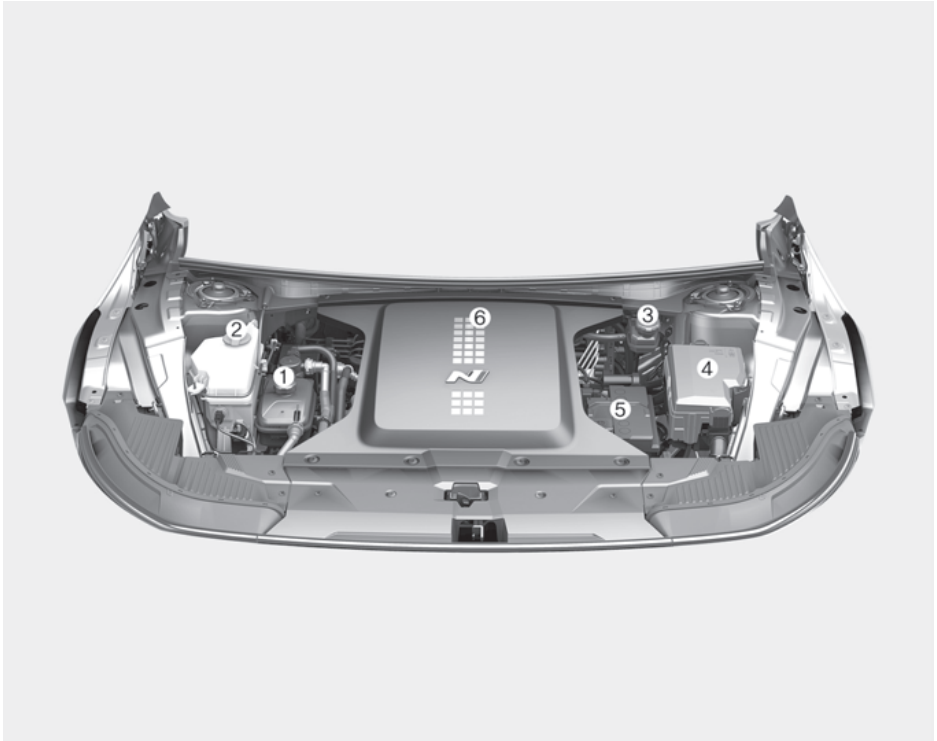


9. Maintenance

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Motor Compartment



The actual motor compartment in the vehicle may differ from the illustration.

- (1) Coolant reservoir
- (2) Windshield washer fluid reservoir
- (3) Brake fluid reservoir
- (4) Fuse box
- (5) Battery (12 V)
- (6) Cabin air filter

Maintenance Services

You should exercise the utmost care to prevent damage to your vehicle and injury to yourself whenever performing any maintenance or inspection procedures.

Have your vehicle maintained and repaired by an authorized HYUNDAI dealer. An authorized HYUNDAI dealer meets HYUNDAI's high service quality standards and receives technical support from HYUNDAI in order to provide you with a high level of service satisfaction.

Owner's Responsibility

Maintenance service and record retention are the owner's responsibility. You should retain documents that show proper maintenance has been performed on your vehicle in accordance with the scheduled maintenance service charts shown on the following pages. You need this information to establish your compliance with the servicing and maintenance requirements of your vehicle warranties.

Detailed warranty information is provided in your Service Passport.

Repairs and adjustments required as a result of improper maintenance or a lack of required maintenance are not covered.

Owner Maintenance Precautions

Inadequate, incomplete or insufficient servicing may result in operational problems with your vehicle that could lead to vehicle damage, an accident, or personal injury. This chapter provides instructions only for the maintenance items that are easy to perform.

Your vehicle should not be modified in any way. Such modifications may adversely affect the performance, safety or durability of your vehicle and may, in addition, violate conditions of the limited warranties covering the vehicle.

NOTICE

Improper owner maintenance during the warranty period may affect warranty coverage. For more information, read the separate Service Passport provided with the vehicle. If you're unsure about any service or maintenance procedure, have it done by an authorized HYUNDAI dealer.

Owner Maintenance

WARNING

Performing maintenance work on a vehicle can be dangerous. If you lack sufficient knowledge and experience or the proper tools and equipment to do the work, have it done by an authorized HYUNDAI dealer. ALWAYS follow these precautions for performing maintenance work:

- Park your vehicle on level ground. Shift the vehicle to P (Park), apply the parking brake, and press the Start/Stop button to the OFF position.
- Block the tires (front and back) to prevent the vehicle from moving.
Remove loose clothing or jewelry that can become entangled in moving parts.
- Keep flames, sparks, or smoking materials away from the battery and motor related parts.

WARNING

Make sure to turn the Start/Stop button to the OFF position to shut down the vehicle before performing maintenance work on the vehicle.

The following lists are vehicle checks and inspections that should be performed by the owner or an authorized HYUNDAI dealer at the frequencies indicated to help ensure safe, dependable operation of your vehicle.

Any adverse conditions should be brought to the attention of your dealer as soon as possible.

These Owner Maintenance vehicle checks are generally not covered by warranties and you may be charged for labor, parts and lubricants used.

The electric control system in the vehicle may cause malfunction or other negative impact on the artificial heart and the artificial internal organs. Be sure to inquire the impact of the electric control system on the artificial organs from the medical product corporation.

Owner Maintenance Schedule

When you stop for charging:

- Check the coolant level in the coolant reservoir.
- Check the windshield washer fluid level.
- Check for low or under-inflated tires.

WARNING

Be careful when checking your coolant level if the motor compartment is hot. This may result in coolant being blown out of the opening and cause serious burns and other injuries.

While operating your vehicle:

- Check for vibrations in the steering wheel. Notice if there is any increased steering effort or looseness in the steering wheel, or change in its straight-ahead position.
- Notice if your vehicle constantly turns slightly or "pulls" to one side when traveling on smooth, level road.
- When stopping, listen and check for unusual sounds, pulling to one side, increased brake pedal travel or "hard-to-push" brake pedal.
- If any slipping or changes in the operation of your gear shift occurs, check the shift gear fluid level.
- Check the shift gear P (Park) function.
- Check the parking brake.
- Check for fluid leaks under your vehicle (water dripping from the air conditioning system during or after use is normal).

At least monthly:

- Check coolant level in the coolant reservoir.
- Check the operation of all exterior lights, including the stoplights, turn signals and hazard warning flashers.
- Check the inflation pressures of all tires including the spare for tires that are worn, show uneven wear, or are damaged.
- Check for loose wheel lug nuts.

At least twice a year: (for example, every Spring and Autumn)

- Check radiator, heater and air conditioning hoses for leaks or damage.
- Check windshield washer spray and wiper operation. Clean wiper blades with a clean cloth dampened with washer fluid.
- Check headlight alignment.
- Check the seat belts for wear and function.

At least once a year:

- Clean body and door drain holes.
- Lubricate door hinges and hood hinges.
- Lubricate door and hood locks and latches.
- Lubricate door rubber weather strips.
- Check the air conditioning system.
- Inspect and lubricate shift gear linkage and controls.
- Clean the battery (12 V) and terminals.
- Check the brake fluid level.

Scheduled Maintenance Services

Maintenance Schedule

The following maintenance services must be performed to ensure good emission control and performance. Keep receipts for all vehicle emission services to protect your warranty. Where both mileage and time are shown, the frequency of service is determined by whichever occurs first.

R: Replace **S:** Service **I:** Inspect

MAINTENANCE INTERVALS	Months	12	24	36	48	60	72	84	96	108	120
	km×1,000	12	24	36	48	60	72	84	96	108	120
MAINTENANCE ITEM											
Cooling System		I	I	I	I	I	I	I	I	I	I
Coolant **	Standard	At first, replace at 200,000 km or 120 months. After that, replace every 40,000 km or 24 months.									
Gear fluid					I				I		
12V auxiliary battery condition		I	I	I	I	I	I	I	I	I	I
All electrical system		I	I	I	I	I	I	I	I	I	I
Brake lines, hoses and connections		I	I	I	I	I	I	I	I	I	I
Brake pedal		I	I	I	I	I	I	I	I	I	I
Brake fluid		I	I	I	R	I	I	I	R	I	I
Visual Brake Inspection (front discs/pads & calipers and rear disc/pads & calipers/shoes. Includes tire rotation) Brake Service (includes parking brake inspection and tire rotation)		I	S	I	S	I	S	I	S	I	S

*1 When replacing or adding coolant, visit an authorized HYUNDAI dealer. Refer to the "Coolant" section in chapter 9 for the position of the coolant reservoir.

R: Replace **S:** Service **I:** Inspect

MAINTENANCE INTERVALS	Months	12	24	36	48	60	72	84	96	108	120
	km×1,000	12	24	36	48	60	72	84	96	108	120
MAINTENANCE ITEM											
Steering gear rack, linkage and boots		I	I	I	I	I	I	I	I	I	I
Driveshaft and boots		I	I	I	I	I	I	I	I	I	I
Front suspension ball joints		I	I	I	I	I	I	I	I	I	I
Bolt and nuts on chassis and body		I	I	I	I	I	I	I	I	I	I
Air conditioner refrigerant		I	I	I	I	I	I	I	I	I	I
Air conditioner compressor		I	I	I	I	I	I	I	I	I	I
Cabin air filter			R		R		R		R		R
Electronic Limited Slip Differential (e-LSD) oil		No check, No service required									

EV Special Care

I: Inspect and if necessary, adjust, correct, clean or replace.

R: Replace or change.

MAINTENANCE INTERVALS	Number of months or driving distance, whichever comes first										
	Months	12	24	36	48	60	72	84	96	108	120
	Km×1,000	12	24	36	48	60	72	84	96	108	120
MAINTENANCE ITEM											
High Voltage Battery	Insulation resistance check		I	I	I	I	I	I	I	I	I
	Voltage deviation check		I	I	I	I	I	I	I	I	I
Cooling System	Air-cooled	Coolant amount check	I	I	I	I	I	I	I	I	I
	Water cooling	Coolant amount check	I	I	I	I	I	I	I	I	I
		EWP operation status check	I	I	I	I	I	I	I	I	I
		3way valve operation check	I	I	I	I	I	I	I	I	I
DTC	Fault code check (Full DTC scanning)		I	I	I	I	I	I	I	I	I
Lower body	Battery lower part damage check		I	I	I	I	I	I	I	I	I
	High voltage cable damage check		I	I	I	I	I	I	I	I	I

Explanation of Scheduled Maintenance Items

Cooling System

Check cooling system components, such as radiator, coolant reservoir, hoses and connections for leakage and damage. Replace any damaged parts.

Coolant

The coolant should be changed at the intervals specified in the maintenance schedule.

Gear Fluid

The gear fluid should be inspected and replaced according to the intervals specified in the maintenance schedule.

Brake Hoses and Lines

Visually check for proper installation, chafing, cracks, deterioration and any leakage. Replace any deteriorated or damaged parts immediately.

Brake Fluid

Check the brake fluid level in the brake fluid reservoir. The level should be between the MIN and the MAX marks on the side of the reservoir. Use only hydraulic brake fluid conforming to DOT 4 specification.

Brake Discs, Pads, Calipers and Rotors

Check the pads, the discs, and the rotors for any excessive wear-out. Inspect calipers for any fluid leakage.

Suspension Mounting Bolts

Check the suspension connections for looseness or damage. Retighten to the specified torque.

Steering Gear Box, Linkage & Boots/Lower Arm Ball Joint

With the vehicle stopped and the vehicle off, check for excessive free-play in the steering wheel. Check the linkage for bends or damage. Check the dust boots and ball joints for deterioration, cracks, or damage.

Replace any damaged parts.

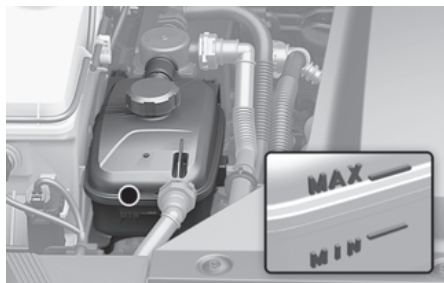
Drive Shafts and Boots

Check the drive shafts, boots and clamps for cracks, deterioration, or damage. Replace any damaged parts and, if necessary, repack the grease.

Air Conditioning Refrigerant

Check the air conditioning lines and connections for leakage and damage.

Coolant



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

The coolant level should be filled between the MAX and MIN marks on the side of the coolant reservoir when the parts in the motor compartment is cool.

If the coolant level is low, add enough distilled (deionized) water mixed with antifreeze to bring the level to the MAX mark. If frequent additions are required, have your vehicle inspected by an authorized HYUNDAI dealer.

Use only designated coolant water for electric vehicles, adding other types of water or antifreeze can damage the vehicle.

WARNING



Keep hands, clothing, and tools away from the rotating fan blades of the cooling fan. The electric motor for the cooling fan may continue to operate or start up when the vehicle is off and can cause serious injury.

The electric motor for the cooling fan is controlled by vehicle coolant temperature, refrigerant pressure, and vehicle speed. As the vehicle coolant temperature decreases, the electric motor automatically shuts off. This is a normal condition.

WARNING

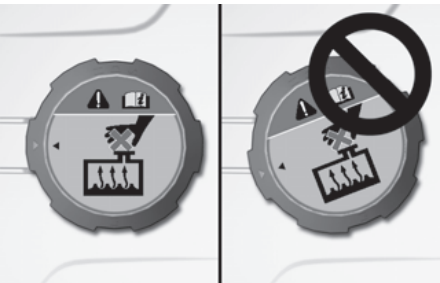


- Check the coolant level when the motor compartment is cooled. Coolant level is influenced by temperature, and if the coolant reservoir cap is removed when coolant temperature is high, hot coolant and steam may blow out under pressure causing serious injury.
- Make sure the coolant cap is properly closed after refilling coolant. Otherwise the motor could be overheated while driving.

⚠ WARNING

Make sure the coolant cap is properly closed after refilling coolant. Otherwise, the motor could be overheated while driving.

- 1. Check if the coolant cap label is straight in front.



- 2. Make sure that the tiny protrusions inside the coolant cap is securely interlocked.



Recommended coolant

- When adding coolant, use only deionized water, distilled water, or soft water for your vehicle and never mix hard water in the coolant filled at the factory.
- An incorrect coolant mixture may result in severe malfunction or motor damage.
- Do not use alcohol or methanol coolant or mix them with the specified coolant.
- Do not use a solution that contains more than 60 % antifreeze or less than 35 % antifreeze, which could reduce the effectiveness of the solution.

For mixing percentage, refer to the following table:

Ambient Temperature	Mixture Percentage (volume)	
	Antifreeze	Water
-15 °C (5 °F)	35	65
-25 °C (-13 °F)	40	60
-35 °C (-31 °F)	50	50
-45 °C (-49 °F)	60	40

i Information

If in doubt about the mix ratio, a 50 % water and 50 % antifreeze mix is the easiest to mix together because it is the same quantity for each.

Changing Coolant

Have the coolant changed by an authorized HYUNDAI dealer according to the maintenance schedule.

WARNING

Do not use coolant or antifreeze in the washer fluid reservoir.

Coolant can severely obscure visibility when sprayed on the windshield and may cause loss of vehicle control resulting in an accident.

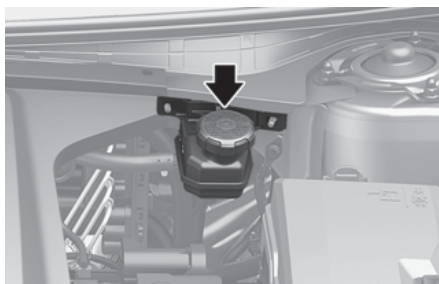
Coolant may also cause damage to paint and body trim.

NOTICE

To prevent damage to motor parts, put a thick towel around the coolant cap before refilling the coolant to prevent the coolant from overflowing into motor parts.

Brake Fluid

Checking the Brake Fluid Level



Check the fluid level in the reservoir periodically. The fluid level should be between MAX and MIN marks on the side of the reservoir.

Before removing the reservoir cap and adding brake fluid, clean the area around the reservoir cap thoroughly to prevent brake fluid contamination.

If the level is low, add the specified brake fluid to the MAX level. If the fluid level is excessively low or frequent additions are required have the brake system inspected by an authorized HYUNDAI dealer.

WARNING

If brake fluid comes in contact with your eyes, flush your eyes with clean water for at least 15 minutes and get immediate medical attention.

NOTICE

- Do not allow brake fluid to contact the vehicle's body paint, because paint damage may occur.
- Never use brake fluid that has been exposed to open air for an extended time and dispose of it properly.
- Do not use the wrong type of brake fluid. A few drops of mineral based oil in your brake system may damage the brake system parts.

i Information

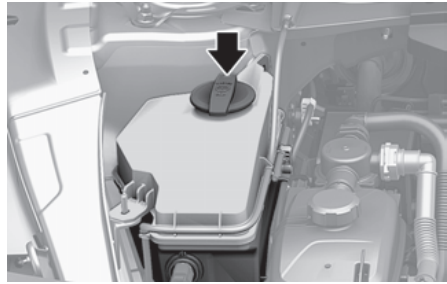
Use only the specified brake fluid (refer to the "Recommended Lubricants and Capacities" section in chapter 2)

Gear Fluid

Have the gear fluid inspected by an authorized HYUNDAI dealer according to the maintenance schedule.

Washer Fluid

Checking the Washer Fluid Level



Check the fluid level in the washer fluid reservoir and add fluid if necessary. Plain water may be used if washer fluid is not available. However, use washer solvent with antifreeze characteristics in cold climates to prevent freezing.

WARNING

To prevent serious injury or death, take the following safety precautions when using washer fluid:

- Do not use coolant or antifreeze in the washer fluid reservoir. Coolant can severely obscure visibility when sprayed on the windshield and may cause loss of vehicle control resulting in an accident or damage to paint and body trim.
- Do not allow sparks or flame to contact the washer fluid or the washer fluid reservoir. Washer fluid may contain alcohol and can be flammable.
- Do not drink washer fluid and avoid contact with skin. Washer fluid is harmful to humans and animals.
- Keep washer fluid away from children and animals.

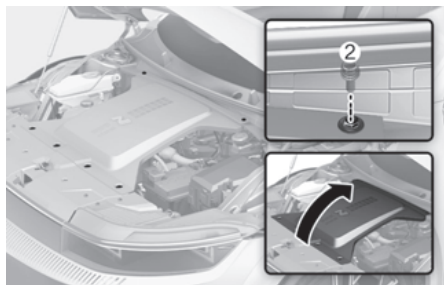
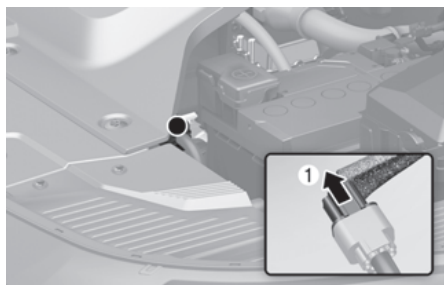
Cabin Air Filter

Filter Inspection

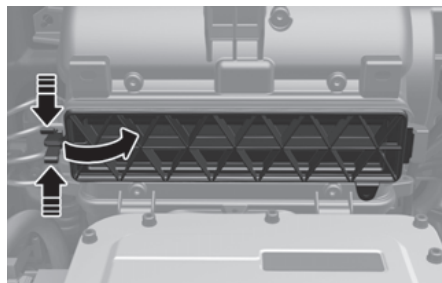
The cabin air filter must be replaced according to the Maintenance Schedule. If the vehicle is operated in severely air-polluted cities or on dusty rough roads for a long period, it should be inspected more frequently and replaced sooner. Replace the cabin air filter by following the procedure below and be careful to avoid damaging other components.

Filter Replacement

1. With the hood open, disassemble the external speaker connector (1) located on the right side. Remove the bolt (2) to remove the motor compartment cover.

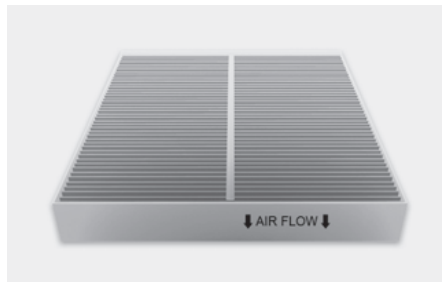


2. Press and hold the lock on the left side of the cover.



3. Pull out the cover.
4. Replace the cabin air filter.
5. Reassemble in the reverse order of disassembly.

i Information



- Install a new cabin air filter in the correct direction with the arrow symbol (↓) facing downwards, to prevent noise and reduce effectiveness.
- Always be sure that the front trunk cover is firmly closed after replacing the cabin air filter.

Otherwise it may cause interior damage in the motor compartment, noise trouble, or entrance of foreign substances.

Wiper Blades

Blade Inspection

Contamination of the windshield or wiper blades with foreign substances may reduce the effectiveness of the windshield wipers.

Common sources of contamination are insects, tree sap, and hot wax treatments used by some commercial car washes. If the blades are not wiping properly, clean both the window and the blades with glass cleaner or mild detergent, and rinse thoroughly with clean water. Replace blades as needed.

NOTICE

To prevent damage to the wiper blades, arms, or other components, do not:

- Use gasoline, kerosene, paint thinner, or other solvents on or near them.
- Attempt to move the wipers manually.

Blade Replacement

When the wipers no longer clean adequately, the blades may be worn or cracked. Replace the wipers with new ones.

NOTICE

To prevent damage:

- Never use non-specified wiper blades.
- Lift the wiper arms when in the top wiping position.
- Always return the wiper arms to the windshield before driving.

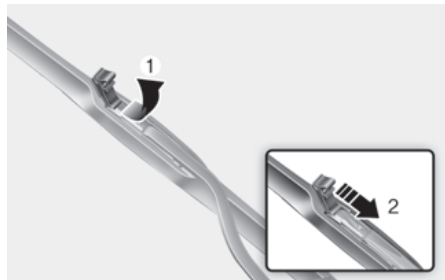
Front windshield wiper blade replacement

This vehicle has a "hidden" wiper design that cannot be lifted when in their bottom resting position.

1. Within 20 seconds of turning off the vehicle, push and hold the wiper lever down to the MIST (or 1x) position for about 2 seconds until the wipers move to the top wipe position.



2. Lift the wipers off the windshield.
3. Lift up the wiper blade clip (1). Then pull down the wiper blade (2). Remove the wiper blade from the wiper arm.



4. Install a new wiper blade assembly in the reverse order of removal.



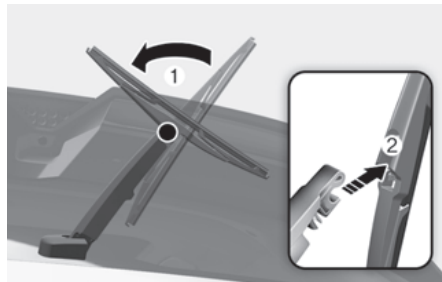
5. Gently put down the wiper back onto the windshield.
6. With the Start/Stop button in the ON position, turn the wiper switch to any ON position to return the wipers to the bottom resting position.

NOTICE

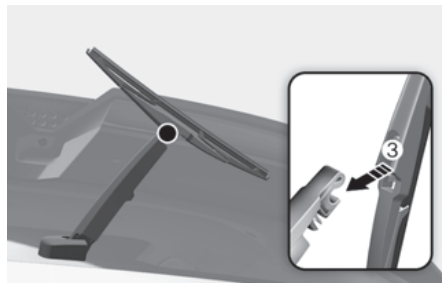
- Avoid the wipers from touching the windshield when the wiper blade is disassembled to prevent windshield damage.
- The wiper may not operate for about 10 seconds if the wiper is operated without washer fluid or the blades are frozen to prevent damage to the motor.

Rear window wiper blade replacement

1. Raise the wiper arm and then rotate the wiper blade assembly (1).
2. Pull out the wiper blade assembly (2).



3. Install the new blade assembly by inserting the center part into the slot in the wiper arm until it clicks into place (3).



4. If the replacement is complete, put down the wiper arm onto the rear windshield, and turn the vehicle ON and operate the wipers to check the blade is installed correctly.

Battery (12 V)

WARNING

To prevent **SERIOUS INJURY** or **DEATH** to you or bystanders, always follow these precautions when working near or handling the battery:



Always read and follow instructions carefully when handling a battery.



Wear eye protection designed to protect the eyes from acid splashes.



Keep all flames, sparks, or smoking materials away from the battery.



Hydrogen is always present in battery cells, is highly combustible, and may explode if ignited.



Keep batteries out of reach of children.



Batteries contain sulfuric acid that is highly corrosive. Do not allow acid to contact your eyes, skin, or clothing.

If acid gets into your eyes, flush your eyes with clean water for at least 15 minutes and get immediate medical attention. If acid gets on your skin, thoroughly wash the area. If you feel pain or a burning sensation, get medical attention immediately.

- Lift a battery with a battery carrier or with your hands on opposite corners. When lifting a plastic-cased battery, excessive pressure on the case may cause battery acid to leak.
- Do not attempt to jump start your vehicle if your battery is frozen.
- NEVER attempt to recharge the battery when the vehicle's battery cables are connected to the battery.
- The electrical Start/Stop button works with high voltage. Never touch these components with the **READY** indicator ON or when the Start/Stop button is in the ON position.

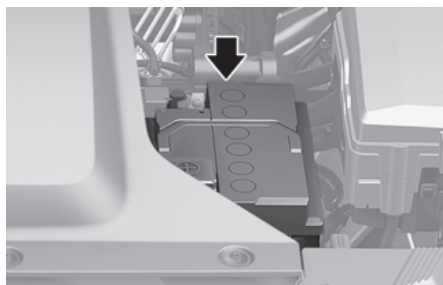
NOTICE

To prevent battery damage:

- When you do not use the vehicle for a long time in a low temperature area, disconnect the battery and keep it indoors.

- Always fully charge the battery to prevent battery case damage in low temperature areas.
- Prevent liquid from wetting the battery terminals.
- Do not tilt the battery.
- Never connect unauthorized devices to the battery.

For Best Battery Service



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

Battery Capacity Label



i Information

The actual battery label in the vehicle may differ from the illustration.

1. CMF60L-DIN: The HYUNDAI model name of battery
2. 12V: The nominal voltage
3. 60Ah (20HR): The nominal capacity (in Ampere hours)
4. RC 92min: The nominal reserve capacity (in min.)
5. CCA 550A (SAE/EN): The cold-test current in amperes

Battery Recharging

By battery charger

Your vehicle has a maintenance-free, calcium-based battery.

- If the battery becomes discharged over a short time (because, for example, the headlights or interior lights were left on while the vehicle was not in use), recharge it by slow charging (trickle) for 10 hours.
- If the battery gradually discharges because of high electrical load while the vehicle is being used, recharge it at 20-30 A for two hours.

WARNING

Always follow these instructions when recharging your vehicle's battery to avoid the risk of **SERIOUS INJURY** or **DEATH** from explosions or acid burns:

- Before performing maintenance or recharging the battery, turn off all accessories and stop the vehicle.
- Keep all flames, sparks, or smoking materials away from the battery.
- Always work outdoors or in an area with plenty of ventilation.
- Wear eye protection when checking the battery during charging.
- The battery must be removed from the vehicle and placed in a well ventilated area.
- Watch the battery during charging, and stop or reduce the charging rate if the battery cells begin boiling violently.
- Remove the negative battery cable first and install it last when the battery is disconnected. Disconnect the battery charger in the following order:
 1. Turn off the battery charger main switch.
 2. Unhook the negative clamp from the negative battery terminal.
 3. Unhook the positive clamp from the positive battery terminal.
- Use the batteries for replacement from an authorized HYUNDAI dealer.

By jump starting

After a jump start from a good battery, drive the vehicle for 20-30 minutes before it is shutoff. The vehicle may not restart if you shut it off before the battery had a chance to adequately recharge. For more information, refer to the "Jump Starting (12 V Battery)" section in chapter 8 for more information on jump starting procedures.

Information



An inappropriately disposed battery can be harmful to the environment and human health. Dispose of the battery according to your local law(s) or regulation.

Reset Items

The following items may need to be reset after the battery has been discharged or the battery has been disconnected:

- Current Trip/After Recharging/Since Last Reset (refer to chapter 4)
- Power window (refer to chapter 5)
- Climate control system (refer to chapter 5)
- Clock (refer to Infotainment system manual)
- Infotainment system (refer to Infotainment system manual)

Tires and Wheels

WARNING

Tire failure may cause loss of vehicle control resulting in an accident. To reduce risk of **SERIOUS INJURY** or **DEATH**, take the following precautions:

- Inspect your tires monthly for proper inflation as well as wear and damage.
- The recommended cold tire pressure for your vehicle can be found in this manual and on the tire label located on the driver's side center pillar. Always use a tire pressure gauge to measure tire pressure. Tires with too much or too little pressure wear unevenly causing poor handling.
- Check the pressure of the spare every time you check the pressure of the other tires on your vehicle.
- Replace tires that are worn, show uneven wear, or are damaged. Worn tires can cause loss of braking effectiveness, steering control, or traction.
- **ALWAYS** replace tires with the same size, type, construction and tread pattern as each tire that was originally supplied with this vehicle. Using tires and wheels other than the recommended sizes could cause unusual handling characteristics, poor vehicle control, or negatively affect your vehicle's Anti-Lock Brake System (ABS) resulting in a serious accident.

Tire Care

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



All specifications (sizes and pressures) can be found on a label attached to the driver's side center pillar.

Recommended Cold Tire Inflation Pressures

All tire pressures (including the spare) should be checked when the tires are cold. "Cold tires" means the vehicle has not been driven for at least 3 hours or driven less than 1.6 km (1 mi.).

Warm tires normally exceed recommended cold tire pressures by 4 to 6 psi (28 to 41 kPa). Do not release air from warm tires to adjust the pressure or the tires will be under-inflated. For recommended inflation pressure, refer to the "Tires and Wheels" section in chapter 2.



WARNING

- Recommended pressures must be maintained for the best ride, vehicle handling, and minimum tire wear.
 - Over-inflation or under-inflation can reduce tire life, adversely affect vehicle handling, and lead to sudden tire failure that may result in loss of vehicle control resulting in a collision.
 - Severe under-inflation may lead to severe heat build-up, causing blowouts, tread separation, and other tire failures that result in loss of vehicle control resulting in a collision. This risk is much higher on hot days and when driving for a long time at high speeds.
 - Under-inflation may cause excessive wear, poor handling, and reduced energy economy. Wheel deformation is also possible. Keep your tire pressures at the proper levels. If a tire frequently needs refilling, have it inspected by an authorized HYUNDAI dealer.
 - Over-inflation produces a harsh ride, excessive wear at the center of the tire tread, and a greater possibility of damage from road hazards.
-

Check Tire Inflation Pressure

Check your tires, including the spare tire, once a month or more.

How to check

Use a good quality tire pressure gauge to check tire pressure. You can not tell if your tires are properly inflated simply by looking at them. Radial tires may look properly inflated when they are under-inflated.

Remove the valve cap from the tire valve stem. Press the tire gauge firmly onto the valve to get a pressure measurement. If the cold tire inflation pressure matches the recommended pressure on the tire and loading information label, no further adjustment is necessary. If the pressure is low, add air until you reach the recommended pressure. Make sure to put the valve caps back on the valve stems. Without the valve cap, dirt or moisture could get into the valve core and cause air leakage. If a valve cap is missing, install a new one as soon as possible.

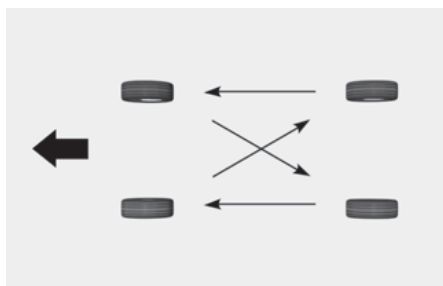
If you overfill the tire, release air by pushing on the metal stem in the center of the tire valve. Recheck the tire pressure with the tire gauge. Be sure to put the valve caps back on the valve stems. Without the valve cap, dirt or moisture could get into the valve core and cause air leakage. If a valve cap is missing, install a new one as soon as possible.

Tire Rotation

To equalize tread wear, HYUNDAI recommends that the tires be rotated according to the maintenance schedule or sooner if irregular wear develops.

During rotation, check the tires for correct balance.

When rotating tires, check for uneven wear and damage. Abnormal wear is usually caused by incorrect tire pressure, improper wheel alignment, out-of-balance wheels, severe braking or severe cornering. Look for bumps or bulges in the tread or side of the tire. Replace the tire if you find any of these conditions. Replace the tire if fabric or cord is visible. After rotation, be sure to bring the front and rear tire pressures to specification and check wheel lug nut tightness (proper torque is 18-20 kgf·m (130-145 lbf·ft)).



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

i Information

When installing an unsymmetrical tire, install the side marked "outside" facing out.

WARNING

- Do not use the compact spare tire for tire rotation.
- Do not mix bias ply and radial ply tires under any circumstances. This may cause unusual handling characteristics that may cause loss of vehicle control resulting in an collision.

Wheel Alignment and Tire Balance

The wheels on your vehicle were aligned and balanced carefully at the factory to give you the longest tire life and best overall performance.

In most cases, you will not need to have your wheels aligned again. However, if you notice unusual tire wear or your vehicle pulling one way or the other, the alignment may need to be reset.

If you notice your vehicle vibrating when driving on a smooth road, your wheels may need to be rebalanced.

NOTICE

Only use approved wheel weights or your vehicle's aluminum wheels may be damaged.

Tire Replacement



[A]Tread wear indicator

If the tire is worn evenly, a tread wear indicator will appear as a solid band across the tread. This shows there is less than 1.6 mm (1/16 in.) of tread left on the tire. Replace the tire when this happens.

Do not wait for the band to appear across the entire tread before replacing the tire.

WARNING

To reduce the risk of DEATH or SERIOUS INJURY:

- Replace tires that are worn, show uneven wear, or are damaged. Worn tires can cause loss of braking effectiveness, steering control, and traction.
- Always replace tires with the same size as each tire that was originally supplied with this vehicle. Using tires and wheels other than the recommended sizes could cause unusual handling characteristics, poor vehicle control, or negatively affect your vehicle's Anti-Lock Brake System (ABS) resulting in a serious accident.

- When replacing tires (or wheels), it is recommended to replace the two front or two rear tires (or wheels) as a pair. Replacing just one tire can seriously affect your vehicle's handling.
- Tires degrade over time, even when they are not being used. Regardless of the remaining tread, HYUNDAI recommends that tires be replaced after six (6) years of normal service.
- Heat caused by hot climates or frequent high loading conditions can accelerate the aging process. Failure to follow this warning may cause sudden tire failure, which could lead to a loss of vehicle control resulting in an accident.

WARNING

The original tire should be repaired or replaced as soon as possible to avoid failure of the spare and loss of vehicle control resulting in an accident. The compact spare tire is for emergency use only. Do not operate your vehicle over 80 km/h (50 mph) when using the compact spare tire.

Wheel Replacement

When replacing the metal wheels for any reason, make sure the new wheels are equivalent to the original factory units in diameter, rim width, and offset.

Tire Traction

Tire traction can be reduced if you drive on worn tires, tires that are improperly inflated or on slippery road surfaces. Tires should be replaced when tread wear indicators appear. To reduce the possibility of losing control, slow down whenever there is rain, snow or ice on the road.

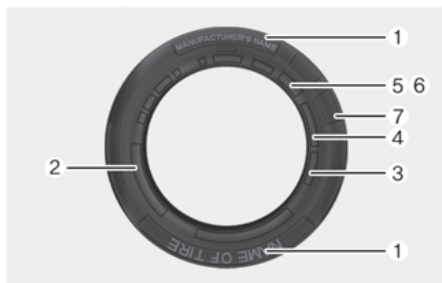
Tire Maintenance

In addition to proper inflation, correct wheel alignment helps to decrease tire wear. If you find a tire is worn unevenly, have your dealer check the wheel alignment.

When you have new tires installed, make sure they are balanced. This will increase vehicle ride comfort and tire life. Additionally, a tire should always be rebalanced if it is removed from the wheel.

Tire Sidewall Labeling

This information identifies and describes the fundamental characteristics of the tire and also provides the Tire Identification Number (TIN) for safety standard certification. The TIN can be used to identify the tire in case of a recall.



1. Manufacturer or brand name

Manufacturer or brand name is shown.

2. Tire size designation

A tire's sidewall is marked with a tire size designation. You will need this information when selecting replacement tires for your car. The following explains what the letters and numbers in the tire size designation mean.

Example tire size designation:

(These numbers are provided as an example only; your tire size designator could vary depending on your vehicle.)

275/35ZR21 103Y

275: Tire width in millimeters.

35: Aspect ratio. The tire's section height as a percentage of its width.

ZR: Tire construction code (Radial).

21: Rim diameter in inches.

103: Load Index, a numerical code associated with the maximum load the tire can carry.

Y: Speed Rating Symbol. See the speed rating chart in this section for additional information.

Wheel size designation

Wheels are also marked with important information that you need if you ever have to replace one. The following explains what the letters and numbers in the wheel size designation mean.

Example wheel size designation:

9.5J X 21

- 9.5: Rim width in inches.
- J: Rim contour designation.
- 21: Rim diameter in inches.

Tire speed ratings

The chart below lists many of the different speed ratings currently being used for passenger vehicle tires. The speed rating is part of the tire size designation on the sidewall of the tire. This symbol corresponds to that tire's designed maximum safe operating speed.

Speed Rating Symbol	Maximum Speed
S	180 km/h (112 mph)
T	190 km/h (118 mph)
H	210 km/h (130 mph)
V	240 km/h (149 mph)
W	270 km/h (168 mph)
Y	300 km/h (186 mph)

3. Checking tire life (TIN: Tire Identification Number)

Any tires that are over six years old, based on the manufacturing date, (including the spare tire) should be replaced by new ones. You can find the manufacturing date on the tire sidewall (possibly on the inside of the wheel), displaying the DOT Code. The DOT Code is a series of numbers on a tire consisting of numbers and English letters. The manufacturing date is designated by the last four digits (characters) of the DOT code.

DOT: XXX XXXXXX 0000

The front part of the DOT shows a plant code number, tire size and tread pattern and the last four numbers indicate week and year manufactured.

For example:
DOT XXX XXXXXX 5024 represents that the tire was produced in the 50th week of 2024.

4. Tire ply composition and material

The number of layers or plies of rubber-coated fabric in the tire. Tire manufacturers also must indicate the materials in the tire, which include steel, nylon, polyester, and others. The letter "R" means radial ply construction; the letter "D" means diagonal or bias ply construction; and the letter "B" means belted-bias ply construction.

5. Maximum permissible inflation pressure

This number is the greatest amount of air pressure that should be put in the tire. Do not exceed the maximum permissible inflation pressure. Refer to the Tire and Loading Information label for recommended inflation pressure.

6. Maximum load rating

This number indicates the maximum load in kilograms and lbs. that can be carried by the tire. When replacing the tires on the vehicle, always use a tire that has the same load rating as the factory installed tire.

7. Uniform tire quality grading

Quality grades can be found where applicable on the tire sidewall between tread shoulder and maximum section width.

For example:

TREADWEAR 200

TRACTION AA

TEMPERATURE A

Tread wear

The tread wear grade is a comparative rating based on the wear rate of the tire when tested under controlled conditions on a specified government test course. For example, a tire graded 150 would wear one-and-a-half times ($1\frac{1}{2}$) as well on the government course as a tire graded 100.

The relative performance of tires depends upon the actual conditions of their use, however, and may depart significantly from the norm due to variations in driving habits, service practices and differences in road characteristics and climate.

These grades are molded on the sidewalls of passenger vehicle tires. The tires available as standard or optional equipment on your vehicle may vary with respect to grade.

Traction - AA, A, B & C

The traction grades, from highest to lowest, are AA, A, B and C. Those grades represent the tire's ability to stop on wet pavement as measured under controlled conditions on specified government test surfaces of asphalt and concrete. A tire marked C may have poor traction performance.

WARNING

The traction grade assigned to this tire is based on straight ahead braking traction tests, and does not include acceleration, cornering, hydroplaning, or peak traction characteristics.

Temperature - A, B & C

The temperature grades are A (the highest), B and C representing the tire's resistance to the generation of heat and its ability to dissipate heat when tested under controlled conditions on a specified indoor laboratory test wheel.

Sustained high temperature can cause the material of the tire to degenerate and reduce tire life, and excessive temperature can lead to sudden tire failure. Grades B and A represent higher levels of performance on the laboratory test wheel than the minimum required by law.

WARNING

The temperature grade for this tire is established for a tire that is properly inflated and not overloaded. Excessive speed, under-inflation, over-inflation, or excessive loading, either separately or in combination, can cause heat build-up and possible sudden tire failure. This may cause loss of vehicle control resulting in an accident.

Tire Terminology and Definitions

Air pressure

The amount of air inside the tire pressing outward on the tire. Air pressure is expressed in lbs. per square in. (psi) or kilopascal (kPa).

Accessory weight

This means the combined weight of optional accessories. Some examples of optional accessories are gear, power seats, and air conditioning.

Aspect ratio

The relationship of a tire's height to its width.

Belt

A rubber coated layer of cords that is located between the plies and the tread. Cords may be made from steel or other reinforcing materials.

Bead

The tire bead contains steel wires wrapped by steel cords that hold the tire onto the rim.

Bias ply tire

A pneumatic tire in which the plies are laid at alternate angles less than 90 degrees to the centerline of the tread.

Cold tire pressure

The amount of air pressure in a tire, measured in lbs. per square in. (psi) or kilopascals (kPa) before a tire has built up heat from driving.

Curb weight

This means the weight of a motor vehicle with standard and optional equipment including the maximum capacity of fuel, oil and coolant, but without passengers and cargo.

DOT markings

The DOT code includes the Tire Identification Number (TIN), an alphanumeric designator which can also identify the tire manufacturer, production plant, brand and date of production.

GVWR

Gross Vehicle Weight Rating

GAWR FRT

Gross Axle Weight Rating for the Front Axle.

GAWR RR

Gross Axle Weight Rating for the Rear axle.

Intended outboard sidewall

The side of an asymmetrical tire, that must always face outward when mounted on a vehicle.

Kilopascal (kPa)

The metric unit for air pressure.

Light Truck (LT) tire

A tire designated by its manufacturer as primarily intended for use on lightweight trucks or multipurpose passenger vehicles.

Load ratings

The maximum load that a tire is rated to carry for a given inflation pressure.

Load index

An assigned number ranging from 1 to 279 that corresponds to the load carrying capacity of a tire.

Maximum inflation pressure

The maximum air pressure to which a cold tire may be inflated. The maximum air pressure is molded onto the sidewall.

Maximum load rating

The load rating for a tire at the maximum permissible inflation pressure for that tire.

Maximum loaded vehicle weight

The sum of curb weight; accessory weight; vehicle capacity weight; and production options weight.

Normal occupant weight

The number of occupants a vehicle is designed to seat multiplied by 68 kg (150 lbs.).

Occupant distribution

Designated seating positions.

Outward facing sidewall

An asymmetrical tire has a particular side that faces outward when mounted on a vehicle. The outward facing sidewall bears white lettering or bears manufacturer, brand, and/or model name molding that is higher or deeper than the same moldings on the inner facing sidewall.

Passenger (P-Metric) tire

A tire used on passenger cars and some light duty trucks and multipurpose vehicles.

Ply

A layer of rubber-coated parallel cords.

Pneumatic tire

A mechanical device made of rubber, chemicals, fabric and steel or other materials, that, when mounted on an automotive wheel provides the traction and contains the gas or fluid that sustains the load.

Pneumatic options weight

The combined weight of installed regular production options weighing over 2.3 kg (5 lbs.) in excess of the standard items which they replace, not previously considered in curb weight or accessory weight, including heavy duty breaks, ride levelers, roof rack, heavy duty battery, and special trim.

Recommended inflation pressure

Vehicle manufacturer's recommended tire inflation pressure as shown on the tire placard.

Radial ply tire

A pneumatic tire in which the ply cords that extend to the beads are laid at 90 degrees to the centerline of the tread.

Rim

A metal support for a tire and upon which the tire beads are seated.

Sidewall

The portion of a tire between the tread and the bead.

Speed rating

An alphanumeric code assigned to a tire indicating the maximum speed at which a tire can operate.

Traction

The friction between the tire and the road surface. The amount of grip provided.

Tread

The portion of a tire that comes into contact with the road.

Treadwear indicators

Narrow bands, sometimes called "wear bars", that show across the tread of a tire when only 1.6 mm (1/16 in.) of tread remains.

UTQGS

Uniform Tire Quality Grading Standards is a tire information system that provides consumers with ratings for a tire's traction, temperature and treadwear. Ratings are determined by tire manufacturers using government testing procedures. The ratings are molded into the sidewall of the tire.

Vehicle capacity weight

The number of designated seating positions multiplied by 68 kg (150 lbs.) plus the rated cargo and luggage load.

Vehicle maximum load on the tire

Load on an individual tire due to curb and accessory weight plus maximum occupant and cargo weight.

Vehicle normal load on the tire

Load on an individual tire that is determined by distributing to each axle its share of the curb weight, accessory weight, and normal occupant weight and dividing by 2.

Vehicle placard

A label permanently attached to a vehicle showing the original equipment tire size and recommended inflation pressure.

All Season Tires

HYUNDAI specifies all season tires on some models to provide good performance for use all year round, including snowy and icy road conditions. All season tires are identified by ALL SEASON and/or M+S (Mud and Snow) on the tire sidewall. Snow tires have better snow traction than all season tires and may be more appropriate in some areas.

Summer Tires

HYUNDAI specifies summer tires on some models to provide superior performance on dry roads. Summer tire performance is substantially reduced in snow and ice. Summer tires do not have the tire traction rating M+S (Mud and Snow) on the tire side wall. If you plan to operate your vehicle in snowy or icy conditions, HYUNDAI recommends the use of snow tires or all season tires on all four wheels.

Snow Tires

If you equip your car with snow tires, they should be the same size and have the same load capacity as the original tires. Snow tires should be installed on all four wheels; otherwise, poor handling may result. Snow tires should carry 4 psi (28 kPa) more air pressure than the pressure recommended for the standard tires on the tire label on the driver's side of the center pillar, or up to the maximum pressure shown on the tire sidewall, whichever is less. Do not drive faster than 120 km/h (75 mph) when your vehicle is equipped with snow tires.

Radial-Ply Tires

Radial-ply tires provide improved tread life, road hazard resistance and smoother high speed ride. The radial-ply tires used on this vehicle are of belted construction, and are selected to complement the ride and handling characteristics of your vehicle. Radial-ply tires have the same load carrying capacity, as bias-ply or bias belted tires of the same size, and use the same recommended inflation pressure. Mixing of radial-ply tires with bias-ply or bias belted tires is not recommended. Any combinations of radial-ply and bias-ply or bias belted tires when used on the same vehicle will seriously deteriorate vehicle handling. The best rule to follow is: Identical pairs of radial-ply tires should always be used as a set for the front tires and a set for the rear tires.

Longer wearing tires can be more susceptible to irregular tread wear. It is very important to follow the tire rotation interval in this chapter to achieve the tread life potential of these tires. Cuts and punctures in radial-ply tires are repairable only in the tread area, because of sidewall flexing. Consult your tire dealer for radial-ply tire repairs.

WARNING

Do not mix bias ply and radial ply tires under any circumstances. This may cause unusual handling characteristics that may cause loss of vehicle control resulting in an accident.

Low Aspect Ratio Tires

 If equipped

The aspect ratio is lower than 50 on low aspect ratio tires.

Because low aspect ratio tires are optimized for handling and braking, their sidewall is a little stiffer than a standard tire. Also, low aspect ratio tires tend to be wider so that they consequently have increased contact with the road surface. In some instances, low aspect ratio tires may generate more road noise compared with standard tires.

NOTICE

Low-aspect wheels and tires are easily damaged. To reduce the risk of damage:

- When driving on rough roads, passing over a pothole, speed bump, manhole, or curb stone, drive the vehicle slowly not to damage the tires and wheels. Damage is not covered by your vehicle warranty.
- Inspect the tire condition and pressure every 3,000 km (1,800 mi.).
- It is difficult to visually inspect for tire damage with your eyes. If any damage is found, contact your authorized HYUNDAI dealer to replace the tire.

Fuses

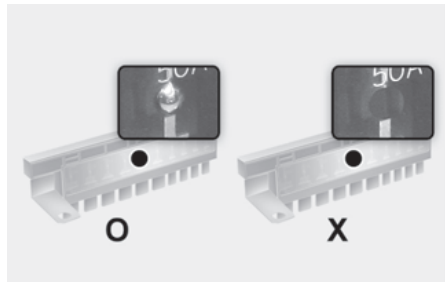
Blade type



Cartridge type



Multi type



A vehicle's electrical system is protected from electrical overload damage by fuses.

This vehicle has 2 (or 3) fuse panels, one located in the driver's side panel bolster, the other in the motor compartment.

If any of your vehicle's lights, accessories, or controls do not work, check the appropriate circuit fuse. If a fuse has blown, the element inside the fuse will be melted or broken.

If the electrical system does not work, first check the driver's side fuse panel. Before replacing a blown fuse, turn off the vehicle and all switches, and then disconnect the negative battery cable. Always replace a blown fuse with one of the same rating.

If the replacement fuse blows, this indicates an electrical problem. Avoid using the system involved. Consult an authorized HYUNDAI dealer.

WARNING

NEVER replace a fuse with anything but another fuse of the same rating.

- A higher capacity fuse may cause damage and possibly cause a fire.
- Do not install a wire or aluminum foil instead of the proper fuse - even as a temporary repair. It may cause extensive wiring damage and possibly a fire.

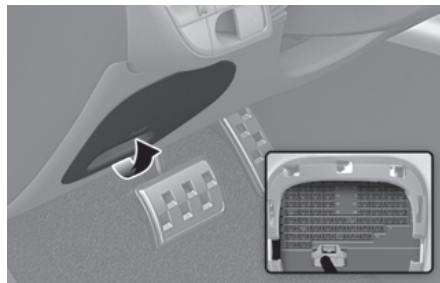
NOTICE

Do not use a screwdriver or any other metal object to remove fuses because it may cause a short circuit and damage the system.

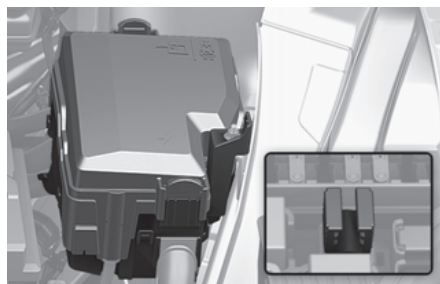
Instrument Panel Fuse Replacement

1. Turn off the vehicle.
2. Turn off all other switches.

3. Open the fuse panel cover.



4. Refer to the label on the inside of the fuse panel cover to locate the suspected fuse location.
5. Pull the suspected fuse straight out. Use the removal tool provided in the motor compartment fuses panel cover.



6. Check the removed fuse and replace it if it is blown. Spare fuses are provided in the instrument panel fuse panels (or in the motor compartment fuse panel).
7. Push in a new fuse of the same rating, and make sure it fits tightly in the clips. If it is not tight, contact consult an authorized HYUNDAI dealer.

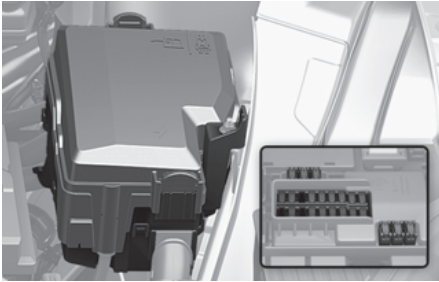
In an emergency, if you do not have a spare fuse, use a fuse of the same rating from a circuit you may not need for operating the vehicle.

If the headlights or other electrical components do not work and the fuses are undamaged, check the fuse panel in the motor compartment.

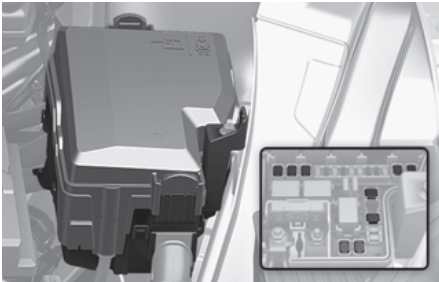
Motor Compartment Panel Fuse Replacement

Blade fuse/Cartridge fuse

Blade type



Cartridge type

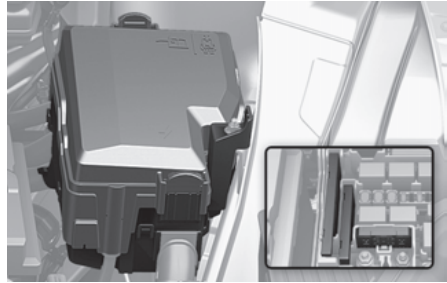


1. Turn off the vehicle.
2. Turn off all other switches.
3. Remove the fuse panel cover by pressing the tap and pulling up.
4. Check the removed fuse and replace it if it is blown. To remove or insert the fuse, use the fuse puller in the motor compartment fuse panel.
5. Push in a new fuse of the same rating, and make sure it fits tightly in the clips. If it is not tight, contact consult an authorized HYUNDAI dealer.

NOTICE

Always securely install the fuse panel cover. Water may contact the fuse and cause an electrical failure.

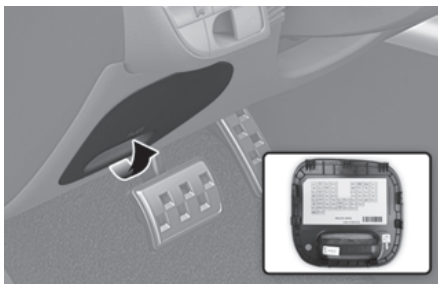
Multi fuse



If the multi fuse is blown, contact an authorized HYUNDAI dealer.

Fuse/Relay Panel Description

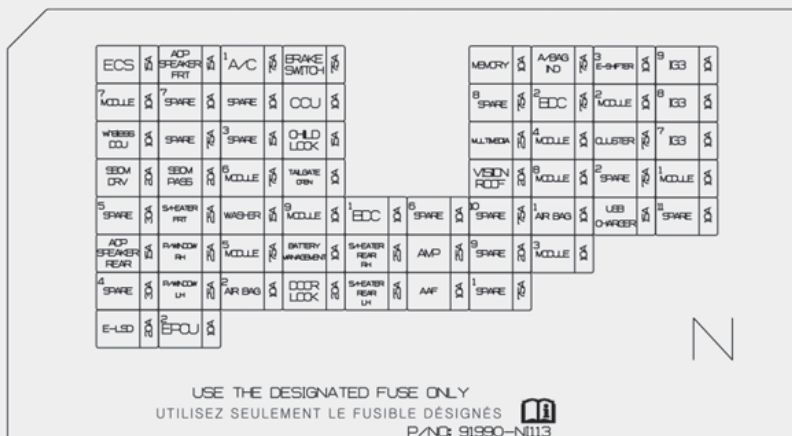
Instrument panel fuse panel



Inside the fuse panel cover, you can find the fuse label describing fuse names and ratings.

***i* Information**

Not all fuse panel descriptions in this manual may be applicable to your vehicle. When you inspect the fuse panel on your vehicle, refer to the fuse panel label.



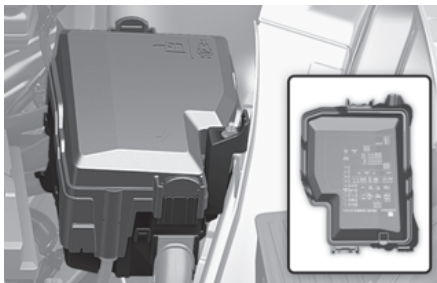
Instrument panel fuse panel

Fuse Name	Fuse Rating	Circuit Protected
ESC	15 A	ECS Unit
ADP SPEAKER FRT	15 A	FRT ADP SPEAKER
A/C 1	7.5 A	A/C Control Module
BRAKE SWITCH	7.5 A	BDC, Stop Lamp Switch
MEMORY	10 A	A/C CONTROL MODULE, HUD UNIT, MOOD LAMP(MASTER UNIT, DOOR), WPC, USB JACK, CLUSTER, ADAS PRK ECU, BDC, ADP UNIT, REAR CORNER RADAR
AIRBAG IND	7.5 A	OVERHEAD CONSOLE PAB LAMP
E-SHIFTER 3	10 A	SBW LEVER COMPLETE

Fuse Name	Fuse Rating	Circuit Protected
IG3 9	10 A	BMS, REAR INVERTER
MODULE 7	10 A	P/WDW MAIN SW, O/S HDL DRIV/PASS
CCU	10 A	CCU
BDC 2	7.5 A	BDC
MODULE 2	10 A	DCU, CCU, STOP LAMP SWITCH
IG3 8	10 A	ICCU, V2L, SCU, VCMS, REAR EOP, CCU
WIRELESS DCU	10 A	DCU
CHILD LOCK	15 A	REAR DOOR LATCH LH/RH
MULTIMEDIA	25 A	CCNC
MODULE 4	10 A	WPC, C/PAD SW, CCNC, DATA LINK CONNECTOR, ECM(DCM), ADP, EXT AMP, HEAD LAMP OPTION TYPE LH/RH
CLUSTER	7.5 A	CLUSTER, HUD UNIT
IG3 7	10 A	CCNC, A/C CONTROL MODULE, PTC HTR, INCAR SNSR, PM SNSR
SBCM DRV	20 A	SBCM DRIV UNIT
SBCM PASS	20 A	SBCM PASS UNIT
MODULE 6	7.5 A	DATA LINK CONNECTOR
TAILGATE OPEN	10 A	TAILGATE LATCH
VISION ROOF	10 A	VISION ROOF ECU
MODULE 8	7.5 A	MULTI FUNCTION SW, P/WDW MAIN SW
MODULE 1	10 A	CCU, ADAR PRK ECU, BDC, CCNC, KEYBOARD, DCU, PE ROOM J/B P/OUTLET RLY COIL, EXT AMP, ADP UNIT, FR ADP SPEAKER, RR ADP SPEAKER
S/HEATER FRT	25 A	FR PASS SEAT HEATER ECU
WASHER	15 A	MULTI FUNCTION SW
MODULE 9	10 A	DATA LINK CONNECTOR, RAIN SNSR, HAZARD SW MULTI FUNCTION SW, PTGM

Fuse Name	Fuse Rating	Circuit Protected
BDC 1	10 A	UWB BLE MASTER/SLAVE, BDC, UWB REAR LH/RH, UWB FR LH/RH
AIRBAG 1	10 A	AIRBAG CONTROL UNIT
USB CHARGER	15 A	RR USB CHARGER, CTR USB CHARGER, USB JACK
ADP SPEAKER REAR	15 A	REAR ADP SPEAKER
P/WINDOW RH	25 A	RR RH P/WDW SW, FR DRIV SAFETY ECU
MODULE 5	7.5 A	BDC
BATTERY MANAGEMENT	10 A	BMS
S/HEATER REAR RH	25 A	REAR SEAT RH HEATER ECU
AMP	25 A	EXT AMP
MODULE 3	10 A	C/PAD SW, ADAS DRV ECU, FR CAMERA(W/S GLASS) ADAS PRK ECU, RR INVERTER, RR C/RADAR, SCC RADAR ECS UNIT, FR INVERTER, ELSD ECU, FR C/RADAR
P/WINDOW LH	25 A	FR PASS P/WDW SW, RR LH P/WDW SW, FR PASS SAFETY ECU(RHD)
AIRBAG 2	10 A	AIRBAG CONTROL UNIT
DOOR LOCK	20 A	FR DOOR ACTR DRIV/PASS, RR DOOR ACTR LH/RH
S/HEATER REAR LH	25 A	REAR SEAT LH HEATER ECU
AAF	10 A	AAF UNIT UPR/LH/RH
E-LSD	20 A	E-LSD ECU
EPCU 2	10 A	RR INVERTER

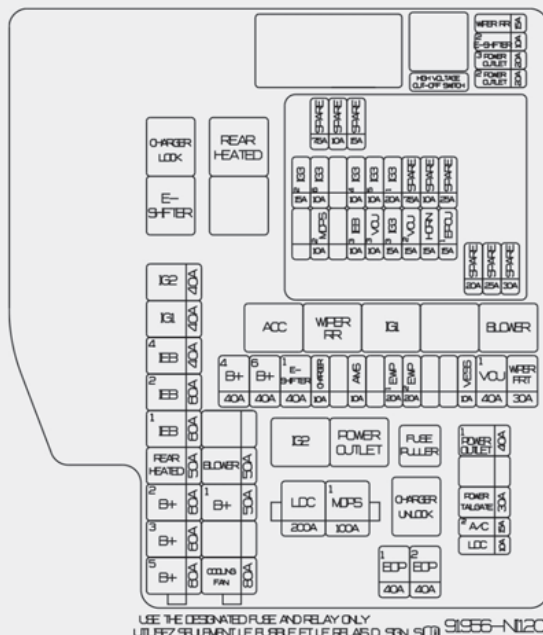
Motor compartment fuse panel (Motor compartment junction block)



Inside the fuse panel cover, you can find the fuse label describing fuse names and ratings.

i Information

Not all fuse panel descriptions in this manual may be applicable to your vehicle. When you inspect the fuse panel on your vehicle, refer to the fuse panel label.



Motor compartment fuse panel (Motor compartment junction block)

Type	Fuse Name	Fuse Rating	Circuit Protected
MULTI FUSE-1	LDC	200 A	PE ROOM J/B (FUSE: A/CON2, PTGM, EOP2, EOP1, P/OUTLET)
	MDPS 1	100 A	MDPS UNIT
MULTI FUSE-2	IG2	40 A	PE ROOM J/B (RELAY: IG2)
	IG1	40 A	PE ROOM J/B (RELAY: ACC, IG1)
	IEB4	40 A	DATA LINK CONNECTOR (DIAGNOSIS)
	IEB2	60 A	IEB UNIT
	IEB1	60 A	IEB UNIT
	RR HTD	50 A	PE ROOM J/B (RELAY: RR HTD)
	B+2	60 A	PDC (FUSE: CHILD LOCK, BDC1, BRAKE SW, CCU, S/HEATER RR LH / RH, DR LOCK, TAILGATE OPEN), (RLY: AUTO CUT RLY)
	B+3	60 A	PDC (FUSE:ECS, E-LSD, EPCU2, ADP SPKR RR, S/HEATER FRT ADP SPKR FR, P/WINDOW LH/RH, SBCM DRIV/PASS, DCU, MODULE7
	B+5	60 A	PCB BLOCK (FUSE: EPCU1, VCU2, WIPER1, B/A HORN, HORN) (RLY: IG3)
MULTI FUSE-3	BLOWER	50 A	PE ROOM J/B (RELAY: BLOWER)
	B+1	50 A	PDC (FUSE: AMP, MODULE9, BATTERY MANAGEMENT, AAF, AIR BAG2, VISION ROOF)
FUSE	COOLING FAN	80 A	COOLING FAN UNIT
	RR WIPER	15 A	PE ROOM J/B (RELAY: RR WIPER)
	E-SHIFTER2	10 A	PE ROOM J/B (RELAY: E-SHIFTER1 RLY COIL) SCU, SBW LEVER COMPLETE
	POWER OUTLET3	20 A	RR POWER OUTLET
	POWER OUTLET2	20 A	FR POWER OUTLET
	B+4	40 A	PDC (IPS9, IPS12, IPS11, IPS8, IPS10)

Type	Fuse Name	Fuse Rating	Circuit Protected
FUSE	B+6	40 A	PDC (IPS3, IPS7, IPS2, IPS6, IPS5, IPS1, IPS4)
	E-SHIFTER1	40 A	PE ROOM J/B (RELAY: E-SHIFTER1)
	CHARGER	10 A	PE ROOM J/B (RELAY: CHARGER LOCK/UNLOCK SW, COIL) ICCU, VCMS
	AMS	15 A	BATT SENSOR
	EWP1	20 A	EWP BATT 1
	EWP2	20 A	EWP BATT 2
	IG3 10	20 A	PE ROOM J/B (RELAY: IG3)
	VESS	10 A	VESS UNIT
	VCU1	40 A	VCU
	FRT WIPER	30 A	FRT WIPER MOTOR
	POWER OUTLET1	40 A	PE ROOM J/B (RELAY : P/OUTLET)
	POWER TAILGATE	30 A	POWER TAILGATE MODULE
	A/C2	15 A	A/C CONTROL MODULE
	LDC	10 A	DATA LINK CONNECTOR
	EOP1	40 A	RR EOP
	EOP2	40 A	FRT EOP
	IG3 2	15 A	VCU
	IG3 6	10 A	COOLING FAN, FRT EOP

Motor compartment fuse panel (PCB block)

Fuse Name	Fuse Rating	Circuit Protected
IG3 4	10 A	COOL VALVE, FRT INVERTER, EWP1, EWP2, E_COMP
IG3 5	10 A	3WAY VALVE
IG3 1	20 A	PDC (FUSE : IG3 7, IG3 8, IG3 9)
B/A HORN	10 A	PCB BLOCK (RLY : B/A HORN RLY)
MDPS 2	10 A	MDPS
IEB 3	10 A	IEB UNIT, DATA LINK CONNECTOR (DIAGNOSIS)
VCU 3	10 A	VCU
IG3 3	15 A	RR PE EWP
VCU 2	15 A	VCU
HORN	15 A	PCB BLOCK (RLY : HORN RLY)
EPCU 1	15 A	FRT INVERTER

Light Bulbs

Consult an authorized HYUNDAI dealer to replace most vehicle light bulbs. It is difficult to replace vehicle light bulbs because other parts of the vehicle must be removed before you can get to the bulb. This is especially true for removing the headlight assembly to get to the bulb(s).

Removing/installing the headlight assembly can result in damage to the vehicle.

WARNING

- Prior to replacing a light bulb, depress the brake pedal, shift to P (Park), apply the parking brake, press the Start/Stop button to the OFF position, and take the key with you when leaving the vehicle to avoid sudden movement of the vehicle and to prevent possible electric shock.
- Be aware the bulbs may be hot and may burn your fingers.

NOTICE

Be sure to replace the burned-out bulb with one of the same wattage to prevent damage to the fuse or electrical wiring system.

NOTICE

To prevent damage, do not clean the headlight lens with chemical solvents or strong detergents.

i Information

Headlight desiccant

This vehicle is equipped with desiccant to reduce fogging inside the headlight due to moisture. The desiccant is consumable and its performance may change based on the used period or environment. If fogging inside the headlight due to moisture continues for a long time, contact an authorized HYUNDAI dealer.

i Information

The headlight and tail light lenses could appear to have condensation inside if the vehicle is washed after driving or if the vehicle is driven in wet weather. This condition is caused by a higher temperature inside the light and a cooler outside temperature. Moisture that condenses in the light is removed after driving with the light on. If the moisture is not removed, contact an authorized HYUNDAI dealer.

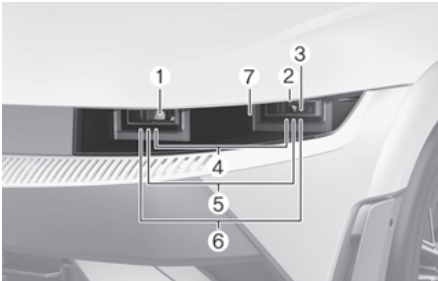
i Information

- A normally functioning light may flicker momentarily to stabilize the vehicle's electrical control system. However, if the light goes out after flickering momentarily, or continues to flicker, have the system inspected by an authorized HYUNDAI dealer.
- The parking light may not turn on when the parking light switch is turned on, but the parking light and headlight switch may turn on when the headlight switch is turned on. This may be caused by network failure or vehicle electrical control system malfunction. If this occurs, contact an authorized HYUNDAI dealer.

i Information

Adjust the headlight aim after an accident or the headlight is replaced.

Headlight, Parking Light, Turn Signal Light, Daytime Running Light (DRL) Replacement

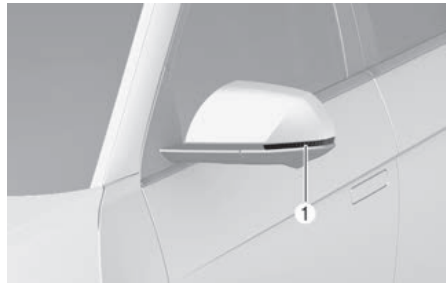


- (1) Headlight (Low)
- (2) Headlight (Sub low)
- (3) Headlight (High)
- (4) Daytime Running Light (DRL)
- (5) Parking light
- (6) Turn signal light
- (7) Front side marker

If the LED light does not operate, contact an authorized HYUNDAI dealer for replacement.

The LED light cannot be replaced as a single unit. A skilled technician should check or repair the LED light, for it may damage related parts of the vehicle.

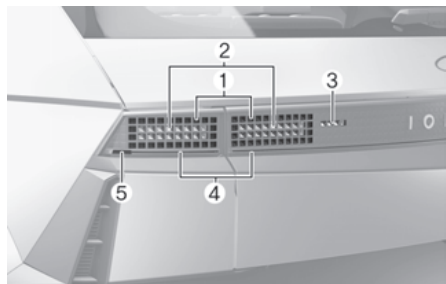
Side Repeater Light Replacement



If the LED light (1) does not operate, contact an authorized HYUNDAI dealer for replacement.

The LED light cannot be replaced as a single unit. A skilled technician should check or repair the LED light, for it may damage related parts of the vehicle.

Rear Combination Light Replacement



- (1) Tail/Stop/Turn signal light
- (2) Stop/Turn signal light
- (3) Reverse light
- (4) Garnish tail
- (5) Rear side marker

If the LED light does not operate, contact an authorized HYUNDAI dealer for replacement.

The LED light cannot be replaced as a single unit. A skilled technician should check or repair the LED light, for it may damage related parts of the vehicle.

High Mounted Stop Light Replacement



If the LED light (1) does not operate, contact an authorized HYUNDAI dealer for replacement.

The LED light cannot be replaced as a single unit. A skilled technician should check or repair the LED light, for it may damage related parts of the vehicle.

License Plate Light Replacement

License plate light



If the LED light (1) does not operate, contact an authorized HYUNDAI dealer for replacement.

The LED light cannot be replaced as a single unit. A skilled technician should check or repair the LED light, for it may damage related parts of the vehicle.

Interior Light Replacement

Map lamp, room lamp, vanity mirror lamp, glove box lamp, mood lamp, and cargo area lamp

Map lamp



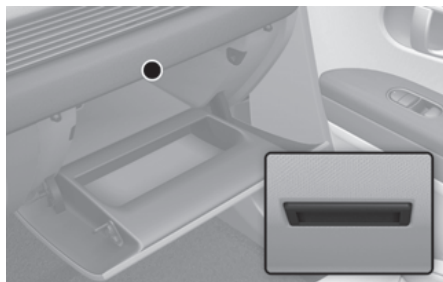
Room lamp



Vanity mirror lamp



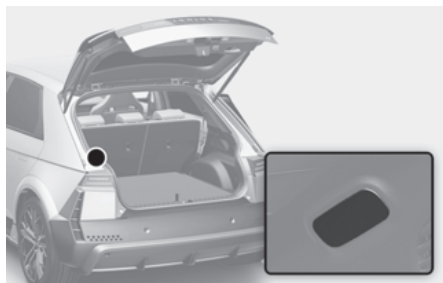
Glove box lamp



Mood lamp



Cargo area lamp



If the LED lamp does not operate, contact an authorized HYUNDAI dealer for replacement.

The LED light cannot be replaced as a single unit. A skilled technician should check or repair the LED light, for it may damage related parts of the vehicle.

Appearance Care

Exterior Care

NOTICE

If you park your vehicle near a stainless steel sign or glass facade building, the vehicle's exterior plastic parts such as a bumper, spoiler, garnish, light or side view mirror might be damaged due to sunlight reflected from the sign or building. To prevent damage of the exterior plastic parts, you should avoid parking in areas where light may be reflected or use a car cover. (The exterior plastic parts applied to your vehicle may vary.)

Exterior general caution

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

Finish maintenance

Washing

To help protect your vehicle's finish from rust and deterioration, wash it thoroughly and frequently at least once a month with lukewarm or cold water.

If you use your vehicle for off-road driving, you should wash it after each off-road trip. Pay special attention to the removal of any accumulation of salt, dirt, mud, and other foreign materials. Make sure the drain holes in the lower edges of the doors and rocker panels are kept clear and clean.

Insects, tar, tree sap, bird droppings, industrial pollution and similar deposits can damage your vehicle's finish if not removed immediately.

Even prompt washing with plain water may not completely remove all these deposits. A mild soap, safe for use on painted surfaces, should be used.

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

High-pressure washing

- When using high-pressure washers, make sure to maintain sufficient distance from the vehicle.
Insufficient clearance or excessive pressure can lead to component damage or water penetration.
- Do not spray the camera, sensors or its surrounding area directly with a high pressure washer. Shock applied from high pressure water may cause the device to not operate normally.
- Do not bring the nozzle tip close to boots (rubber or plastic covers) or connectors as they may be damaged if they come into contact with high pressure water.

WARNING

After washing the vehicle, test the brakes while driving slowly to see if they have been affected by water before getting on the road. If braking performance is impaired, dry the brakes by applying them lightly while maintaining a slow forward speed.

NOTICE

- Do not use strong soap, chemical detergents or hot water, and do not wash the vehicle in direct sunlight or when the body of the vehicle is warm.
- Be careful when washing the side windows of your vehicle.
- Especially, with high-pressure water, water may leak through the windows and wet the interior.

- To prevent damage to the plastic parts, do not clean with chemical solvents or strong detergents.
- Water washing in the motor compartment including high pressure water washing may cause the failure of electrical circuits located in the vehicle compartment.



- Never allow water or other liquids to come in contact with electrical/electronic components inside the vehicle as water or other liquids may flow in to the motor compartment through the front trunk and damage electrical/electronic components.

NOTICE

Matte paint finish vehicle (if equipped)
Automatic car wash which uses rotating brushes should not be used as this can damage the surface of your vehicle. A steam cleaner which washes the vehicle surface at high temperature may result the oil to adhere and leave stains that is difficult to remove.

Use a soft cloth (for example, microfiber towel or sponge) when washing your vehicle and dry with a microfiber towel. When you hand wash your vehicle, you should not use a cleaner that finishes with wax. If the vehicle surface is too dirty (sand, dirt, dust, contaminant, etc.), clean the surface with water before washing the car.

Waxing

A good coat of wax is a barrier between your paint and contaminate. Keeping a good coat of wax on your vehicle will help protect it.

Wax the vehicle when water will no longer bead on the paint.

Always wash and dry the vehicle before waxing. Use a good quality liquid or paste wax, and follow the manufacturer's instructions. Wax all metal trim to protect it and to maintain its luster.

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

NOTICE

- Wiping dust or dirt off the body with a dry cloth will scratch the finish.
- Do not use steel wool, abrasive cleaners, or strong detergents containing highly alkaline or caustic agents on chrome-plated or anodized aluminum parts. This may result in damage to the protective coating and cause discoloration or paint deterioration.

NOTICE

Matte paint finish vehicle (if equipped)

Do not use any polish protector such as a detergent, an abrasive and a polish. In case wax is applied, remove the wax immediately using a silicon remover and if any tar or tar contaminant is on the surface use a tar remover to clean. However, be careful not to apply too much pressure on the painted area.

Finish damage repair

Deep scratches or stone chips in the painted surface must be repaired promptly. Exposed metal will quickly rust and may develop into a major repair expense.

NOTICE

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

NOTICE

Matte paint finish vehicle (if equipped)

In case of matte paint finish vehicles, it is impossible to modify only the damaged area and repair of the whole part is necessary. If the vehicle is damaged and painting is required, have your vehicle maintained and repaired by an authorized HYUNDAI dealer. Take extreme care, as it is difficult to restore the quality after the repair.

Bright-metal maintenance

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

Underbody maintenance

Corrosive materials used for ice and snow removal and dust control may collect on the underbody. If these materials are not removed, accelerated rusting can occur on underbody parts such as the frame and floor pan, even though they have been treated with rust protection.

Thoroughly flush the vehicle underbody and wheel openings with lukewarm or cold water once a month, after off-road driving and at the end of each winter. Pay special attention to these areas because it is difficult to see all the mud and dirt. It will do more harm than good to wet down the road grime without removing it. The lower edges of doors, rocker panels, and frame members have drain holes that should not be allowed to clog with dirt; trapped water in these areas can cause rusting.

WARNING

After washing the vehicle, test the brakes while driving slowly to see if they have been affected by water. If braking performance is impaired, dry the brakes by applying them lightly while maintaining a slow forward speed.

Aluminum wheel maintenance

The aluminum wheels are coated with a clear protective finish.

- Do not use abrasive cleaner, polishing compound, solvent, or wire brushes on aluminum wheels.
- Clean the wheel when it has cooled.
- Use only a mild soap or neutral detergent, and rinse thoroughly with water. Also, clean the wheels after driving on salted roads.
- Do not wash the wheels with high-speed car wash brushes.
- Do not use any cleaners containing acid or alkaline detergents.

Corrosion protection

Protecting your vehicle from corrosion

By using the most advanced design and construction practices to combat corrosion, HYUNDAI produces vehicles of the highest quality. However, this is only part of the job. To achieve the long-term corrosion resistance your vehicle can deliver, the owner's cooperation and assistance is also required.

Common causes of corrosion

The most common causes of corrosion on your vehicle are:

- Road salt, dirt and moisture that is allowed to accumulate underneath the vehicle.
- Removal of paint or protective coatings by stones, gravel, abrasion or minor scrapes and dents which leave unprotected metal exposed to corrosion.

High-corrosion areas

If you live in an area where your vehicle is regularly exposed to corrosive materials, corrosion protection is particularly important. Some of the common causes of accelerated corrosion are road salts, dust control chemicals, ocean air and industrial pollution.

Moisture breeds corrosion

Moisture creates the conditions in which corrosion is most likely to occur. For example, corrosion is accelerated by high humidity, particularly when temperatures are just above freezing. In such conditions, the corrosive material is kept in contact with the vehicle surfaces by moisture that is slow to evaporate.

Mud is particularly corrosive because it is slow to dry and holds moisture in contact with the vehicle. Although the mud appears to be dry, it can still retain moisture and promote corrosion.

High temperatures can also accelerate corrosion of parts that are not properly ventilated so the moisture can be dispersed. For all these reasons, it is particularly important to keep your vehicle clean and free of mud or accumulations of other materials. This applies not only to the visible surfaces but particularly to the underside of the vehicle.

To help prevent corrosion

Keep your vehicle clean

The best way to prevent corrosion is to keep your vehicle clean and free of corrosive materials. Attention to the underside of the vehicle is particularly important.

- If you live in a high-corrosion area - where road salts are used, near the ocean, areas with industrial pollution, acid rain, etc., -, you should take extra care to prevent corrosion. In winter, hose off the underside of your vehicle at least once a month and be sure to clean the underside thoroughly when winter is over.
- When cleaning underneath the vehicle, pay particular attention to the components under the fenders and other areas that are hidden from view. Do a thorough job; just dampening the accumulated mud rather than washing it away will accelerate corrosion rather than prevent it. Water under high pressure and steam are particularly effective in removing accumulated mud and corrosive materials.
- When cleaning lower door panels, rocker panels and frame members, be sure that drain holes are kept open so that moisture can escape and not be trapped inside to accelerate corrosion.

Keep your garage dry

Don't park your vehicle in a damp, poorly ventilated garage. This creates a favorable environment for corrosion. This is particularly true if you wash your vehicle in the garage or drive it into the garage when it is still wet or covered with snow, ice or mud. Even a heated garage can contribute to corrosion unless it is well ventilated so moisture is dispersed.

Keep paint and trim in good condition

Scratches or chips in the finish should be covered with "touch-up" paint as soon as possible to reduce the possibility of corrosion. If bare metal is showing through, the attention of a qualified body and paint shop is recommended.

Bird droppings are highly corrosive and may damage painted surfaces in just a few hours. Always remove bird droppings as soon as possible.

Interior Care

Interior general precautions

Prevent caustic solutions such as perfume and cosmetic oil, from contacting the interior parts because they may cause damage or discoloration. If they do contact the interior parts, wipe them off immediately. See the instructions for the proper way to clean vehicle interior surfaces.


NOTICE

- Never allow water or other liquids to come in contact with electrical/electronic components inside the vehicle as this may damage them.

- When cleaning leather products (steering wheel, seats etc.), use neutral detergents or low alcohol content solutions. If you use high alcohol content solutions or acid/alkaline detergents, the color of the leather may fade or the surface may get stripped off.

Cleaning the upholstery and interior trim

Vehicle interior surfaces

 if equipped

Remove dust and loose dirt from interior surfaces with a whisk broom or a vacuum cleaner. If necessary, clean interior surfaces with a mixture of warm water and mild non-detergent cleaner (test all cleaners on a concealed area before use).

Fabric

 if equipped

Remove dust and loose dirt from fabric with a whisk broom or vacuum cleaner. Clean with a mild soap solution recommended for upholstery or carpets. Remove fresh spots immediately with a fabric spot cleaner. If fresh spots do not receive immediate attention, the fabric can be stained and its color can be affected. Also, its fire-resistant properties can be reduced if the material is not properly maintained.

NOTICE

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

Leather

 if equipped

- Features of seat leather
 - Leather is made from the outer skin of an animal, which goes through a special process to be available for use. Since it is a natural product, each part differs in thickness or density. Wrinkles may appear as a natural result of stretching and shrinking depending on the temperature and humidity.
 - The seat is made of stretchable fabric to improve comfort.
 - The parts contacting the body are curved and the side supporting area is high which provides driving comfort and stability.
 - Wrinkles may appear naturally from usage. It is not a fault of the products.

NOTICE

- Wrinkles or abrasions which appear naturally from usage are not covered by warranty.
- Belts with metallic accessories, zippers or keys inside the back pocket may damage the seat fabric.
- Make sure not to wet the seat. It may change the nature of natural leather.
- Jeans or clothes which could bleach may contaminate the surface of the seat covering fabric.

- Caring for the leather seats
 - Vacuum the seat periodically to remove dust and sand on the seat. It will prevent abrasion or damage of the leather and maintain its quality.
 - Wipe the natural leather seat cover often with dry or soft cloth.
 - Use of proper leather protector may prevent abrasion of the cover and helps maintain the color. Be sure to read the instructions and consult a specialist when using leather coating or protective agent.
 - Light colored (beige, cream beige) leather is easily contaminated and the stain is noticeable. Clean the seats frequently.
 - Avoid wiping with wet cloth. It may cause the surface to crack.
- Cleaning the leather seats
 - Remove all contaminations instantly. Refer to instructions below for removal of each contaminant.
 - Cosmetic products (sunscreen, foundation, etc.)

Apply cleansing cream on a cloth and wipe the contaminated spot. Wipe off the cream with a wet cloth and remove water with a dry cloth.
 - Beverages (coffee, soft drink, etc.)

Apply a small amount of neutral detergent and wipe until contaminations do not smear.
 - Oil

Remove oil instantly with absorbable cloth and wipe with stain remover used only for natural leather.
 - Chewing gum

Harden the gum with ice and remove gradually.

Alcantara (synthetic leather)

 if equipped

- Remove dust from Alcantara with a soft brush or dry cloth.
- After removing the dust, soak a white cotton cloth or sponge with a small amount of water and wipe Alcantara.

Information

Avoid the inside of Alcantara getting wet when wiping.

- Be careful not to dye the surface when using colored or printed cloth and sponge.
- Brushing with a soft brush after drying Alcantara can recover the original texture of the leather.
- Remove fresh spots immediately.
- Depending on the type of stain, clean the surface with water, lemon juice, and pure ethyl alcohol or Alcantara cleaner.
- If the contaminated stain is serious, apply a small amount of neutral detergent diluted with water or Alcantara cleaner. Then wipe with lukewarm water.

CAUTION

When cleaning Alcantara products (steering wheel, seat, trim, etc.) with high alcohol content solutions (acid/alkaline detergents) or removing spots excessively, it may fade the color of the leather or may cause the surface to get stripped off.

Cleaning the seat belt webbing

Clean the belt webbing with any mild soap solution recommended for cleaning upholstery or carpet. Follow the instructions provided with the soap. Do not bleach or re-dye the webbing because this may weaken the seat belt.

Cleaning the interior window glass

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

NOTICE

Do not scrape or scratch the inside of the rear window. This may result in damage to the rear window defroster grid.
