicle which moves or is parked perpendicular to the direction of travel for your vehicle.

Limitations of Operation

The AEBS is an aid to ensure the driver convenience. The safe manoeuvring and controls are always the driver's responsibility. The AEBS uses the front camera module to recognize the driving situation. The system may not work properly in driving conditions where the capability of the camera cannot cover.

The AEBS may not respond normally or malfunctions may occur in the following cases.

The AEBS cannot detect vehicles properly when:

- the camera lens or surface of glass in front of the camera is dirty or blocked by other objects
- it is raining or snowing heavily
- there is electromagnetic interference
- driving off-road, over dips and bumps, on the hills with gradient varying from small to significant
- driving through a construction zone, on railways, on the roads with metal objects scattered on them
- driving in an underground parking structure or indoor parking lot
- there is a thin-shaped object, such as motor cycle or bicycle, in front of your vehicle
- the visibility of the camera is too poor because of backlighting, reflecting light, or darkness, etc.
- the outline of the vehicle ahead is not within the camera field of vision
- the preceding vehicle is a special vehicle, such as a truck with unique shaped cargo, trailer
- driving behind a vehicle with tail lamps off at night or the tail lamp illumination of the preceding vehicle is unsymmetrical
- there is rapid change of illumination when passing the tunnel entry and exit points
- the vehicle is driven in unstable condition
- the sensors of the system cannot fully recognize complex conditions because of its limitations

CAUTION



Curve driving

During a curve driving, the sensors of the system may not fully recognize a vehicle in your lane because of its limitations, which can result in unnecessary or missing warnings and braking force.

Always be careful of motor traffic and reduce the vehicle speed by depressing the brake pedal, if needed.

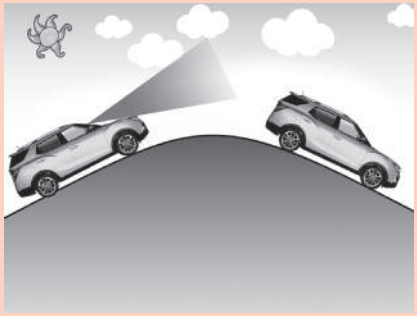
CAUTION



During a curve driving, the AEBS may recognize a vehicle in other lane as a preceding vehicle and activate unnecessary warnings and braking force. Always be careful of motor traffic and reduce the vehicle speed by depressing the brake pedal, if needed.

If this occurs, depress the accelerator pedal to prevent the vehicle from braking. Adjust the speed of the vehicle to the current traffic situation.

CAUTION



Hill driving

During a hill driving, the AEBS may not fully recognize a vehicle, which can result in unnecessary or missing warnings and braking force.

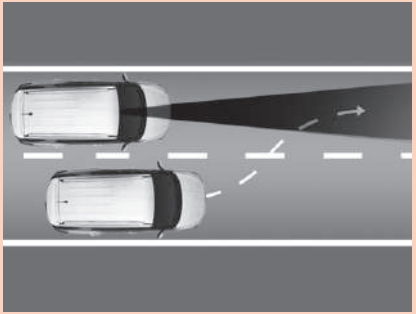
The recognition of a preceding vehicle might be delayed and this triggers sudden deceleration.

Always be careful of motor traffic and reduce the vehicle speed by depressing the brake pedal, if needed.

WARNING

- Release the AEB system using menu settings on the instrument cluster when other vehicle or trailer is towed. If the brake is operated during towing, stability of the vehicle will be affected.
- Use caution when the garage of the car in front is high or the load protrudes rearward. There is a risk of occurrence dangerous situation.

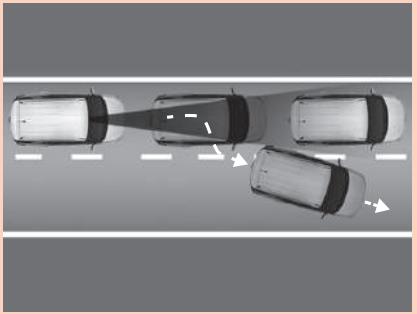
CAUTION



Switching lanes

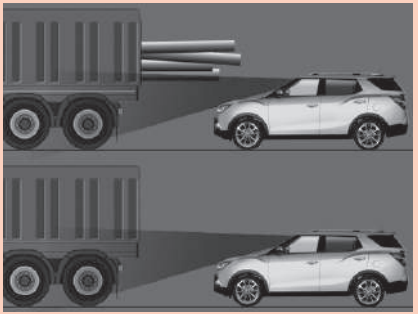
When a vehicle in the lane next to you enters the same lane, the system may fail to recognize this vehicle until it enters into the sensor detection area. Be cautious at all times since the sensor may not detect a vehicle cutting in suddenly.

CAUTION



If there is a vehicle stopped in front of the vehicle ahead and the vehicle ahead moves out of your lane, the AEBS may have not enough time to react.

CAUTION



Detecting vehicles

Your attention is always required while driving behind a vehicle carrying cargo longer than the cargo bed or with high ground clearance because the AEBS may not work properly.

WARNING

When the vehicle is being transported on a truck, train or ship, turn the AEB System OFF. (depending on how tightly the vehicle is operated during transport, the AEB System can activate)

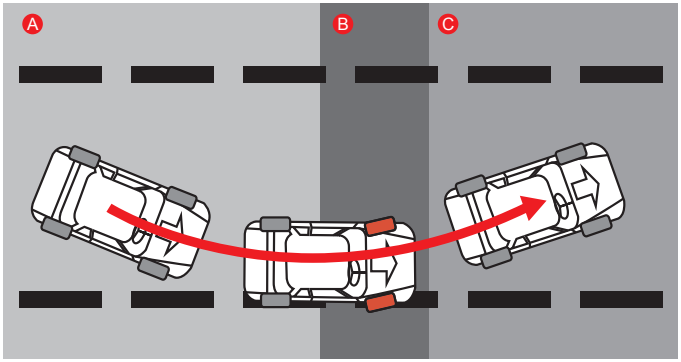


The LKAS (Lane Keeping Assist System) is an assistive vehicle operation technology that detects vehicles up ahead using the FCM (Front Camera Module), and when the system detects that the vehicle is departing from the current lane without a lane change indication, the vehicle visually and audibly warns the driver through the LDWS (Lane Departure Warning System), and if the vehicle continues to depart from the lane, the vehicle maintains stays in the current lane by taking control using the EPS (Electronic Power Steering) system.

When the vehicle crosses the lane markings, the LDWS warns the driver with visual and audible alerts.

* LKAS: Lane Keeping Assist System.
* LDWS: Lane Departure Warning System.

► Operation of LKAS



Ⓐ Detecting lane departure during non-working of turn signal

Ⓑ Displaying warning message and generating audible warning (EPS steering control)

Ⓒ Vehicle's entrance into normal lane

► Conditions for operation

LKAS operates when the following conditions are met:

- LKAS Normal or LKAS Active is set
- Vehicle speed is between 60 km/h and 175 km/h
- Front camera module (FCM) recognizes both of left and right lanes
- Straight or curved road is flat
- Turn signal is not activated
- Vehicle travels in opposite direction to the turn signal

WARNING

- LKAS does not continuously control the vehicle via steering and should only be used as a steering aid.
- The driver is responsible for safe driving of the vehicle by maneuvering the steering wheel.
- Do not steer the vehicle rapidly while the LKAS is controlling the vehicle.
- The LKAS may be deactivated or not work at all depending on the road conditions and surrounding environment.

CAUTION

- Do not tint or have any accessory items installed on the windshield around the rear view mirror.
- LKAS detects the lane boundaries using the camera mounted on the inside of the windshield and controls the steering wheel in order to ensure the vehicle remains inside the driving lane. The LKAS may be deactivated or not work at all if it fails to detect the lane markings.
- Pay close attention especially when the LKAS fails to detect the lane markings.
- Do not remove any part of the LKAS or apply impact on it.
- Do not put any object with reflective surface (white paper, mirror, etc.) on the instrument panel. The light reflected from these surfaces can cause operation of the system when it is not needed.
- You may not hear the audible alert (chime) if the sound from your audio source is too strong.
- If you drive without holding the steering wheel for too long, LKAS will be turned off automatically after the hands off alert.
- Extra caution is required when the LKAS is activated when driving at high speed. The steering assist may not be enough to keep the vehicle within the lane.

Operation of LKAS



The system is activated by pressing the switch from the Power ON state. Once the system is activated, the LKAS indicator will light up in the instrument panel.

When the switch is pressed again while the LKAS is activated, the system is deactivated and the LKAS indicator will turn off.

LKAS indicator



When the LKAS is turn ON, the LKAS indicator will light up in the instrument panel

White: LKAS standby state

Green: LKAS activated state

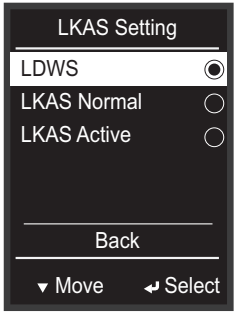
WARNING

The LKAS assists the driver with steering so that the vehicle does not move out of the driving lane unintentionally. Never drive the vehicle in a dangerous or reckless manner relying on the LKAS. Always drive safely paying attention to the road conditions.

Driver can set the function on the cluster (setting of cluster → driving assist → LKAS setting) when the vehicle is switched on. (user setting stage 3)

If driver selects menu LKAS setting, three options are displayed; LDWS, LKAS Normal, and LKAS Active. The driver can select and use one out of them.

Lane Departure Warning System (LDWS)

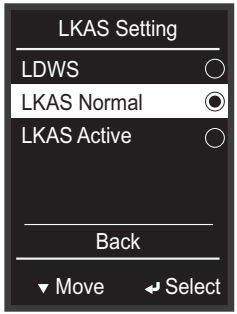


Lane departure warning is the function to provide alarm only when the vehicle departs the lane.

WARNING

- The Lane Departure Warning System does not assist steering.
- The responsibility of vehicle operation rests upon the driver for safe driving of the vehicle.
- When LDWS gives the alarm, do not turn the steering wheel too fast than it should be.
- The LDWS does not give alarm if the vehicle speed is 60 km/h or less or lanes are not detected.

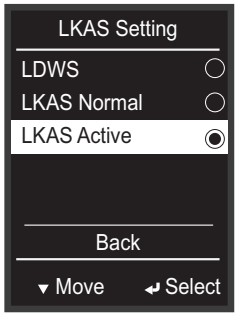
Setting of LKAS Normal



Lane keeping assist is a function to assist steering in order for the vehicle not to deviate from its lane when it is close to the lane.

When the vehicle drives on the middle of the lane, there is almost no operation of steering wheel. But, when the vehicle gets close to the lane, the function assists steering by controlling the steering wheel to keep the lane.

Setting of LKAS Active



The Active Steering Assist Function extends the scope of control of the LKAS (Lane Keeping Assist System) and assists steering input to maintain the vehicle at the center of the lane.

	Warning is displayed when LKAS is on and the following conditions are met: • Vehicle speed is 60 km/h or less • Front camera module cannot recognize either left or right lane
	It is displayed when LKAS is off.
	It is displayed when LKAS is on and can control steering wheel (EPS).
	It is displayed when LKAS is on and cannot steering wheel (EPS) (Miss Detection of Lane).
	It is displayed when the system recognizes left lane only.
	It is displayed when the system recognized right lane only.
	It is displayed when the conditions for LKAS operation are not met.
	It is displayed when the LKAS is deactivated during operation.
	When the driver operates the vehicle for a pre-programmed duration of time without touching the steering wheel, the Hands Off Warning is indicated. Indication of the Hands Off Warning can be delayed according to varying road conditions. Please make sure to safely operate the vehicle with two hands on the steering wheel at all times.



It is displayed for 5 seconds after 5 seconds engine is ignited when there is an abnormality in the LKAS.

CAUTION

Hands-off alarm can be provided late according to road situation. Please hold the wheel with hands when driving.

CAUTION

- The responsibility of steering wheel operation rests upon the driver.
- Even when there is an abnormality in the LKAS, the driver can steer by operating the steering wheel.
- Under below conditions, driver should turn off the LKAS and operates the steering wheel for himself/herself.
  - When weather is bad
  - When road condition is bad
  - When there is a need for frequent operations of steering wheel
- When LKAS does not assist steering, the steering wheel can feel heavier or lighter than when LKAS assists steering.
- System inspection and repair are provided in the repair service center of our company when steering-related parts are replaced.

System Malfunction

If this warning message is displayed, have the vehicle checked at a Ssangyong Dealer or Ssangyong Authorized Service Center.

CAUTION

- The driver should manoeuvre the vehicle.
- The driver can still steer the vehicle during LKAS operation.
- Drive with the LKAS turned off when:
  - the weather is bad
  - experiencing a severe road event
  - frequent steering wheel control is required
- You may feel that the steering wheel is heavy or light when the LKAS is not operating.
- Have the vehicle serviced a Ssangyong Dealer or Ssangyong Authorized Service Center if any of the components related to the steering system are need to be renewed.

Disable Conditions

- The driver activates the turn signal indicators or hazard warning flasher.
  - Activate the turn signal indicators before trying to make a lane-change.
  - The steering effort may be increased when changing lanes without activating the turn signal indicators.
- Your vehicle should be in the center of the driving lane if you want the LKAS to be able to assist steering after turning on the LKAS or making a lane-change The system will not provide steering assist force when the vehicle is driven too close to either side of the driving lane.
- The system will not provide steering assist force when the ESP is activated.
- The LKAS may not work properly when cornering at high speed.
- The system will not provide steering assist force when driving at below 55 km/h or above 180 km/h.
- The system will not provide steering assist force when switching lanes abruptly.
- The system will not provide steering assist force when suddenly stopping the vehicle.
- The system will not provide steering assist force when driving along a narrow width lane or too wide lane.
- The system will not provide steering assist force when only a single lane marking is detected.
- There are more than 2 lines detected by the system in the current driving lane (e.g. construction zone).
- The vehicle is driven around a curve with too small radius.
- The LKAS will temporarily be disabled when the driver carries out a fast steering.
- The vehicle is driven on steep hills.

CAUTION

The LKAS may not work at all or run even if it is not desired in the following cases:

- The system cannot recognize the traffic lane markings because of rain, snow, dust, standing water or puddles, other obstruction on the road.
- There is rapid change of illumination, for example at tunnel entry and exit points
- The headlamps are not turned on or the brightness of the lamps is too low when driving at night or through tunnels.
- The color of the lane markings is not clearly distinct from the road color.
- When you are traveling within or near the outer edges of the bus-only lane.
- The vehicle is driven on a steep hill or around sharp corners.
- The light from the sun, streetlamps, or headlamps of oncoming vehicles is reflected by the wet road surface.
- The windshield glass in front of the camera module is covered with ice, snow, slush, mud, dirt or debris.
- The visibility is poor, such as when it is snowing or raining heavily.
- The temperature around the rear view mirror is too high because of the direct sunlight.
- The width of the driving lane is too narrow or wide.
- The markings of the lane are not clear or damaged by the traffic.

CAUTION

- The fog or mist appears on the windshield.
- The lane markings are covered in shadow of the median barriers.
- The lane markings are not recognizable because of the dust on the roads.
- There are other markings similar to the lane markings on the roads.
- The lane markings are covered in shadows of the guardrails, noise barrier walls, roadside trees.
- There are environmental barriers such as curbs.
- The distance to the vehicle ahead is too short or a wheel of the vehicle ahead is touching the lane marker.
- The vehicle is driven under specific conditions which cause severe vibration.
- There are objects on top of the instrument panel.
- The vehicle is moving towards a light source.
- The traffic is heavy due to the construction in the area or traffic control items, such as traffic cones, are used to separate traffic flows.
- it is very hard to recognize other vehicles and pedestrians because of poor visibility.
- There are more than 2 lane markings.
- The lane markings in the tunnel is covered with dust or oil.
- There are other roadway markings on the roads, such as crosswalk markings, arrows, symbols, along with the lane markings.
- The lane markings are suddenly discontinued at roundabouts and road intersections.
- The vehicle is passing through a certain section, such as highway interchange, where the number of lanes increases or decreases.

WARNING

The LKAS assists the driver with steering so that the vehicle does not move out of the driving lane unintentionally. Never drive the vehicle in a dangerous or reckless manner relying on the LKAS. Always drive safely paying attention to the road conditions.

TSR* (TRAFFIC SIGN RECOGNITION)

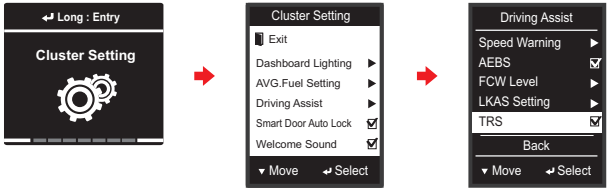
It is the system which recognizes the speed limit of the traffic sign and other major signs.





Setting

Driver can set the function on the instrument cluster (Cluster Setting -> Driving Assist) when the vehicle is switched on.



NOTE

Recognizable Signs

- Vienna convention sign
- Standard traffic sign, Electronic sign, Prism sign

CAUTION

- TSR does not recognize all signs.
- It is possible that recognition is not available due to location, color or dents of sign.

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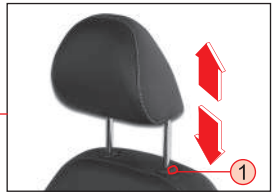


Seats

POWER SEAT*



Height Adjustment of Head Restraint



To raise the head restraint, pull it up. To lower the head restraint, press the release button (1) on top of the seatback and push the head restraint down.

WARNING

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

CAUTION

Do not apply excessive force to the head restraint during adjustment. It may be damaged.

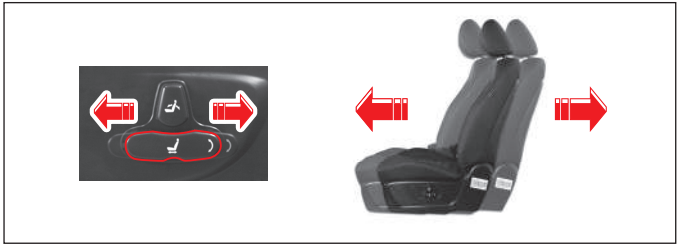


Sliding Head Restraint

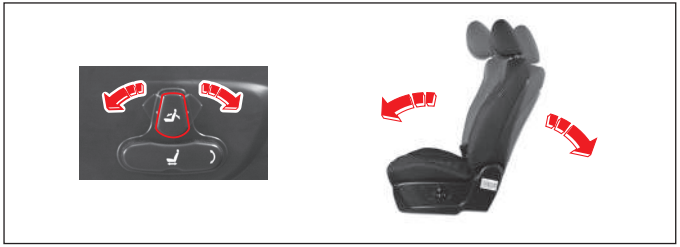
Adjust the head restraint by pushing it forward. To reset the position, push it forward all the way and then release. The head restraint returns to original position.



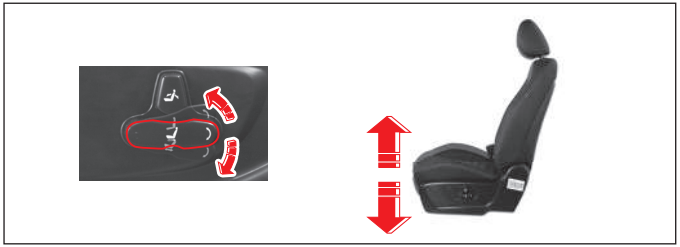
Seat Slide Adjustment



Seatback Reclining Adjustment



Seat Height Adjustment



⚠ WARNING

- Do not adjust the driver's seat when the vehicle is moving. Control of the vehicle could be lost.
- Make sure that your seat is completely locked after adjusting.
- Pay attention to the passenger in rear seat when adjusting the seat.
- Excessive operation of power seat may cause a problem for other electric devices. Stop operating the power seat immediately after getting the desired seat position.
- Do not use two or more seat adjustment buttons simultaneously. It may damage the motor. Be sure to operate the electric seat button one by one.

Head Restraint Adjustment

Same as that of the power seat

Sliding Head Restraint

Same as that of the power seat

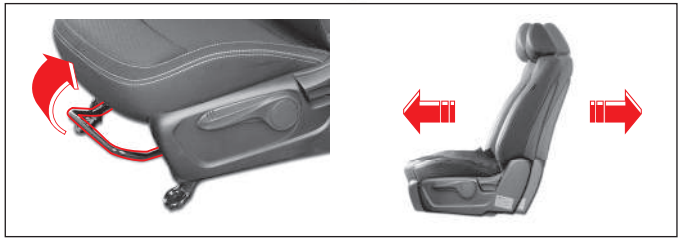


Seatback Reclining Adjustment



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 returned to its original position and the seatback is locked.

Seat Slide Adjustment



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

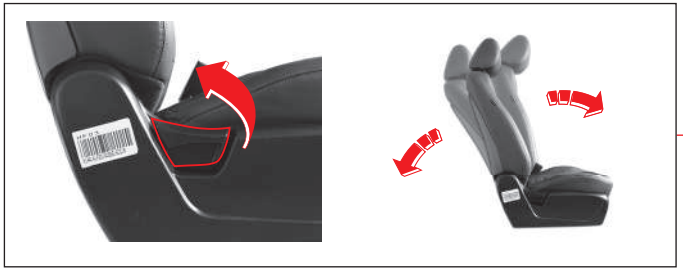
Seat Height Adjustment



To lower the seat cushion, push the lever down several times.

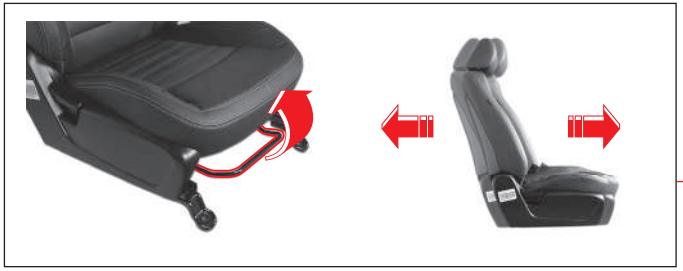
To raise the seat cushion, pull the lever up several times.

Seatback Reclining Adjustment



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

Seat Slide Adjustment



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



Height Adjustment of Head Restraint

Same as that of the power seat.

Forward and Backward Adjustment of Head Restraint

Same as that of the 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 (B) on top of seatback and push the head restraint down.

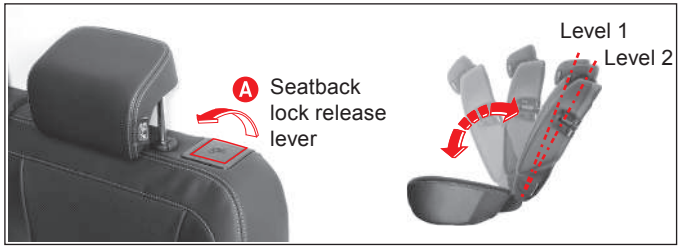
WARNING

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

CAUTION

- If possible, place the center line of the head restraint at the passenger's eye level.
- If the passenger is too tall or too short, adjust the head restraint to highest or lowest position.

Seatback Folding Adjustment





You can adjust the seat backrest reclining angle to level 1 or level 2 by pulling the lock release lever (A) at the top side of the rear seat backrest (back side of the seat).

CAUTION

When locking the rear seat backrest, make sure that the backrest unlock lever (A) clicks into the locked position so that the red label ("Unlocked" indicator) is not visible.

WARNING

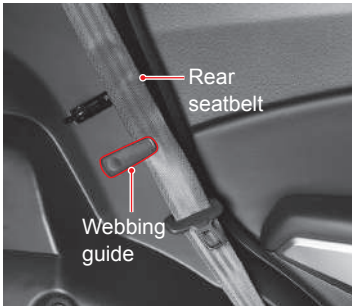
- When the seatback is released from its holding latch, the seatback can completely be folded ensure that none of your body parts are trapped.
- When operating the backrest adjustment lever, get up off the seat and operate the lever while holding the seat backrest with one hand for safety.
- When adjustment is completed, check whether the seat is held firmly in place by rocking the seat gently forward and backward (if the red mark is visible on the lever, it means that the backrest is not correctly locked).

FOLDING THE REAR SEATBACK

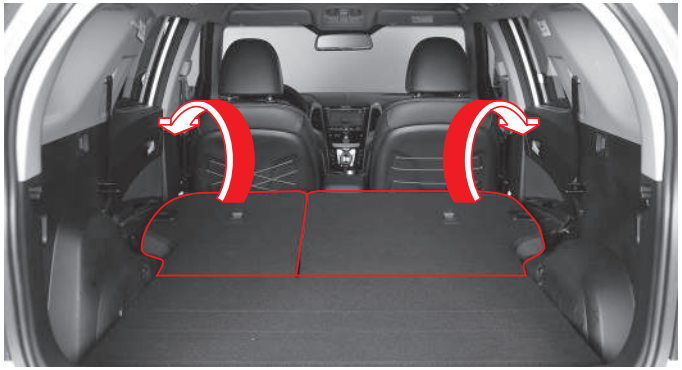


To fold down the rear seatback:

1. Insert the rear seat belt buckle and belt webbing in the storage to prevent the seat belt from being damaged.
2. Lower the rear head restraints to the lowest position.
3. Release the seatback lock by pulling the release lever (A).



Before returning the folded rear seat backrest to the normal position, fit the rear seatbelt into the webbing guide so that the seatbelt is not jammed with the holding latch.



4. Fold the seat toward the front of the vehicle.
5. To use the rear seat, lift and pull the seatback backward. Pull the seatback firmly until it clicks into place. Make sure the seatback is locked in place.

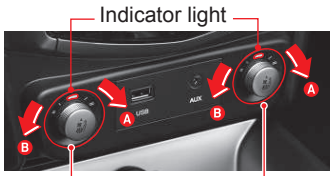
CAUTION

- Do not fold or unfold the rear seat when the vehicle is moving.
- Make sure that there is nobody on the folded seatback and in cargo area.
- If you put sharp or heavy objects on the seatbacks, there might be some damage to the seatbacks or even to the seats.
- Without completely lowering the second row head restraints or with excessively tilted front seatbacks, there may be some damage to the head restraints or the center console if the second row seats are folded.

SEAT HEATER/VENTILATION FUNCTION*

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

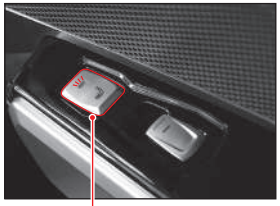
FRONT SEAT WARMER SWITCH





- To heat the seat (if equipped with seat ventilation/heat function), turn the seat warmer switch to (A) direction from the indicator light position controlling the temperature (1st and 2nd level) only with the engine running.
- The indicator light located above the switch comes on while the seat warmer function is running. The function stops if the heat temperature rises to a certain level, and if it falls to a certain degree, the function restarts.
- The seat warmer operation turns OFF if you press the ignition switch OFF and back ON, while the seat warmer function is running.
- If the engine stops by ISG system while the front seat warmer is operating, the warmer power will go off (w/ LED ON), and then it comes back ON when the engine restarts.

REAR SEAT WARMER SWITCH





- The heat the seat, press the seat warmer switch with ING ON. The heat warmer turns off when the switch is pressed once more. The indicator light located above the switch comes on while the seat warmer function is running.
- The function stops if the heat temperature rises to a certain level, and if it falls to a certain degree, the function restarts.
- If the engine is turned off while the seat warmer is working, the seat warmer will re-operate when the engine is turned back on.

CAUTION

Using the seat warmer switch or other electrical equipment may discharge the battery while the IGN is ON with the engine OFF.

WARNING

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

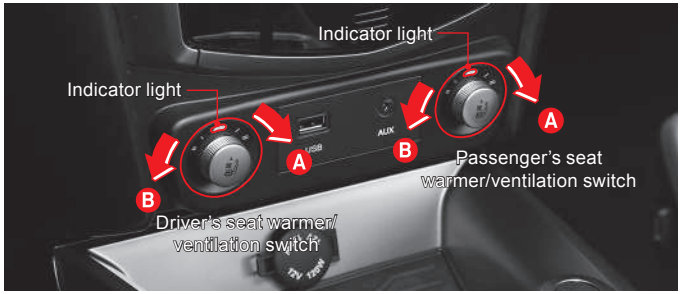
SEAT VENTILATION SWITCH*



Ventilation fan*

The Active Steering Assist Function extends the scope of control of the LKAS (Lane Keeping Assist System) and assists the steering to maintain the vehicle at the center of the lane.

Seat Ventilation Switch



- The ventilation fan on the seat starts to operate when the seat warmer/ventilation switch is turned to (B) direction from the indicator light position.
- With the blue indicator light turned on, the ventilation fan speed is controlled in 2 levels (1st and 2nd) by dialing the seat warmer/ventilation switch without any operating sequence.
- The seat ventilation function stops when turning off the engine and then turning on again.

CAUTION

- The seat ventilation is not air conditioned type.
- The seat ventilation function uses the air inside vehicle. Therefore, to improve the efficiency, use it with the air conditioner.
- To prevent personal injury, do not put your hand under the seat cushion when the ventilation fan is operating.

WARNING AND CAUTION

WARNING

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

WARNING

- Do not leave children unattended in parked vehicles. This can cause unexpected accident.
- You can be hurt by the edges of the mechanism of the seat when trying to get the small objects (cigarette lighters, coins, credit cards) under the seat or caught between the seat and the center console. Wear protective gloves to prevent injury.
- Never try to adjust the seat while the vehicle is moving.
- Unexpected movement of the seat or seatback can cause loss of control.
- Take care not to bother the passenger behind you when adjusting the seat position.
- Sit upright in the center of the seat and wear the seat belt around your hip and pelvic bones.
- Do not place any objects in the path of seatback movement. Any obstruction in this path prevents the seatback from being locked, causing severe injuries or death during a collision.
- Always raise the seatback to the proper upright position before driving.
- Never drive the vehicle with the seat folded. In a collision, you will be seriously killed or injured as you lose the protection the seat belt can provide.
- To avoid unexpected accidents including severe injuries and death, sit in the position so that the distance between the steering wheel and your chest is at least 25 cm, as long as you are comfortable with driving.

WARNING AND CAUTION

WARNING

- Do not place a cigarette lighter on the floor or between the seats. The gas in the lighter container under the seat is potentially flammable when it is released from the container when the seat is moved.
- Additional cushion between you and the seat cushion reduces the frictional force and could make you slide under the seat belt. This could result in serious injury or death.
- Do not insert your hands under the seat or in the path of the seat movement when adjusting the seat. Your hands or fingers could get trapped between the seat and the frame.
- Do not ride with the seatback reclined too much. You could slide under the seat belt in a collision, which could result in severe injury or death. Also, you cannot be protected by the seat belt and the belt can strangle you or even cut into your stomach. Therefore, sit up straight in your seat by keeping your seatback upright while driving.
- When returning the seatback to the upright position, hold the seatback with your one hand and pull the release lever with the other hand. The more the seatback is reclined, the greater the restoring force of the seatback is. If you do not hold the seatback while adjusting the seatback, you could be injured by the restoring force.

CAUTION

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

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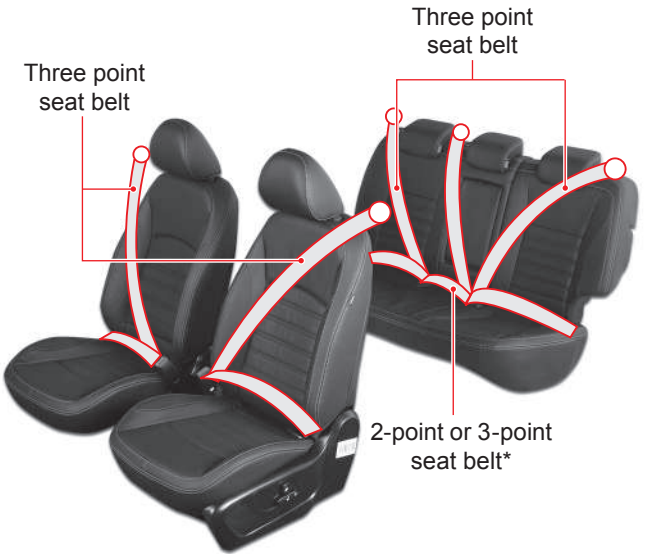
- Seat belt and air bag* 8-2
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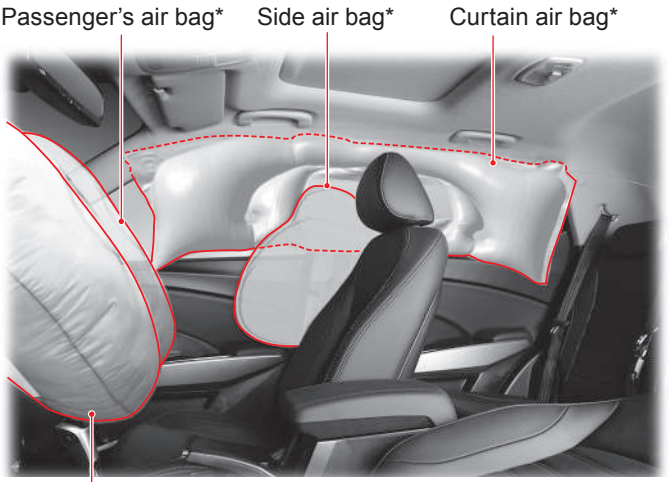
Seat Belt and Air Bag

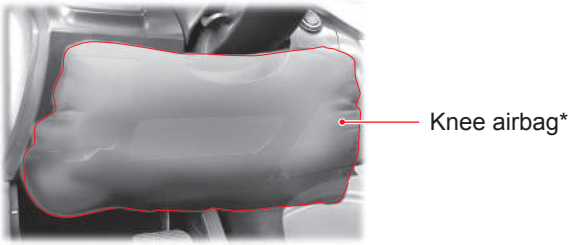
To protect you and your passengers in the event of an accident, it is highly recommended that the seat belts should be used by all occupants inside of your vehicle.

Seat Belts



Air Bag





Standard cluster



Supervision cluster



Driver's seatbelt indicator



If the driver switches the ignition ON without fastening the seatbelt, the warning buzzer sounds and blinks for 6 seconds. The warning buzzer stops when the seatbelt is fastened.

Airbag indicator



The airbag indicator comes on with the ignition switch ON, and goes off if the system is OK.

The Restraint Systems Include:

- Air bags
- Seat belts
- Seat belt pretensioners (for front seat)

As independent systems, their protective functions complement one another.

Fastening the Seat Belt

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

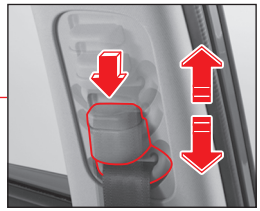
WARNING

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

SEAT BELT IN FRONT SEATS



Seat Belt Height Adjustment

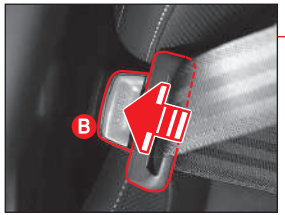


- To adjust the height of the seat belt anchor, lower or raise the height adjuster into an desired position while pushing down the anchor button.
- Release the button at the desired position.

⚠ WARNING

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

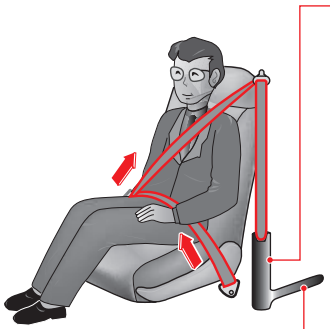
Fastening the Seat Belt



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

⚠ RESTRAINT OF PREGNANT WOMEN

- Expectant mothers must position the lap portion of the belt as low as possible below the rounding of the abdomen to avoid the belt pushing the fetus when a collision or sudden braking occurs.
- Driving while pregnant can be very dangerous, so avoid driving if possible.
- Consult your doctor about seatbelt position during pregnancy.



Pretensioner (for Front Seat)

- When a severe frontal impact occurs, seat belt pretensioners rewind the seat belts immediately to restrain the occupants to their seats. It helps the effective operation of the seat belts and airbags.
- The front seatbelt pretensioner operates simultaneously with the driver and passenger airbags.

⚠ WARNING

Deployed seat belt pretensioners cannot be deployed again. Have the deployed seat belt pretensioners replaced by an authorized dealer.

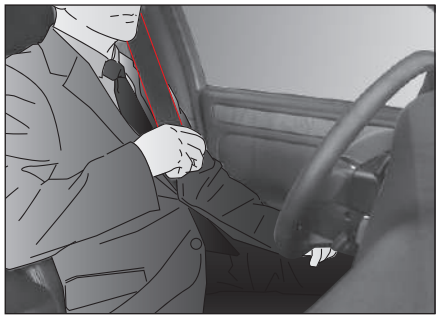
Anchor Pretensioner

- The anchor pretensioner functions equivalently to the seat belt pretensioner by restraining the lower body of the driver and the passenger so that the risk of chest injury can be reduced in a collision.

⚠ WARNING

Deployed seat belt pretensioners cannot be deployed again. Have the deployed seat belt pretensioners replaced by an authorized dealer.

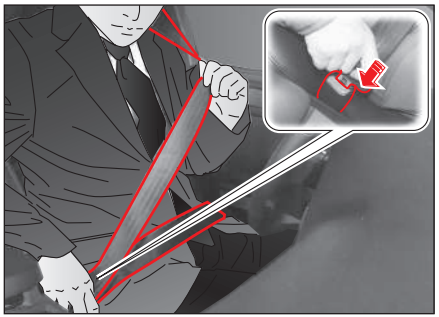
HOW TO FASTEN THE THREE POINT SEAT BELT



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

⚠ WARNING

If it is not easy to pull out the seat belt from the retractor, strongly pull the belt out and release it. Then you may pull the belt out smoothly.



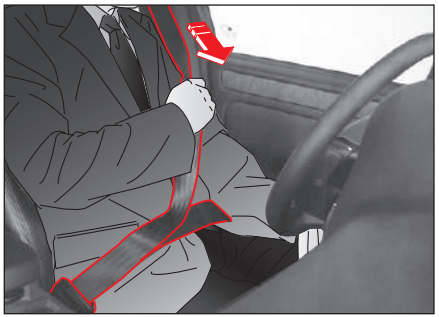
2. Position the shoulder belt across the body and the lap belt as low as possible across the hips. Insert the latch plate into the buckle until it clicks.
3. Adjust the seat belt height as needed.

⚠ CAUTION

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

⚠ WARNING

Make sure that the seat belt webbing is not twisted.



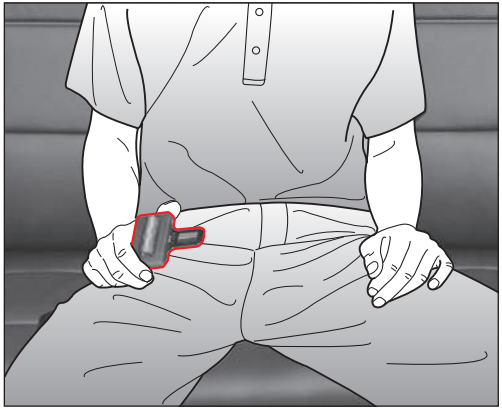
4. Pull the latch plate to make sure it is securely locked. A slack belt will greatly reduce the protection afforded to the wearer.
5. To unfasten the seat belt, press the red button on the buckle.

⚠ WARNING

Improperly worn seat belts could cause serious injury or death.

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

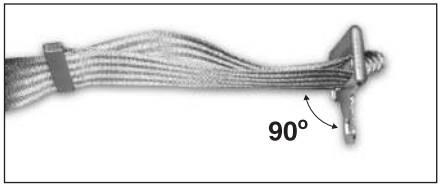
HOW TO FASTEN THE 2-POINT REAR CENTER SEAT BELT



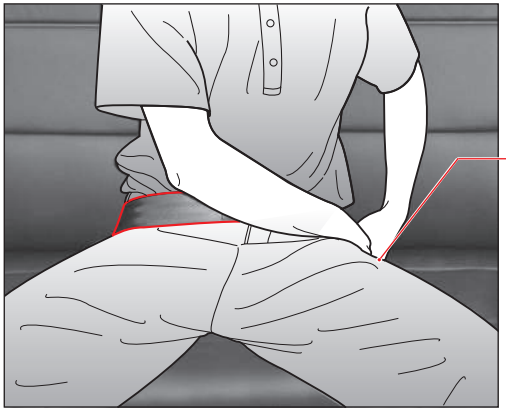
1. Pull out the latch plate at the right of the seat.

⚠ WARNING

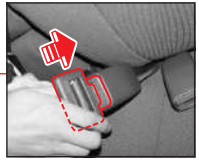
Put the lap belt as low as possible across the hips. Do not put it across waist. In an accident, the belt may apply pressure to your abdomen. This may cause serious internal injuries.



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

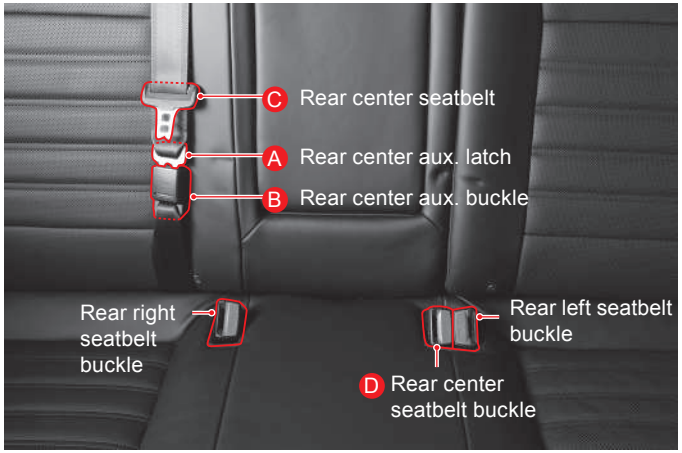


2. Insert the metal latch plate into the buckle until it clicks. Position the belt as low as possible across your hips, not across your abdomen.



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

STOWING THE BUCKLE

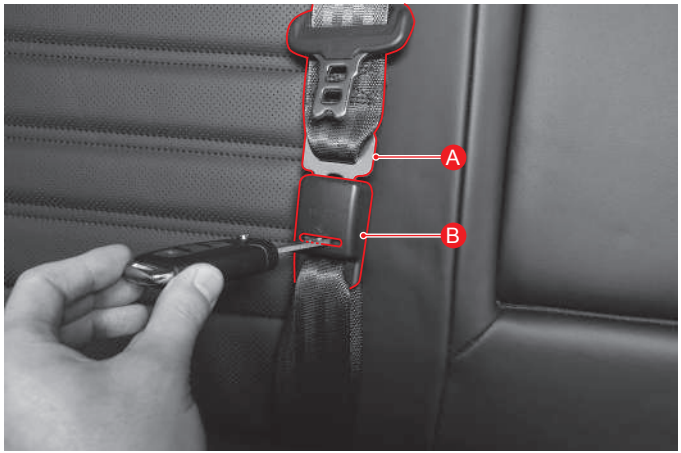


When the rear center seatbelt is not in use, stow it with the auxiliary latch (A) connected to the auxiliary buckle (B).

If a passenger occupies the rear center seat, use the rear center seatbelt by pulling the seatbelt (C) and pushing it into the buckle (D).

NOTE

The aux. latch (A) and aux. buckle (B) of the rear center seatbelt should always be connected.



If you have to release the aux. latch from the buckle on second center seat out of necessity,

Insert the emergency key or a screwdriver into the slot on aux. buckle (B) and push it to remove the latch (A).

Retract the belt slowly when releasing by grasping the seatbelt latch (A).

PREGNANT WOMEN

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

WARNING

- Pregnant women should wear 3-point seat belt whenever possible according to the professional recommendations by her doctor.
- Pregnant women should wear the lap portion of the belt across the thighs and as snugly and low as possible.

CHILD RESTRAINTS

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

SECURING METHODS OF CHILD RESTRAINT SYSTEM

Child restraint systems are designed to be secured in vehicle seats by seat belts or the latch system (ISOFIX seat - if equipped).

WARNING

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

INFANT AND CHILD SAFETY

Child Seat

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

WARNING

- Never place a rear-facing child restraint in the front passenger seat with front passenger air bag, because of the danger that an inflating passenger air bag could impact the rear-facing child restraint and kill the child.
- Use only the qualified child restraint systems. Follow the manufacturer's instructions for installation and use of the child restraint systems.
- Do not carry your child on your lap while driving. You cannot resist against the impact pressure in an accident. The child could be crushed between you and the parts of vehicle.
- Remember that a child restraint seat left in a concealed vehicle can cause it to be very hot. Check the seating surface before putting your child in the child restraint.
- When your child restraint is not in use, remove it from the vehicle or keep it secured with a seat belt to prevent it from being thrown forward in case of a sudden stop or an accident.
- When installing a child restraint, do not let the seat belts come across the child's neck.

Table of Vehicle Handbook Information on Child Restraint Systems Installation Suitability for Various Seating Positions

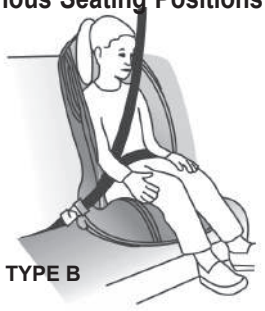


Rear-facing child seat



Forward-facing child seat





Booster seat

Mass group	Restraint device figure	Front Passenger		Rear Centre	Rear Out Board
		Air bag off	Air bag on		
O ~ up to 10 kg (0 ~ 9 month)	Rear facing child seat	U	X	U	U
O+ ~ up to 13 kg (0 ~ 2 year)	Rear facing child seat	U	X	U	U
I ~ 9 to 18 kg (9 month ~ 4 year)	Rear facing / Forward facing child seat	U	X	U	U
II ~ 15 to 25 kg (4 year ~ 6 years)	Booster seat	U	U	U	U
III ~ 22 to 36 kg (6 year ~ 12 years)	Booster seat	U	U	U	U

※ Child restraint system are classified into the 5 groups according to the ECE R44

NOTE:

U: Suitable for “universal” category restraints approved for use in the mass group.

UF: Suitable for forward-facing “universal” category restraints approved for use in the mass group.

L: Suitable for particular child restraints given on attached list. These restraints may be of the “semi-universal” categories.

X: Seat position not suitable for children in the mass group.

Table of Vehicle Handbook Information on ISOFIX Child Restraint Systems Installation Suitability for Various ISOFIX Positions

Mass group	Size Class	Fixture	Vehicle ISOFIX Positions		
			Frt Passenger	Rear Centre	Rear Out Board
CARRYCOT	F (1)	ISO/L1	X	X	X
	G (1)	ISO/L2	X	X	X
GROUP 0 UP TO 10KG	E (2)	ISO/R1	X	X	IL
GROUP 0+ UP TO 13KG	E (2)	ISO/R1	X	X	IL
	D (2)	ISO/R2	X	X	IL
	C (2)	ISO/R3	X	X	IL
GROUP I 9 TO 18KG	D (2)	ISO/R2	X	X	IL
	C (2)	ISO/R3	X	X	IL
	B (3)	ISO/F2	X	X	IUF/IL
	B1 (3)	ISO/F2X	X	X	IUF/IL
	A (3)	ISO/F3	X	X	IUF/IL

NOTE: Key of letters be inserted in the above table

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

IL: Suitable for particular ISOFIX child restraint systems (CRS) given in attached list.

These ISOFIX CRS are those of the “specific vehicle”, “restricted” or “semi-universal” categories.

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

(1) Some child seats are installed transversely and occupy two seats. Make sure that the feet of child are facing the door.

(2) Slide the front seat forward all the way to install the rear-facing child restraint. Then, slide the front seat back as directed in the manual provided with the child restraint.

(3) When using a forward-facing child restraint, do not slide the front seat backwards more than halfway for child’s safety. In addition, do not tilt the front seat backrest backwards too far (max. 25°) and raise it as high as possible.

List of suitable universal Child Restraint Systems (CRS)

Please read carefully the installation manual of your child restraint

Mass group		Child Restraint	Features
0	< 10 kg	-	-
0+	< 13 kg	Maxi Cosi CabrioFix	Belted Rearward facing
I	9 to 18 kg	Römer King II LS	Belted Forward facing
II	15 to 25 kg	Römer KidFix XP	Belted Forward facing
III	22 to 36 kg	Römer KidFix XP	Belted Forward facing

List of suitable ISOFIX Child Restraint Systems (CRS)

Please read carefully the installation manual of your child restraint

Mass group		Child Restraint	Features
0	< 10 kg	-	-
0+	< 13 kg	Maxi Cosi CabrioFix & FamilyFix	ISOFIX & Support Leg Rearward facing
I	9 to 18 kg	Römer Duo+	ISOFIX & Top Tether Forward facing
II	15 to 25 kg	Römer KidFix XP	ISOFIX & Belt Forward facing
III	22 to 36 kg	Römer KidFix XP	ISOFIX & Belt Forward facing

Table of Vehicle Handbook Information for Installation in Various Seating Positions on i-Size Child Restraint Systems

Seating Posion	i-Size Child Restraint Systems
Front Passenger Outboard	X
Rear Outboard Left	i-U
Rear Outboard Right	i-U
Rear Center	X

Key of letters to be inserted in the above table:

i-U: Suitable for i-Size “universal” Child Restraint Systems forward and rearward facing. (valid position for forward facing and rearward facing child restrant systems approved under ECE R129)

i-UF: Suitable for forward-facing i-Size “universal” Child Restraint Systems only.

X: Seating position not suitable for i-Size “universal” Child Restraint Systems.(invalid position for child restrant systems approved under ECE R129)

ILLUSTRATION OF CRS SECURED BY THE SEATBELT.

Front-facing Child Seat



Secure the child restraint with a seat belt as shown in the figure.

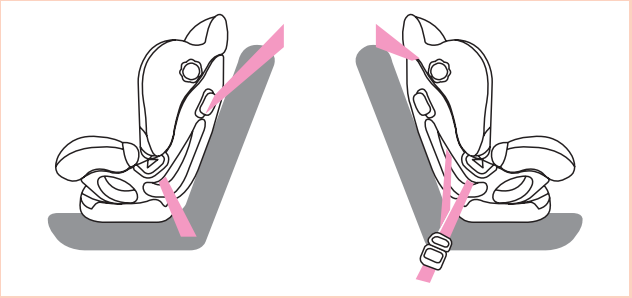
CAUTION

When installing a child restraint system, follow the instructions provided by the manufacturer.

WARNING

Do not use the car seat unless the followings are met.

The child seat may not perform as intended, which may result in a serious injury.



- Make sure that the buckle of the seat belt is securely engaged.
- Make sure that the seat belt is not loose or twisted.
- Make sure that the base does not move due to excessive play in all directions.
- You can't adjust the angle of the backrest with the child seat installed. If you're trying to do so, the seat belt will be slack, which incurs danger. Always adjust the angle of the backrest before installing the child seat.

Rear-facing Child Seat



Secure the child restraint with a seat belt as shown in the figure.

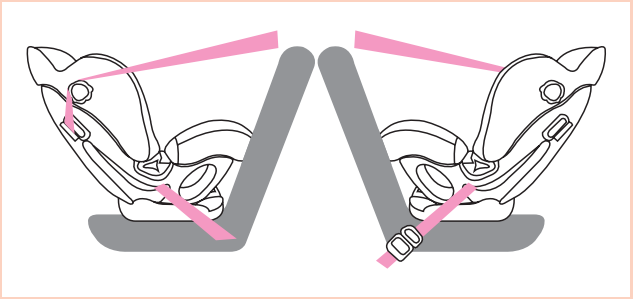
WARNING

Never install a rear facing child restraint on the front seat without ensuring that the front airbag is deactivated. Ssangyong Motor Company recommends that a child restraint to be installed on the rear seat.

When installing a child restraint, adjust the seat back angle as desired.

WARNING

Do not use the child seat unless the followings are met.
The child seat may not perform as intended, which may result in a serious injury.

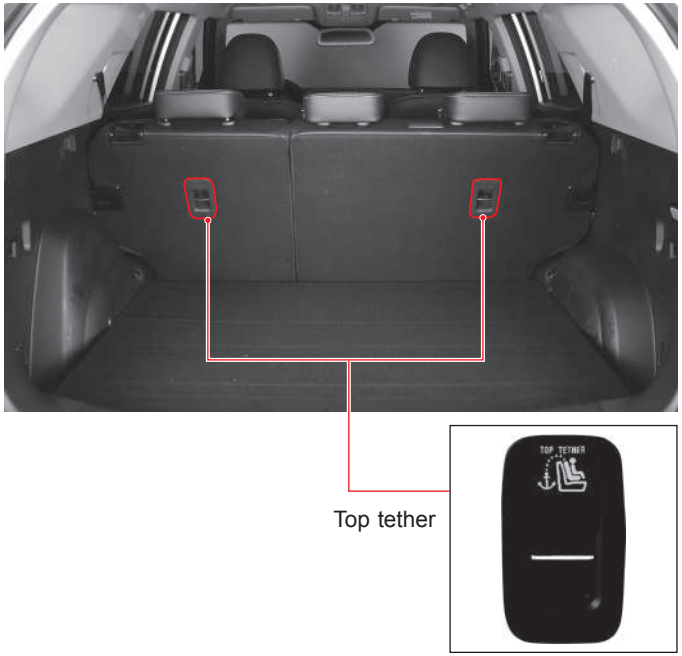


- Make sure that the buckle of the seat belt is securely engaged.
- Make sure that the seat belt is not loose or twisted.
- Check if the angle of the backrest is set to 4 stage.
- Make sure that the base does not move due to excessive play in all directions.
- Make sure that the seat belt is routed through the rear-facing belt path and buckled up.

ISOFIX/i-Size system is a standardised method of fitting child seats that eliminates the need to use the standard adult seatbelt to secure the seat in the vehicle.

This enables a much more secure and positive location with the added benefit of easier and quicker installation. An ISOFIX/i-Size-seat can only be installed if it has approval in accordance with the requirements of ECE R44 or ECE R129.

Locations of ISOFIX/i-Size Lower Anchors and Top Tether

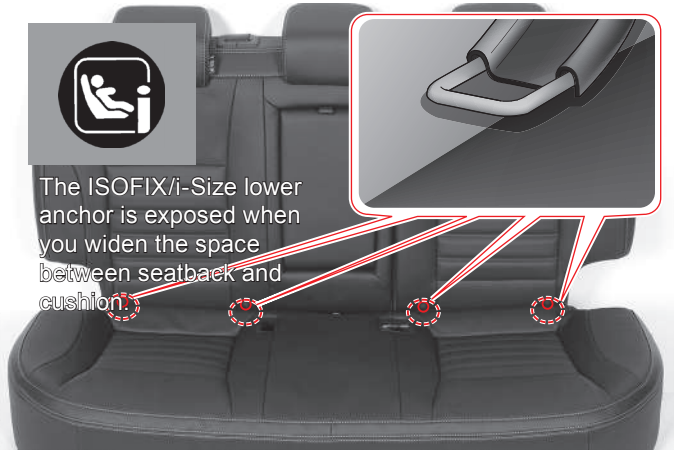


1. Two ISOFIX/i-Size lower anchors are installed at the bottom of the seatback at each outboard seat as shown in the figure.
2. The ISOFIX/i-Size lower anchors can be identified by the symbol attached on the top surface.

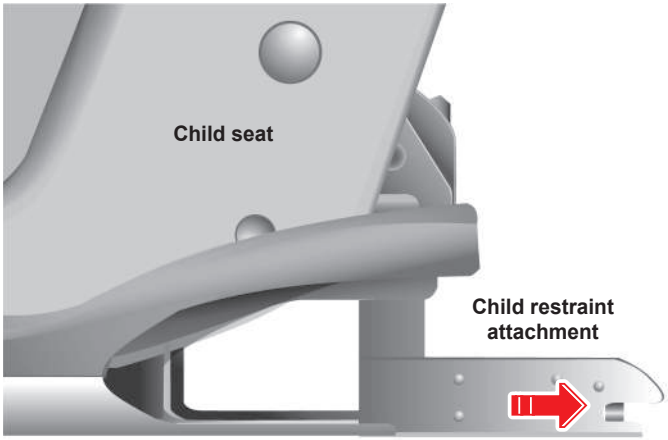


3. Two (for EURO countries) or three (Australia) ISOFIX/i-Size top tethers are installed at the upper side of seatback.

How to use ISOFIX/i-Size Lower Anchor



1. Now, you can see the ISOFIX/i-Size lower anchors.



2. Insert the child restraint attachments into the ISOFIX/i-Size lower anchors until it clicks.
3. Adjust the seatback angle as desired.

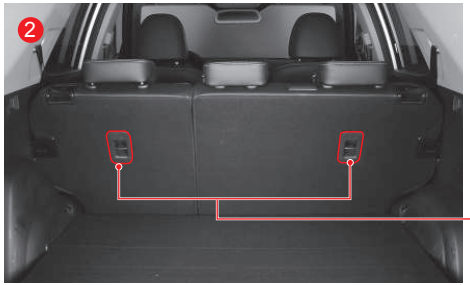
WARNING

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

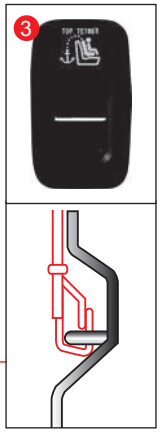
How to use Top Tether



1. Adjust the seatback angle as desired.



Top tether connector



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

WARNING FOR CHILD RESTRAINT

- **Use only the officially approved child restraint.**
  Ssangyong is not responsible for the personal injury and property damage due to the defect of child restraint.
- **These seats are subject to the ECE R44 or ECE R129 standard.**
- **Use only the child restraint with proper type and size for your baby.**
- **Use only the child restraint at proper location.**
- **Child restraint has 5 categories based on the weight as below according to ECE R44.:**
  GROUP 0: 0 ~ 10KG
  GROUP 0+: 0 ~ 13KG
  GROUP I: 9 ~ 18KG
  GROUP II: 15 ~ 25KG
  GROUP III: 22 ~ 36KG
- **Group 0 & 0+**
  Rear facing child restraint fitted on the rear seat
- **Group I**
  Rear facing or forward facing child restraint fitted on the rear seat
- **Group II & III**
  Booster seat fitted on the rear seat with seat belt fastened
  Always follow the installation and use instructions provided by the manufacturer of the booster seat.
- **i-Size: child seats with i-Size approval must meet the requirements prescribed in the ECE R129 standard in relation to installation and safety. Child seat manufacturers can tell you which seats have i-Size approval for this vehicle.**

Cautions for ISOFIX Seat

- Top tether is the supplemental device to secure the child restraint system after engaging it by the lower latches. Therefore, do not secure the child restraint system only with the top tether. The increased load may cause the hooks or anchors to break, causing serious injury or death.
- If a child restraint is not properly secured to the vehicle and a child is not properly restrained in the child restraint, the child could be seriously injured or killed in a collision. Always follow the instructions provided by the manufacturer for installation.
- Make sure the latches of the child restraint system are latched to the lower latches. In this case, you can hear the “click” sound.
- The child restraint seat strap may not work properly if attached somewhere other than the correct top tether.
- Make sure that the child restraint system is firmly secured by rocking it in different directions.
- Incorrectly installed child restraint system may cause an unexpected personal injury.

WARNINGS FOR SEAT BELT

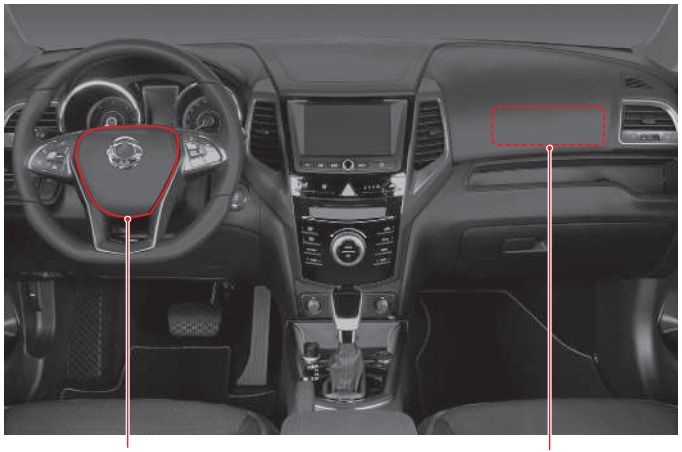
- Always put on your shoulder belt over the shoulder and across the chest. Do not put the shoulder belt across your neck.
- Put the lap belt as low as possible across the hips. Do not put it across the waist. In an accident, the belt may apply pressure to your abdomen.
- Do not wear the shoulder belt under the arm. It increases the danger of sliding out of the belt and can cause serious injury or even death. The belt may also tighten the chest which is not as strong as the shoulders. This may also result in serious internal injuries.
- Do not lock the seat belt with a clip or a clamp. If the seat belt is too loose, it may not protect your body from injury or death in an accident.
- Before driving, all occupants should wear the seat belts. Otherwise, occupants could be seriously injured in collisions or sudden maneuvers. In many countries, there are regulations regarding the use of the seat belts. Please observe local laws and regulations.
- Do not buckle up two or more persons with one seat belt.
- Do not wear the seat belt over any hard or breakable objects in pockets or on clothes.
- An infant and tiny child must be restrained in a child restraint system. Note that the three point seat belt is designed for a person who is taller than 140 cm.
- Periodically check that the seat belt and its components work properly. A damaged seat belt can cause serious injuries. Repair or replace the damaged seat belt immediately at a Ssangyong Dealer or Ssangyong Authorized Service Center.
- The warning light comes on whenever the ignition is switched on. The light goes out when the driver's seat belt is securely fastened. If the light does not go off after fastening the seat belt, it means that there is a malfunction in the system. Have the seat belt system checked by a Ssangyong Dealer or Ssangyong Authorized Service Center.
- Additional devices or accessories on the seat belt may result in improper operation. Do not add any adjusting devices which restrict the seat belt operation.
- Periodically inspect all parts of the belt and have the damaged parts replaced. The belt that has been overstretched in an accident must be replaced with a new one. Ssangyong recommends replacing all component parts of the seat belt after a collision. No replacement is required after a minor collision if a Ssangyong Dealer or Ssangyong Authorized Service Center finds that no damage has occurred and everything is in proper working order. The seat belt components that were not used during a collision must also be inspected and replaced if they show signs of damage or faulty operation.
- Replace the entire seat belt assembly after a severe impact even if the damage is not obvious.
- Never modify the seat belt.

WARNINGS FOR SEAT BELT

- Always keep the seat belts clean and dry. Care should be taken to avoid contamination of the webbing with polishes, oil and chemicals, and particularly battery acid. Use mild soap and water for cleaning. The seat belt must be replaced if webbing becomes frayed, contaminated or damaged.
- Adjust the seat properly before wearing the seat belt.
- Sit back in the seat with the seatback in an upright position and wear the seat belt. If the seat belt is positioned too high or fastened too loose, it may not protect your body from an injury or death in the event of a collision.
- Do not recline the seatback more than needed for comfort while vehicle is in use. Seat belt is the most effective when the passenger sits back and straight up in the seat. If the seatback is reclined too much, then the risks of sliding under the lap belt and getting injured are increased.
- If the latch plate is inserted into a wrong buckle, the belt may exert pressure on your abdomen instead of your pelvis. This may cause serious internal injury.
- If the seat belt is twisted, there will not be enough contact of the belt to spread the impact pressure.
- Make sure that the latch plate is securely locked.
- When pregnant women use the seat belt, consult with a doctor for specific recommendations.
- Keep the buckle clean.
- Seat belts are designed to bear upon the bony structure of the body, and should be worn low across the front of the pelvis or the hips, chest and shoulders, as applicable; wearing the lap section of the belt across the abdominal area must be avoided.
- Seat belts should be adjusted as firmly as possible, consistent with comfort, to provide the protection for which they have been designed. A slack belt will greatly reduce the protection afforded to the wearer.
- 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 either prevent the seat belt adjusting devices from operating to remove slack, or prevent the seat belt assembly from being adjusted to remove slack.
- If the seat belt cannot be pulled out of the retractor, firmly pull the belt and release it. You will then be able to smoothly pull the belt out of the retractor.
- Never unbuckle the seat belt while traveling. Careless driving actions, such as fastening/releasing the seat belt repeatedly, may result in serious injury.
- Make sure that the seat belt does not go around any solid body or fragile objects.
- Keep the buckle clean. Foreign materials caught inside the buckle can prevent the seat belt latch plate from being locked.

AIR BAG*

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



Driver's Air Bag

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

Passenger's Air Bag*

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

1. Children under 12 years old can be harmed by an airbag inflation and impact.
2. The rear seats are safer for children.
3. Do not install the car seat on the front seat.
4. Seat as far as possible from the airbag.
5. Use the seatbelt and child protection device.



Air Bag Warning Light

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



Passenger Air Bag OFF Indicator

This indicator comes on when turning the passenger air bag ON/OFF switch to "OFF" position to disable the passenger air bag.

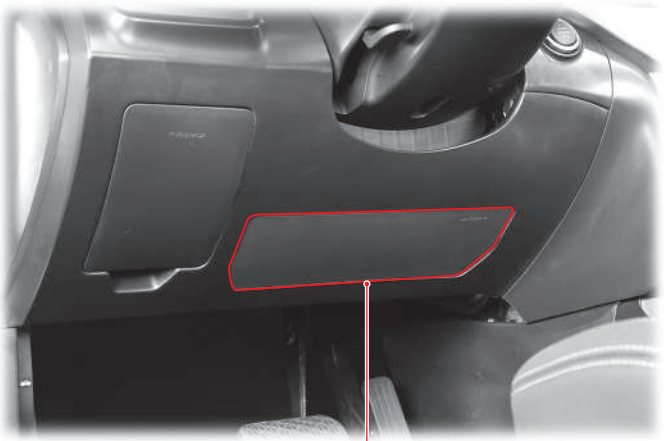


Passenger Air Bag ON/OFF Switch

The front passenger air bag is disabled (not inflatable) when placing the passenger air bag ON/OFF switch to "OFF" position. This switch is located on the right side of the instrument panel, and you can see it when opening the front passenger door. Press and turn this switch to operate.

"OFF" position: disabled (not inflatable)

"ON" position: enabled (inflatable)

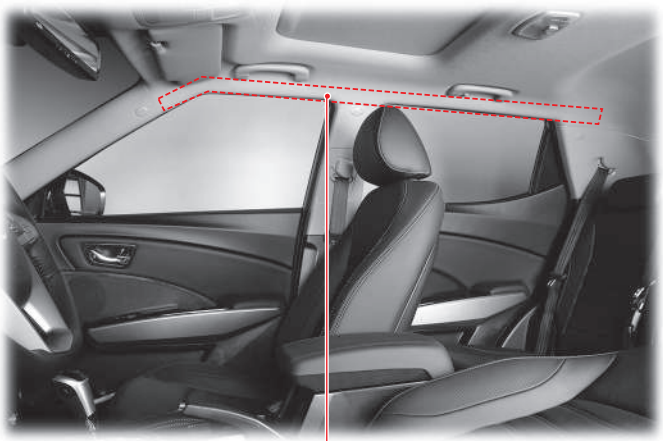


Knee airbag*

The driver's knee airbag is located on the dashboard under the steering wheel.

⚠ CAUTION

If the driver's posture is improper while driving, the knee air bag might not protect the driver's knee area when the airbag deployed.



Side Curtain Air Bag*

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



Side Air Bag*

The side air bags are installed in each front seatback. The side air bag is designed to inflate only in an impact to the side of the vehicle and protect occupants' body.

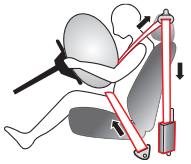
WARNING

Do not cover the front seats with anything. It hinders the air bag inflation.

Pretensioner (for Front Seat)*

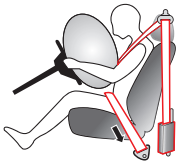
When a severe frontal impact occurs, seat belt pretensioners rewind the seat belts immediately to restrain the occupants to their seats. It helps the effective operation of the seat belts and airbags. The seat belt pretensioner activates together with the front air bag. The pretensioners are located beside in each front seat.

The pretensioner contains the load limiter which provides the additional seat belt protection.



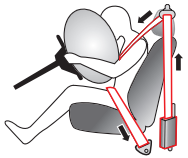
Pretensioner Activation

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



Anchor Pretensioner

The anchor pretensioner operates as well as the seat belt pretensioner at the same time by drawing the body of the driver and the passenger against the seat so that the second impact should be prevented in a collision.



Load Limiter Activation

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

WARNING

Once the pretensioner is triggered, it should be replaced with a new one.

SRS AIR BAG

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

WARNING

- The air bag system serves as a supplement to the seat belt. Make sure you and your passengers always wear seat belts properly, even if air bags are installed in the vehicle.
- Depending on the severity or the angle of impact, the air bag may not deploy.
- The driver's and front passenger's air bags simultaneously deploy.
- EXTREME HAZARD! Do not use a rearward facing child restraint on a seat protected by an airbag in front of it.

WARNING

- If you see "SRS" on a certain area, the air bag is contained underneath it. Therefore, do not apply any impact upon it and never place any accessories or objects on the area. And avoid any direct contact with the area.
- As a reminder of possible dangers of the air bag, air bag warning labels are affixed on the driver's and front passenger's sun visors.

FRONT AIR BAGS

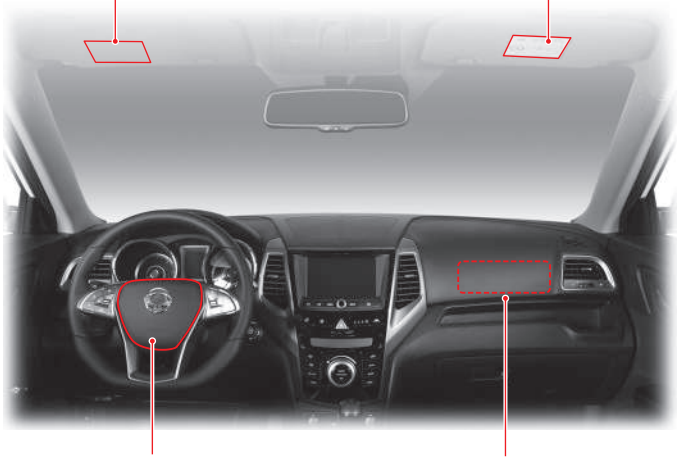
WARNING

NEVER use a rearward facing child restraint on a seat protected by an ACTIVE AIRBAG in front of it, DEATH or SERIOUS INJURY to the Child can occur

Air Bag Label



Type A: Driver & Passenger
Type B: Passenger (FRT & RR)



Driver's Air Bag

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

Passenger's Air Bag*

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



Knee airbag

Located on the dashboard under the steering wheel, the driver's knee airbag can help protect the driver by inflating simultaneously with the front airbag in head-on collision.

Air Bag Operation

▶ **The air bag inflates when:**

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

▶ **The air bag can inflate when:**

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

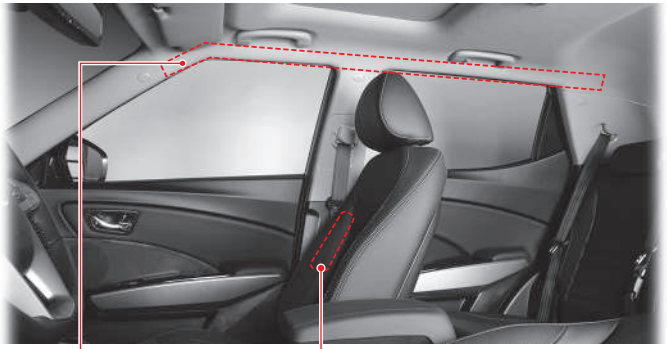
▶ **The air bag does not inflate when:**

- Rollover, side impact or rear impact
- If the severity of impact to the vehicle is not significant and the seat belts are enough to protect occupants.

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

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

CURTAIN AIR BAG*/SIDE AIR BAG*



Side Curtain Air Bag

The side curtain air bags are contained between right above the front and rear doors and the end of the vehicle roof.

Side Air Bag

The side air bags are installed in each front seatback.

⚠ WARNING

- Do not apply any impact on the curtain air bag sensor area (bottom of B-pillar) and side air bag sensor area (front seatback). The air bag might deploy.
- Depending on the severity or the angle of impact, the air bag may not deploy.
- Do not bang doors. It may cause malfunction in the curtain air bag or the front air bag.
- Even though the front air bags and the pretensioners work at the same time, the side curtain air bags and side air bags only deploy in a moderate to severe impact to the middle of the vehicle body's side structure.

Curtain Air Bag and Side Air Bag Operation

▶ **The air bag inflates when:**

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

▶ **The air bag can inflate when:**

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

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

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

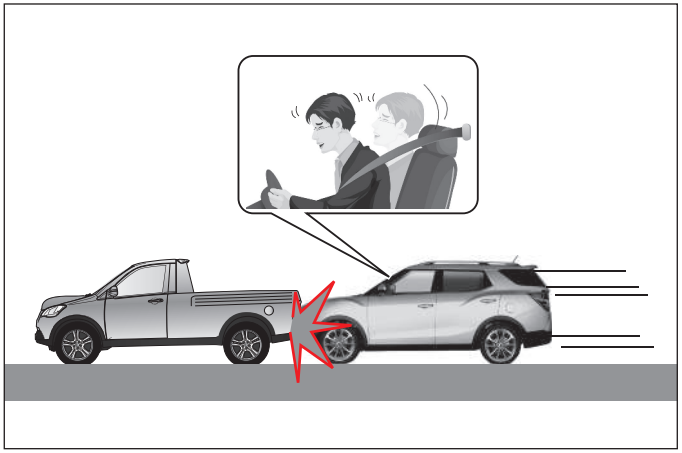
▶ **The air bag seldom inflates when:**

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

AIR BAG INSPECTION

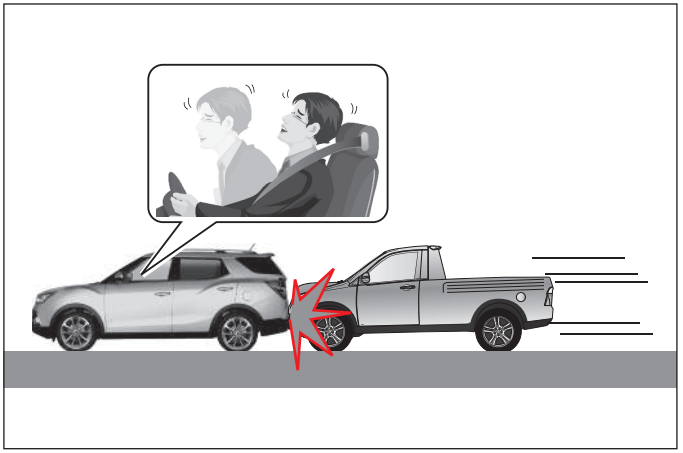
The air bag system should be inspected 10 years from its installation regardless of its appearance and other conditions.

LOW SPEED COLLISION



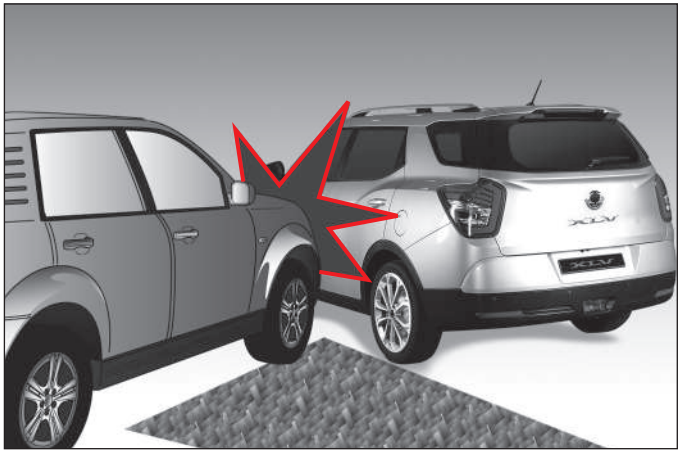
In collisions, the seat belts are sufficient to protect the vehicle occupants and the air bags may not deploy. In some cases, deploying air bags in low-speed collisions can cause a secondary impact to the occupants (light abrasions, cuts, burns, etc.), or loss of vehicle control.

REAR COLLISION



Air bags may not inflate in rear collisions, because occupants are moved backward by the force of the impact. In this case, the air bags do not provide proper protection.

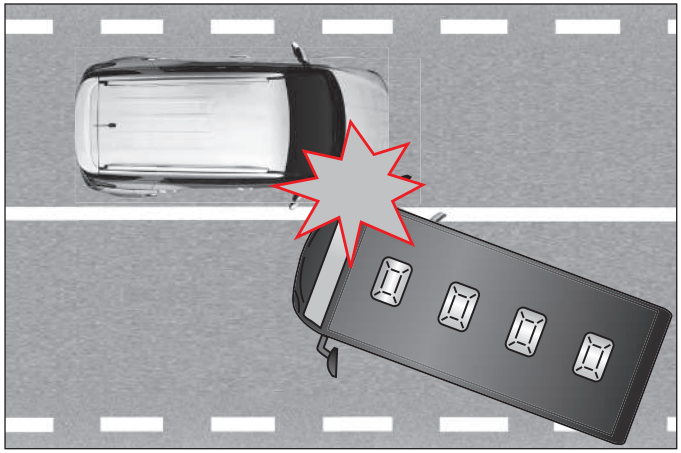
SIDE COLLISION



Front air bags may not inflate in side impact collision, because occupants move to the direction of the collision, and thus front air bag deployment does not provide proper protection.

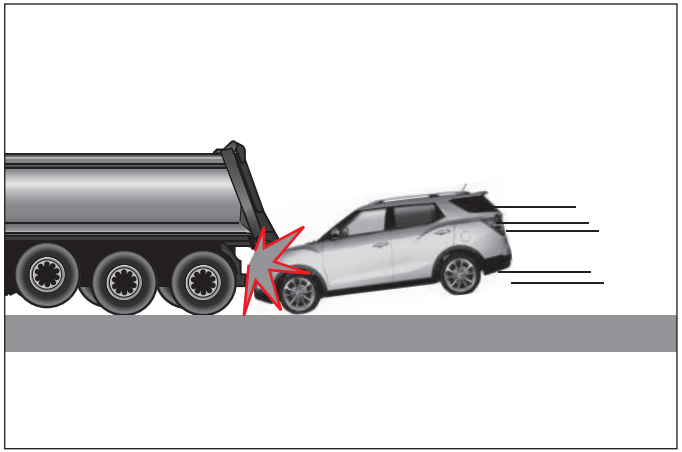
However, side or curtain air bags(if equipped) may inflate depending on the intensity, vehicle speed and angles of impact.

ANGLED COLLISION



In a slant impact or collision, the force delivered will be relatively weaker than that of frontal collision. So, the air bags may not inflate.

RIDING



At the moment of an accident, drivers brake heavily with reflex. In such heavy braking, the front portion of the vehicle is lowered by the force of the braking and the vehicle can go under a vehicle with a higher ground clearance. Air bags may not inflate in this situation because impacts may not be delivered or may be delivered with less intensity.

ROLLOVER



Air bags may not inflate in rollover accidents because air bag deployment would not provide proper protection to the occupants.

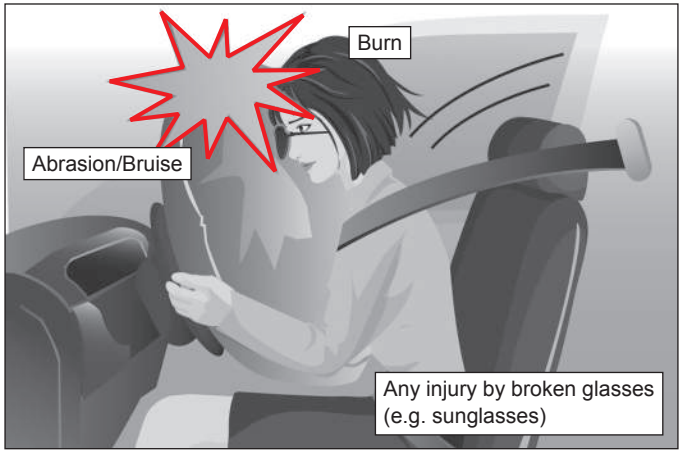
However, side air bags may inflate when the vehicle is rolled over by a side impact collision, if the vehicle is equipped with side air bags and/or curtain air bags.

COLLISION WITH NARROW OBJECT



Air bags may not inflate if the vehicle collides with objects such as utility poles or trees, where the point of impact is concentrated to one area and the full force of the impact is not delivered to the sensors.

SECONDARY INJURY DUE TO AIR BAG DEPLOYMENT



If the air bag control module detects the impact during an accident, it transmits the signal to deploy the air bag. This signal triggers the explosion of the powder, which is included in the air bag module, and the air bag deploys in a very short time to protect the occupants. When the air bag inflates, there will be heavy noise, glare and smoke. You could suffer secondary injuries caused by inflated air bag such as an abrasion, a bruise, a burn or injury by broken glasses.

WARNINGS FOR AIR BAG (I)

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

WARNINGS FOR AIR BAG (II)

- When mounting a child restraint system in the rear seat with the curtain air bag, adjust the child seat securely away from the door as much as possible. Otherwise, there is a great risk of serious injuries or even death due to an impact of air bag inflation.
- Hold only the outer rim of the steering so that the air bag can inflate without any hindrance.
- Do not hold and operate the steering wheel by crossing your arms. You could get seriously injured when the air bag deploys.
- Do not place your face or chest near the steering wheel and dashboard. Also, do not allow anyone to place their hands, leg or face on the dashboard. The air bag cannot work properly.
- When the air bag/pretensioner inflates, it makes a loud noise and smoke. However, the smoke is a non-toxic nitrogen gas.
- When the air bag/pretensioner inflates, non-toxic gas will come out. This gas may cause skin, eyes or nose irritation. Wash it out with cold and clean water and consult your doctor if irritation continues.
- The windshield glass may be broken when the passenger's air bag deploys.
- When any repairs are needed for the steering wheel, or when an accident occurred without the air bag deployment, have the air bag system checked by a Ssangyong Dealer or Ssangyong Authorized Service Center.
- You could suffer secondary injuries caused by an inflated air bag such as an abrasion, a burn or injuries by broken glass. Non-toxic gas will come out when the air bag is inflated.
- If the severity of impact to the vehicle is not significant and the seat belts are enough to protect occupants, the air bags do not deploy to prevent any secondary injuries such as cuts, abrasions, or burns.
- Do not use a rearward facing child restraint on a seat protected by an airbag in front of it.
- The driver's and passenger's air bags inflate during a severe frontal collision, and the side and curtain air bags inflate during a severe side collision or rollover. Typically, the air bags are not deployed during a rear collision. In most cases, the air bags does not inflate during a mild collision or some pole collisions. The air bag cannot protect the passenger from the impact created in a rear end collision accident.
- Do not impact the area where an air bag or impact sensor is installed with a hammer or similar hard tool. You could be severely injured by the unexpectedly deployed air bag. The side impact sensor built in the front seat door detects the pressure applied to the door. Therefore, applying impact on the door (e.g. shopping cart, basket ball) can activate the side air bag. Always make sure that the engine is turned OFF when checking the engine compartment.

WARNINGS FOR AIR BAG (III)

- If the vehicle is submerged in water (carpet is wet, the water is up to the floor mat, etc.), never start the engine or turn ON the ignition key. As soon as the currents are supplied to the electronic systems, the air bag may deploy unexpectedly causing harm to the driver or passengers. Have the vehicle towed to the nearest Ssangyong Dealer or Ssangyong Authorized Service Center for necessary checks and services.
- Unauthorized modifications to the genuine parts or use of after-market accessories, including side steps, other electronic devices, can adversely affect performance of the air bag system.
- Tow the vehicle with the ignition switch in OFF or ACC position. If a vehicle with side and curtain air bags is tilted to one side, the system can treat it as a rollover and activate the air bag system.
- When disassembling an air bag assembly, some integral parts can be deformed or damaged. If this is the case, the damaged/deformed part may not be engaged normally and can move out of its position, causing serious malfunction.
- The passenger's air bag is larger and stronger than the driver's air bag. Therefore, the passenger in the front passenger seat should sit in the center of the seat with the seat belt fastened. Failure to do so can result in serious injury or even death. The front passenger should move the seat in the rearmost position and sit upright.
- If the driver apply brakes suddenly, a passenger without the seat belt fastened can be thrown out from the vehicle or too close to the air bag during inflation. The unrestrained passenger will be severely injured or killed by the inflation of the air bag.
- No objects, such as cellular phone holder, cup holder, cassette holder, air freshener bottle, stickers, should be placed/attached over or near on the instrument panel where the passenger's air bag is installed. Do not install any accessories on the windshield or extra wide mirror on the inside rearview mirror. Any such objects may cause harm to the driver and passengers if the vehicle is in a collision severe enough to cause the airbag to deploy.

Secondary Injury Due To Air Bag Deployment

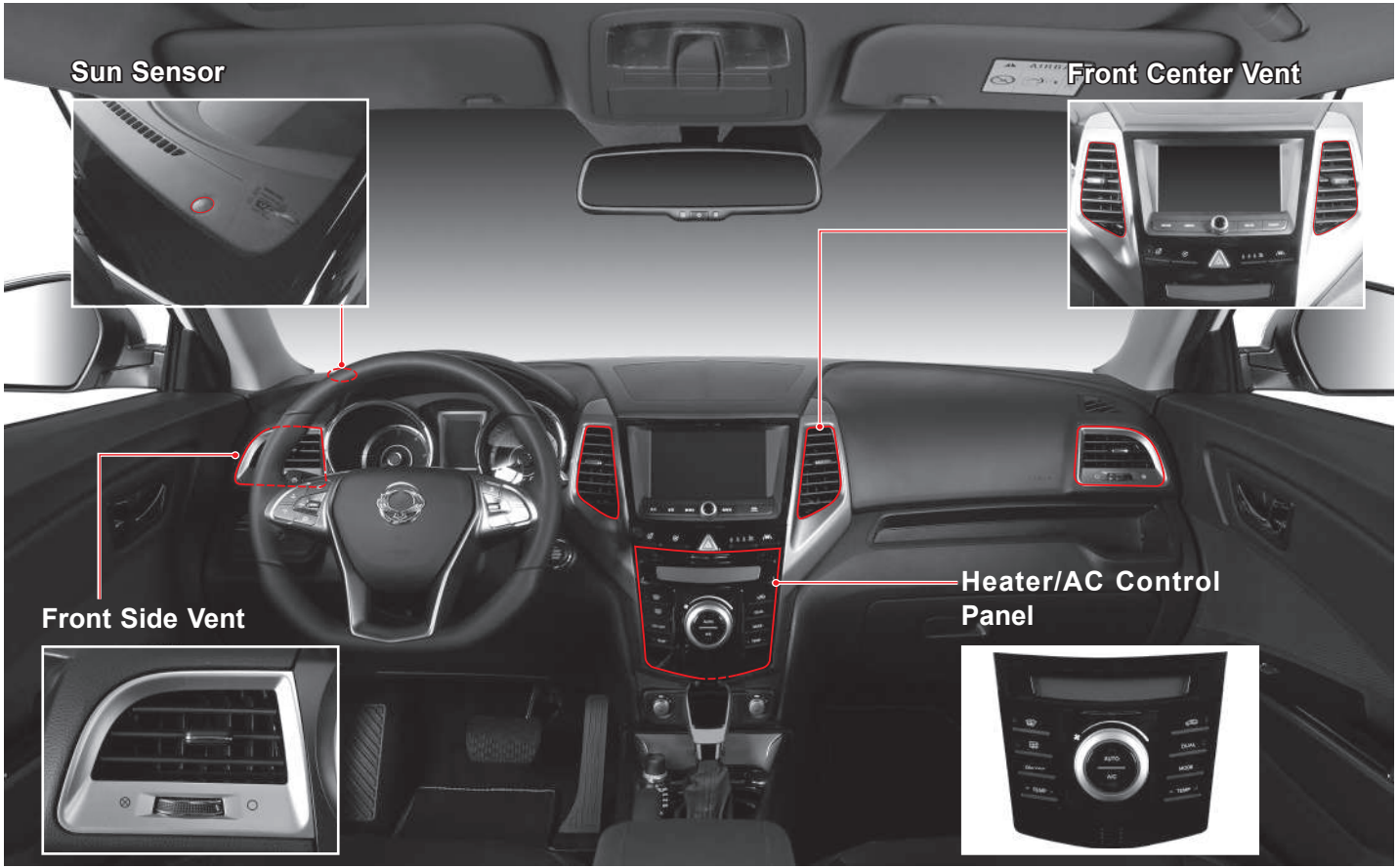
- If the air bag control module detects the impact during an accident, it transmits the signal to deploy the air bag. This signal triggers the explosion of the powder, which is included in the air bag module, and the air bag deploys in a very short time to protect the occupants. When the air bag inflates, there will be heavy noise, glare and smoke. You could suffer secondary injuries caused by inflated air bag such as an abrasion, a bruise, a burn or injury by broken glasses.

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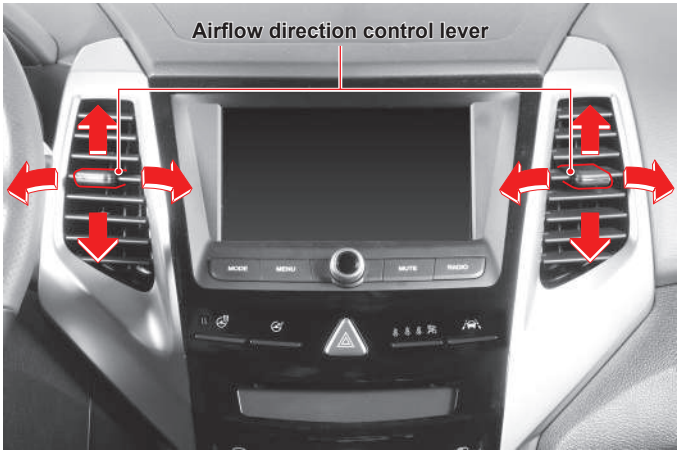
9

Ventilation, Heating, Air Conditioning and Air Purification System



※ Actual appearance may differ from the image shown above.

Front Center Vent



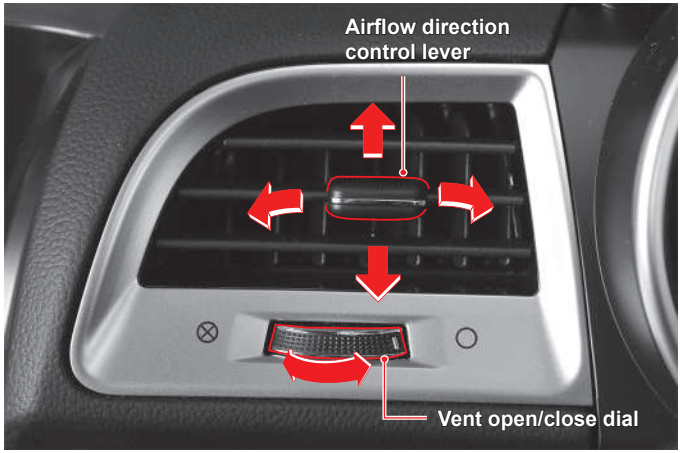
You can adjust the direction of the airflow by moving the knob horizontally or vertically.

The outlet vents can be opened or closed using the vent dial.

NOTE

To resume the auto operation mode, press AUTO switch.

Front Side Vent



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

The outlet vents can be opened or closed using the vent dial.

◯ : Open

⊗ : Close

Refrigerant Specification & Capacity

ITEM	EU	GENERAL
Specification	R-1234yf	R-134a
Capacity	500 ± 30g	500 ± 30g

NOTE

Check the coolant specification before adding or replacing the coolant.

WARNING

- If you sleep while the air conditioner or heater is on, with all windows closed, you may suffocate to death.
- Continued operation in the recirculation mode may cause the interior to become stuffy and windows to fog. Use the recirculation mode for a short period of time.
- If exhaust gas comes in, there is danger of carbon monoxide poisoning. Use the recirculation mode for a short period of time when driving through an area of smoke or fumes. Be sure to switch back to fresh air mode after passing through an area of smoke or fumes.
- If you sleep while operating the air conditioner or heater with all the windows closed, you may suffocate to death due to lack of ventilation. When you operate the air conditioner or heater, ventilate frequently.
- Never leave a child or a handicapped person alone in the vehicle with the air conditioner or heater on in hot or cold weather. The child or handicapped person can be in serious danger by the heat and lack of oxygen.
- The coolant is flammable which can cause the fire by the gas leakage or static, so be very careful when handling the coolant (R-1234yf).

LABEL-A/CON (EU)



LABEL-A/CON (General)





CAUTION

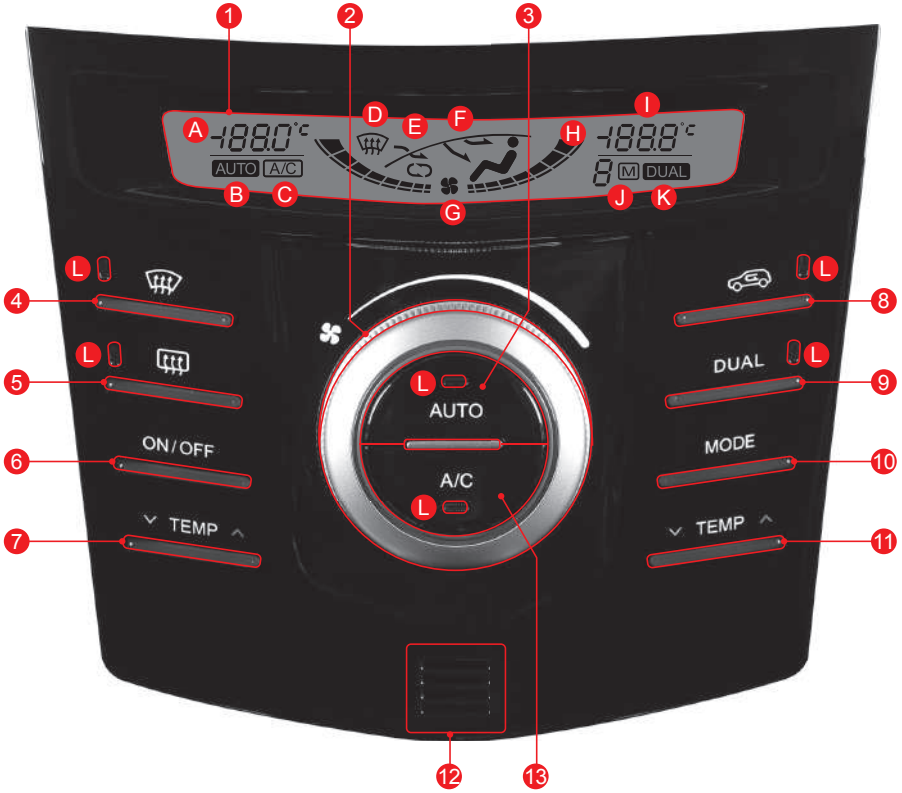
- If your vehicle has been parked in direct sunlight, open all windows to extract heat before turning on the air conditioning (A/C).
- Operating the air conditioning (A/C) for a long time while the vehicle is parked may cause the engine to overheat.
- When driving up a long hill for an extended period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

AUTOMATIC HEATER/AIR CONDITIONER*

The Heater/Air Conditioner switch is operable when IGN ON, however you need to start the engine for the heater and A/C to function.

If you press the AUTO switch and adjust the temperature using the temperature control switch, the temperature inside the vehicle is maintained by the set temperature, while the airflow and air distributions are automatically controlled. The temperature for driver and front passenger side can be adjusted separately by each temperature control switch.

You can also manually control the airflow, air temperature and air distribution. To turn off the A/C and heater, press the OFF switch.

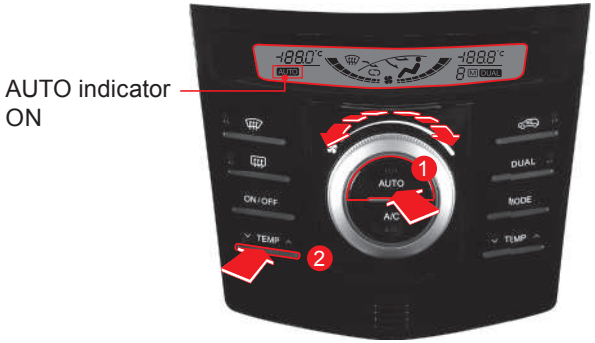


1. Display
   - A. Set temperature
   - B. AUTO mode indicator
   - C. A/C ON indicator
   - D. Defrost mode indicator
   - E. Fresh air indicator
   - F. Air distribution indicator
   - G. Air recirculation indicator
   - H. Fan speed indicator
   - I. Passenger side temperature
   - J. Saved memory indicator
   - K. DUAL mode indicator
   - L. Indicator lamp
2. Fan speed control dial
3. AUTO switch
4. Defroster switch
5. Heater glass switch
6. ON/OFF switch
7. Driver's temperature control switch
8. Air source selection switch
9. Dual temperature selection control switch
10. Mode switch
11. Passenger's temperature control switch
12. Temperature sensor
13. Air conditioner switch

AUTO OPERATION MODE (AUTO INDICATOR ON)

Use only when the engine is running.

1. Press the AUTO (1) switch.
2. AUTO indicator is displayed on the display.
3. Set the desired room temperature with the temperature control switch (2).
4. The temperature of the passenger compartment is automatically maintained according to the set temperature.



When you use the fan speed control switch, fan speed control dial, mode switch (air source selection switch), air conditioner switch or defroster switch during the auto operation mode, the AUTO indicator on the display goes out and the air conditioner system can be controlled manually.

MANUAL OPERATION MODE (AUTO INDICATOR OFF)

Use only when the engine is running.

1. Press ON/OFF switch (1).
2. Set the desired temperature by pressing the temperature control switch (2).
3. Adjust the fan speed by rotating the fan speed control dial (3).
4. Select the air flow by pressing the mode switch (4).
5. Select the air source mode by pressing air source selection switch (5).
6. To turn on the air conditioner, press the A/C ON switch (6).



In manual mode, the AUTO indicator on display does not come on and you can manually adjust the climate conditions by controlling the switches such as, temperature, fan speed, mode (air distribution), A/C, air source selection, MEMORY and DUAL temp. selection control switches.

NOTE

To resume the auto operation mode, press **AUTO** switch.

Fan speed control dial (2)

You can adjust the airflow by rotating the fan speed dial (2) with engine ON. If you adjust the airflow using fan speed dial (2) in AUTO mode, the AUTO indicator (B) on display (1) goes off and the operation mode is changed to the manual mode.

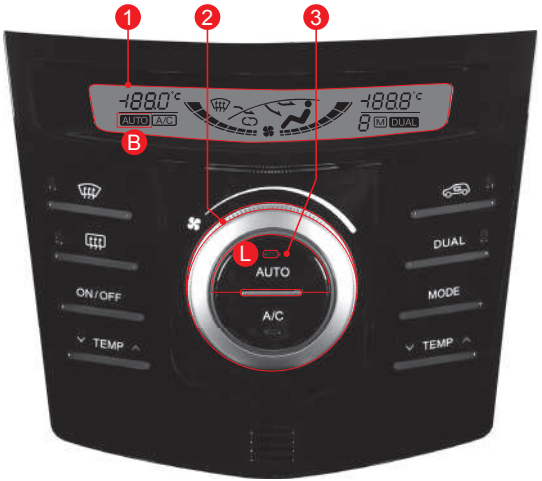
CAUTION

The air conditioner does not operate with rotating the fan speed dial, if the A/C switch is not pressed. However, the air flows due to the fan operation.

AUTO switch (3)

If you press the **AUTO** switch (3) with engine ON, AUTO indicator (B) appears on display (1) and the set temperature is maintained while the airflow and air distribution are automatically controlled.

The indicator lamp (L) lights up while **AUTO** switch (3) is operating, and the lamp (L) turns off when the AUTO switch is not working.



Defroster switch (4)

Use this switch for quick defrosting with the engine ON.

When you press this switch, its indicator lamp lights up, and the airflow direction is changed to the windshield and door glasses while outside air comes in with A/C operation.

At this time, A/C , , indicators come on in the display. If you press the switch again, defrosting stops with the indicator lamp turned off and the mode returns to the previous operation.

While the defroster switch (4) is operating, its indicator lamp (L) lights up and the lamp (L) turns off when the defroster switch is not working.



Heater glass switch (5)

- Pressing the heater glass switch turns on the heating element of the glass for 12 minutes. (indicator lamp (L) comes on)
- Press the switch again to stop the operation. (indicator lamp (L) goes out)
- Use this switch to dehumidify the indoor air or defrost.
- If the switch (5) is pressed again within 10 minutes after 12 minutes of its operation, the heating element of the glass will be activated further for about 6 minutes.
- The indicator lamp (L) on the switch comes on while the heating element is activated.

NOTE

The heating element of glass is activated only when the engine is running. When the heater glass switch is pressed, the heating elements of the rear window, windshield, and outside rearview mirrors are turned on simultaneously.



ON/OFF switch (6)

You can turn on or turn off the air conditioner or heater by using this switch with IGN ON.

The display (1) comes on or goes off by pressing ON/OFF switch (6).

Driver's temperature control switch (7)

To adjust the temperature as desired, press the temperature control switch (7) while the engine is ON. The temperature decreases with pressing blue ⌄ (arrow) and increases with red ⌃ (arrow).

The set temperature (A, I) is shown on the display after pressing the switch (7).

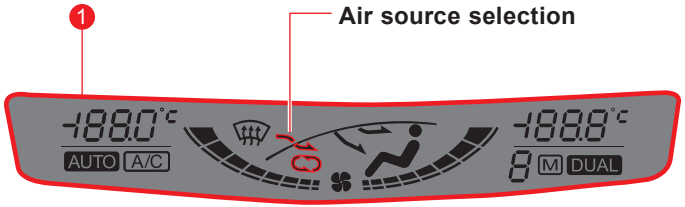


Air source selection switch (8)

If you press this switch (8) with IGN ON, the indication lamp (L) lights up and the air recirculation indicator on display (1) comes on. If you press this switch (8) again, the indication lamp (L) turns off and the air source selection is changed to fresh air intake mode.

WARNING

- Do not use recirculation mode in the vehicle for extended periods of time with every window closed. Doing so can cause headache, drowsiness and fogged window due to lack of oxygen.
- If exhaust gas comes in, there is a danger of carbon monoxide poisoning. Set to the fresh air intake mode after passing through a dusty or polluted area with air recirculation mode.



Automatic selection of the fresh or air circulation mode

When the defroster switch ( ) is pressed, outside air automatically comes in. When the switch is pressed again, the previous mode is restored.

DUAL switch (9)

This function allows controlling the passenger side temperature separately with engine ON.

1. If you press the DUAL switch (9), the indicator lamp (L) lights up and DUAL mode indicator on the display comes on.
2. When the temperature control switch (11) is pressed, the passenger side temperature (I) on the display is adjusted as desired.
3. While the DUAL mode switch (9) is operating, its indicator lamp (L) lights up and the lamp turns off when the DUAL mode switch is not working.

NOTE

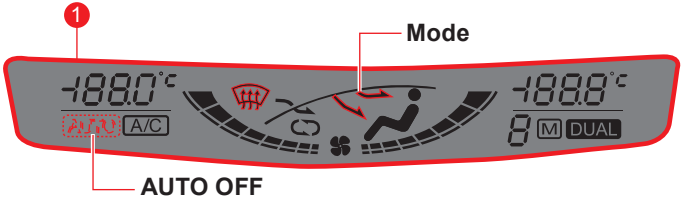
When the DUAL mode switch (9) is turned off with its indicator (K), the passenger' temperature (A) returns to the set temperature (I).



Mode switch (10)

Each time you press this switch (10) with IGN ON, the air distribution mode is changed and displayed as shown in the figure below.

When you press this switch in AUTO mode (AUTO indicator ON), the system is changed to the manual control mode (AUTO indicator OFF).



	Face-Level (normally, when cooling)
	Face/Foot-Level
	Foot-Level (normally, when heating) **NOTE** When choosing this mode, some air flows out from windshield and side glass vents to prevent from fogging on the windshield.
	Foot/Defrost-Level

Passenger's temperature control switch (11)

You can adjust the passenger side temperature with this switch (11) if the DUAL switch (9) is turned ON while the engine is running.

The temperature decreases with pressing blue ∨ (arrow) and increases with red ∧ (arrow).

NOTE

Refer to DUAL switch (9).



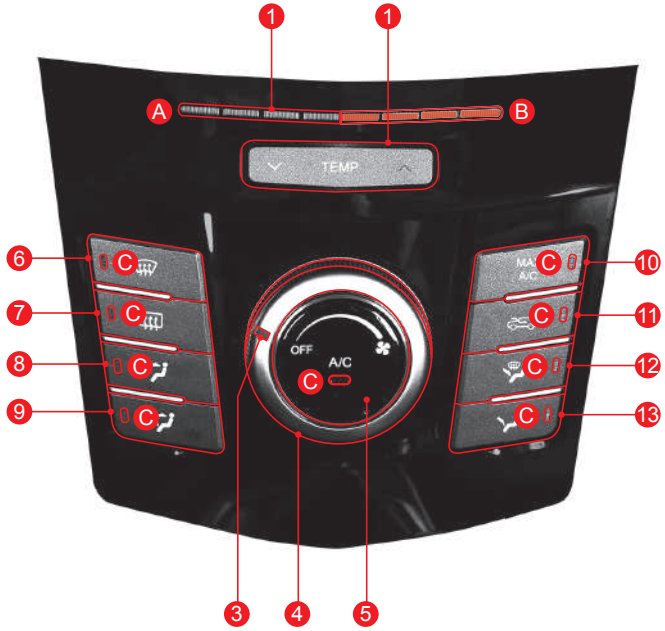
Air conditioner switch (13)

Air conditioner is turned ON and OFF with this switch (13).

While air conditioner switch (13) is operating, its indicator lamp (L) lights up, and the lamp turns off when the switch is not working.

MANUAL HEATER/AIR CONDITIONER

You can turn ON/OFF the heater/air conditioner and adjust the flow speed (level 1 ~ level 7) with using the flow speed control dial (4). To maintain a pleasant temperature, press the temperature control switch (2) to adjust the airflow temperature and select the air distribution mode (8, 9, 12, 13) as desired.



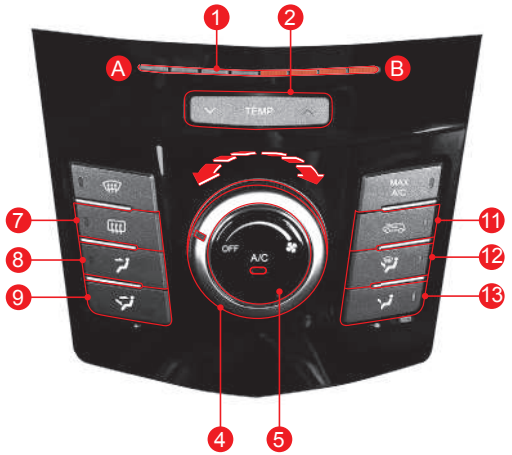
1. Switch indicator lamp
   A. Temperature indicator lamp (Blue)
   B. Temperature indicator lamp (Red)
   C. Switch ON indicator lamp
2. Temperature control switch
3. Dial position indicator
4. Fan speed control dial
5. Air conditioner switch
6. Defroster switch
7. Heated glass switch
8. Vent mode switch
9. Vent/Foot mode switch
10. MAX A/C switch
11. Air source selection switch
12. Defroster/Foot mode switch
13. Foot mode switch

Heater/Air conditioner operation

Operate while the engine is running.

1. Adjust the airflow by rotating the fan speed control dial (4).
2. Set the desired temperature by pressing the temperature control switch (2).
3. Adjust the air distribution with using the mode switch (8, 9, 12, 13).
4. Press the air source selection switch (11) to choose recirculation mode or fresh air mode.
5. Press the air conditioner switch (5) to use A/C.

While each switch is operating, its indicator lamp lights up, and the lamp turns off when the switch is not working.



Switch indicator lamp (1)

This lamp indicates temperature change by the temperature control switch (2) operation.

As you press (∨) button on the temperature control switch (2), the red LED (B) turns off one by one, and the blue LED (A) lights on in the same way.

As you press (∧) button on the temperature control switch (2), the blue LED (A) turns off one by one, and the red LED (B) lights on in the same way.

Temperature control switch (2)

By pressing this switch, you can adjust the temperature as desired.

Each time you press the (∧) button on temperature control switch, the temperature increases by 2°C and the temperature decreases by 2°C as (∨) button is pressed.

The blue/red LED in the switch indicator lamp (1) will come on or goes off depending on the temperature control switch (2) operation.

NOTE

While the red LEDs of the temperature indicator lamp (B) are lighted on, they will turn off one by one each time you press (∨) button on the temperature control switch (2). Likewise, the blue LEDs will go off one by one as you press the (∧) button on the temperature control switch (2) while they came on the temperature indicator lamp (A).

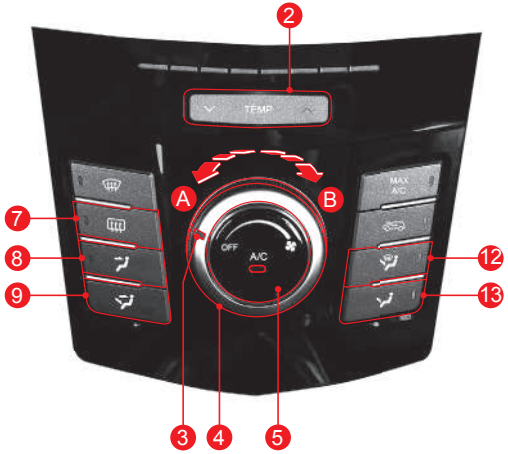
Dial position indicator (3)

This indicator shows current position of the fan speed control dial (4).

Fan speed control dial (4)

You can adjust the airflow by rotating the fan speed control dial (4) with IGN ON.

The fan speed decreases if you rotating the dial (4) counter-clockwise (A) and it increases when you rotate the dial clock-wise (B). This will stop at OFF position of the dial (4).



Air conditioner switch (5)

Rotate the fan speed control dial (4) clockwise (B) from the OFF position while the engine is ON.

1. Press the air conditioner switch (5).
2. Press the temperature control switch (2) to adjust for the cool air to come out.
3. Set the air distribution as desired by pressing the mode switch (8, 9, 12, 13).

While each switch is operating, its indicator lamp lights up, and the lamp turns off when the switch is not working.

WARNING

Do not use recirculation mode for extended periods of time. Doing so can cause headache, drowsiness and fogged window due to lack of oxygen.

NOTE

The air conditioner does not operate with rotating the fan speed dial (4), if the A/C switch (5) is not pressed. However, the air flows due to the fan operation.

Defroster switch (6)

Use this switch for quick defrosting with the engine ON.

When you press this switch (6), its indicator lamp (C) lights up, and the airflow direction is changed to the windshield and door glasses while outside air comes in with A/C operation.

To cancel the defroster function, press any switch among the mode switch (8, 9, 12, 13) and MAX A/C switch (10).

⚠ WARNING

When it rains and is very humid, you may have fog on the windshield and windows. The fog will block your view through all windows and can create a dangerous situation. If this happens, press the mode switch (12) to change the airflow direction toward the windshield ( ).



Heater glass switch (7)

- Pressing the heater glass switch turns on the heating element of the glass for 12 minutes. (indicator lamp (C) comes on)
- Press the switch again to stop the operation. (indicator lamp (C) goes out)
- Use this switch to dehumidify the indoor air or defrost.
- If the switch (7) is pressed again within 10 minutes after 12 minutes of its operation, the heating element of the glass will be activated further for about 6 minutes.
- The indicator lamp (C) on the switch comes on while the heating element is activated.

NOTE

The heating element of glass is activated only when the engine is running. When the heater glass switch is pressed, the heating elements of the rear window, windshield, and outside rearview mirrors are turned on simultaneously.



MAX A/C switch (10)

When you press MAX A/C (Maximum cooling) switch (10) while the heater or A/C is running,

- The air conditioner operates.
- The air recirculation mode is applied.
- The air flows toward the face.
- The temperature is automatically set to the lowest with all blue LEDs (4EA) of the temperature indicator lamp (A) lighted up.



Air source selection switch (11)

If you press the air source selection switch (11) with the ignition turned on, the indication lamp (C) lights up and the system enters recirculation mode.

If you press the switch (11) again, the indication lamp (C) turns off and the system enters fresh air mode.

WARNING

- Do not use recirculation mode for an extended period of time. Doing so can cause headache, drowsiness and fogged window due to lack of oxygen.
- If exhaust gases flow in, there is a risk of carbon monoxide poisoning. Use recirculation mode while driving in dusty conditions and switch back to fresh air mode as soon as you leave these areas.

Airflow mode switch (6, 8, 9, 10, 12, 13)

You can adjust the airflow distribution with using these switches.

While each switch is operating, its indicator lamp lights up, and the lamp turns off when the switch is not working.



	The air flows toward the windshield and door glasses. If you press the defroster switch, the fresh air intake mode is automatically applied and the air conditioner operates.
	Face-Level (when cooling)
	Face/Foot-Level
MAX A/C	Face-Level. The air recirculation mode is applied and the air conditioner operates. The lowest temperature is automatically selected with all blue LEDs lighted on (Maximum cooling position).
	Foot/Defrost-Level The fresh air intake mode is automatically applied.
	Foot-Level (normally, when heating) **NOTE** While in Foot mode, some air flows to the windshield and door glasses to prevent the windshield from fogging.

AUTOMATIC HEATER/AIR CONDITIONER



Inside of the windshield

1. Press the defroster switch (1). (The indicator lamp (C) ON)
2. Place the fan speed control dial (2) to any position other than OFF. (In automatic heater/AC mode, the fan speed is automatically set to 2nd level when pressing the defroster switch with the fan speed control switch in OFF position.) The display shows A/C , , indicators.
3. Set the temperature as desired using the control switch (3).
4. To quickly remove the fog on the glass, set the fan speed control dial (2) at a high speed position.

NOTE

To prevent the windshield from fogging up, it is recommended to set the air source selection switch (4) to the fresh air intake mode.

Outside of the windshield

1. Press the defroster switch (1). (The indicator lamp (C) ON)
2. Place the fan speed control dial (2) to any position other than OFF. (In automatic heater/AC mode, the fan speed is automatically set to 2nd level when pressing the defroster switch with the fan speed control switch in OFF position.) The display shows A/C , , indicators.
3. Adjust the temperature control switch (3) for high temperature setting.
4. To quickly remove the fog on the glass, set the fan speed control dial (2) at a high speed position.

NOTE

If you press the defroster switch (1), the fresh air intake mode is applied with A/C ON.

⚠ WARNING

When it rains and is very humid, you may have fog on the windshield and windows. The fog will block your view through all windows and can create a dangerous situation. If this happens, set the air source selection switch to the fresh air intake mode and change the airflow direction toward the windshield.

⚠ CAUTION

- An extended air conditioner operation in the foot-level, foot/defrost-level or defrost modes may cause the outside of the windshield to fog due to the temperature difference between the inside and the outside of the vehicle. In this case, quickly remove the moisture using the windshield wipers and change the airflow to face-level mode to reduce fogging on the outside of the windshield.
- Make sure to remove any foreign matters such as snow and leaves on the air inlets to avoid window fogging, especially in winter and summer.

MANUAL HEATER/AIR CONDITIONER

Inside of the windshield

1. Press the defroster switch (1). (The indicator lamp (C) ON)
2. Rotate the fan speed control dial (2) clockwise from the OFF position.
3. Set the temperature as desired using the control switch (3).
4. To quickly remove the fog on the glass, set the fan speed control dial (2) at a high speed position.

NOTE

To prevent the windshield from fogging up, it is recommended to set the air source selection switch (4) to the fresh air intake mode.

Outside of the windshield

1. Press the defroster switch (1). (The indicator lamp (C) ON)
2. Rotate the fan speed control dial (2) clockwise from the OFF position.
3. Adjust the temperature control switch (3) for high temperature setting.
4. To quickly remove the fog on the glass, set the fan speed control dial (2) at a high speed position.

NOTE

If you press the defroster switch (1), the fresh air intake mode is applied with A/C ON.



WARNING

When it rains and is very humid, you may have fog on the windshield and windows. The fog will block your view through all windows and can create a dangerous situation. If this happens, set the air source selection switch to the fresh air intake mode and change the airflow direction toward the windshield.

CAUTION

- An extended air conditioner operation in the foot-level, foot/defrost-level or defrost modes may cause the outside of the windshield to fog due to the temperature difference between the inside and the outside of the vehicle. In this case, quickly remove the moisture using the windshield wipers and change the airflow to face-level mode to reduce fogging on the outside of the windshield.
- Make sure to remove any foreign matters such as snow and leaves on the air inlets to avoid window fogging, especially in winter and summer.

REPLACING AIR CONDITIONER FILTER

Replace the Air Conditioner Filter When

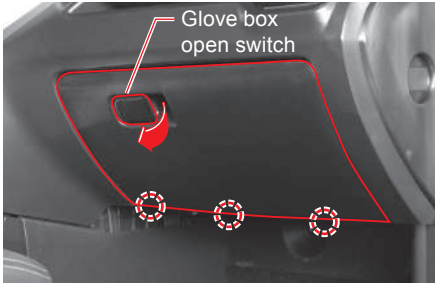
- Unpleasant odor is generated at the first operation after a long unused period.
- Cooling and blowing capacity have decreased.

⚠ CAUTION

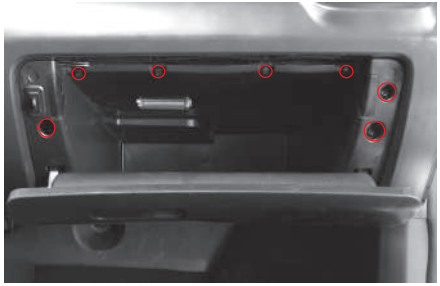
- Do not apply excessive force to the holders when removing the glove box. It may cause a deformation of holders and results in a loose installation.
- Replace air conditioner filter while paying attention to the installing direction.

⚠ CAUTION

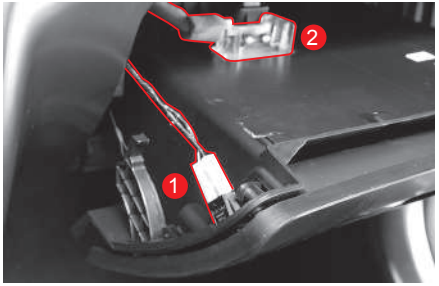
- Replace the air conditioner filter at every 15000 km of driving. However, if the vehicle is operated under severe conditions, such as on dusty or unpaved roads, and excessive air conditioner or heater use, the replacement interval can be shortened.
- When the filter is contaminated, it will decrease the cooling or heating capacity of the system and creates unpleasant odors.



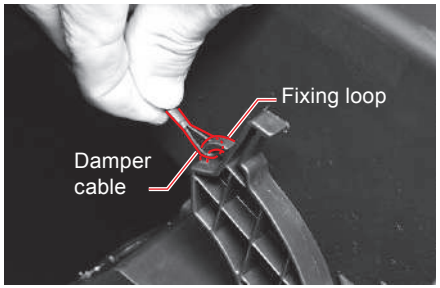
1. Detach the locknut (10 MM, 1EA) and screws (2EA) from lower part of the glove box.
2. Open the glove box by pressing the open switch.



3. Remove the glove box by loosening 4 screws and 3 of IP setscrews from upper part of the glove box.

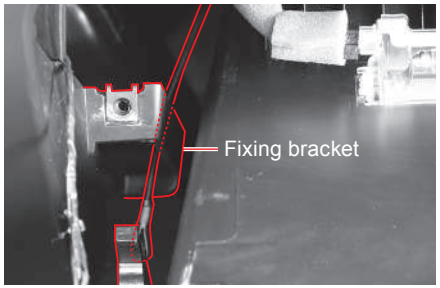


4. Disconnect the switch wirings (1) and lamp wirings (2) while pulling out the glove box.



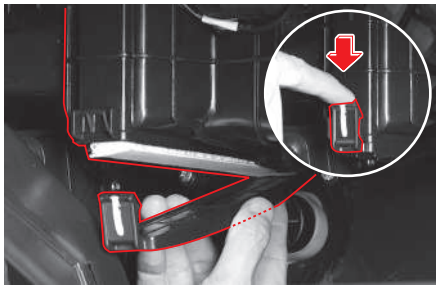
5. After detaching the damper cable by pulling it up, remove the glove box completely.

   (When attaching, make sure that the damper cable passes through the inside of the fixing bracket.)

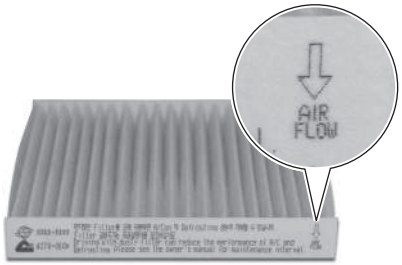


CAUTION

When replacing the filter, the arrow printed on the side of the filter should face to the blower motor.



6. Pull out the A/C filter after removing the fixing cover by pulling it off using your hand.
7. Install in reverse order of removal.



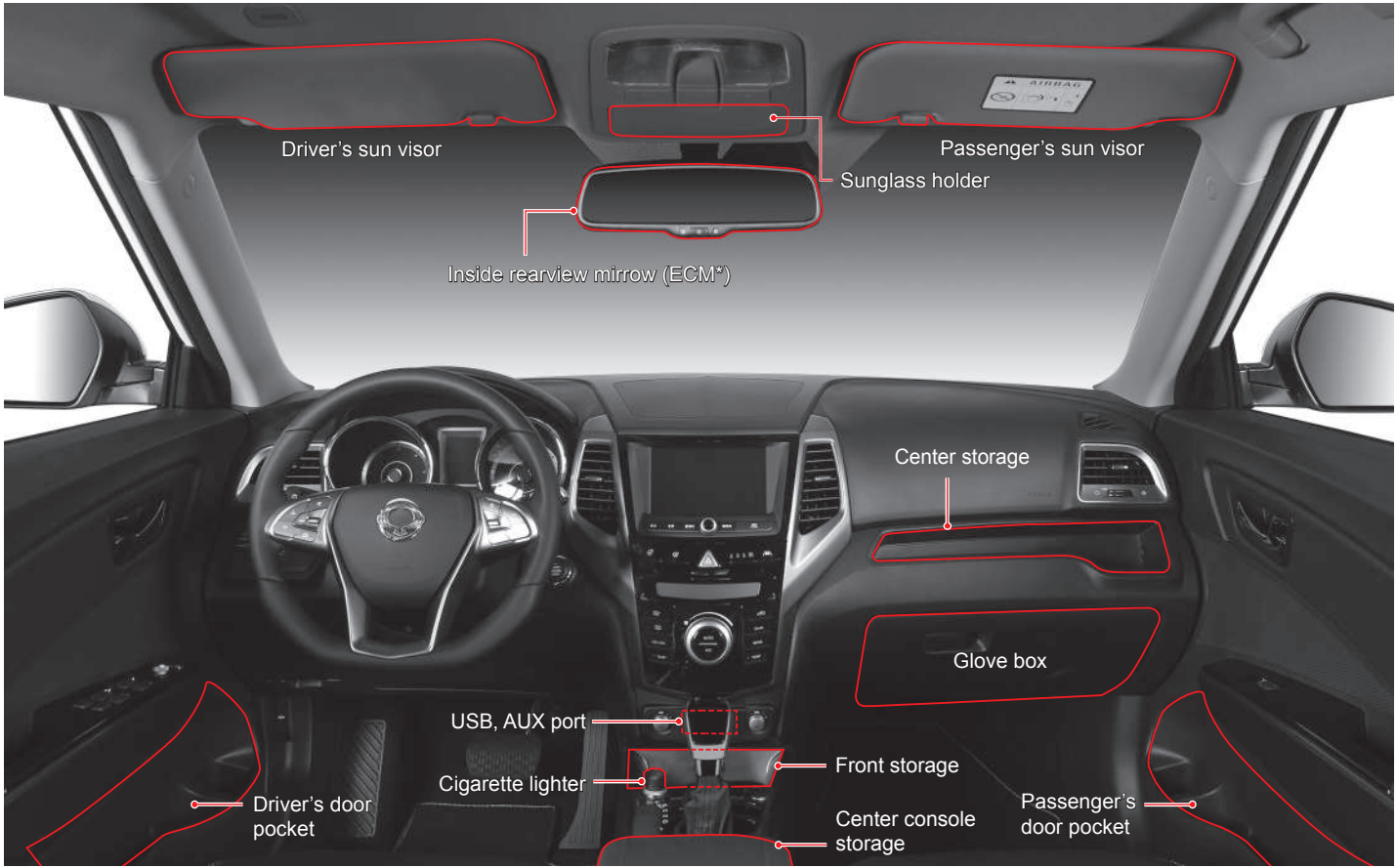
When replacing the filter, the arrow printed on the side of the filter should face to the blower motor.

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Convenience Devices



※ Actual appearance may differ from the image shown above.



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

CAUTION

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

TILTING AND TELESCOPING



WARNING

- Do not adjust the steering wheel while your vehicle is moving. Always adjust the steering wheel with the vehicle stationary.
- Before driving, make sure that the steering wheel is locked.

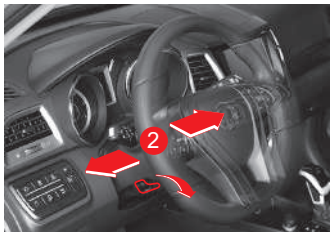
CAUTION

Avoid turning the steering wheel all the way to the left or right for more than 10 seconds with the engine running. This may cause the power steering system to be overloaded, causing damage to the system.

Tilting Steering Wheel



Telescoping Steering Wheel



Push down the steering wheel lock/release lever to tilt (1) or telescope (2) the steering wheel. Adjust the steering wheel to the desired position and lock it by pulling up the lever.

Hold and move the steering wheel to check if it is locked in place.

ELECTRIC POWER STEERING

Electric power steering system uses the electric motor to assist you in steering the vehicle. Even if the engine is off or if the power steering system is defective, the vehicle may still be steered, but it will require increased steering effort.

CAUTION

- The steering wheel becomes heavier after turning the steering wheel to its end and holding it for a certain period of time. However, this is a safety mode for protecting the EPS system, and the steering wheel will return to its normal condition.
- If the EPS warnign light comes on while driving, have the system checked by Ssangyong Dealer or Ssangyong Authorized Service Center.
- In stationary or during low speed driving, you may hear an operating sound from motor when rotating the steering wheel. This is normal condition.

EPS Warnign Light



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

If this warning light comes on while driving, have the system checked by Ssangyong Dealer or Ssangyong Authorized Service Center.

CAUTION

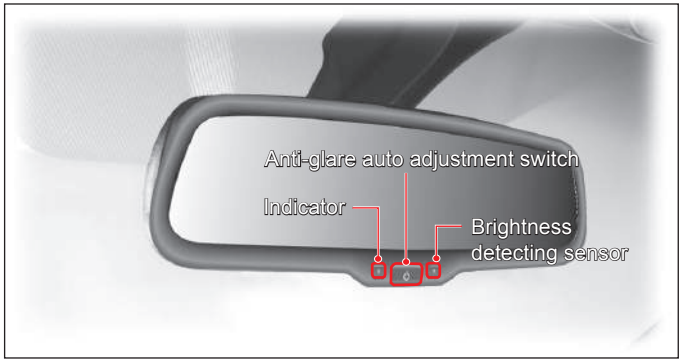
If the EPS warning light does not come on, following symptoms may occur during normal vehicle operation:

- The steering wheel becomes heavier for approx. 2 seconds after starting the engine. This happens when the EPS system performs the self diagnosis. When the self diagnosis is completed and the system is normal, the steering wheel will return to its normal operating condition.
- To prevent a serious accident, the EPS system stops its operation when the the malfunction in the system is detected. In this situation, the steering effort could be suddenly increased.
- Click noise may be heard from the EPS relay after the ignition switch is turned to ON or LOCK position.
- Motor noise may be heard when the vehicle is at a stop or is driving at a low speed.
- Motor noise may be heard when the vehicle is driving in cold weather.

INSIDE REARVIEW MIRROR*

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

ECM (ANTI-GLARE AUTO ADJUSTMENT FUNCTION)*



The reflection rate of the inside rearview mirror can be automatically adjusted by the light intensity from a vehicle behind you by pressing the anti-glare auto adjustment switch. While pressing the switch, its corresponding indicator comes on. Pressing the switch once more turns off the indicator and deactivates the function.

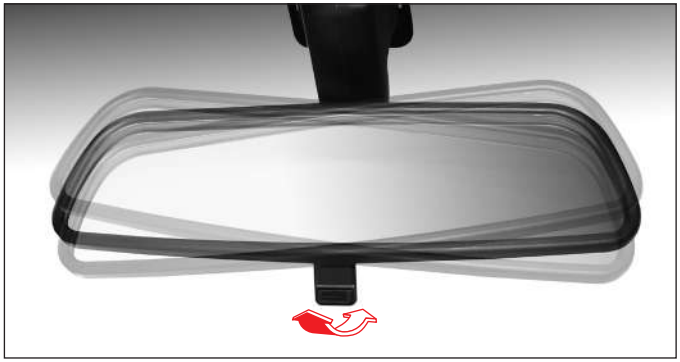
CAUTION

- Under the following conditions, automatic anti-glare function may not operate properly.
- When the rear vehicle's headlamp is not beamed directly to the inside rearview mirror's sensor.
- When the rear window has a dark tinted glass.
- When the gear selector lever is in the R position, automatic anti-glare function will be cancelled to obtain the best rearview.
- For your safety, never adjust the mirror while the vehicle is in motion.

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, adjust the mirror before driving off the vehicle.

MANUAL TYPE INSIDE REARVIEW MIRROR



Manual Day/Night Adjustment

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

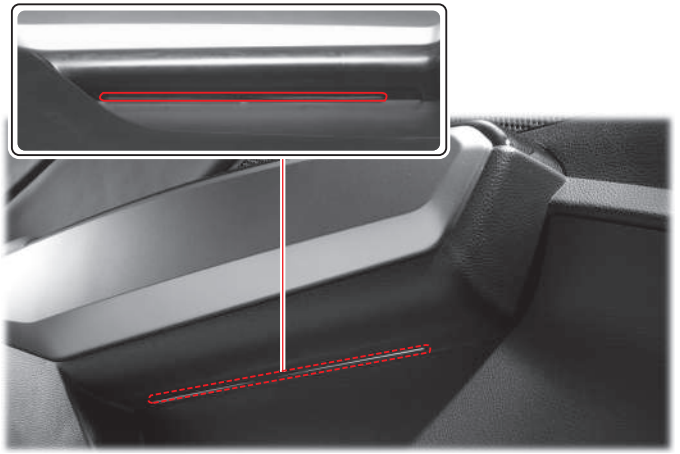
CAUTION

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

WARNING

For your safety, adjust the mirror before driving off the vehicle.

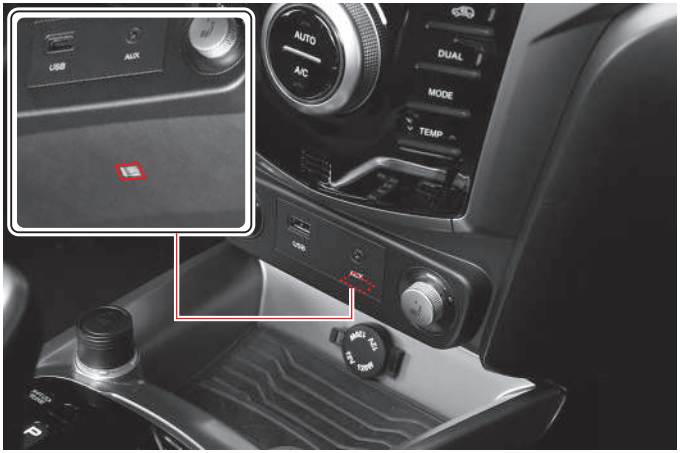
DOOR MOOD LAMP (LED)



Lights on when the tail lamps turn on.

The front door storage is softly illuminated.

IP MOOD LAMP



Lights on when the tail lamps turn on.

The front storage in the center fascia panel is softly illuminated.

FRONT STORAGE



The front storage is located under the front center panel. You can use it for small items.

CAUTION

Be cautious of items falling or interrupting the control of the gear selector lever.

SUNGLASS HOLDER

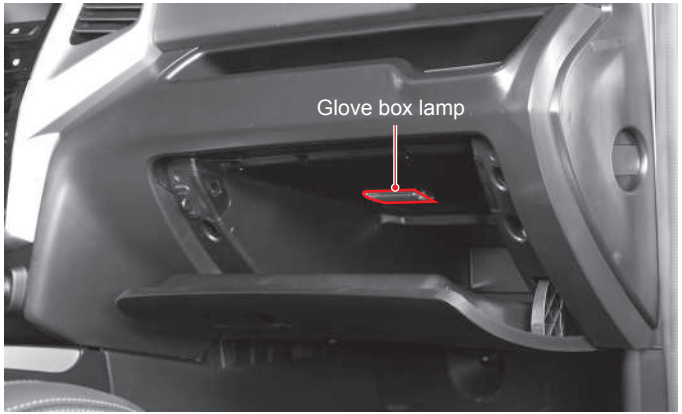


To open the sunglass holder, press the cover. The sunglass holder cover will slowly open.

CAUTION

- If glasses falls down, it may be damaged. Fix it firmly.
- The unclosed holder cover may block your rearview. Also, it may hurt passengers in an accident or a sudden stop. Therefore, close the cover before driving off your vehicle.
- Do not store any heavy items inside the sunglass holder. When it falls out of the holder, occupants may get injured.

GLOVE BOX



The glove box opens with the lever pulled. Use it to store items and etc. There is a separate compartment in the glove box to place items that are frequently used.

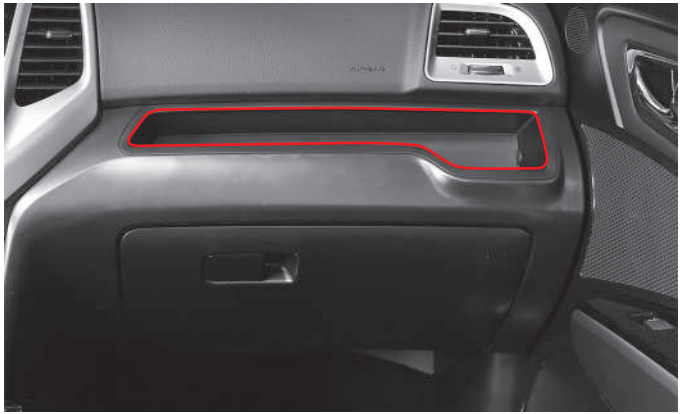
CAUTION

- Driving with the glove box lid open can cause injury in case of an accident or a sudden stop. Keep glove box lid closed when driving.
- Do not store any flammable materials such as cigarette lighter in the glove box or other space. In hot weather, it may explode and cause a fire.

NOTE

The glove box lamp comes on when opening the glove box with the tail lamp on.

CENTER STORAGE



The center storage is mounted upon the glove box.

CAUTION

A cold/hot beverage placed in the storage may be thrown out or cause a burn. Use the cup holder for beverages.

CONSOLE STORAGE



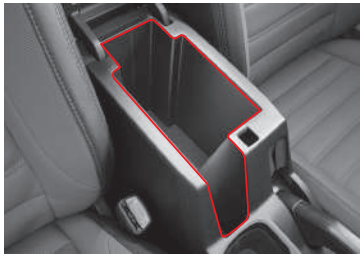
You can use the console storage by lifting up the console lid with the knob.

CAUTION

- To avoid possible theft, do not leave valuables in the storage compartment.
- Do not store items that are damageable or cause noises since they can move around in the compartment while driving.
- Do not store any flammable materials such as cigarette lighter in the console box or other space. In hot weather, they may explode and cause a fire.



- By pressing up the console knob (1), you can use the compartment in the console storage.
- The console storage can be used as an armrest for both the driver and the passenger.



You can store a max. 10-inch mobile device (galaxy tab, iPad, etc.) in the center console storage.

DOOR POCKET

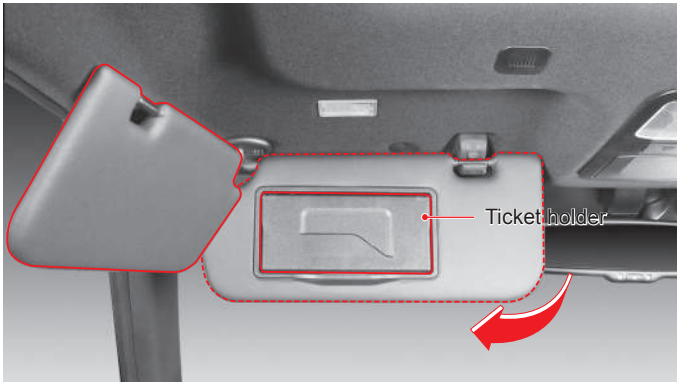


You can store a map, beverage and etc. in the door pocket.

CAUTION

- A cold/hot beverage placed in the map pocket may be thrown out causing a burn or an accident while driving.
- Be careful with the leftover beverage not to be spilled.

SUN VISOR AND TICKET HOLDER



Sun Visor

Use the sunvisor to shield the direct sunlight through the front or side windows.

To shield the sunlight through the windshield, pull it downward.

To shield the sunlight through the side window, pull it downward, unsnap it from the bracket and swing it to the side.

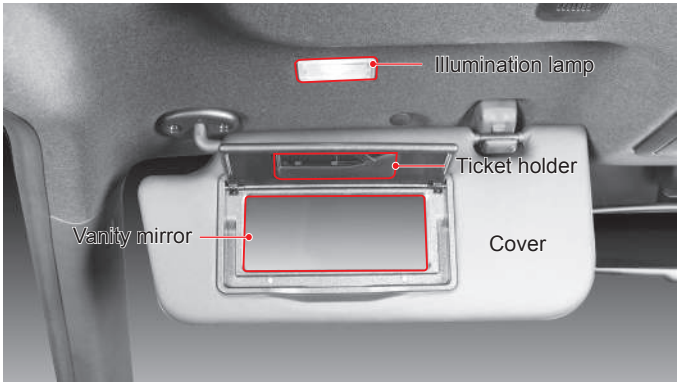
Ticket Holder

Tickets and cards can be stored.

CAUTION

- Adjusting the sun visor or using the mirror or ticket holder on the sun visor while driving may cause an accident by taking your attention away or blocking your view.
- Adjust and use the sun visor when the vehicle is not in move.

VANITY MIRROR AND LAMP*



Vanity Mirror and Lamp

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

CAUTION

Do not adjust the sun visor while the vehicle is in motion.

Ticket Holder

Tickets and cards can be stored.

FRONT CUP HOLDER/REAR CUP HOLDER AND ARMREST*

FRONT CUP HOLDER



You can put the cup, can and removable ashtray in the cup holder.

CAUTION

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

REAR CUP HOLDER AND ARMREST*



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

There is a cup holder in arm rest.

CAUTION

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

REMOVABLE ASHTRAY*/CAR MAT HOOK

REMOVABLE ASHTRAY*



This portable ashtray can be easily placed on where you want. Tab the ash off your cigarette.

WARNING

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

FLOOR MAT ANCHOR



The floor mat should be fixed by the anchors on the floor.

WARNING

- If the floor mat slips and interferes with the movement of the pedals during driving, it may cause an accident.
- Never put an additional floor mat on the top of the anchored floor mat, otherwise the additional mat may slide forward and interfere with the movement of the pedals.



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

WARNING

- When the cigarette lighter does not automatically pop up after 30 seconds, there is a danger of overheating. If this happens, pull it out and have the problem corrected by Ssangyong Dealer or Ssangyong Authorized Service Center.
- Inserting your finger into the cigarette lighter outlet can cause burns or electric shock.
- The barrel of the cigarette lighter becomes very hot when it is fully charged. When touched by or dropped on bare skin, this may cause burns. Dropping the hot lighter can cause damage to a car seat or even start a fire.
- Use only the genuine cigarette light in the cigarette lighter shock. To prevent from electrical damage and fire, never use any other electric device such as shaver, vacuum cleaner or coffee pot.

CAUTION

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

POWER OUTLET*

FRONT

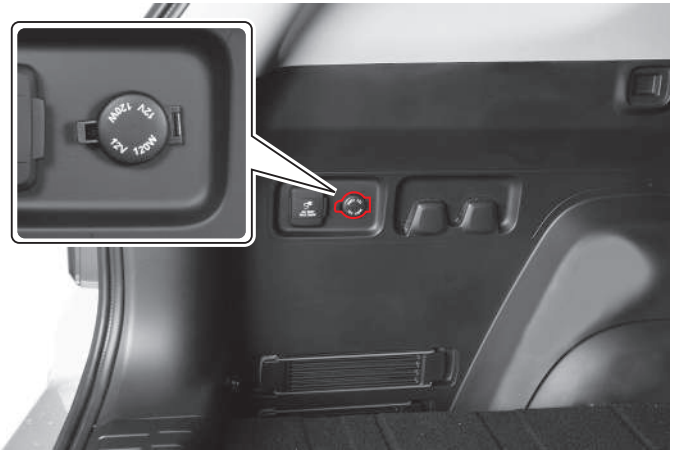


An auxiliary power outlet for extra electrical devices is installed. This power outlet supplies power when the ignition key is in the “ACC” or “ON” position.

CAUTION

Keep the power outlet cover closed if not in use. Electrical defects can occur if objects other than power outlet plugs or water gets in. This will prevent the socket from becoming clogged or short circuiting.

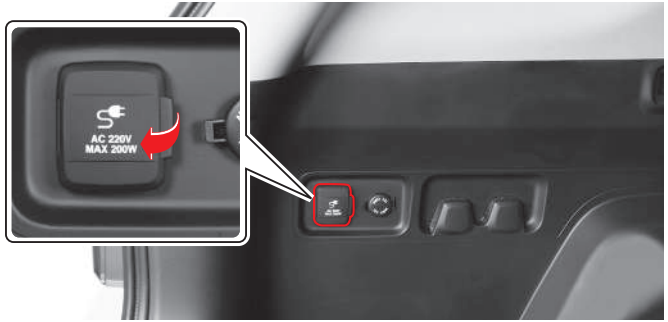
REAR



WARNING

- For the extra electrical devices, you must use this power outlet. If you alter the vehicle’s wire lines and leave the wires to hang freely, it could cause an accident like a fire.
- Abide by the nominal capacity of 12V-120W.
- Do not put a finger into the outlet. It may cause an electric shock.
- The battery can be discharged if the power outlet is used excessively when the engine is not running.

AC INVERTER



AC 220V (110V) inverter

It is a digital power conversion system, which converts DC 12V electricity provided by the automobile to AC 220V (110V) and enables you to use simple electrical appliances such as the laptop, cellular phone battery charger, lights, TV.

After turning on the AC inverter, open the socket cover and plug in the lead from the electrical appliance, with the engine started.

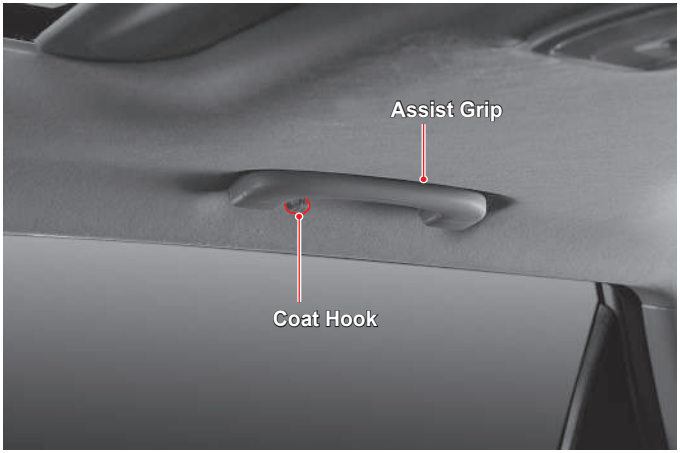
WARNING

- Not paying attention to the AC inverter is very dangerous when it's not in use.
- Always follow the precautions below in order to prevent serious injury:
  - Do not use any electrical appliance using hot water. (e.g., electric kettle, toaster and iron)
  - Do not put any foreign object in the AC inverter or touch it with hands. Doing so may cause an electric shock or fire.
  - Don't let child touch the AC inverter.
  - Do not touch the inverter with wet hands. If so, electrical shock and serious bodily injury may occur as a result.

CAUTION

- The some electronic equipment with power consumption less than the inverter power rating may not work properly:
  - Electrical appliances which need high current at startup
  - Measuring equipment which should process the exact data
  - Unit which needs stable power supply.
- Close the AC inverter cover when the AC inverter is not in use.
- Always start the engine in order to use the AC inverter and unplug it after use. The battery may be flat when you use it with the engine stopped or when plugging in the electrical appliance for a prolonged time.
- Do not plug in the electrical appliance with power consumption higher than 200W (220V) [150W (110V)].
- When you plug in an improper electrical appliance which causes excessive electromagnetic wave noise, you should take care since the noise comes from the audio system (or AV system) and the smart key and electrical systems in the vehicle may occur malfunction.
- Do not use the faulty electrical appliance. It may damage the AC inverter and electrical systems in the vehicle.
- Do not use more than two electrical equipment and accessories simultaneously.
- When input voltage from the AC inverter becomes low, the LED indicator flashes and the AC inverter is switched off automatically. It will work normally when voltage rises again.
- When the smart key is in the vicinity of the AC inverter, it may not work very well due to the electromagnetic wave from the AC inverter.

ASSIST GRIP AND COAT HOOK



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

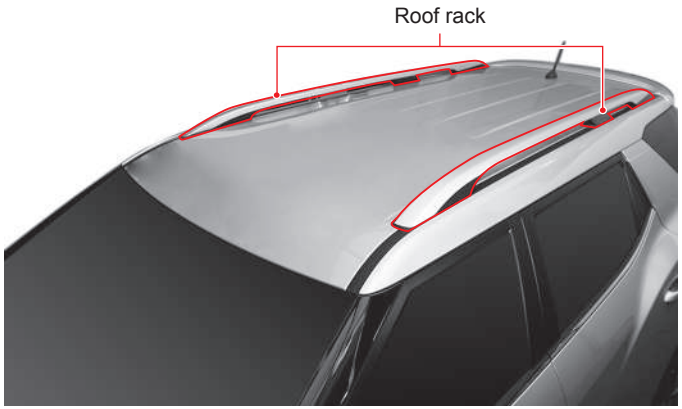
Also, the coat hooks are installed on the ceiling.



There are heating grids on the tailgate glass. Be careful not to damage the heating grids while cleaning inside of the tailgate window.

CAUTION

- Do not coat the tailgate window with commercial anti-glare film. When the metal anti-glare film and two-tone anti-glare film is used, the sensitivity of the heating grids can be deteriorated.
- If any transmitter or receiver is close to the antenna, it can interfere with the communication of the antenna.



If the vehicle has a roof rack, you can load things on top of your vehicle.

When loading, stowage on the vehicle should not damage the vehicle as well as not interfere with the sunroof operation (for sunroof equipped vehicle).

Use any auxiliary equipment for loading, such as a carrier, considering the vehicle condition and safety.

Maximum load capacity	75kg

NOTE

It is recommended to put cloth or cushions between stowage and roof to protect them.

WARNING

- In case the sunroof is equipped, do not position roof rack loads that could interfere with opening of the sunroof.
- The following specification is maximum weight when loading cargo or luggage.
- Loading cargo or luggage above specification on the roof rack may damage your vehicle.
- When you carry large objects, never let them hang over the rear or the sides of your vehicle.
- To prevent damage or loss of cargo as you are driving, check frequently to make sure the luggage carrier and cargo are still securely fastened.
- Always drive your vehicle at a moderate speed.
- Loading cargo or luggage over specification on the roof rack may damage stability of your vehicle.

CAUTION

When loading the cargo on the roof rack over the vehicle equipped with the sun roof, be careful not to interrupt the sun roof operation.

LUGGAGE NET*



※ Use the hook located on lower quarter in the luggage compartment to hang the net.

Any possibly moving objects during driving can be stored securely in the envelope net. Store the net in a storage compartment when not in use.

CAUTION

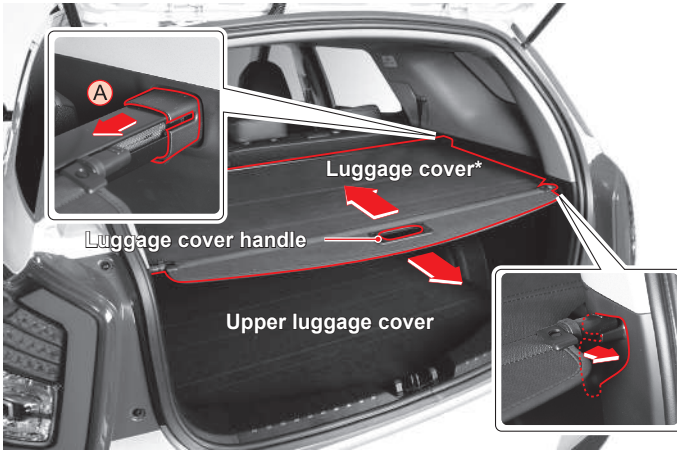
- To prevent the net from being damaged, do not put a large or heavy objects in the net.
- To prevent the goods or the vehicle from being damaged, pay particular attention when carrying fragile or bulky objects in the luggage compartment.

WARNING

Do not overstretch the luggage net, Always keep your face and body out of the luggage net's recoil path.

It can hold loose items during driving.

LUGGAGE COVER*



By installing the luggage cover, you can cover the items in the luggage and keep any objects from popping up in the vehicle.

Installing:

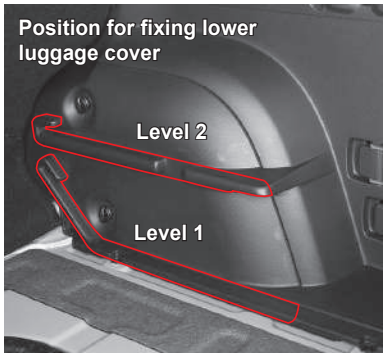
1. Fit the luggage cover into the groove in the body of the vehicle as pressing both ends of the cover to (Ⓐ) direction.
2. Pull the cover handle and slide the luggage cover into the groove.

⚠ CAUTION

- Store the luggage cover separately to use the luggage room of the vehicle wide
- Don't put anything on the luggage cover.

LUGGAGE TRAY*



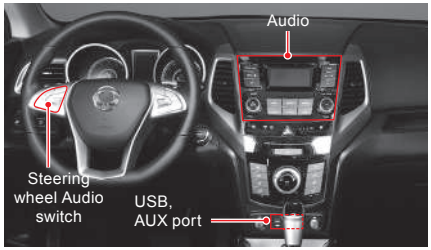


In order to use the luggage tray, lift up the upper cover handle, lean it back and lift up the lower cover.

NOTE

You may fix the lower luggage cover at either level 1 or level 2 position to use it.

Audio



With USB/AUX and iPod supporting function, this audio system can be controlled by using both audio switches and steering switches.

NOTE

The audio system supports the iPod function through the USB port.

- The iPod models that can be connected to the audio are Nano, iPod, iPod Touch, I-Phone and so on.
- Some models may not be supported by the system. When connecting the iPod product to the audio, always use the cable provided with the product, otherwise the audio may become defective.
- The iPod product cannot be charged using the connecting cable.

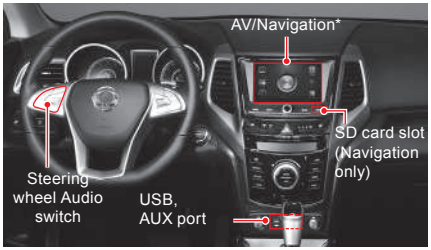
For detailed information regarding audio system, refer to the manual provided separately.

LCD audio*



Supporting USB / AUX rearview camera, this audio system can be controlled by using the touch panel and steering switches.

AV/Navigation*



With the built-in navigation function, this audio system can be controlled by using the touch panel and steering switches.

This system supports USB / AUX rearview camera.

CAUTION



- In the slot built in the AV Navigation, use the SD Card loaded with the navigation map only which is already installed by the manufacturer.
- Make sure that the engine is turned off when inserting or removing the SD Card
- If the SD Card is removed while the navigation is in operation, the unit may become defective.

ANTENNA



Antenna

- Radio reception
- Navigation GPS reception*

CAUTION

The antenna is not detachable.

USB/AUX PORT

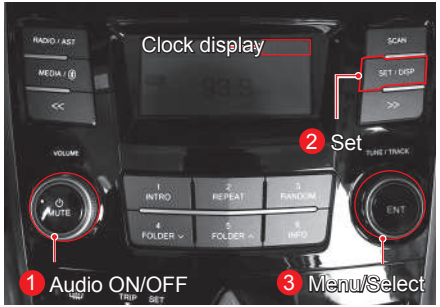


- AUX jack: use it when you play the music from an external audio device through the speakers in your vehicle.
- USB port: use it when you play the music from the USB memory stick.

CAUTION

Some USB sticks and external audio devices may not be played through the audio system in the vehicle using the USB port or AUX jack.

CONTROLLING AUDIO DIGITAL CLOCK



NOTE

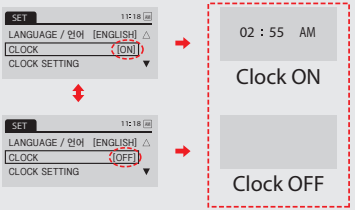
For additional audio information, refer to the audio manual provided with this manual.

Initial display with audio OFF

Follow the same step 1 and 2 of clock setting (on the right).



Rotate the button 2 as shown on the left, and press the button 1 to select clock ON/OFF. The display will show as follows with audio OFF.



1. Press audio ON/OFF button (1) to turn the audio power ON after IGN ON.

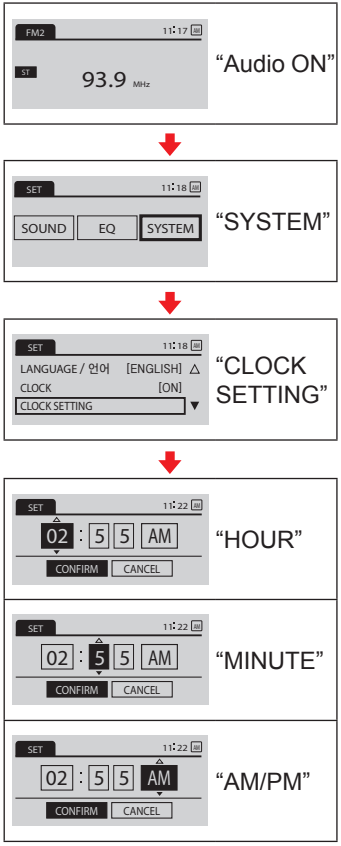
2. Press the set button (2) to call up the SET display and select SYSTEM by rotating and pressing the menu/select button (3).

3. After selecting Clock Setting by rotating and pressing the menu/select button (3), you can adjust hour, minute and AM/PM.

NOTE

Adjust hour, minute and AM/PM by rotating (3) button clockwise/counterclockwise.
e.g.) time setting => 09 : 39 AM
1. Press (3) button to select TIME
2. Rotate (3) button to set the time
3. Press (3) button to complete time setting

4. After finishing hour, minute and AM/PM setting, rotate and press the menu/select button (3) to select OK to complete time setting.



To turn off the navigation while driving

Press and hold AVN menu (SETUP) button (over 1.5 seconds) → Navigation → Select manual start and turn IGN OFF (for 3 minutes). When IGN is turned ON, the navigation does not operate, and resumes with pressing current location (NAVI) button when necessary. (Refer to AVN manual)

CAUTION

- The trim of the center fascia panel mounted with audio and AV system (including A/C system) is finished with high gloss material.
- The high gloss finishing may be damaged if contacted with any sharp or rough objects. To clean, gently remove the dust and wipe with soft and dry cloth.
- Do not use a hard cloth or organic solvent (alcohol, benzene, thinner, etc.) to clean the center fascia including the monitor in order to avoid damage or deformation.

CAUTIONS WHEN USING AV AND NAVIGATION

- Do not use the AV/Navigation system for extended periods of time in the vehicle while engine is OFF. The battery may be discharged.
- Be careful not to spill water on the unit or let any foreign material into the equipment.
- If a strong impact or a pressure is applied to the front monitor, the LCD and touch screen panel can be damaged.
- To clean the touch screen, wipe it with a dry and soft cloth after turning the power off. Never use a hard cloth, a rag with chemical or organic solvent (alcohol, benzene, thinner, etc.) to avoid damage or deformation on the screen.

WARNING

For safe driving, stop your vehicle on a safe road when you need to operate the navigation or video system.

MEMO

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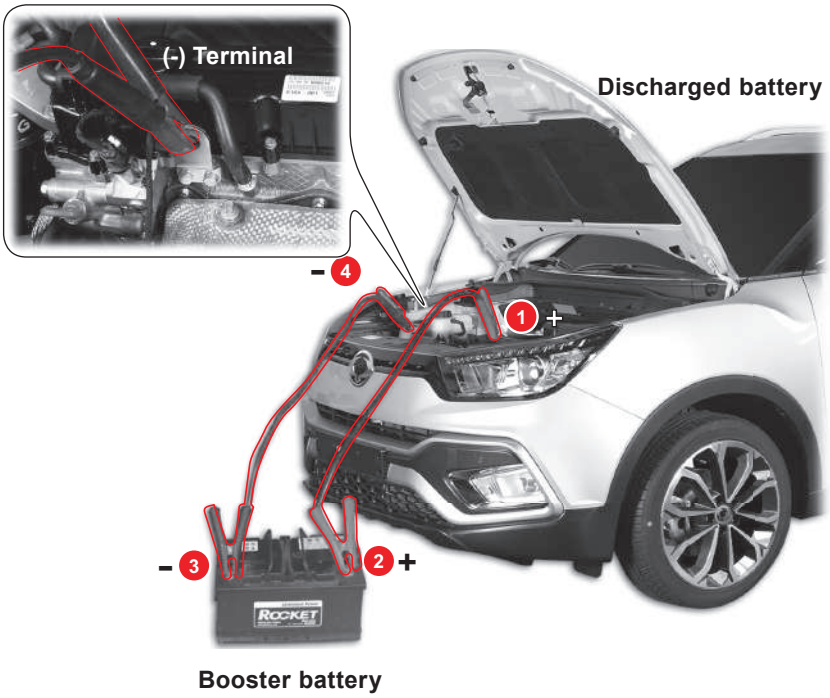
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11

In Case of Emergency

STARTING THE ENGINE WITH JUMPER CABLES

If the batter is weak or dead, the battery from another vehicle can be used with jumper cables to start the engine.



Connecting order:

(1) The + terminal of the discharged battery

(2) The + terminal of the booster battery

(3) The - terminal of the booster battery

(4) Connect one end of the other jumper cable to the body of the discharged vehicle, such as the engine block or a front towing hook.

The positive (+) cable to the positive (+) terminal.

The minus (–) cable to the minus (–) terminal.

Be sure to observe the connecting sequence specified below.

1. Prepare a set of jumper cables.
2. Place another vehicle that has the same 12 V of power near to the discharged vehicle.
3. Switch off all electrical accessories for the discharged vehicle.
4. Apply the parking brake and shift the transaxle to the P position (automatic transaxle) or neutral (N) position (manual transaxle).
5. Connect the jumper cables.

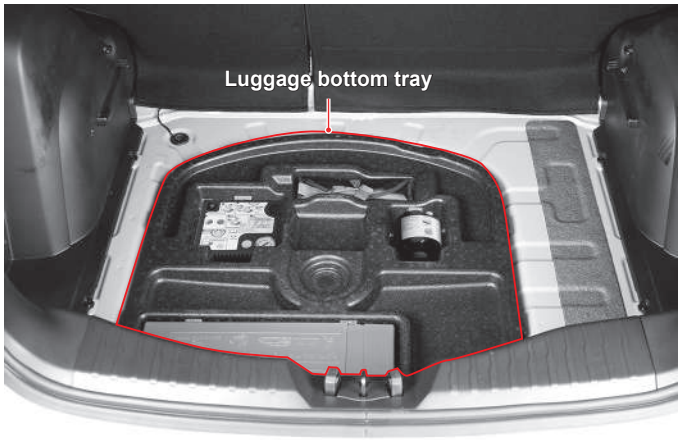
WARNING

- Connecting the jumper cable to the negative terminal of the discharged battery could result in arcing and possibly a battery explosion. Serious personal injury or vehicle damage can result.
- Make sure that the jumper leads are securely connected. Otherwise, an abrupt disconnection due to vibration during engine starting may cause an electrical short resulting in severe damage to electric components.
- Make sure that the booster battery has the same voltage rate with the discharged battery.
- While connecting the jumper cables, make sure that the negative (–) and positive (+) cables never touch each other. Otherwise sparks might cause an explosion of the battery.
- Battery fluid contains acid that can burn you. Do not allow battery fluid to contact eyes, skin, or painted surfaces. If you accidentally get it in your eyes or on your skin, flush the place with water and contact your doctor. If you swallow battery fluid, drink a large quantity of water or milk and see your doctor as soon as possible.
- While being transported in an ambulance, gently wipe out the contacted area with a water-wet cloth or sponge.

CAUTION

- When starting your vehicle with jumper cable, turn off the engine of the boost vehicle and connect the jumper cables.
- Ensure that the jumper cables are clear of fan blades before starting the engine.
- After the engine starts, leave the jumper cables connected and let the engine run for several minutes.
- If you do not know why your battery became discharged (because the lights were left on, etc.), have the charging system checked by Ssangyong Authorized Dealer.

6. Try to start the discharged vehicle while accelerating the engine rpm in the booster vehicle.
7. Attempt to start the engine with the discharged battery.
8. After starting the engine, carefully disconnect the jumper cables in the reverse sequence of connection.



OVM tools along with a warning triangle and repair kit (spare tire) are stored in the bottom tray located under the luggage floor cover and the top tray.

OVM Tools



1. Jack (spare tire only)
2. Towing hook
3. Screwdriver (+ and -)
4. Spanner
5. OVM Tool Pouch

Repair Kit

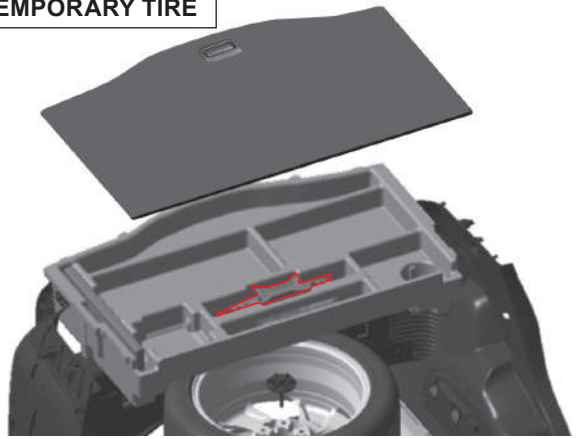


Repair kit sealant



Repair kit compressor

TEMPORARY TIRE



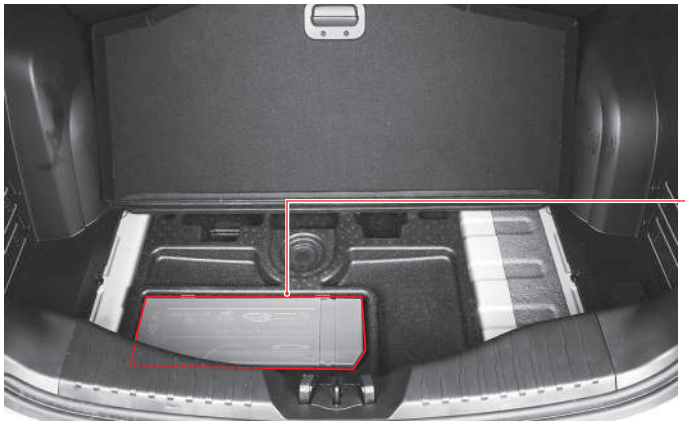
FUII TIRE



1. The car jack should be used on level firm ground wherever possible.
2. It is recommended that the wheels of the vehicle be chocked, and that no person should remain in a vehicle that is being jacked.
3. No person should place any portion of their body under a vehicle that is supported only by a jack; use vehicle support stands.

WARNING TRIANGLE*

The warning triangle is necessary device for your safety. Purchasing it is strongly recommended. Always keep it with other tools in luggage compartment.



A warning triangle is stored in the bottom tray found by lifting up the luggage floor cover and the top tray.



When you pull over your breaking down vehicle to a safe place, set up a warning triangle behind your vehicle.

(Daytime: 100 meters behind, Night: 200 meters behind)

When the Vehicle Has a Serious Problem during Driving

1. Turn on the hazard flasher and move the vehicle out of traffic to a safe place. Set up the warning triangle behind your vehicle (days: 100 m, nights: 200 m) to warn other vehicles.
2. Have all passengers get out of the vehicle and stay away from the traffic. When your safety is secured, contact your Ssangyong dealer for your emergency service.

CAUTION

- Set up a warning triangle on a place where it can be very visible while paying attention to traffic conditions.
- On a highway or vehicle-designated road, evacuate yourself to a safe place after pulling over your vehicle.
- At night time, set up a blinking emergency triangle behind your vehicle (over 200 meters) to warn others.
- On a curved road, provide a emergency hand signal to others at the point over 200 meters behind your vehicle.
- If your vehicle is operational or the problem is fixed, resume driving paying extra attention to traffic conditions.

CAUTIONS WHEN A TIRE IS FLAT



If one of the tires becomes flat while driving, grab the steering wheel firmly and remove your foot from the accelerator pedal. Gradually slow down and park your vehicle in a safe place. Replace the flat tire with a spare (temporary) tire. For the process, refer to sections about the spare tire.

NOTE

If you are not familiar with the tire replacement, do not try to do yourself. Contact a nearest service center.

WARNING

- Don't panic! Improper operation of the steering wheel or abrupt braking may cause a consequential accident on the road. Stop your vehicle in a safe place and turn on the hazard flasher and then apply the parking brake.
- Do not drive with a flat tire for even a very short distance. In addition to damages to the rim of the tire, abnormal driving conditions can cause a very danger situation.
- Stop the engine and set up the warning triangle behind your vehicle (daytime: 100 m, night time: 200 m - on express way).
- Chock the front and rear of the wheel diagonally opposite to the wheel being changed.
- Have all passengers get out of vehicle and stand in a safe place.

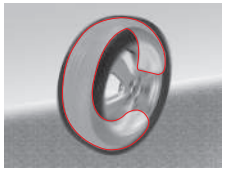
EMERGENCY PUNCTURE REPAIR KIT

The repair kit is stored in luggage compartment.



What's the repair kit?

The emergency puncture repair kit is used to seal the puncture and to check and adjust the tire pressure. When a tire is punctured, you can put the sealant into the tire by using compressor. After short driving, the sealant will be applied on the inner surface of the tire and the puncture is sealed by the sealant. The kit works as a temporary repair.

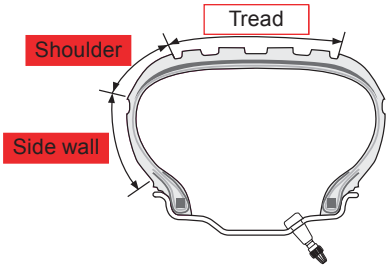


Evenly applied sealant during driving

NOTE

The spare tire is not included with the vehicle equipped with the repair kit.

Using the repair kit



- If you have a flat tire, first check the position of the puncture to decide whether or not you can use the repair kit. (Refer to Inflating a tire)
- The repair kit can be used only when the puncture size is less than 6mm on tread.
- If the puncture is found on the shoulder or side wall of the tire, do not use the repair kit and obtain help from your insurance company and Ssangyong network.

WARNING

Check the condition of the tire side wall before using the repair kit. If any cracking, tears, or cuts of the side wall is found, take your vehicle to a Ssangyong Authorized Service Center and have the vehicle serviced.

CAUTION

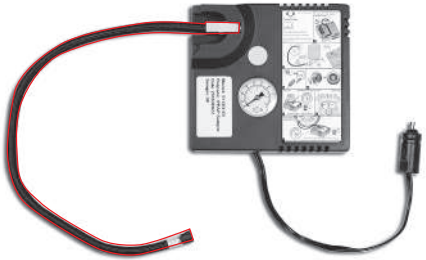
- This repair kit can be used only for small puncture (approx. 6 mm) on tire tread. If the puncture is too large or the side wall is torn, do not repair that with this kit. Use a towing service or contact a tire center.
- If the tire inflation pressure is not increased when you operate the compressor, stop pumping and use a towing service or contact a tire center.
- You should not drive faster than 80 km/h after the emergency puncture repair kit has been used.
- If you feel vibration, unstable steering and noise while driving, immediately stop driving and use a towing service or contact a tire center.
- The temporarily sealed tire must be changed as soon as possible (maximum driving distance: 200 km).
- According to the tire conditions, replace the temporarily sealed tire with new one, or remove the sealant and repair the tire and reuse it.

INFLATING A TIRE



When the tire pressure is low, you can add the air to your tire using the repair kit according to the specified air pressure.

1. Displace the repair kit from the luggage compartment.
2. Take out the air hose and the power cable from the repair kit.



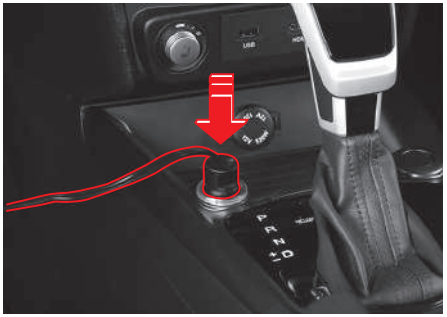
3. Connect the one end of air hose to the port of the service kit compressor.



4. Remove the valve cap from the tire, in which the air will be added.
5. Securely connect the air hose to the air valve on the tire.

CAUTION

The power switch of the repair kit should be in OFF position.



6. Fit the power cable plug of the service kit into the cigarette lighter socket.

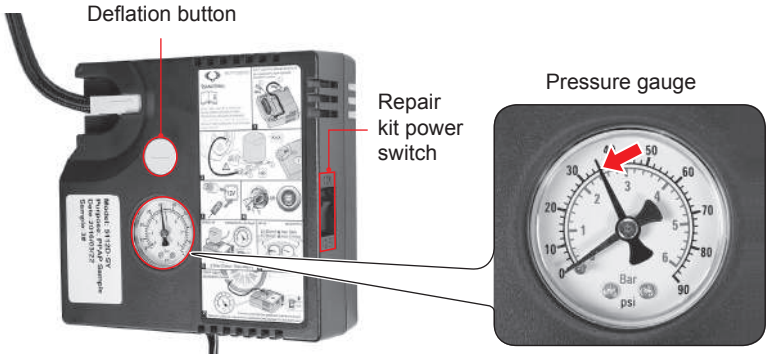
WARNING

Do not connect the power cable of the service kit to the power outlet to use it. It may cause overload to the power outlet electrical system, resulting in fire and electric device damage.

7. Start the engine.

WARNING

To avoid a danger of suffocation due to the exhaust gas, start the engine in the well ventilated area.



8. Start the compressor by pressing the power switch.
9. Wait until the pressure reaches to the standard pressure (16in: 35psi (2.4bar), 18in: 32psi (2.2bar)) while checking the pressure gauge.
10. Once the standard pressure is reached, switch off the repair kit.

CAUTION

To prevent overheating, do not operate the compressor for more than 10 minutes.

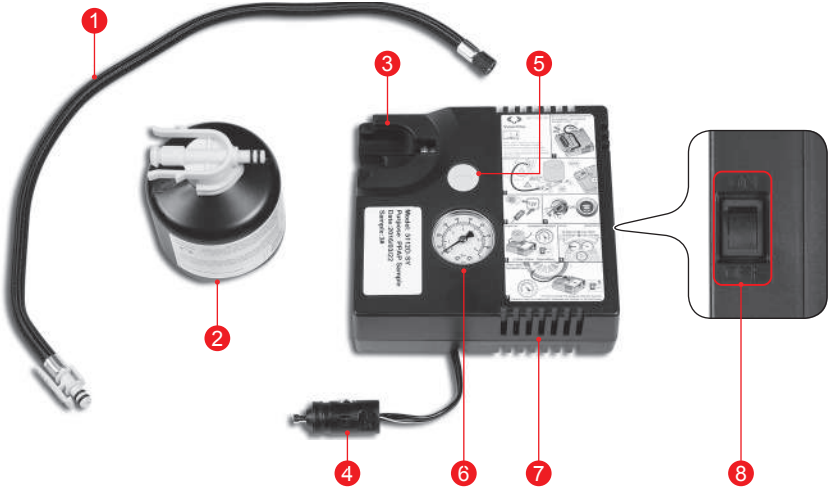
NOTE

- To measure the tire pressure, switch off the compressor, and connect the air hose in the repair kit to the air valve on the tire.
- For an over-inflated tire, press the deflation button to let the air out of the tire.

11. Disconnect the air hose from the tire and install the valve cap.
12. Turn off the engine and place the repair kit back to the luggage compartment.

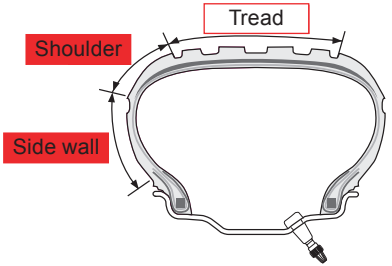
REPAIRING FLAT TIRE

Repair kit components



1. Air hose
2. Sealant
3. Sealant bottle holder
4. Power cable
5. Tire deflation button
6. Pressure gauge
7. Compressor
8. Power switch

When to use the repair kit

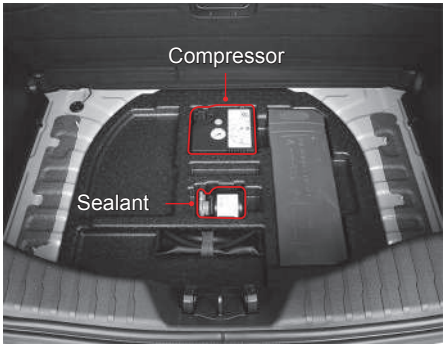


- If you have a flat tire, first check the position of the puncture to decide whether or not you can use the repair kit. (Refer to inflating a tire)
- The repair kit can be used only when the puncture size is less than 6mm on tread.
- If the puncture is found on the shoulder or side wall of the tire, do not use the repair kit and obtain help from your insurance company and Ssangyong network.

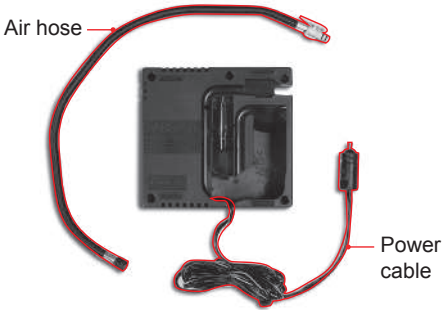
WARNING

Before using the repair kit, check the side wall/shoulder of the tire to see if it is torn, cracked or damaged. If so, instead of using the repair kit, obtain help from Ssangyong service center.

SEALING PUNCTURED TIRE



1. Displace the repair kit from the bottom tray in the luggage compartment.



2. Take out the air valve and power cable from the repair kit unit.



3. Open the lid of the repair kit and detach the decal for maximum permitted speed and affix it to the steering wheel.

CAUTION

- The decal indicates the current tire is sealed by repair kit. You should not drive faster than 80 km/h after the emergency puncture repair kit has been used.
- Check the expiration date for the sealant. The expiration date is marked on the side of the sealant container. Do not use the sealant after the expiration date as it can deteriorate over time. Always read the precautions on the container carefully before using it.

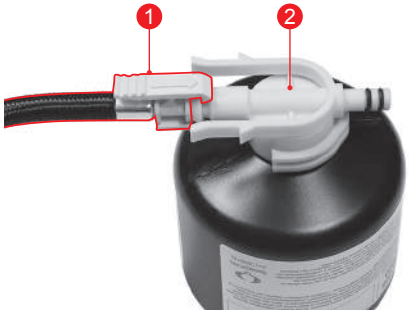
⚠ WARNING

Before repairing with this repair kit, check the side wall of tire first. If it is torn, cracked and damaged, do not use the repair kit.

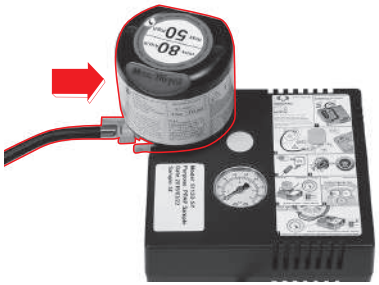
4. Remove the red cap from the sealant bottle.

⚠ CAUTION

- Do not break the bottle seal. The seal is broken when the bottle is screwed in.
- It is recommended to use one bottle of sealant per tire.
- The sealant from the temporary tire repair kit can't be used permanently.
- Please follow the expiration date written on the sealant bottle.
- The sealant and spare parts are available through a Ssangyong Authorized Service Center. Please discard properly after use. (The empty sealant bottle can be disposed of as regular trash. Please contact a nearest service center for the sealant residue.)



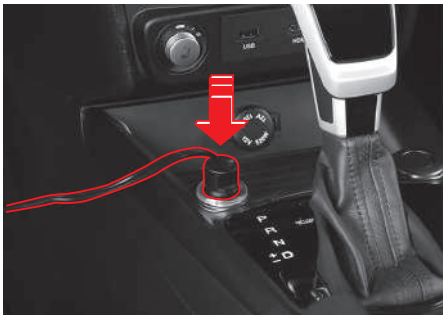
5. Connect the hose of the service kit compressor (1) to the port of sealant bottle (2).



6. Fit the sealant container to the body of the compressor securely.



7. Remove the cap from the valve on the flat tire and connect the hose of the sealant container to the air valve on the flat tire.



8. Fit the power cable plug of the service kit into the cigarette lighter socket.

WARNING

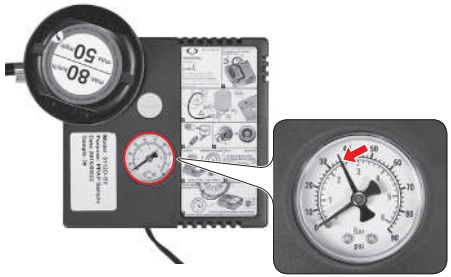
Do not connect the power cable of the service kit to the power outlet to use it. It may cause overload to the power outlet electrical system, resulting in fire and electric device damage.



9. Start the engine.
10. Turn the power switch of the service kit to operate the compressor.

WARNING

Inhaling car exhaust fumes can result in danger to life. Never leave the engine running in sealed areas or areas that lack sufficient ventilation.



11. Inflate the tire while checking the pressure gauge. (16in: 35psi (2.4bar), 18in: 32psi (2.2bar))
12. Once the standard pressure is reached, switch off the repair kit.

NOTE

If the standard tire pressure (16in: 35psi (2.4bar), 18in: 32psi (2.2bar)) is exceeded, press the deflation button to adjust the tire pressure.

CAUTION

Risk of overheating. The compressor must not run for more than 10 minutes. If the inflation pressure cannot be reached to 26 bar for 10 minutes, you cannot repair the tire with this repair kit.

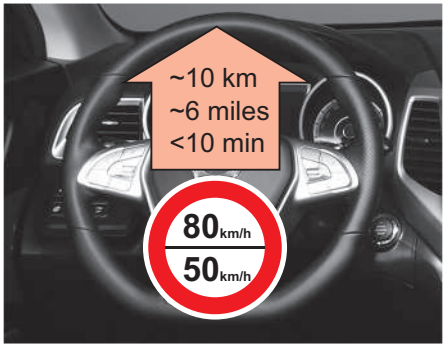
WARNING

Never stand next to the tire when the compressor is running. If cracks or unevenness arise then the compressor must be switched off immediately.

13. Disconnect the hose from the repaired tire.
14. Install the air valve cap of the tire.
15. Remove the hose and the power cable and place the repair kit back to the luggage compartment.
16. As soon as possible drive approximately 10 km at a maximum speed of 80 km/h so that the sealant can seal the tire.

CAUTION

- The sealant bottle and hose must be replaced after use. Purchase one set again.
- If the air hose is clogged with sealant, replace it.
- To avoid splashes, leave the bottle in its holder.



17. Stop the vehicle at a safe place and check the tire pressure with the repair kit.

CAUTION

- You should not drive over 10 minutes and faster than 80 km/h after the emergency puncture repair kit has been used.

WARNING

- The repair kit can be used only when the puncture size is less than 6mm on tread. If the side wall or shoulder of the tire is torn or the puncture size is too big, get your vehicle towed or obtain help from Ssangyong service center.

WARNING

- If the tire pressure does not increase with the compressor, stop inflating and get your vehicle towed or get from Ssangyong service center.
- You should drive with the speed below 80km/h if using a repaired tire with the repair kit. The maximum distance you could drive with the repaired tire may differ depending on the tire condition, however do not exceed 200km.
- If steering is unstable or wobbling/noise is felt, stop driving and obtain help from Ssangyong service center.
- The repair kit is only for temporary use. Bring your vehicle to authorized Ssangyong dealer as soon as possible to replace the tire treated by sealant with new one and check TPMS.
- Obtain a new bottle of sealant from the dealer with returning the used sealant bottle for disposal.

18. Return the repair kit to the luggage compartment.

WARNING

If it is below 26psi (1.8bar), the journey should not be continued. Contact a service center.

TYRE PRESSURE CHECK AFTER REPAIRING

Check the pressure of the tire repaired with the repair kit as follows after driving about 3 km.

1. Take out the repair kit from the luggage compartment.
2. Take out the air hose from the repair kit box.
3. Disengage the air valve cap of the repaired tire.
4. Unscrew the protective cap from the air hose and connect the air hose to the tire's air valve.
5. Read the tire pressure displayed on the pressure gauge of the repair kit.
6. If the value is higher or lower than the specified tire inflation pressure (16 in: 35 psi (2.4 bar), 18 in: 32 psi (2.2 bar)), adjust it to the specified value using the air valve.

WARNING

If the tire inflation pressure is not maintained at the specified value (16 in: 35 psi (2.4 bar), 18 in: 32 psi (2.2 bar)) after repeating the step 6 up to 3 times, the tire is damaged beyond repair with the repair kit. Take your car to a Ssangyong Authorized Service Center and have the vehicle serviced immediately.

CHANGING A FLAT TIRE*

If you are not familiar with the tire replacement, do not try to do yourself. Contact a nearest service center.

PREPARATIONS FOR CHANGING A TIRE



1. Turn the hazard warning flasher on and stop the vehicle at a safe place.
2. Place the gear shift lever to “P”(A/T) or “N” (M/T) position and aplly the parking brake.
3. Have all passengers get out of vehicle and stand in a safe place. Set up the warning triangle behind your vehicle (daytime: 100 m, night time: 200 m - on express way).





- Chock the front and rear of the wheel diagonally opposite to the wheel being changed.

REMOVING THE SPARE (TEMPORARY) TIRE



Open the cover in luggage compartment and remove the spare (temporary) tire.

WARNING

The spare (temporary) tire is only for emergency situations. Never use it for normal driving. After installing the spare tire on a wheel, take your vehicle to a Ssangyong Authorized Service Center or a tire-specialized shop to replace it with a new regular tire.

CAUTION

- When reinstalling the spare (temporary) tire to the carrier, be sure to securely lock it to the carrier holder.
- While your vehicle is being raised up with a jack, avoid any impact on your vehicle. Otherwise, you may get injured.
- When taking out the spare (temporary) tire, be careful not to damage the body of your vehicle.

CHANGING A SPARE (TEMPORARY) TIRE



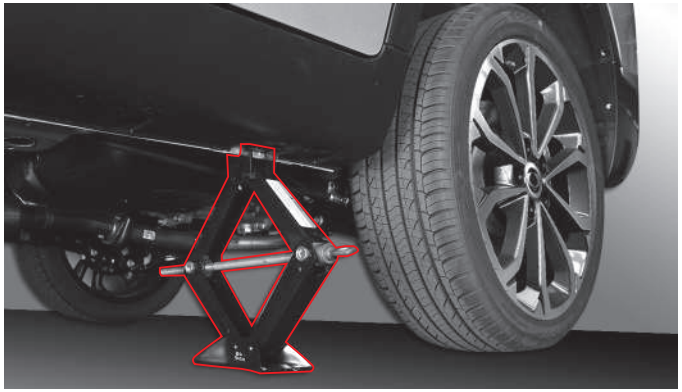
1. Loosen the wheel nuts one or two turns by turning them counterclockwise with the wheel nut wrench.

⚠ WARNING

- The parking brake should always be applied when replacing the flat tire.
- Chock the front and rear of the wheel diagonally opposite to the wheel being changed.
- Do not remove the nuts yet from the wheel. If they are removed, the wheel could slip off from the vehicle. Then, the body of the vehicle will fall down on you and you may get seriously injured.
- Loosen the wheel nuts two or three turns.

⚠ CAUTION

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

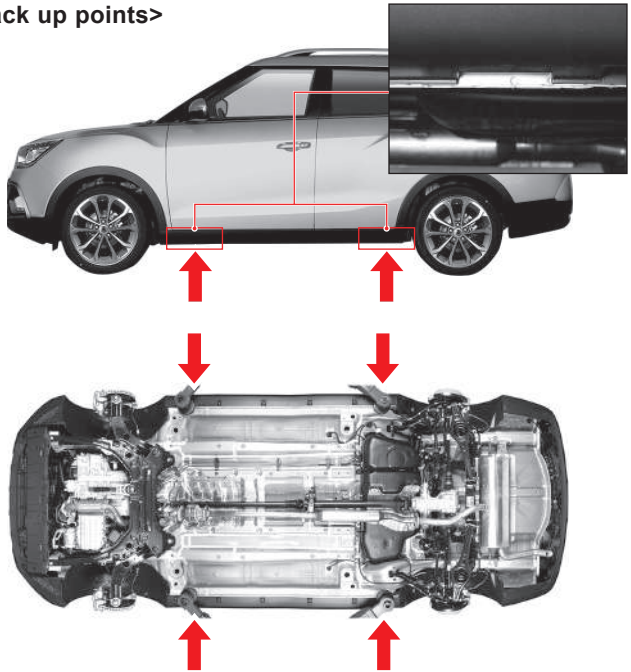


2. Place the jack directly under the jack-up points so that the top of the jack contacts the vehicle at the jack-up point.

⚠ WARNING

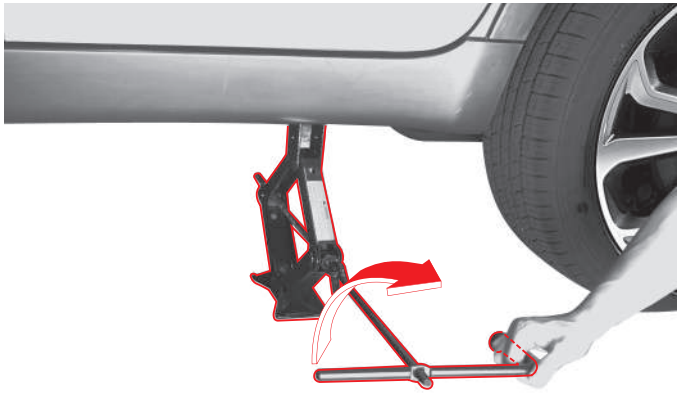
- The jack should be used on level firm ground wherever possible.
- It is recommended that the wheels of the vehicle be chocked, and that no person should remain in a vehicle that is being jacked.
- No person should place any portion of their body under a vehicle that is supported by a jack.
- Jack working load limit 800 kg.

<Jack up points>

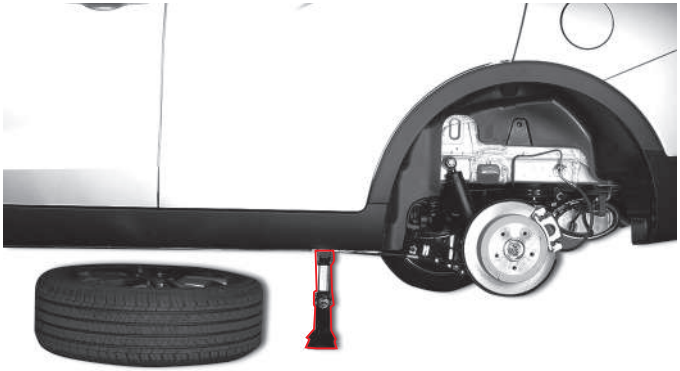


CAUTION

Make sure to install the jack so that its upper plate is correctly seated under the vehicle's positions marked in the figure for the flat tire side.



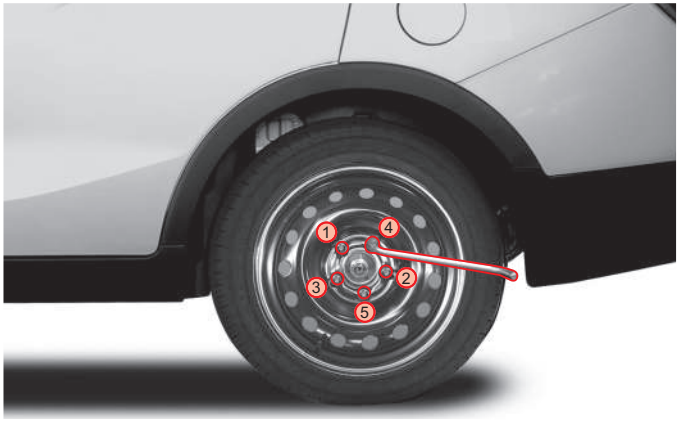
3. Combine the jack, the wheel nut wrench and the jack connection as shown in the figure. Jack up the vehicle by rotating the combined wrench clockwise until the tire is off the ground.
4. Remove the wheel nuts by hands while the vehicle is stationary. Remove all of the wheel nuts.



5. Take the wheel off and place the wheel under the vehicle body. This helps to minimize any danger if the jack slip off position.
6. Then mount the spare tire and temporarily tighten the wheel nuts until the spare tire wheel is no longer loose.

⚠ WARNING

By tightening up the spare tire until it is not loose any more, you can avoid any tilting of the tire on the wheel hub when the tire touches the ground.



7. Lower the vehicle by rotating the combined wrench counter-clockwise until the tire touches the ground. Remove the jack.

⚠ WARNING

While the jack is supporting your vehicle, do not use too much force to tighten the nuts. Otherwise, the vehicle may slip off and you may get injured.

8. Tighten up the wheel nuts in the diagonal sequence as shown in the figure. Each nut should be turned a couple of times at a time.
9. When done with mounting the spare tire, place the flat tire in the luggage compartment. Store the jack and other emergency tools in their storages.

Temporary Tire

The temporary spare tire is smaller than a regular tire and is only for emergency situations. After installing it, drive slowly and take your vehicle to an authorized service center or a tire-specialized shop to replace it with a new regular tire.



If over tightened, the wheel nuts could be damaged. Do not overtighten the wheel nuts by pressing the wheel nut wrench by foot or using an assist pipe.

CAUTION

After changing the tire and driving the vehicle about 1000 km, re-tighten the wheel nuts.

- Wheel nut tightening torque: 120 ~ 140 Nm

WARNING

- With the emergency spare tire, do not drive faster than 60 km/h.
- The temporary spare tire is only for emergency situations. Never use it for normal driving. After installing the spare tire on a wheel, take your vehicle to a Ssangyong Authorized Service Center or a tire-specialized shop to replace it with a new regular tire.
- Improperly tightened wheel nuts can cause the wheel to become loose and even come off or any malfunctioning in the steering and braking system. This could lead to an accident. Be sure to tighten the wheel nuts as specified. If the wheel comes off due to a loose wheel nut, you may have a fatal accident.
- Using different tires could cause you to lose control while driving. Be sure to use the same size and type tires from the same manufacturer on all wheels.

CAUTIONS WHEN CHANGING THE TIRE

► Before Changing the Tire

- 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 the jack. While the vehicle is on the jack, never start or run the engine or push the vehicle.
- Have all passengers get out of the vehicle and stay in a place away from traffic.

► During Changing the Tire

- Tighten up the wheel nuts in the diagonal sequence as shown in the figure. Each nut should be turned a couple of times at a time.
- Never apply oil or grease to either wheel studs or nuts as it will cause them to overtighten.

► After Changing the Tire

- Check, repair, and retighten the replaced tire at the nearest Ssangyong Authorized Service Center or a qualified tire shop after an emergency change.
- Securely store the tire in its carrier. When storing the spare tire, make sure that the outer surface of the tire (wheel nut side) is facing down. And, check to see if the spare tire is securely locked into the carrier without any looseness. Check the tightness of the wheel nuts and tire pressure before driving.
- Repair or change the flat tire. Stow the emergency tire in its location properly.
- Make sure to check the tightness and inflation pressure of tires before driving.
- In the vehicle equipped with TPMS, the TPMS warning lamp comes on and TPMS does not work when installing the emergency tire.



Standard



Supervision

Engine Overheat Warning Lamp



Coolant Temperature Gauge

When the engine overheats, steam or spray may come out the engine compartment. Or, the coolant temperature gauge touches “H”. If this happens, the engine overheat warning light comes on and a buzzer will sound. Immediately stop your vehicle in a safe place.



Symptoms:

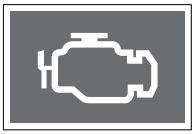
- The engine overheat warning light blinks (Buzzer sounds)
- The gauge indicates beyond the normal range (or in the red zone).
- Steam or spray from the engine compartment.
- Reduced engine output.

1. Move off the road to a safe place away from traffic. Park on a firm and level ground. Apply the parking brake and shift the transaxle to the P position (automatic transaxle) or the neutral position (manual transaxle).
2. Turn off the air conditioner or heater if used. Open the engine hood and idle the engine until it cools down.
3. If you see steam under the hood, stop the engine immediately.

   If there is no steam, open the hood and leave the engine running in idling speed.
4. However, if the gauge doesn't go down to the normal range even in idling, stop the engine and cool it down.
5. Check the coolant level in the reservoir. If it is too low, check for leaks in the radiator hoses and connections.
6. Add coolant into the reservoir if necessary.
7. If necessary, cover the reservoir cap with a cloth and turn the cap a little to release any pressure. After fully releasing the pressure, remove the cap and fill up the reservoir. Then, put the cap back on the reservoir.
8. If the coolant level is normal, have the cooling system checked by a Ssangyong Dealer or Ssangyong Authorized Service Center.

ENGINE CHECK WARNING LIGHT ON

Engine check warning light



This light turns on when sensors (including automatic transaxle) and equipment related with engine control have malfunction. If this light comes on while driving, have your vehicle checked and serviced at Ssangyong dealer.

CAUTION

If the engine check warning light comes on, the engine power can be reduced and the engine can be turned off.

CAUTION

- When the engine overheats because of the low coolant level, immediately turn off the engine and let it cool down.
- Opening the reservoir cap should be performed when the engine is off and has cooled down.
- Scalding hot coolant and steam could be blown out under pressure, which could cause serious injury. Never remove the coolant reservoir cap when the engine and the radiator are hot.
- The engine may be damaged if you add cold water abruptly when the engine is still hot.
- Use only Ssangyong recommended (antifreeze) coolants.
- If the problem continues, have the cooling system checked by a Ssangyong Dealer or Ssangyong Authorized Service Center.

WARNING

- To avoid being scalded, carefully open the engine hood.
- Scalding hot coolant and steam could be blown out under pressure, which could cause serious injury. Never remove the coolant reservoir cap when the engine and the radiator are still hot.
- Extremely careful not to contact to running parts such as drive belt when the engine is running.

WATER SEPARATOR WARNING LIGHT AND ENGINE CHECK WARNING LIGHT

Fuel Filter Warning Light (Diesel)

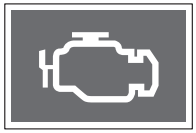


When the water inside the water separator in the fuel filter exceeds a certain level, this warning light comes on and a buzzer sounds. Also, the driving force of the vehicle decreases. If this warning light comes on while driving, have the system checked by Ssangyong Dealer or Ssangyong Authorized Service Center.

CAUTION

- The fuel system in the engine may get seriously damaged if you keep driving while the warning light is on. Prompt correction should be necessary.
- Using low quality fuel could result in serious damage to the engine due to the water or impurities in fuel. Never use low quality fuel.

Engine Check Warning Light



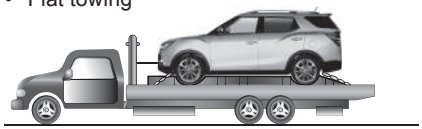
If the light stays on or comes on while driving, some of the engine control components including sensors and other devices are defective. Have the system checked by a Ssangyong Dealer or Ssangyong Authorized Service Center.

CAUTION

When this warning light comes on, the engine driving force may be decreased or the engine may stall.

TOWING A DISABLED VEHICLE

- Flat towing

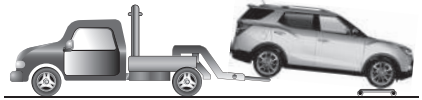


- Towing with front wheels on ground



Dolly

- Towing with rear wheels on ground



Dolly

Towing with tow truck

The best towing method is to lift the entire vehicle onto the flatbed so that all wheels are off the ground. If it is impossible, put the front or rear wheels on the jig and tow the vehicle using a dolly, with other wheels off the ground.

For AWD vehicle

Your vehicle must be towed with a wheel lift and dollies or flatbed equipment with all the wheels off the ground.

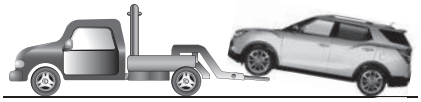
WARNING

- The AWD system equipped vehicle should never be towed with the wheels on the ground. This can cause serious damage to the transmission or the AWD system.
- If your vehicle should be towed due to wheel slips in mud or sand, you can use the towing hooks in your vehicle. However, if the load to hooks is too heavy, the towing hook, rope or chain could be broken, resulting in serious personal injury and vehicle damage.
- To prevent damage to your vehicle, proper lifting and towing procedures are necessary. When you need a towing service, contact Ssangyong Dealer or Ssangyong Authorized Service Center.

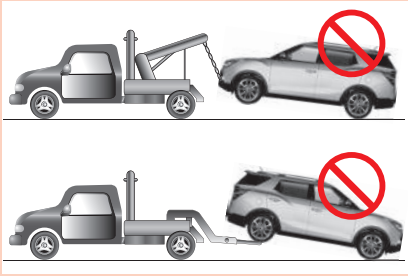
For 2WD vehicles

It is not allowed to use a tow truck or keep the front wheels from moving with the parking brake released for towing, as shown in the following figure.

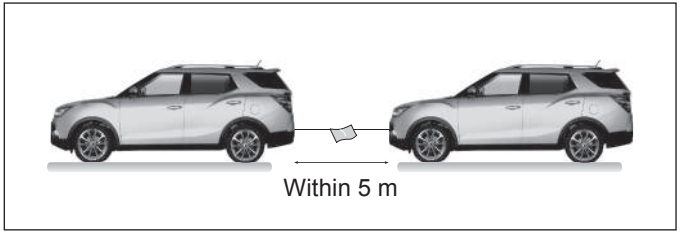
Do not tow the vehicle with the front wheels on the ground.



CAUTION



- Do not tow with the sling-type equipment or the bumper and lower parts can be damaged.
- If the vehicle is towed with the driving wheels on the ground, the transmission may be damaged.
- Be careful not to damage the bumper and lower parts during towing.



- When towing your vehicle with the towing rope:

1. Securely tie up the towing rope to the towing hooks. Secure the rope to both of the towing hooks under the front of the vehicle as tight as possible.
2. To make the rope conspicuously visible, bind a white colored cloth on the center of the rope.
3. Place the gearshift lever in the neutral position and release the parking brake.
4. Switch on the hazard warning flashers of both vehicles.
5. Maintain the towing distance. Apply more force to depress the brake pedal of the vehicle that will be towed.
6. Set the ignition in the ON position.
7. Total length of the towing and towed vehicle and the towing rope should be less than 25 meters. And tow the vehicle within 25 km with 5 km/h of the towing speed. The length of the rope should be less than 5 m.

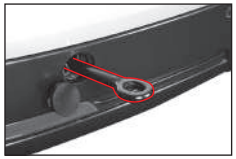
Location of Towing Hooks



Front towing hook



Rear towing hook



When using the towing hook, remove the towing hook covers located on the front and rear bumper using a screwdriver (-shape) and screw the hook to securely connect to the rope.

WARNING

- The towing hook should be used only for temporary and short-distance recovery or towing in an emergency situation. Avoid using it all the time. Misusing can have serious consequences.
- Special cares should be taken when towing. Avoid an abrupt start-off or reckless driving because it could over-tighten the towing hook, towing rope or chain with excessive force. To prevent damage, do not take up slack in the towing rope or chain too quickly.
- If the towing hook is required for towing as the vehicle becomes stuck in snow, mud or sand or it can't get out by itself due to poor traction, make sure no excessive force is applied to the towing hook. Otherwise, the towing hook, towing rope or chain may be broken, resulting in an injury or damage to the vehicle. For safe towing, it is recommended to contact Ssangyong authorized service shop or a professional towing company.

CAUTION

- If you cannot use a professional towing service, the driver of the towed vehicle should stay behind the steering wheel. But, never use this emergency towing when the electrical system, steering system, or brake system is not operative.
- Ensure that only horizontal tension is applied to the front or rear towing hook.
- If there are steep hills or sharp turns in your towing path, do not use this method.
- Depress the brake pedal stronger than normal condition when the engine is not running.
- When your electrical systems operate properly, turn on the hazard warning flashers or turn signal lamps according to the towing vehicle's signals.
- Avoid overloaded towing and do not tow a heavier vehicle than yours.
- Position the ignition switch to "ACC" or "ON" so that the steering wheel is not locked.



ACCIDENT

Turn on the emergency hazard warning switch. If possible, move your vehicle to a safe place to avoid any secondary accidents. If anyone is injured, call an ambulance and contact the nearest police station.

FIRE

Stop immediately in a safe place. Turn off the engine. Use fire extinguishers to put out the fire. If it is not possible to extinguish the fire, contact the nearest fire or police station.

WARNING

- In an accident, fuel can be leaked from the vehicle. Therefore, stop the engine and avoid any sparks or flames.
- If you have even a minor burn, see your doctor.

FIRE EXTINGUISHER

The fire extinguisher is necessary device to extinguish a fire in early stage. Purchasing it is strongly recommended. Keep it ready for use at any time and familiar with how to use it.

HEAVY SNOW

- Reduce the vehicle speed on curved road, steep hill and bridge.
- For snow removing truck, do not leave your vehicle on the road. If necessary, leave your contact number.
- Keep the safety distance from the proceeding vehicle and minimize the brake operation.
- Remove the snow around your vehicle so that the exhaust pipe will not be blocked by snow.

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.

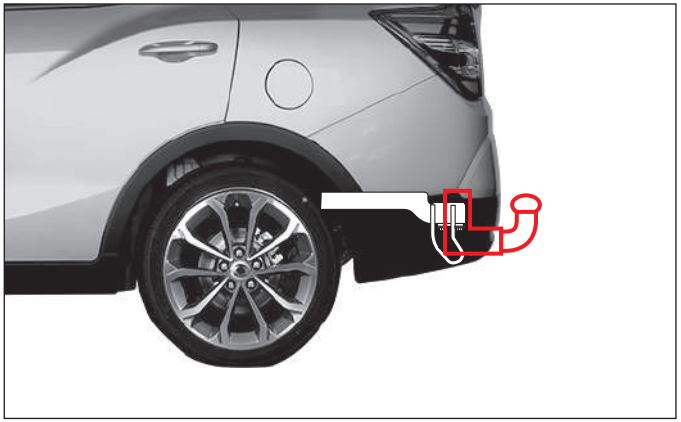
You can measure gross trailer weight by putting the fully loaded trailer on a vehicle scale.

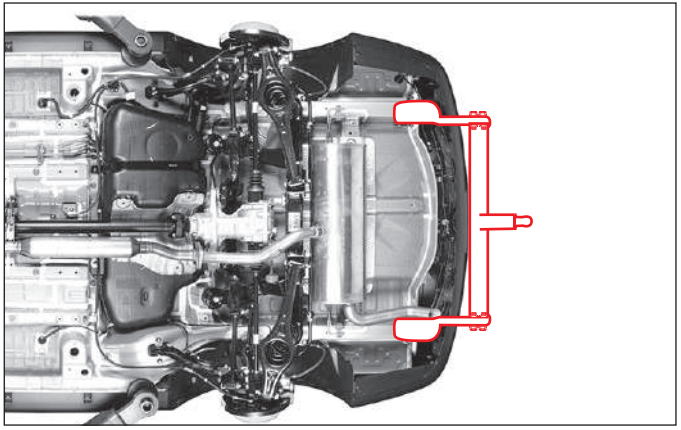
Trailer ball weight is the downward force exerted on the hitch by the trailer coupler at its normal towing height. This weight can be measured using a bathroom scale.

The weight of your loaded trailer (gross trailer weight) should never exceed the specified values.

The 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.





Maximum Load Limits

Type		Maximum Trailer
with brake	Diesel	1500 kg
	Gasoline	1000 kg
without brake	Diesel	500 kg
	Gasoline	500 kg

IF YOU WANT TO PULL A TRAILER

Important points:

- You have to consider a sway control. You can check the sway control to hitch dealer.
- If the total driving distance of your new vehicle is under 800 km (500 miles), do not tow a trailer. For the first 800 km (500 miles) that you tow a trailer, do not drive over 80 km/h (50 mph) and do not start off your vehicle at full throttle. Otherwise, your engine and other parts could be damaged due to heavier loads.
- Always drive your vehicle at a moderate speed (less than 80 km/h).
- You have to consider the weight of trailer.

WEIGHT OF TRAILER

To keep the vehicle and trailer safely, you must consider many factors except the maximum load limit.

The vehicle and trailer's safety depends on how you use your trailer. Vehicle speed, altitude, load, outside temperature and frequency of using trailer are all very important. Any special equipment on your vehicle also affects on your vehicle.

WEIGHT OF TRAILER TONGUE

The tongue load of a trailer is also considered very carefully because it affects the gross vehicle weight (GVW) of your vehicle. This weight includes the curb weight of vehicle, any luggage in trailer, and the passengers in vehicle. In addition to that, you must add the trailer tongue load to the GVW because your vehicle will carry all the weight.

The trailer tongue should weigh a maximum of 4% (EU) of total loaded trailer weight. To check the weights are proper, you must weigh the trailer and the tongue separately after loading. If the weights are not proper, unload some items from the trailer.

CAUTION

- Never load a trailer with more weight in the rear side than in the front side. (Recommendation - Front: approx. 60%, Rear: approx. 40%)
- Never exceed the maximum load limits of trailer or trailer towing equipment. Improper loading may result in damage to your vehicle. It may occur the personal injury. Before driving, check the weight and loading at a commercial scale or highway patrol office equipped with scales.
- An improperly loaded trailer may cause the loss of vehicle control.

TRAILER BRAKES

If the trailer brakes are used, you should follow all instructions provided by the manufacturer. Never modify the brake system of your vehicle.

TRAILER LIGHTS

Make sure your trailer is equipped with lights which meet country and local requirements.

Always check for the proper operation of all trailer lights before you start to tow.

TIRES

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

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 15000 km (9000 miles) under the following conditions.

- Towing a trailer frequently.
- Driving in hilly or mountainous terrain.

AUTOMATIC TRANSAXLE FLUID

More frequent maintenance is required if your vehicle tows trailer frequently.

TOWING TIPS

When towing a trailer, your vehicle will be handled 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 80 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/she 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 HILL

Reduce speed and shift to a lower gear before you start down a long or sleep downgrade. If you don't shift down, you might have to use your brakes too 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 transaxle overheating.

NOTE

- When towing a trailer on steep hill (over 12%), pay particular attention to the engine coolant temperature gauge to ensure the engine does not overheat. If the gauge reaches to the "H" mark, stop your vehicle at a safe place and allow the engine to idle until it cools down. When the engine has cooled sufficiently, you may proceed.
- To avoid the engine and transaxle overheating, you must check the driving speed depending on trailer weight and uphill grade.

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 transaxle yet, or into a gear for a manual transaxle.
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 transaxle, or First or Reverse gear for a manual transaxle.
5. Release the regular brakes.

WHEN YOU ARE READY TO LEAVE AFTER PARKING ON A HILL

1. Apply your regular brakes and hold the pedal down while you:
   - Start your engine
   - Shift into a gear and
   - Release the parking brake.
2. Let up on the brake pedal.
3. Drive slowly until the trailer is clear of the chocks.
4. Stop and have someone pick up and store the chocks.

MAINTENANCE WHEN TOWING TRAILER

Your vehicle will need service more often when you're towing a trailer. See the maintenance Schedule for more on this. Things that are especially important in trailer operation are engine oil, brake pads & discs, automatic transaxle fluid. Each of these is covered in this manual and the index will help you find them quickly. If you want to tow a trailer, it's a good idea to review these sections before you start your trip.

Check periodically to see that all hitch nuts and bolts are tight.

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12

Service and Maintenance

Exterior



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

1. Check the tires for inflation pressure and damage.
2. Check the wheel bolts for looseness.
3. Check the operation of the lights.
4. Check for any oil, water, fuel and fluid leaks.

Interior

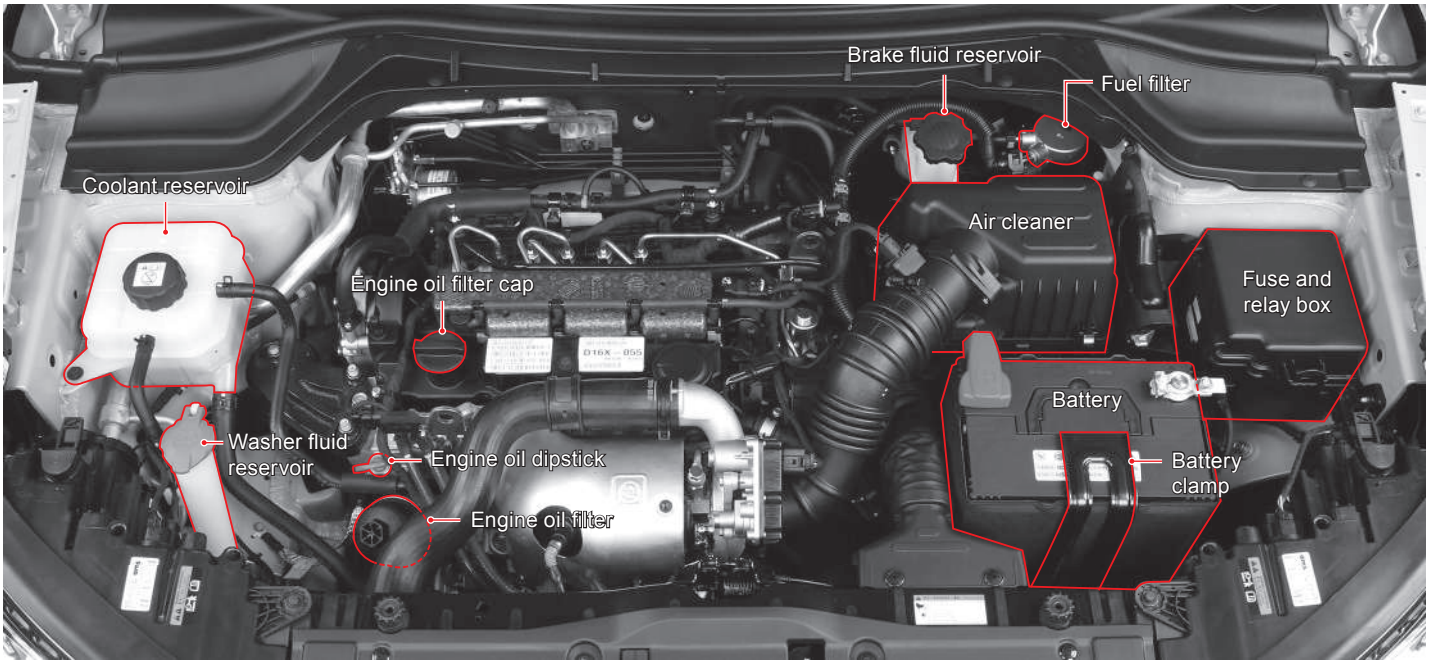


1. Check for the steering wheel's free play and looseness.
2. Check the parking brake lever.
3. Check the operation of the horn, windshield wipers and turn signals.
4. Check the operation of the instrument cluster, indicators and warning lights.
5. Check the level of fuel in the fuel tank.
6. Check the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

CAUTION

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

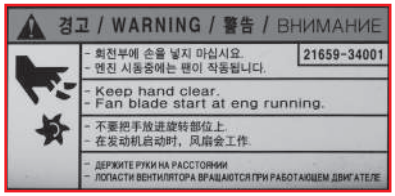
DIESEL ENGINE



CAUTION

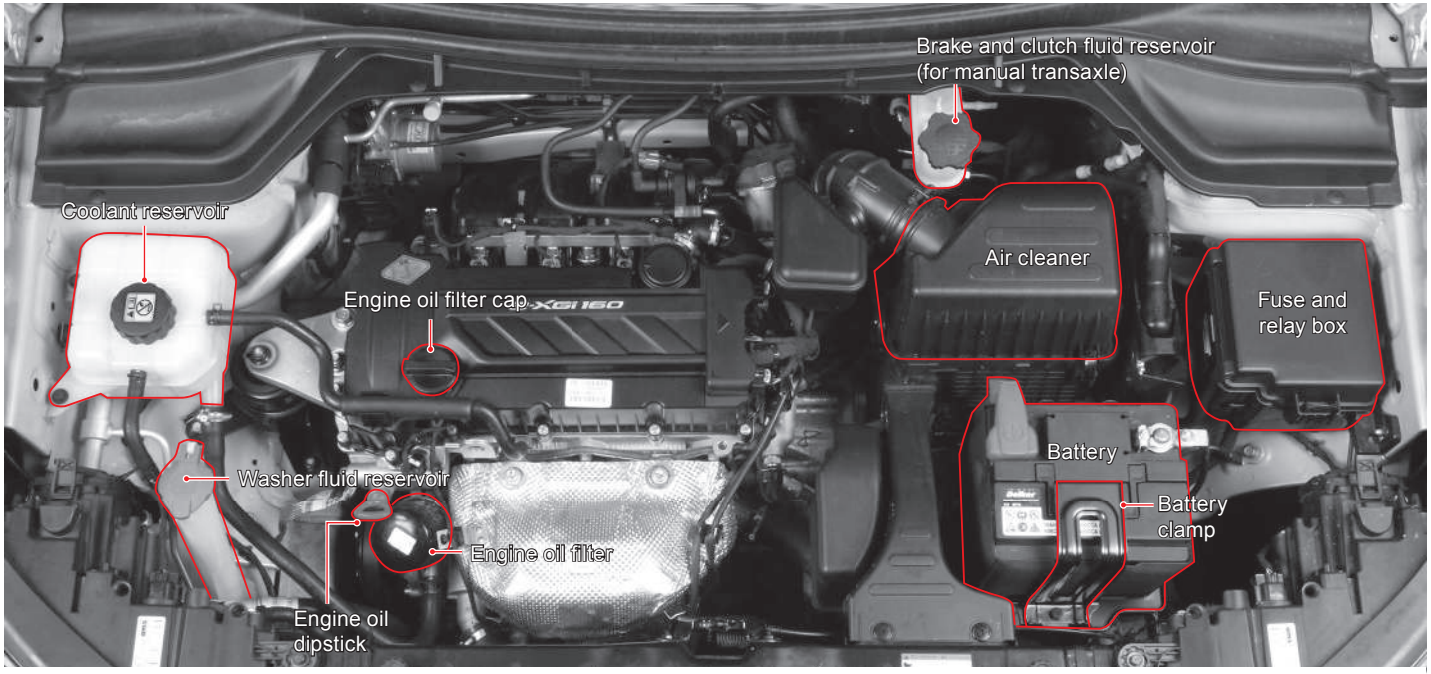
Do not work on the engine compartment while the engine, radiator, exhaust manifold, muffler or catalytic converter is hot. Always turn the engine off and allow it to cool before starting the maintenance.

※ Actual appearance may differ from the image shown above.



- Keep hand clear.
- Fan blade start at eng running

GASOLINE ENGINE



CAUTION

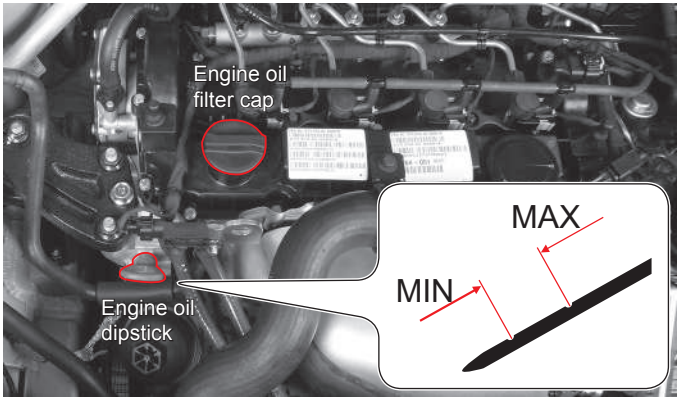
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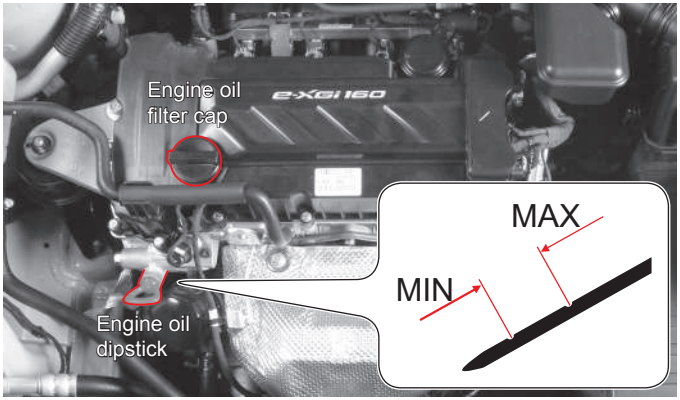


- Keep hand clear.
- Fan blade start at eng running

Diesel Engine



Gasoline Engine



Level Check

Park the vehicle on a level ground and apply the parking brake. Stop the engine and wait for more than 5 minutes.

1. Pull out the dipstick and wipe it out with a clean cloth. Reinsert it all the way.
2. Pull out it again and check the oil level.
3. The oil level should be between the maximum (Max) mark and minimum (Min) mark on the oil dipstick. Oil should be replenished before the level goes below the minimum mark.

Replenishment

1. If the level gets to the lower point, open the filter cap on top of the cylinder block and add the genuine oil without exceeding the level of the upper mark.
2. Recheck the oil level after 5 minutes.

CAUTION

- Regularly check the engine oil level and add Ssangyong genuine engine oil if necessary.
- Clean the dipstick with clean cloth so that any foreign materials cannot get into the engine.
- The oil should not go above the upper mark on the dipstick.
- The engine oil may be consumed more if the engine is new.

WARNING

Operating vehicle with insufficient amount of oil can damage the engine. Make sure the engine oil level is correct and add oil if necessary.

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. 0.5 Liter per 1000 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 5000 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 1000 km.
- Do not use the trailing in the first 1000 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

ENGINE CARE

Observe the followings to keep the engine in good condition:

- Check the engine oil level frequently under severe driving condition and add some if necessary. The change interval should be shortened as well.
- Do not run a new engine at high speed until its driving distance gets 1000 km. Be extra careful when the engine is cold.
- After installing a new engine, do not tow another vehicle or a trailer until its driving distance gets 1000 km.

CHANGE INTERVAL

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

Engine oil

Refer to Section “SCHEDULED MAINTENANCE SERVICES”.

Engine oil filter

Service Interval
Same interval with the engine oil

CAUTION

- The service interval may be reduced if your vehicle is driven in rough conditions.
- Change the engine oil based on the driving distance or period, whichever comes first.

SPECIFICATION AND CAPACITY

		Service interval
Specifi-cation	Diesel	Quality class (DPF): Ssangyong genuine engine oil or Approved by MB 229.51 5W30 or MB 229.52 5W30
	Gasoline	Quality class: Ssangyong genuine engine oil or Approved by MB 229.51 5W30 or MB 229.52 5W30 or API SN / ILSAC GF-5 5W20
Capacity	D16DTF	5.0 ℓ
	G16DF	4.0 ℓ

WARNING

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

WARNINGS AND CAUTIONS WHEN CHECKING

WARNING

- Clean the dipstick with a clean cloth so that any foreign materials cannot get into the engine.
- Use only the Ssangyong genuine engine oil.
- The oil should not go above the upper mark on the dipstick.
- Operating with insufficient or too much amount of oil can damage the engine.

CAUTION

Regularly check the engine oil level and add the Ssangyong genuine engine oil if necessary.

SAE VISCOSITY CLASSES

The SAE classes (viscosity) should be selected in accordance with the average seasonal air temperature.

Applying the SAE classes exactly on the basis of the outside air temperatures would necessitate frequently changing the engine oil. The temperature limits for the SAE classes should therefore be regarded as reference temperatures and the actual air temperature may be higher or lower for a short period of time.

*** How to check engine oil specification**

Example:

0W, 5W, 10W, 15W, 20W, 25W — Winter oil viscosity (W: Winter)

20, 30, 40, 50, 60 — Summer oil viscosity

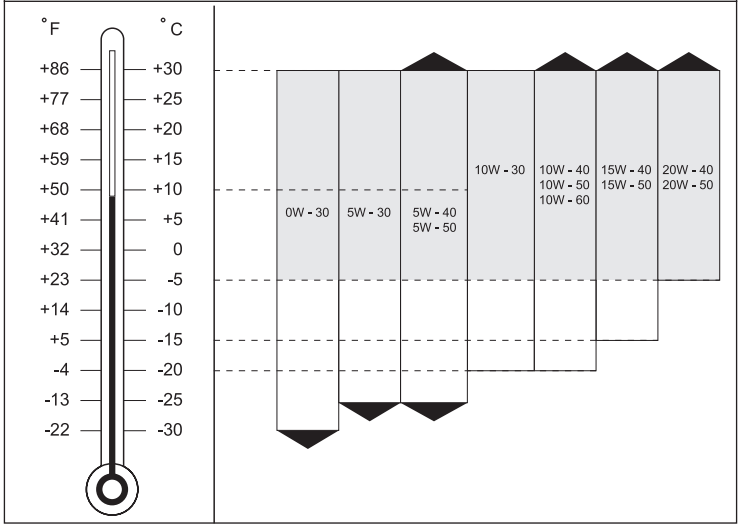
- The numerical, for example SAE 10W, relates to viscosity at particular temperature and the alphabet “W” indicates the oil’s suitability for colder temperature.
- For summer oil viscosity, higher numbers mean higher viscosities.

NOTE

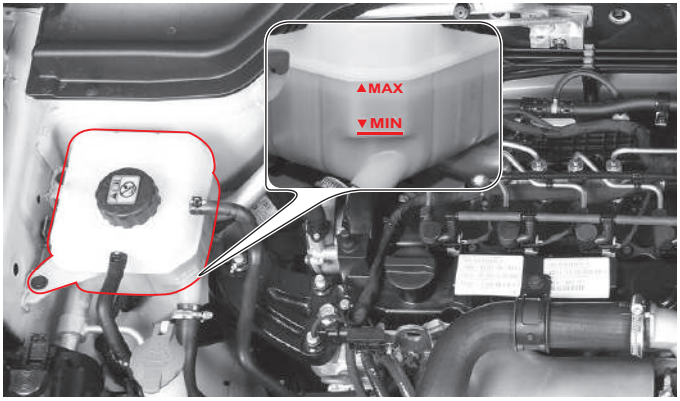
In severely cold or hot region, using the engine oil with SAE (viscosity) classification suitable for the prevailing outside temperatures is strongly recommended.

Engine

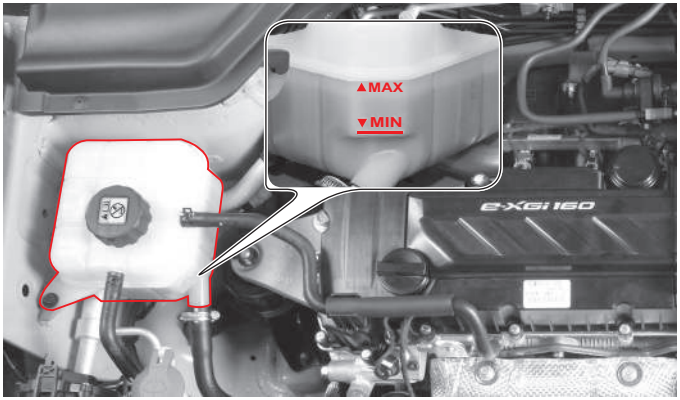
The viscosity should be selected according to outside temperature. Do not switch to a different viscosity in the event of brief temperature fluctuations.



Diesel Engine



Gasoline Engine



Level Check

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

1. The coolant level should be between the MAX and MIN mark on the coolant reservoir.
2. Check the coolant level. If the level is below the “MIN” mark, immediately add coolant.

Service Interval

- Replacement: Every 5 years or every 200000 km

Diesel Engine (D16DTF)	≒ 7.5 ℓ	Ssangyong genuine coolant Anti-Freeze SYC-1025, Anti-Freeze:Water = 50:50 ORGANIC ACID TYPE, COLOR:BLUE
Gasoline Engine (G16DF)	≒ 6.5 ℓ	

- Check: Everyday, before driving off
- Replenishment: Replenish as necessary

WARNING

- 
  Do not remove the coolant reservoir cap when the engine and the radiator are hot. The cooling system may spray hot coolant if the cap is removed, causing serious injuries.
- Use only the Ssangyong genuine coolant and anti-freeze.

Replenishment

Use only the 50/50 mixture of soft water and antifreeze as specified.

1. Open the coolant reservoir 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 from the coolant reservoir.
3. Add the 50:50 mixture of water and antifreeze to the coolant reservoir tank.
4. If no unusual things happen, tighten the coolant reservoir cap.

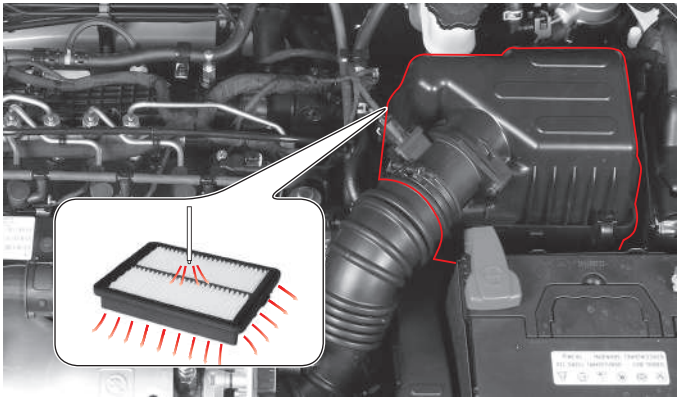
CAUTION

Avoid any direct contact of the coolant to the painted body of the vehicle.

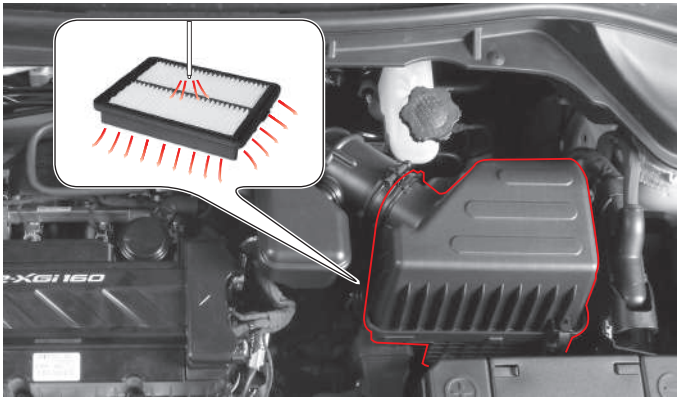
WARNING

- When the coolant level is too low, the engine can overheat. If the coolant temperature gauge in the instrument cluster goes up abnormally, immediately check the coolant level.
- Use only the Ssangyong genuine coolant and anti-freeze. If different types of coolants or unapproved coolants are used to refill, chemical reactions can be caused and block the flow of the coolant. This may cause the engine to overheat or burning inside the engine.

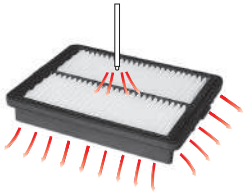
Diesel Engine



Gasoline Engine



Cleaning



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

Change

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

CAUTION

If vehicle is operated under severe condition

- Pollutant area or off-road driving
- Driving in dusty condition or sandy condition

frequently inspect the air cleaner, if necessary, change the air cleaner.

Service Interval

Diesel	EU	Clean every 20000 km, change every 40000 km (But, shorten the service interval under severe conditions)
	GEN	Clean every 15000 km, change every 30000 km (But, shorten the service interval under severe conditions)
Gasoline	Clean every 15000 km, change every 30000 km (But, shorten the service interval under severe conditions)	

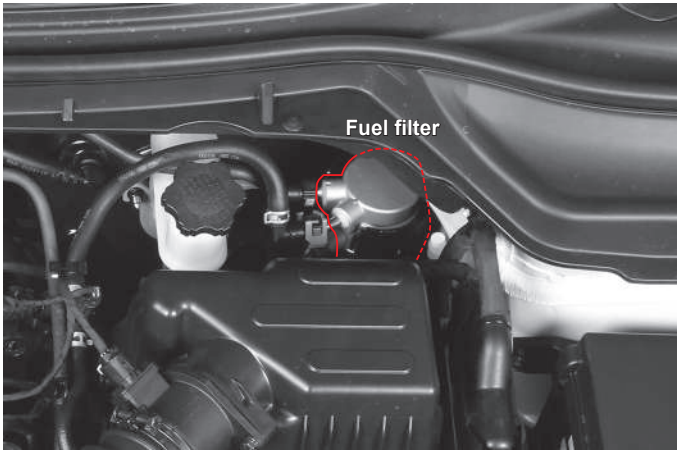
WARNING

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

CAUTION

- If you blow the compressed air to the opposite direction, the engine will be damaged due to foreign materials entering.
- Be careful with the direction of the compressed air on the air cleaner.

DIESEL ENGINE



Water Separating Function

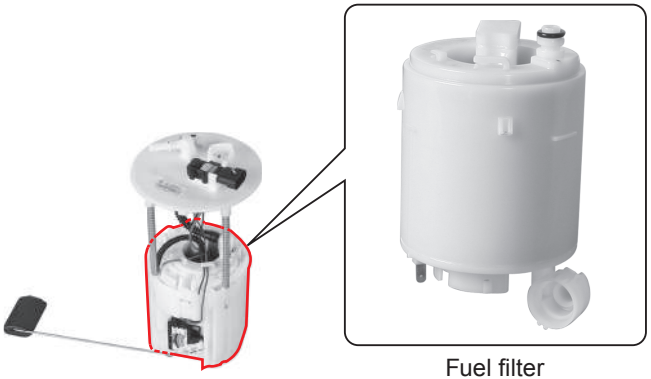
If water in fuel gets into the engine and fuel system, it may cause serious damage to the fuel system. The fuel filter provides the water separating function to block the inflow of water.

Service Interval	
EU	Change every 40000 km
GEN	Change every 30000 km

- When the water level inside the water separator in the fuel filter exceeds a certain level, the water separate warning light comes on and a buzzer sounds. Also, the driving force of the vehicle decreases. If this warning light comes on while driving, have the system checked by Ssangyong Dealer or Ssangyong Authorized Service Center.

CAUTION

Change the fuel filter according to the specified service interval.



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.

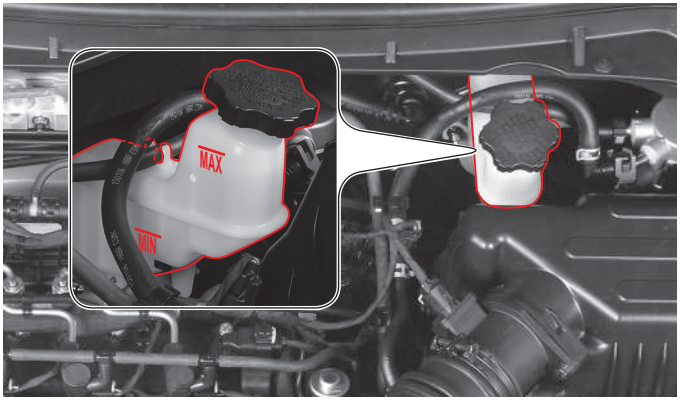
Replace the fuel filter according to the specified maintenance schedule.

	Service Interval
Replacement	Inspect every 30000 km (if using poor quality of fuel, replace every 50000 km)

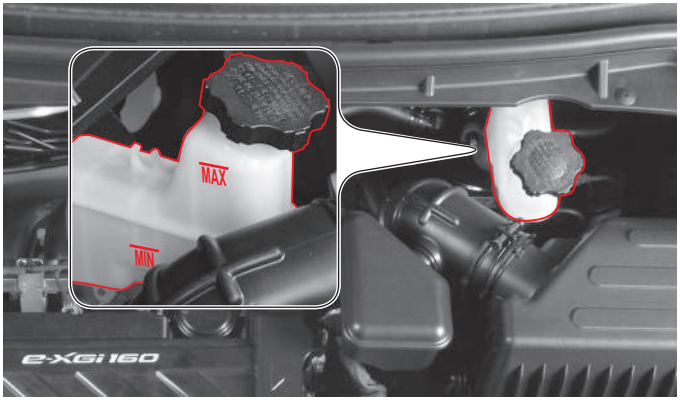
CAUTION

Replace with a Ssangyong genuine part with specified intervals.

Diesel Engine



Gasoline Engine



Specification and Replacement

Specification	DOT 4
Service interval	Every 2 years

Level Check and Replenishment

- The fluid level should be between the “MAX” and “MIN” levels on the reservoir.
- Check the level on a level surface. If it drops to or below the MIN mark, refill the tank with the specified fluid. Only use the specified fluid.

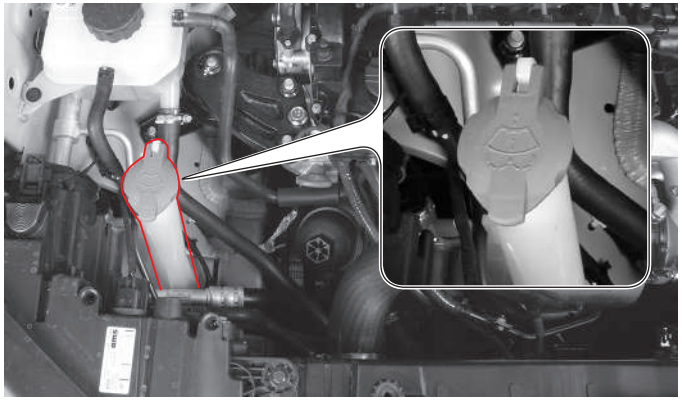
WARNING

- Use only the Ssangyong genuine brake fluid.
- Do not allow the fluid to make contact with skin or eyes. If contact happens, rinse affected areas immediately with plenty of water. If irritation persists, consult a doctor.
- The fluid gradually decreases according to brake pad wear. A sudden drop of the fluid level may indicate a leak in the system. In this case, have the system checked by a Ssangyong Dealer or Ssangyong Authorized Service Center.

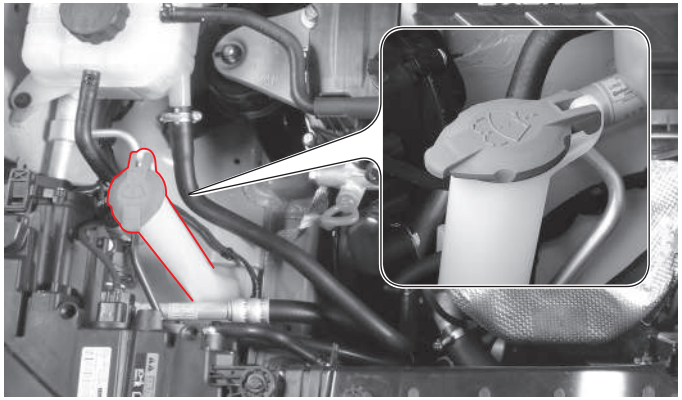
CAUTION

- Be careful not to let any foreign materials enter the tank when adding the fluid.
- Do not add the fluid above the “MAX” level.
- Do not allow the fluid to make contact with the body paintwork.
- After adding the fluid, tighten the cap securely.
- If frequent refills are required, have the system checked by a Ssangyong Dealer or Ssangyong Authorized Service Center.

Diesel Engine



Gasoline Engine



TOP UP WASHER FLUID

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

Use only the specified washer fluid for winter season.

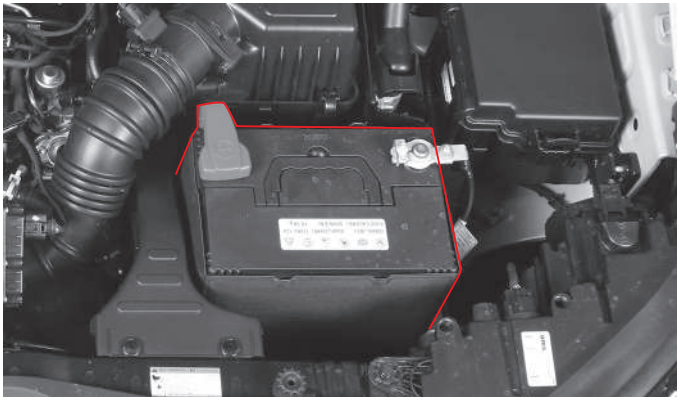
⚠ CAUTION

- If you use plain water as washer fluid, it will freeze during the winter and damage the washer fluid reservoir and motor. Use only the specified washer fluid.
- If you operate the washer switch without washer fluid, the motor could be damaged due to overloads. Therefore, if there is no washer fluid, do not operate the washer motor.
- Operating the wipers on a dry surface on the windshield or tailgate window without any washer fluid may cause damage to the glass. Operate the wipers after sufficiently spraying the washer fluid.
- Avoid any spills of washer fluid on the engine or body paint of your vehicle during replenishment. If washer fluid spills onto your hand or other body part, wash it away under a clean water flow.
- There is no independent washer reservoir for the tailgate window. The front washer reservoir is also for the tailgate window.

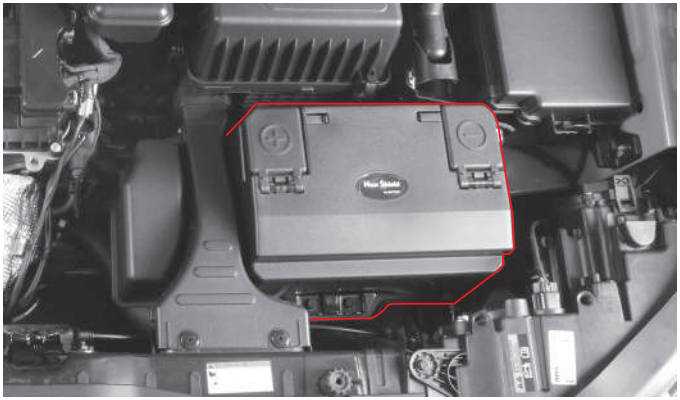
⚠ WARNING

- The washer fluid includes the flammable materials to prevent freezing. It could cause a fire when directly contacted with flames. When checking the washer fluid, avoid the flames near the washer fluid reservoir.
- If engine oil or antifreeze is used as the washer fluid, it will decrease your visibility through the windshield and may cause an accident.

Diesel Engine



Gasoline Engine



When the battery charge warning light ( ) on the instrument cluster comes on, the battery is not normally charging. If the warning light comes on while driving, turn off all unnecessary electrical devices and have the system checked by a Ssangyong Dealer or Ssangyong Authorized Service Center.

Battery Maintenance

- Make sure the terminal connections are securely tightened.
- If the terminals are corroded, clean them with a wire brush or sand paper.
- The battery terminal should be disconnected only when the ignition key is removed from the key cylinder. Disconnecting the terminal with the key in the “ON” or “ACC” position may cause a sudden change in voltage and damage various electrical systems.
- Check the battery for any cracks, damages or leaks. Replace it if necessary. To remove any battery fluid on the battery surface, wear rubber gloves and wipe the fluid out with a wet-soapy cloth.

Specification

G16DF	ISG	AGM / 12V - 70AH
	NON-ISG	MF / 12V - 60AH
D16DTF	ISG	AGM / 12V - 70AH
	NON-ISG	MF / 12V - 80AH

WARNING

- The battery has acid that can burn you. And its gas can explode. You can get serious injuries if you are not careful. Keep naked flames, sparks and smoking items away from the battery.
- Loosely connected batter terminals can set up sparks. These sparks can cause a fire with flammable gas. Therefore, tightly connect the terminals.
- At night, if you need to check the engine room, do not use a lighter, but only use a battery-powered flashlight.
- Because the battery electrolyte is very strong acid, avoid any direct contact of the battery electrolyte on your skin or vehicle's body. If the acid contacts your skin, thoroughly wash your skin with fresh water and see your doctor. Do the same on your vehicle.
- Wear eye protection when working with a battery. If working in a closed area, keep good ventilation.

CAUTION

- If you disconnect the battery terminal when the engine is running, electrical systems could be damaged.
- To remove the battery cable, disconnect the negative cable first and be careful on the battery terminal polarity when you connect the cables. The negative and the positive should not be confused.
- The polarity of the battery, i.e. the connections for positive and negative cables, must not be interchanged. Never short-circuit the battery.
- When the ambient temperature is too low, the battery capacity will drop and can be frozen.
- Keep the battery electrolyte at its specified level. If the electrolyte level is higher than the MAX level, it can overflow during battery charging and if the electrolyte is overcharged, the battery can explode.
- Only use a battery with the approved voltage and capacity. Otherwise, an incompatible battery can catch fire.

WARNING

- Always use the battery with correct voltage for the vehicle. Otherwise, there is a risk of fire.
- Observe the indications on the battery.



Always read the safety instructions in the User Manual before working on the battery.



The battery cell always contains highly flammable hydrogen gas which may explode if ignited. Be sure to keep it away from a cigarette, a spark or other flames.



Wear a protective goggle when charging the battery or performing any work.
In addition, ensure adequate ventilation of the enclosed space.



The battery electrolyte solution contains a highly corrosive sulfuric acid. Be careful not to contact it with skin, eyes, clothes or paint. In particular, keep out of the children's reach.



When in contact with the skin, wash off the contact area; In case of eye contact, flush with running water for at least 15 minutes, and seek medical help immediately.



The hydrogen gas in the battery is highly flammable and may explode if ignited.



Do not throw out used battery as this pollutes the environment and is hazardous to our health. For environmental protection, used, properly dispose of used battery at designated disposal sites only.

SPARK PLUGS (GASOLINE ENGINE)



Spark plugs should be inspected periodically for carbon deposits. When carbon accumulates on a spark plug, a strong spark may not be produced.

If necessary, clean the electrodes with a fine wire brush and carefully scrape the carbon off the insulator with a small file. The spark plugs should then be blown clean with compressed air and the upper insulator wiped clean. And adjust the spark plug gap.

Service Interval (G16DF)

Replacement	Change every 120000 km or 5 years	
Specification	NGK	SILZKR7B11, HEX16 M12x1.25, Iridium
	Gap	1.1 mm

CAUTION

- When replacing the spark plugs, disconnect the negative terminal of the battery and turn off all the switches.
- It is recommended that the engine be cool or cold when changing the spark plugs (you could burn yourself).
- Do not use non-recommended spark plugs.
- Do not allow contaminants to enter spark plug hole.

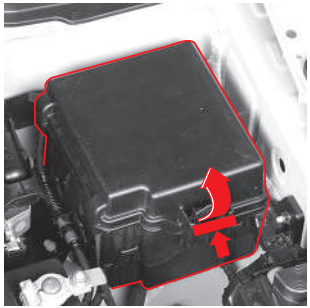
CAUTION

Spark plugs may be very hot. Be careful not to burn yourself.

FUSE AND RELAY BOX

If any of the electrical system components do not operate, check its corresponding fuse. If the fuse is blown, replace it with the same capacity.

Fuse and Relay Box in Engine Compartment



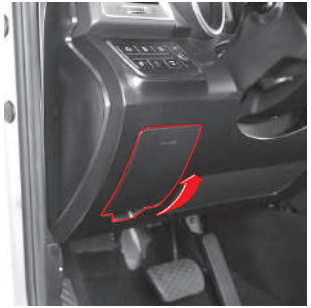


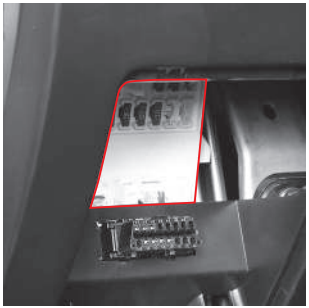
Open the engine hood. Release the clips on the fuse and relay box and open the cover.

CAUTION

- When an electrical system does not operate, check its fuse first. If a fuse is blown, check its capacity and replace it with the same capacity.
- If you remove an electric system's fuse while the system is operating, the electrical equipment could be damaged. Always remove the ignition key from the ignition switch and turn off all electric devices.
- Always replace a specified fuse with the same rating.
- If a newly inserted fuse blows again after a short time, have the electrical system checked and repaired by a Ssangyong Dealer or Ssangyong Authorized Service Center.

Interior Fuse and Relay Box



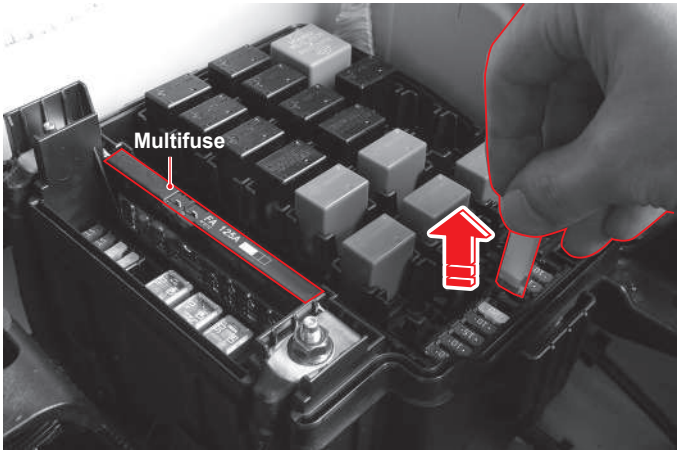


The fuse box is located at the left side of the instrument panel. To access the interior fuse box, open the driver's door and remove the fuse box cover with your finger.

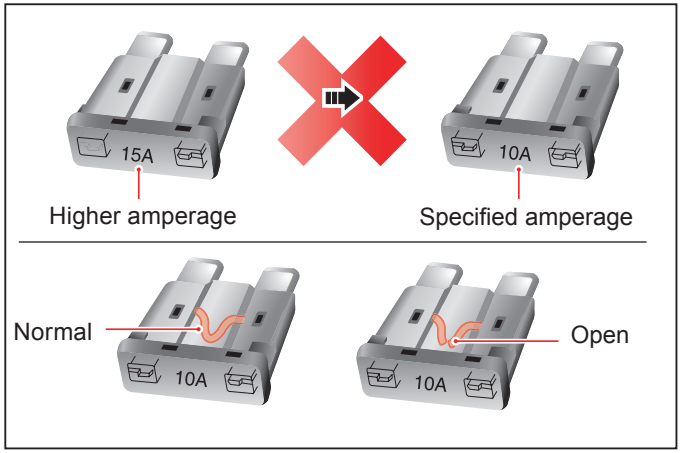
WARNING

If you do not use genuine parts or specified light bulb, and if you alter the HID bulb or LED lamp wiring, fuse disconnection, malfunction and other wiring damages could occur.

HOW TO CHECK AND REPLACE FUSE



1. Turn off all electrical systems and remove the ignition key from the key cylinder.
2. Open the fuse and relay box cover.
3. Locate the defective fuse.
4. Pull out the relevant fuse by using the fuse puller.
5. Visually check whether it is blown or not.
6. If normal, insert it to its original position.
7. If blown, check its capacity and replace it with the same capacity.



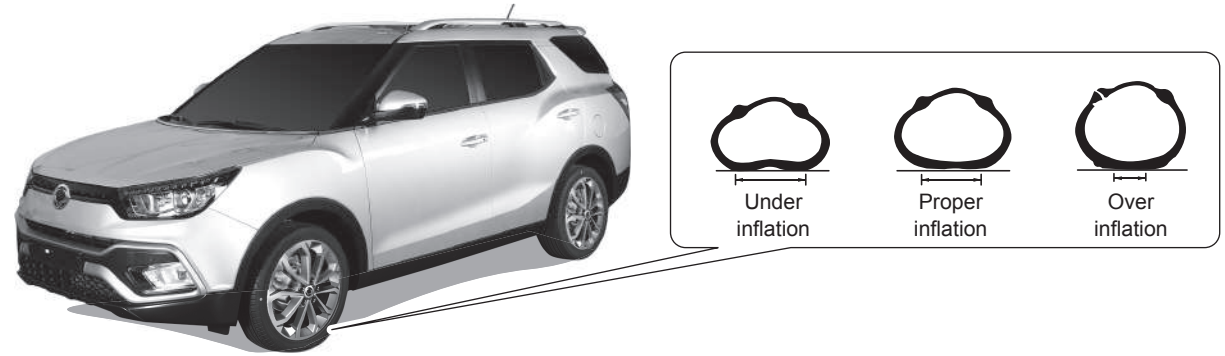
WARNING

- The use of anything other than the specified fuse could cause damage to the electrical system and even cause a fire.
- The use of different types or different rating fuses could cause damage to the electrical system and even cause a fire. Always replace a fuse with the one with the same rating.

NOTE

- The underhood fuse and relay box has some spare fuses. Refill the fuses immediately as you use them. The fuse rating is indicated on the upper surface of the fuse.
- When the multifuse is defective, ask Ssangyong service station.

TIRE INFLATION PRESSURE



Tire Inflation Pressure

Type	Tire inflation presure	Tire
Driving tire (Including Full Size Spare Tire)	35psi	205/60R16
	32psi	215/45R18
Temporary tire	60psi	T125/80D16

Wheel Alignment and Balance Between Tire and Wheel

If the wheels are not aligned as specified, it leads to uneven and faster wear of tire and the vehicle pulls to one side. If the wheels and tires are not balanced, it could result in uneven wear of tire and vehicle vibration. If the above symptoms occur, immediately stop driving and have the vehicle checked at a Ssangyong Dealer or Ssangyong Authorized Service Center.

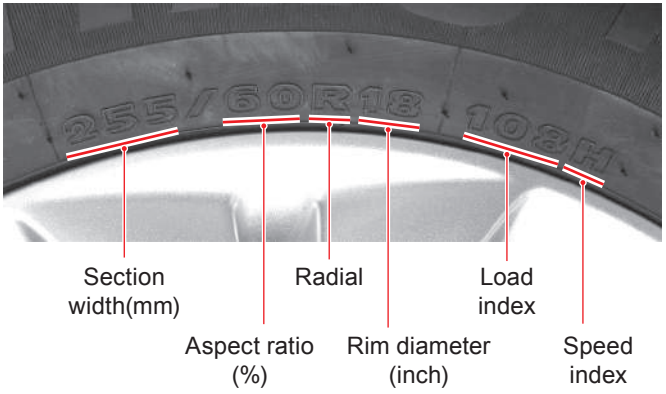
CAUTION

- Maintaining the specified tire pressure is essential for comfortable riding, driving safety, and long tire life. Incorrect inflation pressures will increase tire wear and will impair safety, vehicle handling, comfortable driving and fuel economy. Always make sure that the tire inflation pressure is correct.
- Check and adjust the tire inflation pressure, including the spare wheel, prior to any long journey (before the tire is heated up).
- Even the temporarily installed spare tire should be inflated properly.

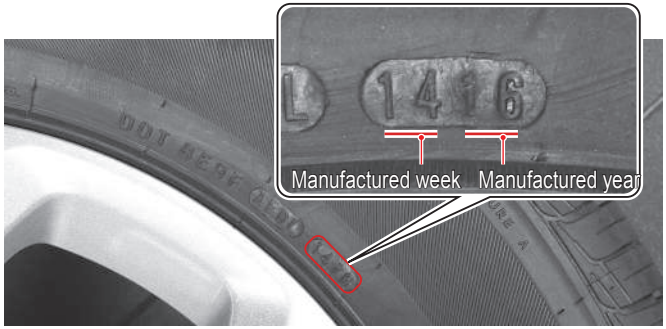
NOTE

The tires should be checked before they are heated up using an tire pressure gauge. Increase the tire inflation pressure by 4~5 psi from the specified value prior to any long journey.

TIRE SIZING CHART



Load index		Speed index	
Symbol	Maximum Load (kg)	Symbol	Maximum speed (Km/h)
102	850	S	180
104	900	T	190
106	950	U	200
108	1,000	H	210
110	1,060	V	240
112	1,120	Z	Over 240



Tire Date of Manufacture

In general, all tires should be replaced after six years from the date of manufacture regardless of the remaining tread.

You can check the date of manufacture by looking for the DOT Tire Identification Number (TIN). The last 4 digits of TIN indicates the date of manufacture with the front 2 digits representing the week and the last 2 digits representing the year in which the tire was manufactured.

Temperature Inside the Tire



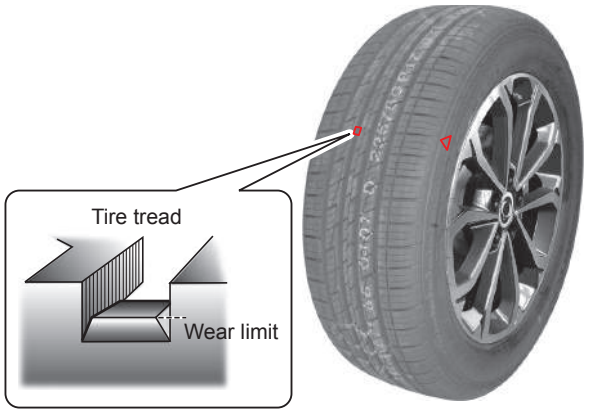
The temperature inside the tire increases during driving.

Overloaded vehicle, low tire pressure or driving at a high speed creates more heat and the heat builds in the tire. The limit temperature of tires is about 125°C. If the temperature exceeds this limit, the adhesion between the underlying layers of tire is significantly reduced, and this may result in an accident.

Always maintain correct tire inflation pressure specified by the manufacturer and take a break every 2 or 3 hours of highway driving.

The temperature inside the tire drops about 20°C for 10 minutes of vehicle stationary.

TIRE WEAR CHECK

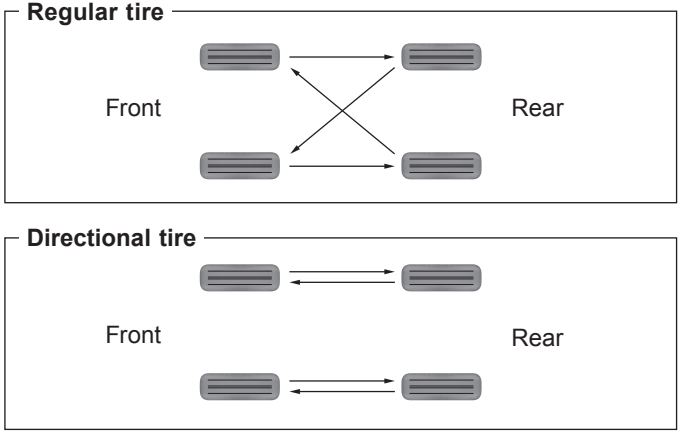


The tires on your vehicle have built-in tread wear indicators that appear between the tread grooves. The tire should be replaced when the wear indicators appear in two or more adjacent grooves.

WARNING

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

TIRE ROTATION



To avoid uneven wear of tires and to prolong tire life, inspect and rotate your tires every 5000 km.

WARNING

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

TEMPORARY TIRE

The temporary spare tire is only for an emergency. Do not use it for normal driving. With these tires, do not drive more 60 km/h. The spare tire should be replaced with a regular tire as soon as possible.

Check the tire conditions and pressure as needed and always keep it available. For replacing procedures, refer to “In Case of Emergency” section in this manual.

CAUTION

After replacing the tire, be sure to adjust the pressure to the specified pressure of the tire. Otherwise, the suspension system and driving system may be damaged.

WINTER TIRE

Use snow tires when driving on snowy or icy roads.
If winter tires are used, they must be installed to all 4 wheels.

WARNING

- Drive very slowly with extra caution on snowy or icy roads.
- The snow tire with arrow direction markings on its side wall should be installed according to the arrow direction.
- The snow tires cannot guarantee your safety on icy and slippery road. Drive with extra caution, avoiding sudden acceleration, braking or movements of the steering wheel.
- When the snow tires are not needed anymore, replace them with ordinary tires. Keep the removed snow tires in a cool and shady place. Be careful not to contact them with any oil, grease, or fuel.

TIRE CHAINS

Install tire chains on front wheels for a 2-Wheel Drive vehicle. And install tire chains on all wheels for a 4-Wheel Drive vehicle. If installing chains on only two wheels is unavoidable, tire chains should be installed on front wheels.

If at all possible, install snow tires instead of tire chains for vehicles equipped with aluminum wheels, since the aluminum wheels can be damaged by chains. If installing tire chains is the only alternative, use wire-type tire chain with a thickness of less than 15 mm.

Drive the vehicle with tire chains installed at a speed of 30 km/h or less or at the specified speed recommended by the chain manufacturer. If a sound of chains being slammed against the vehicle body, stop the vehicle in a safe place immediately. Check the installation of the chains carefully and tighten the chains, if needed. Take tire chains off on dry pavement to avoid damaging the chains.

Do not drive the vehicle with tire chains installed on dry pavement.

WARNING

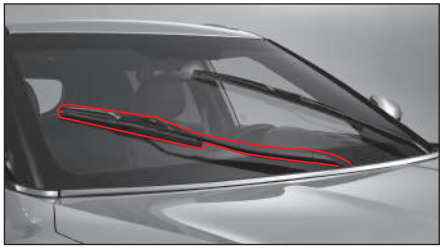
- Check the installation of tire chains and inspect the vehicle body for damage after driving about 0.5 to 1 km with the chains installed. If tire chains have been loosened, retighten the chains.
- Improper installation or use of incorrect tire chains can damage the vehicle or seriously endanger the operating reliability of the vehicle and road safety. Use tire chains that meet the specifications and install them in a professional manner.

CAUTIONS FOR WHEEL AND TIRE

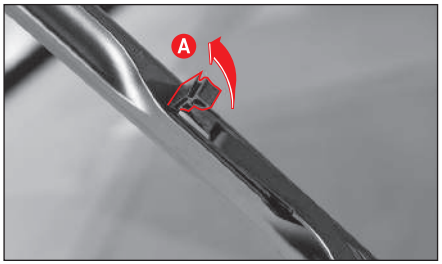
- Mixing tires could cause you to lose control while driving. Be sure to use the same size and type of tires of the same manufacturer on all wheels. If you do not use the same tires on the vehicle equipped with AWD, it may cause a serious damage to the vehicle's drive system.
- Check the inflation pressure, cracks and tearing of tires before driving.
- Improperly tightened wheel nuts can cause the wheel to become loose and even come off. This could lead to an accident. Be sure to check and tighten the wheel nuts as specified before any long journey.
- Do not use non-genuine wheel and tire. Non-genuine wheel and tire may have inferior performance and function and dangerous for safe driving. Also, any defects due to using them cannot be covered by warranty.
- Be sure to check the tires and wheels before driving. If a wheel is damaged, the tire inflation pressure can be decreased and the tire can be damaged.
- If a tire has been impacted by a stone or any other objects during driving, have it checked by a Ssangyong Dealer or Ssangyong Authorized Service Center.
- The use of tire sizes other than the specified sizes may cause abnormal operation of the steering wheel, increased fuel consumption, damage to the powertrain or the braking system, vibration, or uneven tire wear. Always use the specified tires from the same manufacturer.

WIPER BLADE REPLACEMENT

Front Wiper

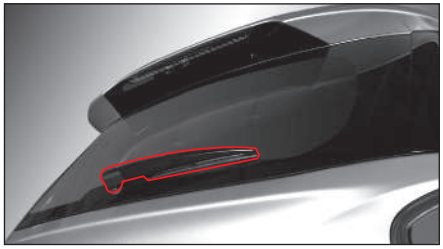


1. Remove the ignition key and lift the wiper arm up from the windshield.

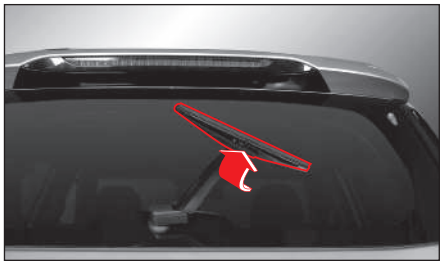


2. Pry up the blade lock (A).
3. Slide the blade out from the wiper arm.
4. Install a new blade.
5. Put the wiper arm down.

Rear Wiper



1. Remove the ignition key and lift the wiper arm up from the rear glass.



2. Slide the blade out from the wiper arm.
3. Install a new blade.
4. Put the wiper arm down.

Specification

Front wiper		Rear wiper
Left	Right	
24 inch	16 inch	10 inch

NOTE

Remove the wiper wing from the defective blade and install to the new one.

CAUTION

- Do not open the hood when the wiper arm is lifted up. The wiper and hood may be damaged.
- Do not operate the wiper when the washer fluid reservoir is empty.
- Be certain not to apply any fluid polish containing oil to the windshield of your vehicle since this will result in streaks which impair vision. Contamination of either the window or the wiper blades with foreign materials can reduce the effectiveness of the windshield wipers. Never clean up the windshield with a waxed or oil-saturated cloth.

WARNING

- Malfunctioning wipers on a raining or snowing day may be detrimental to your driving safety. Never drive your vehicle with malfunctioning wipers on a raining or snowing day.
- Do not touch the running wipers. It may cause a personal injury.

When performing any inspection or maintenance work on your vehicle, always take care to prevent serious accidental injury to yourself or damage to the vehicle.

WARNINGS AND CAUTIONS WHEN PERFORMING DO-IT-YOURSELF OPERATION

WARNING

- Be careful not to touch any hot components such as the engine, radiator, exhaust manifold, catalytic converter, or muffler when the engine is just stopped. They may burn you badly. Let the engine cool down before any service.
- When working with the battery or fuel related components, always stop the engine and do not smoke. Also, remove all flames or sparks near the vehicle.
- Do not connect and disconnect the battery terminals when the ignition key is in the “ON” position.
- The polarity of the battery, i.e. the connections for the positive and negative cables, must not be interchanged.
- The battery cables and wires transfer high voltage and current. Avoid any short circuit.
- Make sure that the ignition key is “OFF” when performing any work in an enclosed space such as a garage.
- Keep the used oil and coolant out of reach of children. (For a proper disposal of them, contact a professional service.)
- When checking your vehicle, you must turn off the engine first. Then, put the shift lever into the “P” (automatic transaxle) or “Neutral” (manual transaxle) position and apply the parking brake.
- The electrical cooling fan can start to operate unexpectedly even when the engine is stopped. Disconnect the negative battery cable before you check the radiator, cooling fan or nearby parts.

CAUTION

- Check the level of the engine oil and every fluid including coolant daily. If you drive while the fluid levels are low, your vehicle can be damaged and such damages will not be covered by warranty.
- Use only the genuine Ssangyong oils and fluids.
- Do not allow oils and coolant to make contact with skin or painted surfaces during inspection or refill of them. They can also damage paint finish. If skin contact happens, rinse affected areas immediately with plenty of water and then consult a doctor.
- Do not overfill the oil or coolant, otherwise, the engine and 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 allow contact with dust while refilling.
- In spite of very limited driving of your vehicle, oils and other fluids can disappear over the time. Therefore, check their levels frequently.
- Improperly disposed engine oil and/or other fluids can pollute the environment. Dispose used fluids in accordance with local environmental regulations.

WARNING

- Fuel damages paintwork. If fuel spills onto paintwork, immediately wash the affected area with cold water.
- Poor grade fuel or inappropriate additives can ruin the engine and the exhaust system. Use the designated fuel only.
- Warranty does not cover problems caused by using unqualified fuel.
- For diesel engine: Low sulfur diesel
  (LNT: Max 0.001%, DPF: Max 0.005%)

What is the toxic exhaust gas?

Carbon monoxide (CO), hydrocarbon (HC), nitrogen oxide (NOx), sulfur oxide (Sox), etc. are classified as the toxic exhaust gas, which is harmful to human body among other gases emitted into the atmosphere from the exhaust pipe.

In order to reduce the toxic exhaust gas, the following regulations should be thoroughly implemented.

① You should have your vehicle inspected and maintained in accordance with “Exhaust gas inspection and maintenance report” signed by qualified personnel.

② For regular maintenance and servicing, bring your vehicle to Ssangyong service center where technicians and special equipment are prepared

③ Before checking and servicing the engine or measuring the exhaust gas, warm up the engine to the normal operation temperature.

- Engine normal operation temperature: 85°C ~ 95°C

WARNING

- Be careful with the fuel to damage the painting of the vehicle.
- Using a poor quality fuel or improper fuel additive can damage the engine and exhaust emission equipment. Always use specified fuel.
- Damages due to fuel additives or improper fuel use cannot be covered by your warranty.

EXHAUST EMISSION EQUIPMENT

Ignition plug

The defective ignition plug can increase the toxic exhaust gas and cause the engine hesitation.

CAUTION

Always use Ssangyong’s genuine ignition plug.

WARNING

Cool down the engine before replacing the ignition plug.

Air cleaner

The air cleaner element should be checked frequently and replaced depending on the condition. To clean the element, blow off the dust using the air compressor.

Evaporative emission control system

If the ventilation system of the evaporative emission is clogged or damaged, fuel vapors are discharged into the atmosphere causing the air pollution. Therefore, this system should be inspected thoroughly in terms of leak, clog, damage, etc.

If the canister filter is clogged, the exhaust air decreases as well as the canister capacity, so the filter should be replaced when necessary.

► Canister

Fuel vapors generated inside the fuel tank are stored in the canister while the engine is not running, and then they are drawn into the engine when it starts running.

► **Purge control solenoid valve**

The purge control solenoid valve is operated by the control unit. Located between the canister and the throttle body of the manifold, this valve closes when the coolant temperature is low or during idling, so that the vaporized fuel is not taken into the throttle body. After warming up during driving, the valve opens for vaporized fuel to flow into the throttle body.

Crankcase emission control system

The positive crankcase ventilation system induces and burns the blow-by gas emitted from the crankcase in the combustor to prevent the air pollution.

Miscellaneous control system

Depending on the vehicle model, the secondary air pump system may be equipped to reduce the exhaust gases during cold start, increasing the exhaust gas temperature by the external air introduced into the vent pipe to shorten the time for the catalytic converter to activate.

Catalytic converter system

This is an essential device to satisfy the exhaust emission regulations in that toxic gases such as carbon monoxide, hydrocarbon, nitrogen oxide, etc. contained in the exhaust emissions are turned into harmless substances such as carbon dioxide, water, nitrogen, and so on. Therefore, the following rules should be observed otherwise, the exhaust gas purification function will be interrupted by the overheated or overloaded catalyst causing environmental pollution and even fire in special cases.

Precautions for catalytic converter

CAUTION

- Use only unleaded gasoline.
- Using the leaded gasoline will interrupt the catalyst functioning properly.
- Always maintain the engine in best conditions.
- If a misfire occurs due to defective fuel system, ignition system or electricity system, the catalytic converter will be overheated and damaged.
- Do not drive with insufficient fuel left in the fuel tank.
- Driving on empty may lead a misfire in the engine causing an overload or damage on the catalytic converter.
- Never turn off the engine while driving your vehicle.
- If you turn off the ignition during driving, combustible gas flows into the exhaust system and burns causing overheat and damage on the catalytic converter.
- Avoid driving at excessive speed to prevent the catalytic converter from overloading.
- Do not remove the catalytic system from the vehicle and have it inspected regularly.
- Do not touch the catalytic converter or other exhaust systems while the engine is running to avoid burns. Also, do not place any flammable substances near the engine to prevent a fire.

Reducing exhaust fumes of diesel vehicle

Occurrence of exhaust fumes is closely related with the air cleaner, fuel filter, spray nozzle, injector, engine alignment, loading capacity, etc.

1. Do not idle for extended periods of time.

   While idling, soot piles up on the muffler because it is difficult to be discharged due to low exhaust speed of fumes, and the soot may be built up more especially when A/C or electrical equipment is running.

2. Replace the consumables according to the proper replacement interval.

   Regular replacement and cleaning are necessary for fuel filter, air cleaner, engine oil, etc. since they significantly affect exhaust gas, power and fuel efficiency.

   Especially, the air cleaner should be frequently cleaned and replaced, because clogged air cleaner will generate a large amount of fumes.

   If the vehicle has been driven in rough conditions such as unpaved road, reduce the cleaning and replacement interval.

3. Do not perform illegal modification and tuning on your vehicle.

   Tuning the engine intake system and ECU illegally will increase the exhaust gases and fumes excessively.

4. Clean soot off the muffler periodically.

   Soot piles up on the muffler if driving at a low speed or stopping frequently. It will reduce the engine performance and the fuel efficiency, also causes excessive fumes, which may be emitted at once during a sudden acceleration.

5. Do not overload.

   Overloading is hard on the engine, causing fume increase and engine life decrease.

6. Have the vehicle inspected at a regular basis.

   At every 15,000km, have the exhaust emission inspected and serviced at Ssangyong service center.

This vehicle is equipped with the Diesel Oxidation Catalyst (DOC) and Diesel Particulate Filter (DPF) for emission reduction devices.

The DOC converts HC and CO2 in the fuel to H2O and removes 80% of the Soluble Organic Fraction (SOF) among particulate materials, thereby reducing 25% or more of particulate materials.

The DPF collects particulate materials to the filter and removes them by combustion. This device removes 95% or more of particulate materials.



Catalyst Diesel Particulate Filter (CDPF) - EU5

The CDPF is a compound word for Diesel Oxidation Catalyst (DOC) and Diesel Particulate Filter (DPF), which are exhaust gas after-treatment devices.



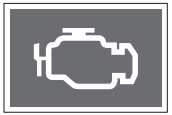
LNT (Lean & NOx Trap) DPF (Diesel Particulate Filter) - EU6

The LNT (Lean & NOx Trap) DPF (Diesel Particulate Filter) is a system to eliminate the nitrogen oxide from exhaust emissions. Use the specified fuel to avoid exhaust smell due to the poor quality fuel and to maintain the normal performance of the LNT DPF.

Regeneration Process

"Regeneration" is the process of combusting particulates when a certain amount of particulates is collected in the filter. In this process, the temperature of exhaust gas rises to approx. 600°C by fuel control and particulates are effectively incinerated.

When the Engine CHECK Indicator Flashes



Regeneration may not be performed due to several operating conditions. And in this case, the engine CHECK indicator flashes. This flashing function is to inform the driver to take action for the proper regeneration of the filter.

If the engine CHECK indicator flashes, drive the vehicle at over 80 km/h for 20 minutes to regenerate the CDPF. When the amount of particulates is lowered down to a certain limit, the engine CHECK indicator goes off.

CAUTION

- The vehicle equipped with DPF system may generate the white smoke when using the fuel with high sulfur content (over 100 ppm). This is caused by the sulfur attached and accumulated in DPF. However, this is very natural situation, not caused by your vehicle.
- How to fix the problem

  Replace current fuel with high grade fuel as soon as possible. However, even after replacing the fuel, the white smoke may be seen due to residual sulfur in DPF system. For safety driving, have the system checked at Ssangyong Authorized Service Center.
- The presence of an excessive amount of particulates in the DPF may reduce the engine power.
- An excessive amount of accumulated particulates can damage the DPF. Therefore, make sure to drive the vehicle at 80 km/h or more for 20 minutes at every 500 km.
- When the engine CHECK indicator comes on, it means that a sensor related to the engine control or an electric device is malfunctioning. In this case, have your vehicle checked by a Ssangyong Dealer or Ssangyong Authorized Service Center.

WARNING

- The engine CHECK indicator blinking means an excessive amount of particulates accumulated in the DPF. If this happens, you must drive the vehicle at the speed of 80 km/h or higher for 15~20 minutes. If you keep driving the vehicle at the speed of less than 80 km/h without following this instruction, it may cause damage to the exhaust system related to the DPF.
- The regeneration process of the DPF produces so much heat, so never drive or stop the vehicle near flammable materials to avoid causing fire. Also, be sure to stay away from the exhaust pipe and the DPF to avoid getting burned.

SCHEDULED MAINTENANCE SERVICES - DIESEL ENGINE (EU)

* Use only approved Ssangyong genuine parts.

Maintenance service and record retention are the owner's responsibility. You should retain evidence that proper maintenance has been performed on your vehicle in accordance with the scheduled maintenance service chart.

MAINTENANCE INTERVAL / MAINTENANCE ITEM	Kilometers (miles) or time in months, whichever comes first								
	x1000 km	20	40	60	80	100	120	140	160
	x1000 miles	12.5	25	37.5	50	62.5	75	87.5	100
	Months	12	24	36	48	60	72	84	96

ENGINE CONTROL SYSTEM

Drive belt	I	I	I	I	I	I	I	I
* Engine oil & filter *1 (1)* (3)* (4)*	R	R	R	R	R	R	R	R
	Shorten the service interval under severe conditions							
Cooling system hose & connections	I	I	I	I	I	I	I	I
Engine coolant (3)* (4)	Change every 200000 km or 5 years. And, inspect and replenish if necessary.							
Fuel filter (1)*	I	R	I	R	I	R	I	R
	Drain the water from fuel filter when the warning light comes on							
Fuel line & connections	I	I	I	I	I	I	I	I
Air cleaner (2)*	I	R	I	R	I	R	I	R
	Shorten the service interval under severe conditions							

Chart Symbols:

I - Inspect these items and their related parts. If necessary, correct, clean, replenish, adjust or replace.

*1 Check the engine oil level and leak every 3000 km (2000 miles) or before starting a long trip.

R - Replace or change.

(1)* If vehicle is operated under severe condition:
Shorten the service interval.
- Frequent stop-and-go traffic, extended idling, short driving distance below 6 km, driving distance below 16 km when the outside temperature remains below freezing
- Driving in a hilly or mountainous terrain, sandy, or dusty area
- High load driving such as trailer towing
- Taxi, patrol service or delivery service (extended idling and excessive driving with low speed)

(2)* If vehicle is operated under severe condition, driving in dusty condition or sandy condition, pollutant area or off-road driving, frequently inspect the air cleaner, if necessary, change the air cleaner.

(3)* More frequent maintenance is required if under dusty driving condition.

(4)* Refer to "Recommended fluids, coolant and lubricants".

MAINTENANCE INTERVAL / MAINTENANCE ITEM	Kilometers (miles) or time in months, whichever comes first								
	x1000 km	20	40	60	80	100	120	140	160
	x1000 miles	12.5	25	37.5	50	62.5	75	87.5	100
	Months	12	24	36	48	60	72	84	96

CHASSIS AND BODY

Exhaust pipes & mountings	I	I	I	I	I	I	I	I
Brake / Clutch fluid (3)*	Change every 2 years (inspect frequently)							
Parking brake / Brake pads (Front & Rear) (4)*	I	I	I	I	I	I	I	I
Brake line & connections (including booster)	I	I	I	I	I	I	I	I
Manual transaxle oil (5)*	Inspect and replenish every 60000 km (or 3 years) (Severe driving condition: Change every 120000 km)							
Clutch & brake pedal free play	I	I	I	I	I	I	I	I
Power transfer unit oil (6)*	I	I	I	I	I	I	I	I
	Severe driving condition: Change every 60000 km							
Rear axle oil	Inspect every 20000 km, change every 100000 km (Frequent check of oil leak)							
Automatic transaxle fluid (6)*	Change every 100000 km under severe condition							
Check play/tightness for lower bolt/nut and ball joint grease leak on chassis and body (6)*	Check frequently and adjust or replace if necessary							

Chart Symbols:

I - Inspect these items and their related parts. If necessary, correct, clean, replenish, adjust or replace.

R - Replace or change.

(3)* Refer to “Recommended fluids and lubricants”.

(4)* More frequent maintenance is required if the vehicle is operated under any of the following conditions:
- In heavy city traffic where the outside temperature regularly reaches 32°C (90°F) or higher, or
- In hilly or mountainous terrain, or
- When doing frequent trailer towing, or
- Uses such as found in taxi, police or delivery service.

(5)* Inspect and replenish every 60000 km (or 3 years)
Normal driving condition: Fill for Life
(Severe driving condition: Change every 120000 km)

(6)* If vehicle is operated under severe condition: Shorten the service interval.
- Towing a trailer or off-road driving (Inspect the leak of fluid at any time, occasionally)
- Taxi, patrol service or delivery service (extended idling and excessive driving with low speed)
- Frequent stop-and-go traffic, extended idling, short driving distance
- Driving in a hilly or mountainous terrain, sandy, or dusty area
- Driving frequently at high speed over 170 km/hour
- Driving frequently in area where heavy traffic under the ambient temperature above 32°C

MAINTENANCE INTERVAL / MAINTENANCE ITEM	Kilometers (miles) or time in months, whichever comes first								
	x1000 km	20	40	60	80	100	120	140	160
	x1000 miles	12.5	25	37.5	50	62.5	75	87.5	100
	Months	12	24	36	48	60	72	84	96

CHASSIS AND BODY

Tire condition & inflation pressure	Check frequently and adjust or replace if necessary							
Wheel alignment (7)*	Inspect when abnormal condition is noted							
Steering wheel & linkage	I	I	I	I	I	I	I	I
Outer ball joint inspection and replacement	I	I	I	I	R	I	I	I
Drive shaft boots (8)*	I	I	I	I	I	I	I	I
Seat belts, buckles & anchors	I	I	I	I	I	I	I	I
Lubricate locks, hinges & bonnet latch	Check frequently and adjust or replace if necessary							
Wheel bearing grease	I	I	I	I	I	I	I	I
Propeller shaft grease - Front / Rear (9)*	I	I	I	I	I	I	I	I
Air conditioner filter (10)*	R	R	R	R	R	R	R	R
	Shorten the service interval under severe conditions							

Chart Symbols:

I - Inspect these items and their related parts. If necessary, correct, clean, replenish, adjust or replace.

R - Replace or change.

(7)* If necessary, rotate and balance wheels.

(8)* After completion of off-road operation, the drive shaft boots should be inspected.

(9)* Inspect propeller shaft grease every 5000 km or 3 months if the vehicle is mainly driven under severe condition.

- In off-road or dusty road, or
- In heavy city traffic where the outside temperature regularly reaches 32°C (90°F) or higher, or
- In hilly or mountainous terrain.

(10)* Severe Conditions in Air Conditioner Filter

- Pollutant area or off-road driving, extended air conditioner or heater operation

SCHEDULED MAINTENANCE SERVICES - DIESEL ENGINE (GEN)

* Use only approved Ssangyong genuine parts.

Maintenance service and record retention are the owner's responsibility. You should retain evidence that proper maintenance has been performed on your vehicle in accordance with the scheduled maintenance service chart.

MAINTENANCE INTERVAL / MAINTENANCE ITEM	Kilometers (miles) or time in months, whichever comes first								
	x1000 km	15	30	45	60	75	90	105	120
	x1000 miles	10	20	30	40	50	60	70	80
	Months	12	24	36	48	60	72	84	96

ENGINE CONTROL SYSTEM

Drive belt	I	I	I	I	I	I	I	I
* Engine oil & filter *1 (1)* (3)* (4)* (11)* (Initial change: 7500 km)	R	R	R	R	R	R	R	R
	Shorten the service interval under severe conditions							
Cooling system hose & connections	I	I	I	I	I	I	I	I
Engine coolant (3)* (4)	Change every 200000 km or 5 years. And, inspect and replenish if necessary.							
Fuel filter (1)*	I	R	I	R	I	R	I	R
	Drain the water from fuel filter when the warning light comes on							
Fuel line & connections	I	I	I	I	I	I	I	I
Air cleaner (2)*	I	R	I	R	I	R	I	R
	Shorten the service interval under severe conditions							

Chart Symbols:

I - Inspect these items and their related parts. If necessary, correct, clean, replenish, adjust or replace.

*1 Check the engine oil level and leak every 3000 km (2000 miles) or before starting a long trip.

R - Replace or change.

(1)* If vehicle is operated under severe condition:
Shorten the service interval.
- Frequent stop-and-go traffic, extended idling, short driving distance below 6 km, driving distance below 16 km when the outside temperature remains below freezing
- Driving in a hilly or mountainous terrain, sandy, or dusty area
- High load driving such as trailer towing
- Taxi, patrol service or delivery service (extended idling and excessive driving with low speed)

(2)* If vehicle is operated under severe condition, driving in dusty condition or sandy condition, pollutant area or off-road driving, frequently inspect the air cleaner, if necessary, change the air cleaner.

(3)* More frequent maintenance is required if under dusty driving condition.

(4)* Refer to "Recommended fluids, coolant and lubricants".

(11)* EURO5 or EURO6 emission regulation countries:
Initial change 15000 km (severe conditions: 7500 km)

MAINTENANCE INTERVAL / MAINTENANCE ITEM	Kilometers (miles) or time in months, whichever comes first								
	x1000 km	15	30	45	60	75	90	105	120
	x1000 miles	10	20	30	40	50	60	70	80
	Months	12	24	36	48	60	72	84	96

CHASSIS AND BODY

Exhaust pipes & mountings	I	I	I	I	I	I	I	I
Brake / Clutch fluid (3)*	Change every 2 years (inspect frequently)							
Parking brake / Brake pads (Front & Rear) (4)*	I	I	I	I	I	I	I	I
Brake line & connections (including booster)	I	I	I	I	I	I	I	I
Manual transaxle oil (5)*	Inspect and replenish every 60000 km (or 3 years) (Severe driving condition: Change every 120000 km)							
Clutch & brake pedal free play	I	I	I	I	I	I	I	I
Power transfer unit oil (6)*	I	I	I	I	I	I	I	I
	Severe driving condition: Change every 60000 km							
Rear axle oil	Inspect every 15000 km, change every 100000 km (Frequent check of oil leak)							
Automatic transaxle fluid (6)*	Change every 100000 km under severe condition							
Check play/tightness for lower bolt/nut and ball joint grease leak on chassis and body (6)*	Check frequently and adjust or replace if necessary							

Chart Symbols:

I - Inspect these items and their related parts. If necessary, correct, clean, replenish, adjust or replace.

R - Replace or change.

(3)* Refer to “Recommended fluids and lubricants”.

(4)* More frequent maintenance is required if the vehicle is operated under any of the following conditions:
- In heavy city traffic where the outside temperature regularly reaches 32°C (90°F) or higher, or
- In hilly or mountainous terrain, or
- When doing frequent trailer towing, or
- Uses such as found in taxi, police or delivery service.

(5)* Inspect and replenish every 60000 km (or 3 years)
Normal driving condition: Fill for Life
(Severe driving condition: Change every 120000 km)

(6)* If vehicle is operated under severe condition: Shorten the service interval.
- Towing a trailer or off-road driving (Inspect the leak of fluid at any time, occasionally)
- Taxi, patrol service or delivery service (extended idling and excessive driving with low speed)
- Frequent stop-and-go traffic, extended idling, short driving distance
- Driving in a hilly or mountainous terrain, sandy, or dusty area
- Driving frequently at high speed over 170 km/hour
- Driving frequently in area where heavy traffic under the ambient temperature above 32°C

MAINTENANCE INTERVAL / MAINTENANCE ITEM		Kilometers (miles) or time in months, whichever comes first							
	x1000 km	15	30	45	60	75	90	105	120
	x1000 miles	10	20	30	40	50	60	70	80
	Months	12	24	36	48	60	72	84	96

CHASSIS AND BODY

Tire condition & inflation pressure	Check frequently and adjust or replace if necessary							
Wheel alignment (7)*	Inspect when abnormal condition is noted							
Steering wheel & linkage	I	I	I	I	I	I	I	I
Outer ball joint inspection and replacement	I	I	I	I	I	R	I	I
Drive shaft boots (8)*	I	I	I	I	I	I	I	I
Seat belts, buckles & anchors	I	I	I	I	I	I	I	I
Lubricate locks, hinges & bonnet latch	Check frequently and adjust or replace if necessary							
Wheel bearing grease	I	I	I	I	I	I	I	I
Propeller shaft grease - Front / Rear (9)*	I	I	I	I	I	I	I	I
Air conditioner filter (10)*	R	R	R	R	R	R	R	R
	Shorten the service interval under severe conditions							

Chart Symbols:

I - Inspect these items and their related parts. If necessary, correct, clean, replenish, adjust or replace.

R - Replace or change.

(7)* If necessary, rotate and balance wheels.

(8)* After completion of off-road operation, the drive shaft boots should be inspected.

(9)* Inspect propeller shaft grease every 5000 km or 3 months if the vehicle is mainly driven under severe condition.

- In off-road or dusty road, or
- In heavy city traffic where the outside temperature regularly reaches 32°C (90°F) or higher, or
- In hilly or mountainous terrain.

(10)* Severe Conditions in Air Conditioner Filter

- Pollutant area or off-road driving, extended air conditioner or heater operation

SCHEDULED MAINTENANCE SERVICES (UNDER SEVERE CONDITION) - DIESEL ENGINE

* Use only approved Ssangyong genuine parts.

Maintenance service and record retention are the owner's responsibility. You should retain evidence that proper maintenance has been performed on your vehicle in accordance with the scheduled maintenance service chart.

MAINTENANCE INTERVAL / MAINTENANCE ITEM	Kilometers (miles) or time in months, whichever comes first								
	x1000 km	7.5	15	22.5	30	37.5	45	52.5	60
	Months	6	12	18	24	30	36	42	48
ENGINE CONTROL SYSTEM									
Drive belt		I	I	I	I	I	I	I	I
* Engine oil & filter *1 (1)* (3)* (4)*		R	R	R	R	R	R	R	R
Cooling system hose & connections		I	I	I	I	I	I	I	I
Engine coolant (3)* (4)		Change every 100000 km or 3 years. And, inspect and replenish if necessary.							
Fuel filter (1)*		I	R	I	R	I	R	I	R
		Drain the water from fuel filter when the warning light comes on							
Fuel line & connections		I	I	I	I	I	I	I	I
Air cleaner (2)*		I	R	I	R	I	R	I	R
		Shorten the service interval under severe conditions							

Chart Symbols:

I - Inspect these items and their related parts. If necessary, correct, clean, replenish, adjust or replace.

*1 Check the engine oil level and leak every 3000 km (2000 miles) or before starting a long trip.

R - Replace or change.

(1)* If vehicle is operated under severe condition:
Shorten the service interval.
- Frequent stop-and-go traffic, extended idling, short driving distance below 6 km, driving distance below 16 km when the outside temperature remains below freezing
- Driving in a hilly or mountainous terrain, sandy, or dusty area
- High load driving such as trailer towing
- Taxi, patrol service or delivery service (extended idling and excessive driving with low speed)

(2)* If vehicle is operated under severe condition, driving in dusty condition or sandy condition, pollutant area or off-road driving, frequently inspect the air cleaner, if necessary, change the air cleaner.

(3)* More frequent maintenance is required if under dusty driving condition.

(4)* Refer to "Recommended fluids, coolant and lubricants".

MAINTENANCE INTERVAL / MAINTENANCE ITEM	Kilometers (miles) or time in months, whichever comes first								
	x1000 km	7.5	15	22.5	30	37.5	45	52.5	60
	Months	6	12	18	24	30	36	42	48

CHASSIS AND BODY

Exhaust pipes & mountings	I	I	I	I	I	I	I	I
Brake / Clutch fluid (3)*	Change every 1 years (inspect frequently)							
Parking brake / Brake pads (Front & Rear) (4)*	I	I	I	I	I	I	I	I
Brake line & connections (including booster)	I	I	I	I	I	I	I	I
Manual transaxle oil (5)*				I				I
Clutch & brake pedal free play	I	I	I	I	I	I	I	I
Power transfer unit oil (6)*	I	I	I	I	I	I	I	R
Rear axle oil	Inspect every 7500 km, change every 50000 km (Frequent check of oil leak)							
Automatic transaxle fluid (6)*				I				R
Check play/tightness for lower bolt/nut and ball joint grease leak on chassis and body (6)*	Check frequently and adjust or replace if necessary (change every 100000 km only ball joint)							

Chart Symbols:

I - Inspect these items and their related parts. If necessary, correct, clean, replenish, adjust or replace.

R - Replace or change.

(3)* Refer to “Recommended fluids and lubricants”.

(4)* More frequent maintenance is required if the vehicle is operated under any of the following conditions:
- In heavy city traffic where the outside temperature regularly reaches 32°C (90°F) or higher, or
- In hilly or mountainous terrain, or
- When doing frequent trailer towing, or
- Uses such as found in taxi, police or delivery service.

(5)* Inspect and replenish every 30000 km (or 2 years)
Normal driving condition: Fill for Life
(Severe driving condition: Change every 120000 km)

(6)* If vehicle is operated under severe condition: Shorten the service interval.
- Towing a trailer or off-road driving (Inspect the leak of fluid at any time, occasionally)
- Taxi, patrol service or delivery service (extended idling and excessive driving with low speed)
- Frequent stop-and-go traffic, extended idling, short driving distance
- Driving in a hilly or mountainous terrain, sandy, or dusty area
- Driving frequently at high speed over 170 km/hour
- Driving frequently in area where heavy traffic under the ambient temperature above 32°C

MAINTENANCE INTERVAL / MAINTENANCE ITEM	Kilometers (miles) or time in months, whichever comes first								
	x1000 km	7.5	15	22.5	30	37.5	45	52.5	60
	Months	6	12	18	24	30	36	42	48

CHASSIS AND BODY

Tire condition & inflation pressure (7)*	Check frequently and adjust or replace if necessary							
Wheel alignment (7)*	Inspect when abnormal condition is noted							
Steering wheel & linkage	I	I	I	I	I	I	I	I
Outer ball joint inspection and replacement	I	I	I	I	I	R	I	I
Drive shaft boots (8)*	I	I	I	I	I	I	I	I
Seat belts, buckles & anchors	I	I	I	I	I	I	I	I
Lubricate locks, hinges & bonnet latch	Check frequently and adjust or replace if necessary							
Wheel bearing grease	I	I	I	I	I	I	I	I
Propeller shaft grease - Front / Rear (9)*	I	I	I	I	I	I	I	I
Air conditioner filter (10)*	R	R	R	R	R	R	R	R

Chart Symbols:

I - Inspect these items and their related parts. If necessary, correct, clean, replenish, adjust or replace.

R - Replace or change.

(7)* If necessary, rotate and balance wheels.

(8)* After completion of off-road operation, the drive shaft boots should be inspected.

(9)* Inspect propeller shaft grease every 5000 km or 3 months if the vehicle is mainly driven under severe condition.

- In off-road or dusty road, or
- In heavy city traffic where the outside temperature regularly reaches 32°C (90°F) or higher, or
- In hilly or mountainous terrain.

(10)* Severe Conditions in Air Conditioner Filter

- Pollutant area or off-road driving, extended air conditioner or heater operation

SCHEDULED MAINTENANCE SERVICES - GASOLINE ENGINE

* Use only approved Ssangyong genuine parts.

Maintenance service and record retention are the owner's responsibility. You should retain evidence that proper maintenance has been performed on your vehicle in accordance with the scheduled maintenance service chart.

MAINTENANCE INTERVAL / MAINTENANCE ITEM	Kilometers (miles) or time in months, whichever comes first								
	x1000 km	15	30	45	60	75	90	105	120
	x1000 miles	10	20	30	40	50	60	70	80
	Months	12	24	36	48	60	72	84	96

ENGINE CONTROL SYSTEM

Drive belt	I	I	I	I	I	I	I	I
Engine oil & engine oil filter (1)* (3)* (Initial check: 7500 km)	R**	R	R	R	R	R	R	R
	Shorten the service interval under severe conditions							
Cooling system hose & connections	I	I	I	I	I	I	I	I
Engine coolant (3)*	Change every 200000 km or 5 years. And, inspect replenish if necessary.							
Fuel filter (2)*	Inspect every 30000 km (if using poor quality of fuel, replace every 50000 km)							
Fuel line & connections	I	I	I	I	I	I	I	I
Air cleaner (2)*	I	R	I	R	I	R	I	R
	Shorten the service interval under severe conditions							
Ignition timing	I	I	I	I	I	I	I	I
Spark plugs (G16DF)	Change every 120000 km or 5 years.							
Charcoal canister & vapor lines	-	I	-	I	-	I	-	I

Chart Symbols:

I - Inspect these items and their related parts. If necessary, correct, clean, replenish, adjust or replace.

R - Replace or change.

** - In order to secure engine long life and effective break-in, first oil (factory filled) would be recommended to drain within 10000 km.

(1)* If vehicle is operated under severe condition:
Shorten the service interval.
- Frequent stop-and-go traffic, extended idling, short driving distance below 6 km, driving distance below 16 km when the outside temperature remains below freezing
- Driving in a hilly or mountainous terrain, sandy, or dusty area
- High load driving such as trailer towing
- Taxi, patrol service or delivery service (extended idling and excessive driving with low speed)

(2)* If vehicle is operated under severe condition, pollutant area or off-road driving, driving in dusty condition or sandy condition, frequently inspect the air cleaner, if necessary, change the air cleaner.

(3)* Refer to "Recommended fluids and lubricants".

MAINTENANCE INTERVAL / MAINTENANCE ITEM	Kilometers (miles) or time in months, whichever comes first								
	x1000 km	15	30	45	60	75	90	105	120
	x1000 miles	10	20	30	40	50	60	70	80
	Months	12	24	36	48	60	72	84	96

CHASSIS AND BODY

Exhaust pipes & mountings	I	I	I	I	I	I	I	I
Brake / Clutch fluid (3)*	Change every 2 years (inspect frequently)							
Parking brake / Brake pads (Front & Rear) (4)*	I	I	I	I	I	I	I	I
Brake line & connections (including booster)	I	I	I	I	I	I	I	I
Manual transaxle oil (5)*	Inspect and replenish every 60000 km (or 3 years) (Severe driving condition: Change every 120000 km)							
Clutch & brake pedal free play	I	I	I	I	I	I	I	I
Power transfer unit oil (6)*	I	I	I	I	I	I	I	I
	Severe driving condition: Change every 60000 km							
Rear axle oil	Inspect every 15000 km, change every 100000 km (Frequent check of oil leak)							
Automatic transaxle fluid (6)*	Change every 100000 km under severe condition							
Check play/tightness for lower bolt/nut and ball joint grease leak on chassis and body (6)*	Check frequently and adjust or replace if necessary							

Chart Symbols:

I - Inspect these items and their related parts. If necessary, correct, clean, replenish, adjust or replace.

R - Replace or change.

(3)* Refer to “Recommended fluids and lubricants”.

(4)* More frequent maintenance is required if the vehicle is operated under any of the following conditions:
- In heavy city traffic where the outside temperature regularly reaches 32°C (90°F) or higher, or
- In hilly or mountainous terrain, or
- When doing frequent trailer towing, or
- Uses such as found in taxi, police or delivery service.

(5)* Inspect and replenish every 60000 km (or 3 years)
Normal driving condition: Fill for Life
(Severe driving condition: Change every 120000 km)

(6)* If vehicle is operated under severe condition: Shorten the service interval.
- Towing a trailer or off-road driving (Inspect the leak of fluid at any time, occasionally)
- Taxi, patrol service or delivery service (extended idling and excessive driving with low speed)
- Frequent stop-and-go traffic, extended idling, short driving distance
- Driving in a hilly or mountainous terrain, sandy, or dusty area
- Driving frequently at high speed over 170 km/hour
- Driving frequently in area where heavy traffic under the ambient temperature above 32°C

MAINTENANCE INTERVAL / MAINTENANCE ITEM		Kilometers (miles) or time in months, whichever comes first							
	x1000 km	15	30	45	60	75	90	105	120
	x1000 miles	10	20	30	40	50	60	70	80
	Months	12	24	36	48	60	72	84	96

CHASSIS AND BODY

Tire condition & inflation pressure	Check frequently and adjust or replace if necessary							
Wheel alignment (7)*	Inspect when abnormal condition is noted							
Steering wheel & linkage	I	I	I	I	I	I	I	I
Outer ball joint inspection and replacement	I	I	I	I	I	R	I	I
Drive shaft boots (8)*	I	I	I	I	I	I	I	I
Seat belts, buckles & anchors	I	I	I	I	I	I	I	I
Lubricate locks, hinges & bonnet latch	Check frequently and adjust or replace if necessary							
Wheel bearing grease	I	I	I	I	I	I	I	I
Propeller shaft grease - Front / Rear (9)*	I	I	I	I	I	I	I	I
Air conditioner filter (10)*	R	R	R	R	R	R	R	R
	Shorten the service interval under severe conditions							

Chart Symbols:

I - Inspect these items and their related parts. If necessary, correct, clean, replenish, adjust or replace.

R - Replace or change.

(7)* If necessary, rotate and balance wheels.

(8)* After completion of off-road operation, the drive shaft boots should be inspected.

(9)* Inspect propeller shaft grease every 5000 km or 3 months if the vehicle is mainly driven under severe condition.

- In off-road or dusty road, or
- In heavy city traffic where the outside temperature regularly reaches 32°C (90°F) or higher, or
- In hilly or mountainous terrain.

(10)* Severe Conditions in Air Conditioner Filter

- Pollutant area or off-road driving, extended air conditioner or heater operation

SCHEDULED MAINTENANCE SERVICES (UNDER SEVERE CONDITION) - GASOLINE ENGINE

* Use only approved Ssangyong genuine parts.

Maintenance service and record retention are the owner's responsibility. You should retain evidence that proper maintenance has been performed on your vehicle in accordance with the scheduled maintenance service chart.

MAINTENANCE INTERVAL / MAINTENANCE ITEM	Kilometers (miles) or time in months, whichever comes first								
	x1000 km	7.5	15	22.5	30	37.5	45	52.5	60
	Months	6	12	18	24	30	36	42	48

ENGINE CONTROL SYSTEM

Drive belt	I	I	I	I	I	I	I	I
Engine oil & engine oil filter (1)* (3)*	R**	R	R	R	R	R	R	R
Cooling system hose & connections	I	I	I	I	I	I	I	I
Engine coolant (3)*	Change every 100000 km or 3 years. And, inspect replenish if necessary.							
Fuel filter (2)*	Inspect every 15000 km (if using poor quality of fuel, replace every 30000 km)							
Fuel line & connections	I	I	I	I	I	I	I	I
Air cleaner (2)*	I	R	I	R	I	R	I	R
Ignition timing	I	I	I	I	I	I	I	I
Spark plugs (G16DF)	Change every 80000 km or 3 years.							
Charcoal canister & vapor lines	-	I	-	I	-	I	-	I

Chart Symbols:

I - Inspect these items and their related parts. If necessary, correct, clean, replenish, adjust or replace.

R - Replace or change.

** - In order to secure engine long life and effective break-in, first oil (factory filled) would be recommended to drain within 10000 km.

(1)* If vehicle is operated under severe condition:
Shorten the service interval.
- Frequent stop-and-go traffic, extended idling, short driving distance below 6 km, driving distance below 16 km when the outside temperature remains below freezing
- Driving in a hilly or mountainous terrain, sandy, or dusty area
- High load driving such as trailer towing
- Taxi, patrol service or delivery service (extended idling and excessive driving with low speed)

(2)* If vehicle is operated under severe condition, pollutant area or off-road driving, driving in dusty condition or sandy condition, frequently inspect the air cleaner, if necessary, change the air cleaner.

(3)* Refer to "Recommended fluids and lubricants".

MAINTENANCE INTERVAL / MAINTENANCE ITEM	Kilometers (miles) or time in months, whichever comes first								
	x1000 km	7.5	15	22.5	30	37.5	45	52.5	60
	Months	6	12	18	24	30	36	42	48

CHASSIS AND BODY

Exhaust pipes & mountings	I	I	I	I	I	I	I	I
Brake / Clutch fluid (3)*	Change every 1 years (inspect frequently)							
Parking brake / Brake pads (Front & Rear) (4)*	I	I	I	I	I	I	I	I
Brake line & connections (including booster)	I	I	I	I	I	I	I	I
Manual transaxle oil (5)*				I				I
Clutch & brake pedal free play	I	I	I	I	I	I	I	I
Power transfer unit oil (6)*	I	I	I	I	I	I	I	R
Rear axle oil	Inspect every 7500 km, change every 50000 km (Frequent check of oil leak)							
Automatic transaxle fluid (6)*				I				R
Check play/tightness for lower bolt/nut and ball joint grease leak on chassis and body (6)*	Check frequently and adjust or replace if necessary (change every 100000 km only ball joint)							

Chart Symbols:

I - Inspect these items and their related parts. If necessary, correct, clean, replenish, adjust or replace.

R - Replace or change.

(3)* Refer to “Recommended fluids and lubricants”.

(4)* More frequent maintenance is required if the vehicle is operated under any of the following conditions:
- In heavy city traffic where the outside temperature regularly reaches 32°C (90°F) or higher, or
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- When doing frequent trailer towing, or
- Uses such as found in taxi, police or delivery service.

(5)* Inspect and replenish every 30000 km (or 2 years)
Normal driving condition: Fill for Life
(Severe driving condition: Change every 120000 km)

(6)* If vehicle is operated under severe condition: Shorten the service interval.
- Towing a trailer or off-road driving (Inspect the leak of fluid at any time, occasionally)
- Taxi, patrol service or delivery service (extended idling and excessive driving with low speed)
- Frequent stop-and-go traffic, extended idling, short driving distance
- Driving in a hilly or mountainous terrain, sandy, or dusty area
- Driving frequently at high speed over 170 km/hour
- Driving frequently in area where heavy traffic under the ambient temperature above 32°C

MAINTENANCE INTERVAL / MAINTENANCE ITEM	Kilometers (miles) or time in months, whichever comes first								
	x1000 km	7.5	15	22.5	30	37.5	45	52.5	60
	Months	6	12	18	24	30	36	42	48

CHASSIS AND BODY

Tire condition & inflation pressure (7)*	Check frequently and adjust or replace if necessary							
Wheel alignment (7)*	Inspect when abnormal condition is noted							
Steering wheel & linkage	I	I	I	I	I	I	I	I
Outer ball joint inspection and replacement	I	I	I	I	I	R	I	I
Drive shaft boots (8)*	I	I	I	I	I	I	I	I
Seat belts, buckles & anchors	I	I	I	I	I	I	I	I
Lubricate locks, hinges & bonnet latch	Check frequently and adjust or replace if necessary							
Wheel bearing grease	I	I	I	I	I	I	I	I
Propeller shaft grease - Front / Rear (9)*	I	I	I	I	I	I	I	I
Air conditioner filter (10)*	R	R	R	R	R	R	R	R

Chart Symbols:

I - Inspect these items and their related parts. If necessary, correct, clean, replenish, adjust or replace.

R - Replace or change.

(7)* If necessary, rotate and balance wheels.

(8)* After completion of off-road operation, the drive shaft boots should be inspected.

(9)* Inspect propeller shaft grease every 5000 km or 3 months if the vehicle is mainly driven under severe condition.

- In off-road or dusty road, or
- In heavy city traffic where the outside temperature regularly reaches 32°C (90°F) or higher, or
- In hilly or mountainous terrain.

(10)* Severe Conditions in Air Conditioner Filter

- Pollutant area or off-road driving, extended air conditioner or heater operation

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13

Lamp

BULB SPECIFICATIONS

Description				Numbers	Specification
Exterior lamp	Headlamp	High beam		2	H1-55W
		Low beam	Bulb	2	H7-55W
			HID		D5S-25W
		Turn signal lamp		2	PY21W
		Position lamp		-	LED
	Front fog light			2	H16-19W
	Rear fog light			1	P21W
	Side repeater			2	WY5W
	Rear combination lamp	Tail lamp		-	LED
		Turn signal lamp		2	PY21W
		Back-up lamp		2	W16W
		Stop lamp		-	LED
	License plate lamp			2	W5W
	High mounted stop lamp			-	LED
Interior lamp	Front room lamp			2	10W
	Glove box lamp			1	5W
	Center room lamp			1	10W
	Luggage lamp			1	8W
	Door courtesy lamp			2	5W
	Door mood lamp			2	LED
	IP mood lamp			1	LED
	Sun visor lamp			2	5W

FUNCTIONAL CHECK

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

CAUTION

- Use only a specified capacity bulb for replacement.
- Disconnect the negative cable on the battery before replacing the bulb. Remove the ignition key.
- Do not apply excessive force to remove the bulb cover.
- Make sure that the corresponding switch and the ignition switch are turned off before replacing a bulb.
- Do not touch a bulb with bare hands immediately after turning off the lamp.
- Do not touch a bulb with bare hands. Fingerprints, dust, or moisture stuck to the bulb may shorten its life or cause it to explode. If you accidentally touch the bulb, wipe the bulb glass with a soft cloth.
- Never try to adjust the headlamp aiming angle. It should be done by a qualified technician in a Ssangyong Dealer or Ssangyong Authorized Service Center.

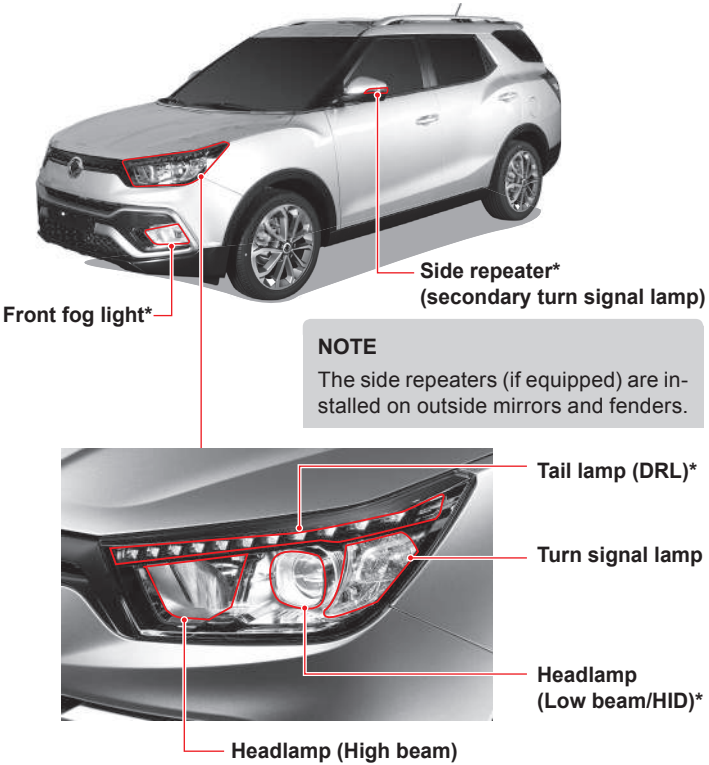
LOCATION OF EXTERIOR LAMPS

※ The images may somewhat differ depending on the vehicle model.

Inside of the lamps such as headlamps, brake lamps, etc. can be fogged while raining or during a car wash. This is due to condensation created by the temperature difference between the inside and the outside of the lamps, and the lamps will work normally. However, if large water drops occur or water gets into the inside, ask Ssangyong service center about it.

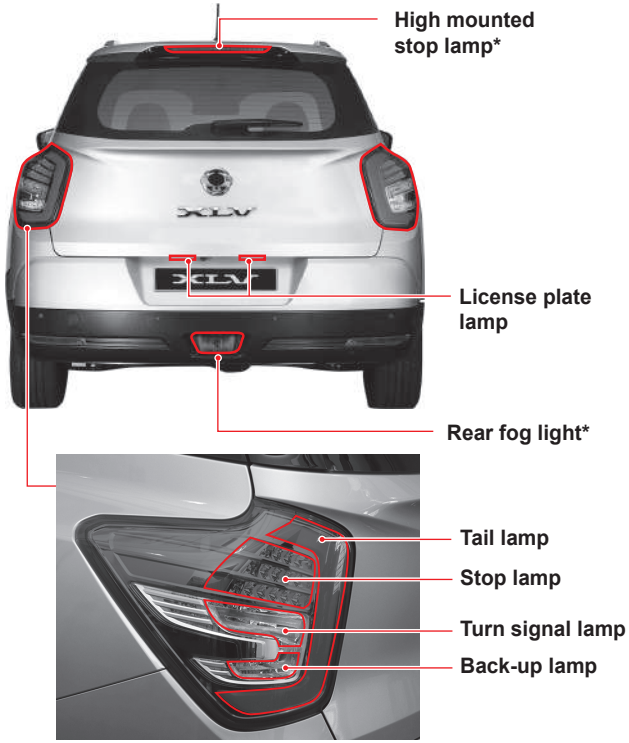
CAUTION

To remove exterior lamps or replace light bulbs, visit Ssangyong service center for servicing.



NOTE

The side repeaters (if equipped) are installed on outside mirrors and fenders.



WARNING

- If the light bulb is disconnected or damaged, immediately replace with new one with specified wattage and color, and dispose the old one safely.
- In order to prevent an electric shock or sudden movement of the vehicle, make sure to turn off the engine and apply the parking brake before checking and replacing the light bulb.
- Wear safety gloves to prevent a burn by heated light bulb.
- 

Never remove, repair, disassemble or change the headlamp, connector, power circuit, light bulb and so on.
Doing so may cause serious injuries by an electric shock.
Ask Ssangyong dealer or authorized service center for repairing and changing.

CAUTION

- Do not modify the regular light bulb to HID type. Malfunction and other wiring damages can occur.
- After installing the whole unit of headlamp, it is necessary to perform headlamp aiming. Ask Ssangyong dealer or authorized service center about it.
- If you cannot obtain proper tools and light bulbs, or if you do not fully comprehend the replacement method, ask Ssangyong dealer or authorized service center about it. Discretionally disassembling or installing the body of the vehicle, especially to replace headlamps, front fog lights, side lamps and turn signal lamps can damage your vehicle.
- If you do not use genuine parts or specified light bulb, fuse disconnection, malfunction and other wiring damages could occur.
- After replacing light bulb, reinstall the socket by securely screwing clockwise into the hole, otherwise the lamp could be defective due to the bulb disconnection or water flowing into it.
- Other than light bulbs built in the vehicle, do not install extra light bulbs or LED. If installing additionally, malfunction or flickering can occur and the fuse box and wiring system can be defective.

HID (HIGH INTENSITY DISCHARGE) HEADLAMP

- HID headlamp bulb is better than regular (halogen) bulb in terms of performance and lifetime; however frequent switching (ON/OFF) of headlamp may shorten the life.
- Unlike regular (halogen) light bulb, HID headlamp bulb slowly dims when turning on the headlamp even after the bulb ran out. Therefore, if the HID headlamp turns off and comes on again with the headlamp switch ON, the light bulb needs to be replaced.
- HID headlamp is more complex than regular (halogen) headlamp, so an extra charge will be applied when replacing.
- When removing/installing the HID headlamp bulb and unit, the angle adjustment (up/down, right/left) should be performed. Visit our Ssangyong service center and ask about it.

NOTE

Characteristics of HID headlamp bulb

- The color of the light changes during its initial lighting through 4 seconds later until stabilized.
- Color change by the usage period is an unique characteristic of HID bulb.
- Initial stage: light yellow
- Over 100 hours: light blue
- Over 1000 hours: blue
- Late stage: bright red, purple, get dark

CAUTION

If the light does not come on while operating HID type of headlamp (low beam), more complex actions than fuse/relay replacement needs to be taken. Therefore, visit Ssangyong service center for overall inspections of related systems.

WARNING

- Never remove nor disassemble any parts of HID headlamp (projector, high voltage cable, ballast) to avoid serious injuries due to an electrical shock.
- It is dangerous to contact your body part to the vehicle equipped with HID headlamp due to the high voltage direct current flowing through the system. Besides, more actions than bulb replacement should be performed. Therefore, ask Ssangyong service center if malfunction occurs.
- If discretionally modifying the vehicle equipped with regular headlamp to HID headlamp, the system will underperform or be overloaded causing malfunction of the vehicle. Additionally, the light will interrupt the driver's view running on opposite side of the road resulted in deadly accident.

CAUTION

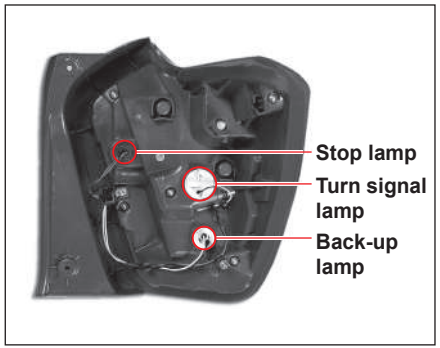
- While driving a vehicle equipped with HID headlamp, the leveling switch should be used depending on the number of passengers and loading condition so that the lamp does not interrupt other drivers' views.
- Refer to chapter 4, Headlight leveling switch.

REAR COMBINATION LAMP



1. Remove the ignition key from the key cylinder.
2. Open the tailgate.
3. Disconnect the two mounting bolts from the rear combination lamp.





4. Remove the rear combination lamp from the body.
5. Turn the bulb housing to remove it.
6. Remove the bulb while pushing and turning it.
7. Replace it with a new one.
8. Install in the reverse order of removal.

NOTE

The stop lamp is mounted with LED, of which self-maintenance is not possible. Bring your vehicle Ssangyong service center for an inspection if the LED is defective.

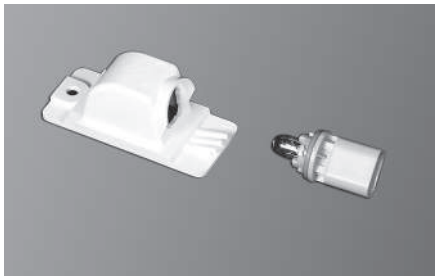
LICENSE PLATE LAMP



1. Remove the ignition key from the key cylinder.
2. To take out the license plate light assembly, remove the two fastening screws on the license plate light and push the assembly downward.



3. Remove the lamp housing by turning the connector.



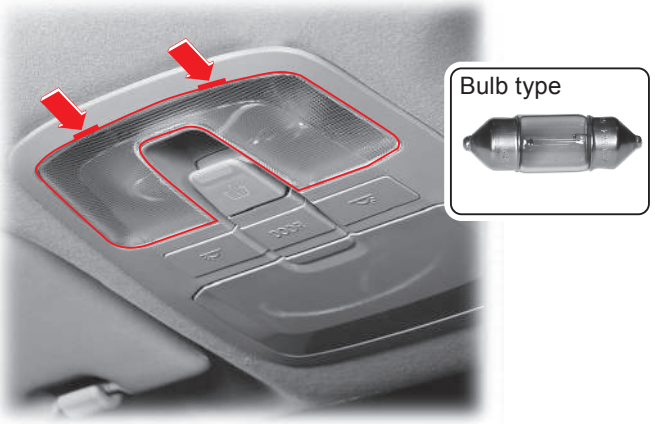
4. Remove the bulb.
5. Replace it with a new one.
6. Install in the reverse order of removal.



License plate lamp

REPLACING THE INTERIOR LAMPS

FRONT ROOM LAMP

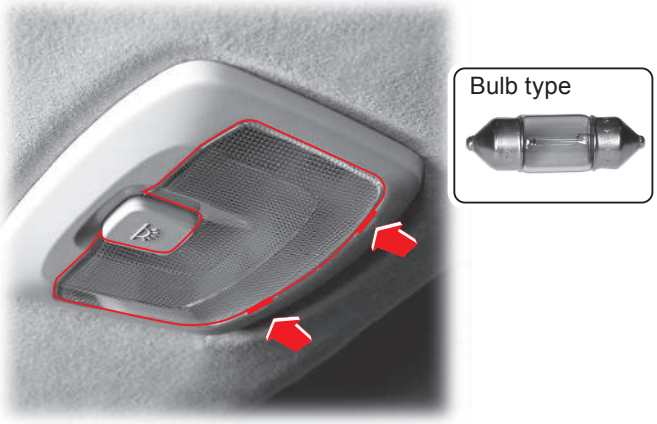


1. Remove the ignition key from the key cylinder.
2. Cover the tip of a flat blade screwdriver with a cloth and insert the tip into a lamp cover slot. Then, pry off the cover.
3. Replace the bulb with a new one.
4. Install the cover.

CAUTION

The cover should be pried up from the rear section (indicated by the arrow). Otherwise, the cover may be damaged.

CENTER ROOM AND LUGGAGE ROOM LAMPS

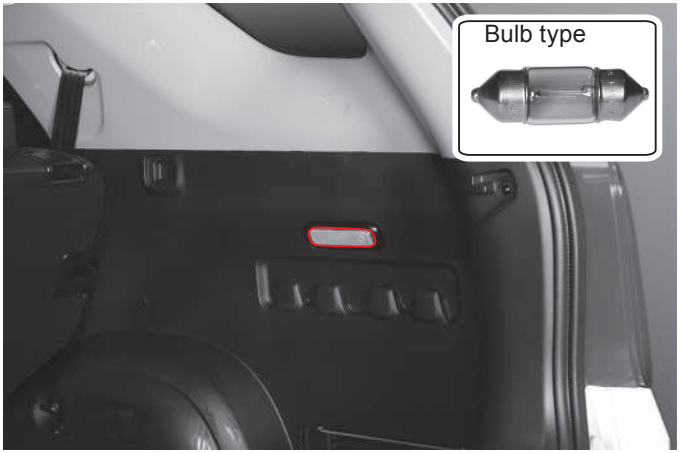


1. Remove the ignition key from the key cylinder.
2. Cover the tip of a flat blade screwdriver with a cloth and insert the tip into a lamp cover slot. Then, pry off the cover.
3. Replace the bulb with a new one.
4. Install the cover.

CAUTION

The cover should be pried up from the rear section (indicated by the arrow). Otherwise, the cover may be damaged.

LUGGAGE LAMP

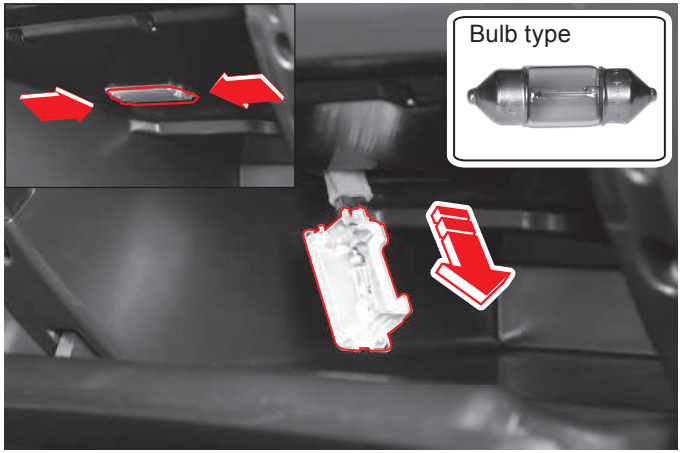


The luggage lamp turns on when tailgate opens and it turns off when tailgate closes.

CAUTION

Make sure that the tailgate is closed completely. If not, the light remains ON in the luggage, causing battery discharge of the vehicle.

GLOVE BOX LAMP

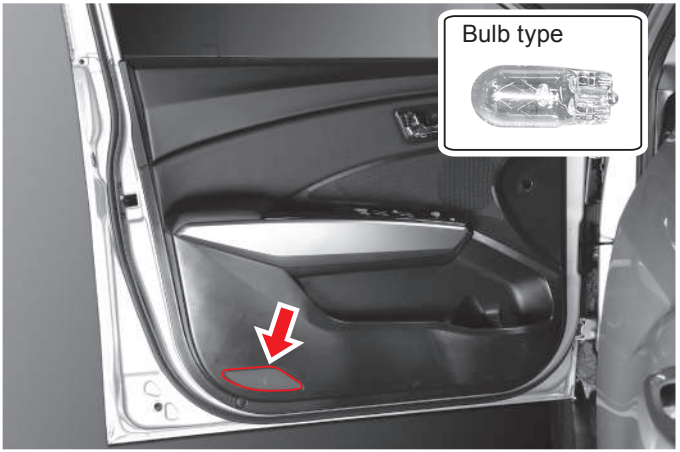


1. Remove the ignition key from the key cylinder.
2. Open the glove box.
3. Open the cover as shown in the figure.
4. Replace the bulb with a new one.
5. Install in the reverse order of removal.

CAUTION

The glove box lamp turns on when you open it with the tail lamps lighted on.

DOOR COURTESY LAMP*



1. Remove the ignition key from the key cylinder.
2. Cover the tip of a flat blade screwdriver with a cloth and insert the tip into a lamp cover slot. Then, pry off the cover.
3. Replace the bulb with a new one.
4. Install the cover.

NOTE

Bulb built-in type or reflector type is applied depending on vehicle specifications.



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No.	PART NO.	CODE NO.	PRINTING DATE	MODEL	REMARKS
1	X116OM1809E	XLV1-8OM0E-8I-300A	Sep. 1, 2018	X116/X117	M/Y, EU6c

XLV (LHD)
OWNER'S MANUAL

ISSUED BY
EXPORT SERVICE TEAM
SsangYong Motor Company

455-12, Dongsak-ro, Pyeongtaek-si,
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FACSIMILE : 82-31-610-3762

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