HYUNDAI

OWNER'S MANUAL

Operation Maintenance Specifications

All information in this Owner's Manual is current at the time of publication. However, HYUNDAI reserves the right to make changes at any time so that our policy of continual product improvement may be carried out.

This manual applies to all HYUNDAI models and includes descriptions and explanations of optional as well as standard equipment. As a result, you may find material in this manual that does not apply to your specific vehicle.

CAUTION: MODIFICATIONS TO YOUR HYUNDAI

Your HYUNDAI should not be modified in any way. Such modifications may adversely affect the performance, safety or durability of your HYUNDAI and may, in addition, violate conditions of the limited warranties covering the vehicle. Certain modifications may also be in violation of regulations established by the U.S. Department of Transportation and other federal or state agencies.

TWO-WAY RADIO OR CELLULAR TELEPHONE INSTALLATION

Your vehicle is equipped with an electric traction motor and several other electronic components. It is possible for an improperly installed/adjusted two-way radio or cellular telephone to adversely affect electronic systems. For this reason, we recommend that you carefully follow the radio manufacturer's instructions or consult your HYUNDAI Tucson Fuel Cell dealer for precautionary measures or special instructions if you choose to install one of these devices.

SAFETY AND VEHICLE DAMAGE WARNING

This manual includes information titled as WARNING, CAUTION and NOTICE. These titles indicate the following:

A WARNING

This indicates that a condition may result in harm, serious injury, or death to you or other persons if the warning is not heeded. Follow the advice provided with the warning.

! CAUTION

This indicates that a condition may result in damage to your vehicle or its equipment if the caution is not heeded. Follow the advice provided with the caution.

* NOTICE

This indicates that interesting or helpful information is being provided.

FOREWORD

Thank you for choosing HYUNDAI. We are pleased to welcome you to the growing number of discriminating people who drive HYUNDAI. The advanced engineering and high-quality construction of each HYUNDAI we build is something of which we're very proud.

Your Owner's Manual will introduce you to the features and operation of your new HYUNDAI. It is suggested that you read it carefully because the information it contains can contribute greatly to the satisfaction you receive from your new car.

The manufacturer also recommends that all service and maintenance on your car be performed by an authorized HYUNDAI Tucson Fuel Cell dealer. HYUNDAI dealers are prepared to provide high-quality service, maintenance and any other assistance that may be required.

HYUNDAI MOTOR AMERICA

Note : Because future owners will also need the information included in this manual, if you sell this HYUNDAI, please leave the manual in the vehicle for their use. Thank you.

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GUIDE TO HYUNDAI GENUINE PARTS

1. What are HYUNDAI Genuine Parts?

HYUNDAI Genuine Parts are the same parts used by HYUNDAI Motor Company to manufacture vehicles. They are designed and tested for the optimum safety, performance, and reliability to our customers.



2. Why should you use genuine parts?

HYUNDAI Genuine Parts are engineered and built to meet rigid manufacturing requirements. Using imitation, counterfeit or used salvage parts is not covered under the HYUNDAI New Vehicle Limited Warranty or any other HYUNDAI warranty.

In addition, any damage to or failure of HYUNDAI Genuine Parts caused by the installation or failure of an imitation, counterfeit or used salvage part is not covered by any HYUNDAI Warranty.

3. How can you tell if you are purchasing HYUNDAI Genuine Parts?

Look for the HYUNDAI Genuine Parts Logo on the package (see below).

HYUNDAI Genuine Parts exported to the U.S. are packaged with labels written only in English.

HYUNDAI Genuine Parts are only sold through authorized HYUNDAI Dealerships.







HOW TO USE THIS MANUAL

We want to help you get the greatest possible driving pleasure from your vehicle. Your Owner's Manual can assist you in many ways. We strongly recommend that you read the entire manual. In order to minimize the chance of death or injury, you must read the WARNING and CAUTION sections in this manual.

Illustrations complement the words in this manual to best explain how to enjoy your vehicle. By reading your manual, you will learn about features, important safety information, and driving tips under various road conditions.

The general layout of the manual is provided in the Table of Contents. A good place to start is the index; it has an alphabetical listing of all information in your manual.

Sections: This manual has eight chapter plus an index. Each chapters begins with a brief list of contents so you can tell at a glance if that chapter has the information you want.

You will find various WARNINGS, CAUTIONS, and NOTICES in this manual. These WARNINGS were prepared to enhance your personal safety. You should carefully read and follow ALL procedures and recommendations provided in these WARNINGS, CAUTIONS and NOTICES.

A WARNING

A WARNING indicates a situation in which harm, serious bodily injury, or death could result if the warning is ignored.

A CAUTION

A CAUTION indicates a situation in which damage to your vehicle could result if the caution is ignored.

* NOTICE

A NOTICE indicates interesting or helpful information is being provided.

FUEL REQUIREMENTS

For the optimal vehicle performance, we recommend you to use the hydrogen fuel which complies with your local regulatory agency standard (purity, maximum concentration of impurities, etc.).

VEHICLE HANDLING INSTRUCTIONS

As with other vehicles of this type, failure to operate this vehicle correctly may result in loss of control, an accident or vehicle rollover.

Specific design characteristics (higher ground clearance, track, etc.) give this vehicle a higher center of gravity than other types of vehicles. It is not designed for cornering at the same speeds as a conventional 2-wheel drive sedans or sports coupe. Avoid sharp turns or abrupt maneuvers. Failure to operate this vehicle correctly may result in loss of control, an accident or vehicle rollover. Be sure to read the "Reducing the risk of a rollover" driving guidelines, in chapter 5 of this manual.

VEHICLE DATA COLLECTION AND EVENT DATA RECORDERS

This vehicle is equipped with an event data recorder (EDR). The main purpose of an EDR is to record, in certain crash or near crash-like situations, such as an air bag deployment or hitting a road obstacle, data that will assist in understanding how a vehicle's systems performed. The EDR is designed to record data related to vehicle dynamics and safety systems for a short period of time, typically 30 seconds or less. The EDR in this vehicle is designed to record such data as:

- How various systems in your vehicle were operating;
- Whether or not the driver and passenger safety belts were buckled/ fastened:
- How far (if at all) the driver was depressing the accelerator and/or brake pedal; and,
- How fast the vehicle was traveling.

These data can help provide a better understanding of the circumstances in which crashes and injuries occur. NOTE: EDR data are recorded by your vehicle only if a non-trivial crash situation occurs: no data are recorded by the EDR under normal driving conditions and no personal data (e.g., name, gender, age, and crash location) are recorded. However, other parties, such as law enforcement, could combine the EDR data with the type of personally identifying data routinely acquired during a crash investigation.

To read data recorded by an EDR, special equipment is required, and access to the vehicle or the EDR is needed. In addition to the vehicle manufacturer, other parties, such as law enforcement, that have the special equipment, can read the information if they have access to the vehicle or the EDR.

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EXTERIOR OVERVIEW (FRONT)

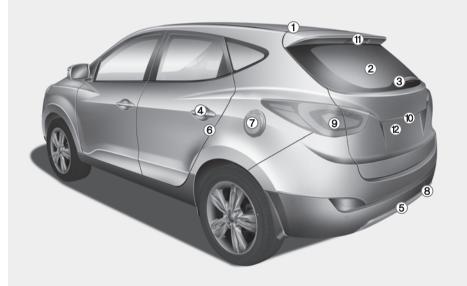


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* The actual shape may differ from the illustration.

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* The actual shape may differ from the illustration.

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* The actual shape may differ from the illustration.

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*: if equipped	

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★ The actual fuel cell power module compartment in the vehicle may differ from the illustration.

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IMPORTANT SAFETY PRECAUTIONS

You will find many safety precautions and recommendations throughout this section, and throughout this manual. The safety precautions in this section are among the most important.

Always wear your seat belt

A seat belt is your best protection in all types of accidents. Air bags are designed to supplement seat belts, not replace them. So even though your vehicle is equipped with air bags, ALWAYS make sure you and your passengers wear your seat belts, and wear them properly.

Restrain all children

All children under age 13 should ride in your vehicle properly restrained in a rear seat, not the front seat. Infants and small children should be restrained in an appropriate child restraint. Larger children should use a booster seat with the lap/shoulder belt until they can use the seat belt properly without a booster seat.

Air bag hazards

While air bags can save lives, they can also cause serious or fatal injuries to occupants who sit too close to them, or who are not properly restrained. Infants, young children, and shorter adults are at the greatest risk of being injured by an inflating air bag. Follow all instructions and warnings in this manual.

Driver distraction

Driver distraction presents a serious and potentially deadly danger, especially for inexperienced drivers. Safety should be the first concern when behind the wheel and drivers need to be aware of the wide array of potential distractions, such as drowsiness, reaching for objects, eating, personal grooming, using cell phones, and getting distracted by other passengers, to name a few.

Drivers can become distracted when they take their eyes and attention off the road or their hands off the wheel to focus on activities other than driving. To reduce your risk of distraction or getting into an accident:

- ALWAYS set up your mobile devices (i.e., MP3 players, phones, navigation units, etc.) when your vehicle is parked or safely stopped.
- ONLY use your mobile device when allowed by laws and when conditions permit safe use. NEVER text or email while driving. Most states have laws prohibiting drivers from texting. Some states and cities also prohibit drivers from using handheld phones.

 NEVER let the use of a mobile device distract you from driving. You have a responsibility to your passengers and others on the road to always drive safely, with your hands on the wheel as well as your eyes and attention on the road.

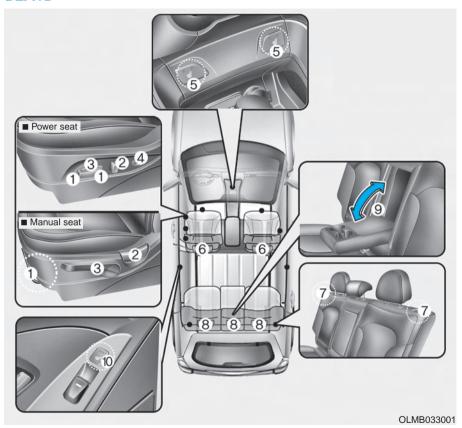
Control your speed

Excessive speed is a major factor in crash injuries and deaths. Generally, the higher the speed, the greater the risk, but serious injuries can also occur at lower speeds. Never drive faster than is safe for current conditions, regardless of the maximum speed posted.

Keep your vehicle in safe condition

Having a tire blowout or a mechanical failure can be extremely hazardous. To reduce the possibility of such problems, check your tire pressures and condition frequently, and perform all regularly scheduled maintenance.

SEATS



Front seats

- (1) Forward and rearward
- (2) Seatback angle
- (3) Seat cushion height (Driver's seat)
- (4) Lumbar support (Driver's seat)*
- (5) Seat warmer*
- (6) Headrest

Rear seats

- (7) Seatback angle and folding
- (8) Headrest
- (9) Armrest
- (10) Seat warmer
- *: if equipped

Safety precautions

Adjusting the seats so that you are sitting in a safe, comfortable position plays an important role in driver and passenger safety together with the seat belts and air bags in an accident.

A WARNING

Do not use a cushion that reduces friction between the seat and the passenger. The passenger's hips may slide under the lap portion of the seat belt during an accident or a sudden stop. Serious or fatal internal injuries could result because the seat belt cannot operate normally.

Air bags

You can take steps to reduce the risk of being injured by an inflating air bag. Sitting too close to an air bag greatly increases the risk of injury in the event the air bag inflates.

The National Highway Traffic Safety Administration (NHTSA) recommends that drivers allow at least 10 inches (25 cm) between the center of the steering wheel and their chest.

A WARNING

To reduce the risk of serious injury or death from an inflating air bag, take the following precautions:

- Adjust the driver's seat as far to the rear as possible while maintaining the ability to maintain full control of the vehicle.
- Adjust the front passenger seat as far to the rear as possible.
- Hold the steering wheel by the rim with hands at the 9 o'clock and 3 o'clock positions to minimize the risk of injuries to your hands and arms.
- NEVER place anything or anyone between the steering wheel and the air bag.
- Do not allow the front passenger to place feet or legs on the dashboard to minimize the risk of leg injuries.

Seat belts

Always fasten your seat belt before starting any trip.

At all times, passengers should sit upright and be properly restrained. Infants and small children must be restrained in appropriate child restraint systems. Children who have outgrown a booster seat and adults must be restrained using the seat belts.

A WARNING

Take the following precautions when adjusting your seat belt:

- NEVER use one seat belt for more than one occupant.
- Always position the seatback upright with the lap portion of the seat belt snug and low across the hips.
- NEVER allow children or small infants to ride in a passenger's lap.
- Do not route the seat belt across your neck, across sharp edges, or reroute the shoulder strap away from your body.
- Do not allow the seat belt to become caught or jammed.

Front seats

A WARNING

Take the following precautions when adjusting your seat:

- NEVER attempt to adjust the seat while the vehicle is moving. The seat could respond with unexpected movement and may cause loss of vehicle control resulting in an accident.
- Do not place anything under the front seats. Loose objects in the driver's foot area could interfere with the operation of the foot pedals, causing an accident.
- Do not allow anything to interfere with the normal position and proper locking of the seatback.
- Do not place a cigarette lighter on the floor or seat. When you operate the seat, gas may exit out of the lighter causing a fire.

A WARNING

To prevent injury:

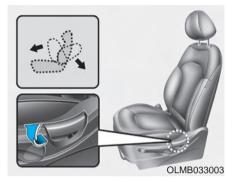
- Do not adjust your seat while wearing your seat belt. Moving the seat cushion forward may cause strong pressure on your abdomen.
- Do not allow your hands or fingers to get caught in the seat mechanisms while the seat is moving.

Manual adjustment



Forward and rearward adjustment To move the seat forward or rearward:

- 1. Pull up the seat slide adjustment lever and hold it.
- 2. Slide the seat to the position you desire.
- Release the lever and make sure the seat is locked in place. Move forward and rearward without using the lever. If the seat moves, it is not locked properly.



Seatback angle

To recline the seatback:

- 1. Lean forward slightly and lift up the seatback lever.
- Carefully lean back on the seat and adjust the seatback to the position you desire.
- Release the lever and make sure the seatback is locked in place. (The lever MUST return to its original position for the seatback to lock.)

Reclining seatback

Sitting in a reclined position when the vehicle is in motion can be dangerous. Even when buckled up, the protection of your restraint system (seat belts and air bags) is greatly reduced by reclining your seatback.

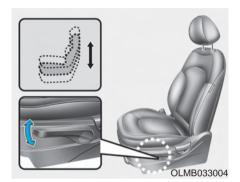
A WARNING

NEVER ride with a reclined seatback when the vehicle is moving.

Riding with a reclined seatback increases your chance of serious or fatal injuries in the event of a collision or sudden stop.

Drivers and passengers should ALWAYS sit well back in their seats, properly belted, and with the seatbacks upright. Seat belts must be snug against your hips and chest to work properly. When the seatback is reclined, the shoulder belt cannot do its job because it will not be snug against your chest. Instead, it will be in front of you. During an accident, you could be thrown into the seat belt, causing neck or other injuries.

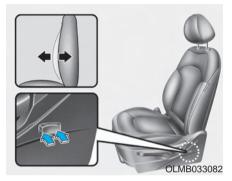
The more the seatback is reclined, the greater chance the passenger's hips will slide under the lap belt or the passenger's neck will strike the shoulder belt.



Seat cushion height (for driver's seat)

To change the height of the seat cushion:

- Push down on the lever several times, to lower the seat cushion.
- Pull up on the lever several times, to raise the seat cushion.



Lumber support (for driver's seat, if equipped)

To adjust the lumber support:

- Press the front portion of the switch to increase support, or the rear portion of the switch to decrease support.
- 2. Release the switch once it reaches the desired position.

Power adjustment

The front seat can be adjusted by using the control switches located on the outside of the seat cushion. Before driving, adjust the seat to the proper position so that you can easily control the steering wheel, foot pedals and controls on the instrument panel.

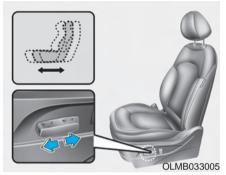
A WARNING

NEVER allow children to remain in the vehicle unattended. The power seats are operable when the power cell module is turned off.

A CAUTION

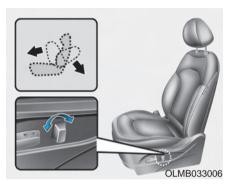
To prevent damage to the seats:

- Always stop adjusting the seats when the seat has been adjusted as far forward or rearward as possible.
- Do not adjust the seats longer than necessary when the power cell module is turned off. This may result in unnecessary battery drain.
- Do not operate two or more seats at the same time. This may result in an electrical malfunction.



Forward and rearward adjustment To move the seat forward or rearward:

- Push the control switch forward or rearward.
- 2. Release the switch once the seat reaches the desired position.



Seatback angle

To recline the seatback:

- 1. Push the control switch forward or rearward.
- 2. Release the switch once the seatback reaches the desired position.

Reclining seatback

Sitting in a reclined position when the vehicle is in motion can be dangerous. Even when buckled up, the protection offered by the restraint system, (seat belts and air bags) is greatly reduced by reclining your seatback.

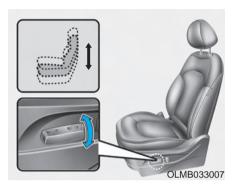
WARNING

NEVER ride with a reclined seatback when the vehicle is moving.

Riding with a reclined seatback increases your chance of serious or fatal injuries in the event of a collision or sudden stop.

Drivers and passengers should ALWAYS sit well back in their seats, properly belted, and with the seatbacks upright. Seat belts must be snug against your hips and chest to work properly. When the seatback is reclined, the shoulder belt cannot do its job because it will not be snug against your chest. Instead, it will be in front of you. During an accident, you could be thrown into the seat belt, causing neck or other injuries.

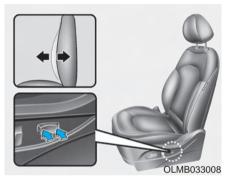
The more the seatback is reclined, the greater chance the passenger's hips will slide under the lap belt or the passenger's neck will strike the shoulder belt



Seat cushion height (for driver's seat)

To change the height of the seat cushion:

- Pull the front portion of the control switch up to raise or push down to lower the front part of the seat cushion. Pull the rear portion of the control switch up to raise or push down to lower the rear part of the seat cushion.
- 2. Release the switch once the seat reaches the desired position.



Lumbar support (for driver's seat, if equipped)
To adjust the lumbar support:

- Press the front portion of the switch to increase support or the rear portion of the switch to decrease support.
- 2. Release the switch once it reaches the desired position.

Seatback pocket



The seatback pocket is provided on the back of the front seats.

WARNING

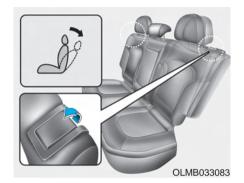
To prevent the occupant classification system from malfunctioning:

- Do not place any items total weighing over 2.2 lbs (1 kg) in the seatback pocket on the passenger's seat.
- Do not hang onto the front passenger's seatback.

A WARNING

Do not put heavy or sharp objects in the seatback pockets. In an accident they could come loose from the pocket and injure occupants.

Rear seats



Seatback angle

To recline the seatback:

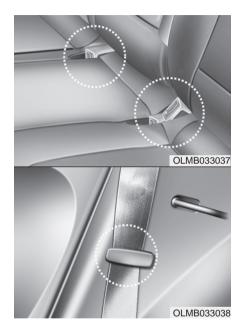
- 1. Pull up the seatback lever.
- 2. Hold the lever and adjust the seatback to the position you desire.
- Release the lever and make sure the seatback is locked in place. (The lever MUST return to its original position for the seatback to lock.)

Folding the rear seat

The rear seatbacks can be folded to facilitate carrying long items or to increase the luggage capacity of the vehicle.

A WARNING

- Never allow passengers to sit on top of the folded down seatback while the vehicle is moving. This is not a proper seating position and no seat belts are available for use. This could result in serious injury or death in case of an accident or sudden stop.
- Objects carried on the folded down seatback should not extend higher than the top of the front seatbacks. This could allow cargo to slide forward and cause injury or damage during sudden stops.



1. To fold the rear seats:

Insert the rear seat belt buckle in the pocket between the rear seatback and cushion, and insert the rear seat belt webbing in the guide to prevent the seat belt from being damaged.

- Use a key to release the rear center seat belt from the center buckle.
- Retract the center seat belt webbing into the headliner, and clip the small tab into the holder.
- 4. Set the front seatback to the upright position and, if necessary, slide the front seat forward.
- 5. Lower the rear headrests to the lowest position.



Pull up the seatback lever, then fold the seat toward the front of the vehicle.



7. To use the rear seat, lift and push the seatback backward. Push the seatback firmly until it clicks into place. Make sure the seatback is locked in place.

When returning the rear seatbacks to the upright position, remember to return the rear shoulder belts to their proper position.

A WARNING

When returning the rear seatback from a folded to an upright position, hold the seatback and return it slowly. Ensure that the seatback is completely locked into its upright position by pushing on the top of the seatback. In an accident or sudden stop, the unlocked seatback could allow cargo to move forward with great force and enter the passenger compartment, which could result in serious injury or death.

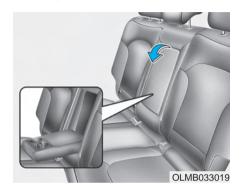
A WARNING

Do not place loose objects on the rear seats, since they cannot be properly secured and may hit vehicle occupants in a collision causing serious injury or death.

WARNING

Make sure the power cell module is off, the shift lever is in P (Park), and the parking brake is securely applied whenever loading or unloading cargo. Failure to take these steps may allow the vehicle to move if the shift lever is inadvertently moved to another position.

Armrest



The armrest is located in the center of the rear seat. Pull the armrest down from the seatback to use it. You will find cup holders on the center armrest.

Headrest

The vehicle's front and rear seats have adjustable headrests. The headrests provide comfort for passengers, but more importantly they are designed to help protect passengers from whiplash and other neck and spinal injuries during an accident, especially in a rear impact collision.

A WARNING

To reduce the risk of serious injury or death in an accident, take the following precautions when adjusting your headrests:

- Always properly adjust the headrests for all passengers BEFORE starting the vehicle.
- NEVER let anyone ride in a seat with the headrest removed.

A WARNING

 Adjust the headrests so the middle of the headrests is at the same height as the height of the top of the eyes (see diagram).

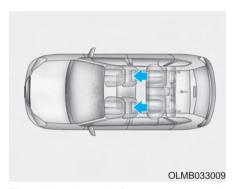


- NEVER adjust the headrest position of the driver's seat when the vehicle is in motion.
- Adjust the headrest as close to the passenger's head as possible. Do not use a seat cushion that holds the body away from the seatback.
- Make sure the headrest locks into position after adjusting it.

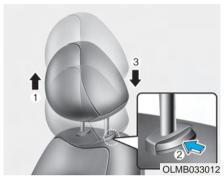
A CAUTION

To prevent damage, NEVER hit or pull on the headrests.

Front seat headrest



The driver's and front passenger's seats are equipped with adjustable headrests for the passengers safety and comfort.

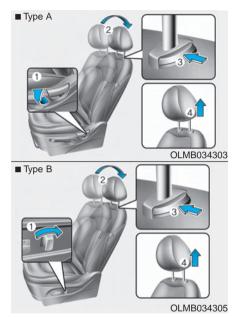


Adjusting the height up and down To raise the headrest:

1. Pull it up to the desired position (1).

To lower the headrest:

- Push and hold the release button
 on the headrest support.
- 2. Lower the headrest to the desired position (3).



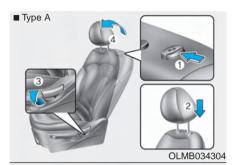
Removal/Reinstall

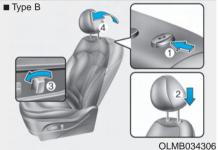
To remove the headrest:

- 1. Recline the seatback (2) with the recline lever or switch (1).
- 2. Raise headrest as far as it can go.
- 3. Press the headrest release button (3) while pulling the headrest up (4).

A WARNING

NEVER allow anyone to ride in a seat with the headrest removed.





To reinstall the headrest:

- 1. Put the headrest poles (2) into the holes while pressing the release button (1).
- 2. Recline the seatback (4) with the recline lever or switch (3).
- 3. Adjust the headrest to the appropriate height.

A WARNING

Always make sure the headrest locks into position after reinstalling and adjusting it properly.



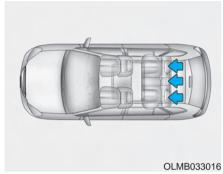
Active headrest

The active headrest is designed to move forward and upward during a rear impact. This helps prevent the driver's and front passenger's heads from moving backward which helps minimize neck injuries.

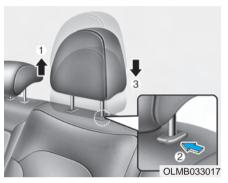
A WARNING

A gap between the seat and the headrest release button may appear when sitting on the seat or when you push or pull the seat. Be careful not to get your finger, etc. caught in the gap.

Rear seat headrest



The rear seats are equipped with headrests in all the seating positions for the passenger's safety and comfort.



Adjusting the height up and down To raise the headrest:

1. Pull it up to the desired position (1).

To lower the headrest:

- Push and hold the release button
 on the headrest support.
- 2. Lower the headrest to the desired position (3).



Removal and Installation

To remove the headrest:

- 1. Raise the headrest as far as it can go.
- 2. Press the release button (1) while pulling the headrest up (2).

A WARNING

NEVER allow anyone to ride in a seat with the headrest removed.

To reinstall the headrest:

- 1. Recline the seatback.
- 2. Put the headrest poles (3) into the holes while pressing the release button (1).
- 3. Adjust the headrest to the appropriate height.

A WARNING

Always make sure the headrest locks into position after reinstalling and adjusting it to properly protect the occupants.

Seat warmers

Seat warmers are provided to warm the seats during cold weather.

A WARNING

The seat warmers can cause a SERIOUS BURN, even at low temperatures and especially if used for long periods of time.

Passengers must be able to feel if the seat is becoming too warm so they can turn it off, if needed.

People who cannot detect temperature change or pain to the skin should use extreme caution, especially the following types of passengers:

- Infants, children, elderly or disabled persons, or hospital outpatients.
- People with sensitive skin or who burn easily.
- Fatigued individuals.
- Intoxicated individuals.
- People taking medication that can cause drowsiness or sleepiness.

A WARNING

NEVER place anything on the seat that insulates against heat when the seat warmer is in operation, such as a blanket or seat cushion. This may cause the seat warmer to overheat, causing a burn or damage to the seat.

! CAUTION

To prevent damage to the seat warmers and seats:

- Never use a solvent such as paint thinner, benzene, alcohol or gasoline to clean the seats.
- Do not place heavy or sharp objects on seats equipped with seat warmers.

Front seat warmers (if equipped)



While the power cell module is running, push either of the switches to warm the driver's seat or front passenger's seat.

During mild weather or under conditions where the operation of the seat warmer is not needed, keep the switches in the OFF position.

Each time you push the switch, the temperature setting of the seat is changed as follows:

$$\begin{array}{ccc} \mathsf{OFF} \, \to \, \mathsf{HIGH}\,(\, \bullet \, \bullet \,) \, \to \, \mathsf{LOW}\,(\, \bullet \,) \\ \uparrow & & & & & & & & & & & & \\ \end{array}$$

The seat warmer defaults to the OFF position whenever the ignition switch is placed in the ON position.

* NOTICE

With the seat warmer switch in the ON position, the heating system in the seat turns off or on automatically depending on the seat temperature.

SEAT BELTS

This section describes how to use the seat belts properly. It also describes some of the things not to do when using seat belts.

Seat belt safety precautions

Always fasten your seat belt and make sure all passengers have fastened their seat belts before starting any trip. Air bags are designed to supplement the seat belt as an additional safety device, but they are not a substitute. Most states require all occupants of a vehicle to wear seat belts.

A WARNING

Seat belts must be used by ALL passengers whenever the vehicle is moving. Take the following precautions when adjusting and wearing seat belts:

- ALWAYS properly restrain children under age 13 in the rear seats.
- NEVER allow children to ride in the front passenger seat. If a child age 13 or older must be seated in the front seat, move the seat as far back as possible and properly restrain them in the seat belt.
- NEVER allow an infant or child to be carried on an occupant's lap.
- NEVER ride with the seatback reclined when the vehicle is moving.
- Do not allow children to share a seat or seat belt.
- Do not wear the shoulder belt under your arm or behind your back.

(Continued)

(Continued)

- Do not use the seat belt if it is twisted. A twisted seat belt will not protect you properly in an accident.
- Do not use a seat belt if the webbing or hardware is damaged.
- Do not latch the seat belt into the buckles of other seats.
- NEVER unfasten the seat belt while driving. This may cause loss of vehicle control resulting in an accident.
- Make sure there is nothing in the buckle interfering with the seat belt latch mechanism. This may prevent the seat belt from fastening securely.
- 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.

A WARNING

Damaged seat belts and seat belt assemblies will not operate properly. Always replace:

- Frayed, contaminated, or damaged webbing
- Damaged hardware
- The entire seat belt assembly after it has been worn in an accident, even if damage to webbing or assembly is not apparent

Seat belt warning light

Seat belt warning light (for driver's seat)



The driver's seat belt warning light and chime will come on according to the following table when the ignition switch is in the ON position.

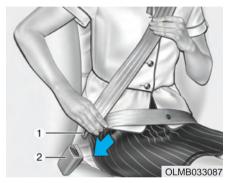
Conditions		Warning Pattern	
Seat Belt	Vehicle Speed	Light (Blink)	Chime
Unbuckled		6 seconds	
Buckled		6 seconds	None
	Below 3 mph (5 km/h)	6 seconds	None
Buckled → Unbuckled	3 mph~ 6 mph	6 seconds	
	Above 6 mph (10 km/h)	6 sec. ON / 24 sec. OFF (11 times)	
Unbuckled	Above 6 mph (10 km/h) ↓ Below 3 mph (5 km/h)	6 seconds *¹ ↓	

^{*1:} The Warning Pattern repeats 11 times with an interval of 24 seconds. If the driver's seat belt is buckled, the light will stop within 6 seconds and chime will stop immediately.

^{*2:} The light will stop within 6 seconds and chime will stop immediately.

Seat belt restraint system

Seat Belt-Driver's 3-point system with emergency locking retractor



To fasten your seat belt:

Pull the seat belt out of the retractor and insert the metal tab (1) into the buckle (2). There will be an audible "click" when the tab locks into the buckle.

The seat belt automatically adjusts to the proper length after the lap belt portion is adjusted manually so that it fits snugly around your hips. If you lean forward in a slow, easy motion, the belt will extend and move with you. If there is a sudden stop or impact, the belt will lock into position. It will also lock if you try to lean forward too quickly.

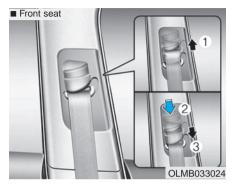
* NOTICE

If you are not able to smoothly pull enough of the seat belt out from the retractor, firmly pull the seat belt out and release it. After release, you will be able to pull the belt out smoothly.

Height adjustment

You can adjust the height of the shoulder belt anchor to one of the four different positions for maximum comfort and safety.

The shoulder portion should be adjusted so it lies across your chest and midway over your shoulder nearest the door, not over your neck.



To adjust the height of the seat belt anchor, lower or raise the height adjuster into an appropriate position.

To raise the height adjuster, pull it up (1). To lower it, push it down (3) while pressing the height adjuster button (2).

Release the button to lock the anchor into position. Try sliding the height adjuster to make sure that it has locked into position.



A WARNING

Improperly positioned seat belts may increase the risk of serious injury in an accident. Take the following precautions when adjusting the seat belt:

- Position the lap portion of the seat belt as low as possible across your hips, not on your waist, so that it fits snugly.
- The shoulder belt must not be used without a lap belt.

A WARNING

- Position one arm under the shoulder belt and the other over the belt, as shown in the illustration.
- Always position the shoulder belt anchor into the locked position at the appropriate height.
- Never position the shoulder belt across your neck or face.

Seat Belt – Passenger and Rear Seats' 3-point system with combination locking retractor

This type of seat belt combines the features of both an emergency locking retractor seat belt and an automatic locking retractor seat belt. Combination retractor type seat belts are installed in the rear seat positions to help accommodate the installation of child restraint systems. Although a combination retractor is also installed in the front passenger seat position, NEVER place any infant restraint system in the front seat of the vehicle.

To fasten your seat belt:

Pull the seat belt out of the retractor and insert the metal tab into the buckle. There will be an audible "click" when the tab locks into the buckle. When not securing a child restraint, the seat belt operates in the same way as the driver's seat belt (Emergency Locking Retractor Type). It automatically adjusts to the proper length only after the lap belt portion of the seat belt is adjusted manually so that it fits snugly across your hips.

When the seat belt is fully extended from the retractor to allow the installation of a child restraint system, the seat belt operation changes to allow the belt to retract, but not to extend (Automatic Locking Retractor Type). Refer to "Using a Child Restraint System" in this chapter.

* NOTICE

Although the seat belt retractor provides the same level of protection for seated passengers in either emergency or automatic locking modes, the emergency locking mode allows seated passengers to move freely in their seat while keeping some tension on the belt. During a collision or sudden stop, the retractor automatically locks the belt to help restrain your body. To deactivate the automatic locking mode, allow the unbuckled seat belt to fully retract.



To release your seat belt:

Press the release button (1) in the locking buckle.

When it is released, the belt should automatically draw back into the retractor. If this does not happen, check the belt to be sure it is not twisted, then try again.

Pre-tensioner seat belt

Your vehicle is equipped with driver's and front passenger's Pre-Tensioner Seat Belts. The purpose of the pretensioner is to make sure the seat belts fit tightly against the occupant's body in certain frontal collisions. The pre-tensioner seat belts may be activated in crashes where the frontal collision is severe enough.



When the vehicle stops suddenly, or if the occupant tries to lean forward too quickly, the seat belt retractor will lock into position. In certain frontal collisions, the pre-tensioner will activate and pull the seat belt into tighter contact against the occupant's body.

If the system senses excessive tension on the driver's or passenger's seat belt when the pre-tensioner activates, the load limiter inside the pre-tensioner will release some of the pressure on the affected seat belt.

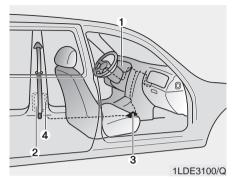
A WARNING

Pre-Tensioner Seat Belts that malfunction may not protect you properly during an accident. Take the following precautions:

- Always wear your seat belt and sit properly in your seat.
- Do not use the seat belt if it is loose or twisted. A loose or twisted seat belt will not protect you properly in an accident.
- Do not place anything near the buckle. This may adversely affect the buckle and cause it to function improperly.
- Always replace your pre-tensioners after activation or an accident.
- NEVER inspect, service, repair or replace the pre-tensioners yourself. This must be done by an authorized HYUNDAI Tucson Fuel Cell dealer.
- Do not hit the seat belt assemblies.

A WARNING

Do not touch the pre-tensioner seat belt assemblies for several minutes after they have been activated. When the pre-tensioner seat belt mechanism fires during a collision the pre-tensioner becomes hot and can burn you.



The Pre-Tensioner Seat Belt System consists mainly of the following components. Their locations are shown in the illustration above:

- 1. SRS air bag warning light
- 2. Retractor pre-tensioner assembly
- 3. SRS control module
- 4. Anchor pre-tensioner assembly

* NOTICE

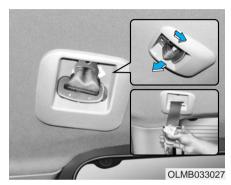
The sensor that activates the SRS air bag is connected with the pre-tensioner seat belts. The SRS air bag warning light on the instrument panel will illuminate for approximately 6 seconds after the ignition switch is placed in the ON position, and then it should turn off.

If the pre-tensioner is not working properly, the warning light will illuminate even if the SRS air bag is not malfunctioning. If the warning light does not illuminate, stays illuminated or illuminates when the vehicle is being driven, have an authorized HYUNDAI Tucson Fuel Cell dealer inspect the pre-tensioner seat belts and SRS air bags as soon as possible.

* NOTICE

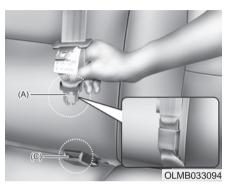
- Both the driver's and front passenger's pre-tensioner seat belts may be activated in certain frontal or side collisions or rollovers.
- The pre-tensioners will not be activated if the seat belts are not worn at the time of the collision.
- When the pre-tensioner seat belts are activated, a loud noise may be heard and fine dust, which may appear to be smoke, may be visible in the passenger compartment. These are normal operating conditions and are not hazardous.
- Although it is non-toxic, the fine dust may cause skin irritation and should not be breathed for prolonged periods. Wash all exposed skin areas thoroughly after an accident in which the pre-tensioner seat belts were activated.

3-point rear center seat belt

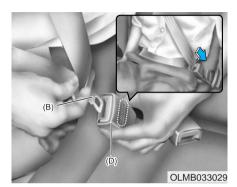


To fasten the rear center seat belt:

 Extract the metal tab from the hole of the belt assembly cover and slowly pull the metal tab out from the retractor.



 Insert the metal tab (A) into the buckle (C). There will be an audible "click" when the tab locks into the buckle. Make sure the belt is not twisted



3. Pull the metal tab (B) and insert the it (B) into the buckle (D). There will be an audible "click" when the tab locks into the buckle. Make sure the belt is not twisted The seat belt automatically adjusts to the proper length after the lap belt portion is adjusted manually so that it fits snugly around your hips. If you lean forward in a slow, easy motion, the belt will extend and move with you. If there is a sudden stop or impact, the belt will lock into position. It will also lock if you try to lean forward too quickly.

A WARNING

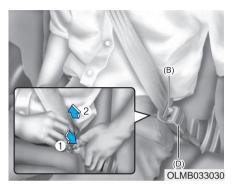
When using the rear seat center belt, you must lock all metal tabs and buckles. If any metal tab or buckle is not locked, it will increase the chance of injury in the event of collision.

⚠ CAUTION

Be sure the cargo is securely loaded in the rear cargo area. Not doing so may damage the rear center seat belt in a sudden stop or collision.

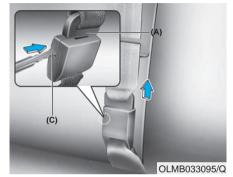


Using the rear center seat belt
When using the rear center seat belt,
ALWAYS use the buckle with the
CENTER mark.

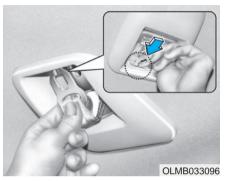


To release the rear center seat belt:

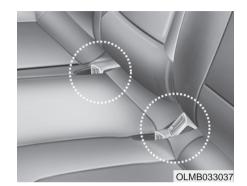
1. Press the release button on the buckle (D) and remove the metal tab (B) from the buckle (D).



2. Insert a key or similar rigid device into the web release hole (C). Pull out the metal tab (A) from the buckle and allow the webbing to retract automatically.



3. Insert the metal tab into the hole of the belt assembly cover.



Stowing the rear seat belt

The rear seat belt buckles can be stowed in the pocket between the rear seatback and cushion when not in use.



Routing the seat belt webbing through the rear seat belt guides will prevent the belts from being trapped behind or under the seats when the rear seats are folded down.

A CAUTION

When using the seat belt, remove the seat belt webbing from the guides. If you pull the seat belt when it is stored in the guides, it may damage the guides and belt webbing.

Additional seat belt safety precautions

Seat belt use during pregnancy

The seat belt should always be used during pregnancy. The best way to protect your unborn child is to protect yourself by always wearing the seat belt.

Pregnant women should always wear a lap-shoulder seat belt. Place the shoulder belt across your chest, routed between your breasts and away from your neck. Place the lap belt below the belt line so that it fits snugly and as low as possible across the hips, not across the abdomen.

A WARNING

To reduce the risk of serious injury or death to an unborn child during an accident, pregnant women should NEVER place the lap portion of the seat belt above or over the area of the abdomen where the unborn child is located.

Seat belt use and children

Infant and small children

All 50 states have child restraint laws which require children to travel in approved child restraint devices, including booster seats. The age at which seat belts can be used instead of child restraints differs among states, so you should be aware of the specific requirements in your state, and where you are travelling. Infant and child restraints must be properly placed and installed in a rear seat. For more information refer to the "Child Restraint Systems" in this chapter.

A WARNING

ALWAYS properly restrain infants and small children in a child restraint appropriate for the child's height and weight.

To reduce the risk of serious injury or death to a child and other passengers, NEVER hold a child in your lap or arms when the vehicle is moving. The violent forces created during an accident will tear the child from your arms and throw the child against the interior of the vehicle.

Small children are best protected from injury in an accident when properly restrained in the rear seat by a child restraint system that meets the requirements of the Federal Motor Vehicle Safety Standards. Before buying any child restraint system, make sure that it has a label certifying that it meets Federal Motor Vehicle Safety Standard 213. The restraint must be appropriate for your child's height and weight. Check the label on the child restraint for this information. Refer to "Child Restraint Systems" in this chapter.

Larger children

Children under age 13 and who are too large for a booster seat must always occupy the rear seat and use the available lap/shoulder belts. A seat belt should lie across the upper thighs and be snug across the shoulder and chest to restrain the child safely. Check belt fit periodically. A child's squirming could put the belt out of position. Always have the LATCH system inspected by your authorized HYUNDAI Tucson Fuel Cell dealer after an accident. An accident can damage the LATCH system and may not properly secure the child restraint

If a larger child over age 13 must be seated in the front seat, the child must be securely restrained by the available lap/shoulder belt and the seat should be placed in the rearmost position.

If the shoulder belt portion slightly touches the child's neck or face, try placing the child closer to the center of the vehicle. If the shoulder belt still touches their face or neck they need to be returned to an appropriate booster seat.

A WARNING

- Always make sure children are wearing their seat belts and that they are properly adjusted before driving.
- NEVER allow the shoulder belt to contact the child's neck or face.
- Do not allow more than one child to use a single seat belt.

Transporting an injured person

A seat belt should be used when an injured person is being transported. Consult a physician for specific recommendations.

One person per belt

Two people (including children) should never attempt to use a single seat belt. This could increase the severity of injuries in case of an accident.

Do not lie down

Sitting in a reclined position when the vehicle is in motion can be dangerous. Even when buckled up, the protections of your restraint system (seat belts and air bags) is greatly reduced by reclining your seatback.

To reduce the chance of injuries in the event of an accident and to achieve the maximum effectiveness of the restraint system, all passengers should be sitting up and the front and rear seats should be in an upright position when the car is moving. A seat belt cannot provide proper protection if the person is lying down in the rear seat or if the front or rear seats are in a reclined position.

A WARNING

- NEVER ride with a reclined seatback when the vehicle is moving.
- Riding with a reclined seatback increases your chance of serious or fatal injuries in the event of a collision or sudden stop.
- Drivers and passengers should always sit well back in their seats, properly belted, and with the seatbacks upright.

Care of seat belts

Seat belt systems should never be disassembled or modified. In addition, care should be taken to assure that seat belts and belt hardware are not damaged by seat hinges, doors or other abuse.

Periodic inspection

All seat belts should be inspected periodically for wear or damage of any kind. Any damaged parts should be replaced as soon as possible.

Keep belts clean and dry

Seat belts should be kept clean and dry. If belts become dirty, they can be cleaned by using a mild soap solution and warm water. Bleach, dye, strong detergents or abrasives should not be used because they may damage and weaken the fabric.

When to replace seat belts

The entire seat belt assembly or assemblies should be replaced if the vehicle has been involved in an accident. This should be done even if no damage is visible. Additional questions concerning seat belt operation should be directed to an authorized HYUNDAI Tucson Fuel Cell dealer.

CHILD RESTRAINT SYSTEM (CRS)

Children always in the rear

A WARNING

Always properly restrain children in the rear seats of the vehicle.

Children of all ages are safer when restrained in the rear seat. A child riding in the front passenger seat can be forcefully struck by an inflating air bag resulting in SERIOUS INJURY or DEATH.

Children under age 13 must always ride in the rear seats and must always be properly restrained to minimize the risk of injury in an accident, sudden stop or sudden maneuver. According to accident statistics, children are safer when properly restrained in the rear seats than in the front seat. Even with air bags, children can be seriously injured or killed. Children too large for a child restraint must use the seat belts provided.

All 50 states have child restraint laws which require children to travel in approved child restraint devices. The laws governing the age or height/weight restrictions at which seat belts can be used instead of child restraints differs among states, so you should be aware of the specific requirements in your state, and where you are travelling.

Child restraint systems must be properly placed and installed in the rear seat. You must use a commercially available child restraint system that meets the requirements of the Federal Motor Vehicle Safety Standards (FMVSS).

Child restraint systems are generally designed to be secured in a vehicle seat by lap belt portion of a lap/shoulder belt, or by a LATCH system in the rear seats of the vehicle.

Child restraint system (CRS)

Infants and younger children must be restrained in an appropriate rear-facing or forward-facing CRS that has first been properly secured to the rear seat of the vehicle. Read and comply with the instructions for installation and use provided by the manufacturer of the child restraint.

A WARNING

An improperly secured child restraint can increase the risk of SERIOUS INJURY or DEATH in an accident. Always take the following precautions when using a child restraint system:

- NEVER install a child or infant restraint in the front passenger's seat.
- Always properly secure the child restraint to a rear seat of the vehicle.

(Continued)

(Continued)

- Always follow the child restraint system manufacturer's instructions for installation and use.
- Always properly restrain your child in the child restraint.
- Do not use an infant carrier or a child safety seat that "hooks" over a seatback, it may not provide adequate protection in an accident.
- After an accident, have a HYUNDAI Tucson Fuel Cell dealer check the child restraint system, seat belts, tether anchors and lower anchors.

Selecting a Child Restraint System (CRS)

When selecting a CRS for your child, always:

- Make sure the CRS has a label certifying that it meets applicable Federal Motor Vehicle Safety Standards (FMVSS 213).
- Select a child restraint based on your child's height and weight. The required label or the instructions for use typically provide this information.
- Select a child restraint that fits the vehicle seating position where it will be used.
- Read and comply with the warnings and instructions for installation and use provided with the child restraint system.

Child restraint system types

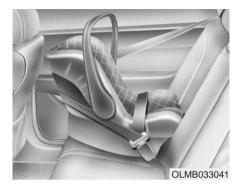
There are three main types of child restraint systems: rear-facing seats, forward-facing seats, and booster seats. They are classified according to the child's age, height and weight.

Rear-facing child seats

A WARNING

NEVER install a child or infant restraint in the front passenger's seat.

Placing a rear-facing child restraint in the front seat can result in SERIOUS INJURY or DEATH if the child restraint is struck by an inflating air bag.



A rear-facing child seat provides restraint with the seating surface against the back of the child. The harness system holds the child in place, and in an accident, acts to keep the child positioned in the seat and reduce the stress to the neck and spinal cord.

All children under age one must always ride in a rear-facing infant child restraint.

Convertible and 3-in-1 child seats typically have higher height and weight limits for the rear-facing position, allowing you to keep your child rearfacing for a longer period of time.

Continue to use a rear-facing child seat for as long as your child will fit within the height and weight limits allowed by the child seat manufacturer. It's the best way to keep them safe. Once your child has outgrown the rear-facing child restraint, your child is ready for a forward-facing child restraint with a harness.



Forward-facing child restraints

A forward-facing child seat provides restraint for the child's body with a harness. Keep children in a forward-facing child seat with a harness until they reach the top height or weight limit allowed by your child restraint's manufacturer.

Once your child outgrows the forwardfacing child restraint, your child is ready for a booster seat.

Booster seats

A booster seat is a restraint designed to improve the fit of the vehicle's seat belt system. A booster seat positions the seat belt so that it fits properly over the lap of your child. Keep your child in a booster seat until they are big enough to sit in the seat without a booster and still have the seat belt fit properly.

For a seat belt to fit properly, the lap belt must lie snugly across the upper thighs, not the stomach. The shoulder belt should lie snug across the shoulder and chest and not across the neck or face. Children under age 13 must always ride in the rear seats and must always be properly restrained to minimize the risk of injury.

Installing a Child Restraint System (CRS)

A WARNING

Before installing your child restraint system always:

- Read and follow the instructions provided by the manufacturer of the child restraint.
- Read and follow the instructions regarding child restraint systems in this manual.

Failure to follow all warnings and instructions could increase the risk of the SERIOUS INJURY or DEATH if an accident occurs.

After selecting a proper child seat for your child, check to make sure it fits properly in your vehicle. Follow the instructions provided by the manufacturer when installing the child seat. Note these general steps when installing the seat to your vehicle:

- Properly secure the child restraint to the vehicle. All child restraints must be secured to the vehicle with the lap part of a lap/shoulder belt or with the LATCH system.
- Make sure the child restraint is firmly secured. After installing a child restraint to the vehicle, push and pull the seat forward and from side-to-side to verify that it is securely attached to the seat. A child restraint secured with a seat belt should be installed as firmly as possible. However, some side-toside movement can be expected.

A WARNING

A child restraint in a closed vehicle can become very hot. To prevent burns, check the seating surface and buckles before placing your child in the child restraint.

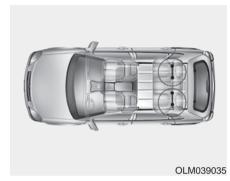
Lower Anchors and Tether for Children (LATCH) System

The LATCH system holds a child restraint during driving and in an accident. This system is designed to make installation of the child restraint easier and reduce the possibility of improperly installing your child restraint. The LATCH system uses anchors in the vehicle and attachments on the child restraint. The LATCH system eliminates the need to use seat belts to secure the child restraint to the rear seats.

Lower anchors are metal bars built into the vehicle. There are two lower anchors for each LATCH seating position that will accommodate a child restraint with lower attachments.

To use the LATCH system in your vehicle, you must have a child restraint with LATCH attachments.

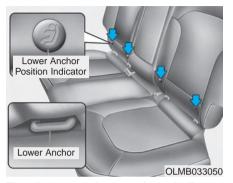
The child seat manufacturer will provide you with instructions on how to use the child seat with its attachments for the LATCH lower anchors.



LATCH anchors have been provided in the left and right outboard rear seating positions. Their locations are shown in the illustration. There are no LATCH anchors provided for the center rear seating position.

A WARNING

Do not attempt to install a child restraint system using LATCH anchors in the rear center seating position. There are no LATCH anchors provided for this seat. Using the outboard seat anchors can damage the anchors which may break or fail in a collision resulting in serious injury or death.



The lower anchor position indicator symbols are located on the left and right rear seat backs to identify the position of the lower anchors in your vehicle (see arrows in illustration).



The LATCH anchors are located between the seatback and the seat cushion of the rear seat left and right outboard seating positions.

Securing a child restraint with the LATCH anchors system

To install a LATCH-compatible child restraint in either of the rear outboard seating positions:

- Move the seat belt buckle away from the lower anchors
- Move any other objects away from the anchors that could prevent a secure connection between the child restraint and the lower anchors.

- Place the child restraint on the vehicle seat, then attach the seat to the lower anchors according to the instructions provided by the child restraint manufacturer.
- Follow the child restraint instructions for properly adjusting and tightening the lower attachments on the child restraint to the lower anchors.

A WARNING

Take the following precautions when using the LATCH system:

- Read and follow all installation instructions provided with your child restraint system.
- To prevent the child from reaching and taking hold of unretracted seat belts, buckle all unused rear seat belts and retract the seat belt webbing behind the child. Children can be strangled if a shoulder belt becomes wrapped around their neck and the seat belt tightens.

(Continued)

(Continued)

- NEVER attach more than one child restraint to a single anchor. This could cause the anchor or attachment to come loose or break.
- Always have the LATCH system inspected by your authorized HYUNDAI Tucson Fuel Cell dealer after an accident.
 An accident can damage the LATCH system and may not properly secure the child restraint.

A WARNING

Weight for LATCH system

The recommended weight for the LATCH system is under 65 lb (29.48 kg).

How to calculate the child restraint weight :

Child restraint weight = 65 lb (29.48 kg) - Child weight.



Installing the tether strap

First, secure the child restraint with the LATCH lower anchors or the seat belt. If the child seat manufacturer recommends that the tether strap be attached, attach and tighten the tether strap to the tether anchor.

Tether anchors are located on the back of the rear seats.

A WARNING

Take the following precautions when installing the tether strap:

- Read and follow all installation instructions provided with your child restraint system.
- NEVER attach more than one child restraint to a single tether anchor. This could cause the anchor or attachment to come loose or break.
- Do not attach the tether strap to anything other than the correct tether anchor. It may not work properly if attached to something else.
- Do not use the tether anchors for adult seat belts or harnesses, or for attaching other items or equipment to the vehicle.



To install the tether strap:

- Route the child restraint tether strap over the child restraint seatback. Route the tether strap under the headrest and between the headrest posts, or route the tether strap over the top of the vehicle seatback. Make sure the strap is not twisted.
- Connect the tether strap hook to the tether anchor, then tighten the tether strap according to the child seat manufacturer's instructions to firmly secure the child restraint to the seat.

Check that the child restraint is securely attached to the seat by pushing and pulling the seat forward and from side-to-side.

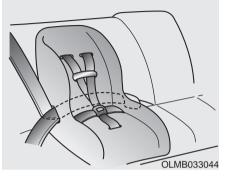
Securing a child restraint with a lap belt or lap/shoulder belt

When not using the LATCH system, all child restraints must be secured to a vehicle rear seat with the lap part of a lap/shoulder belt.

A WARNING

ALWAYS place a rear-facing child restraint in the rear seat of the vehicle.

Placing a rear-facing child restraint in the front seat can result in serious injury or death if the child restraint is struck by an inflating air bag.



Automatic lock mode

Since all passenger seat belts move freely under normal conditions and only lock under extreme or emergency conditions (emergency locking mode), you must manually pull the seat belt all the way out to shift the retractor to the "Automatic Locking" mode to secure a child restraint.

The "Automatic Locking" mode will help prevent the normal movement of the child in the vehicle from causing the seat belt to loosen and compromise the child restraint system. To secure a child restraint system, use the following procedure.

To install a child restraint system on the rear seats, do the following:

 Place the child restraint system on a rear seat and route the lap/shoulder belt around or through the child restraint, following the restraint manufacturer's instructions.

Be sure the seat belt webbing is not twisted.

* NOTICE

When using the rear center seat belt, you should also refer to "3-point Rear Center Seat Belt" in this chapter.



Fasten the lap/shoulder belt latch into the buckle. Listen for the distinct "click" sound.

* NOTICE

Position the release button so that it is easy to access in case of an emergency.



3. Pull the shoulder portion of the seat belt all the way out. When the shoulder portion of the seat belt is fully extended, it will shift the retractor to the "Automatic Locking" (child restraint) mode.



4. Slowly allow the shoulder portion of the seat belt to retract and listen for an audible "clicking" or "ratcheting" sound. This indicates that the retractor is in the "Automatic Locking" mode. If no distinct sound is heard, repeat steps 3 and 4.

- Remove as much slack from the belt as possible by pushing down on the child restraint system while feeding the shoulder belt back into the retractor.
- 6. Push and pull on the child restraint system to confirm that the seat belt is holding it firmly in place. If it is not, release the seat belt and repeat steps 2 through 6.
- 7. Double check that the retractor is in the "Automatic Locking" mode by attempting to pull more of the seat belt out of the retractor. If you cannot, the retractor is in the "Automatic Locking" mode.

If your CRS manufacturer instructs or recommends you to use a tether anchor with the lap/shoulder belt, refer to the previous pages for more information.

* NOTICE

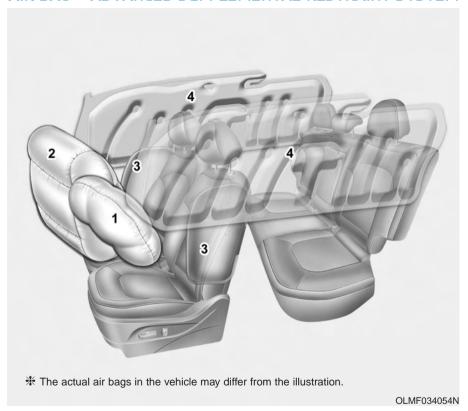
When the seat belt is allowed to retract to its fully stowed position, the retractor will automatically switch from the "Automatic Locking" mode to the emergency lock mode for normal adult usage.

A WARNING

If the retractor is not in the "Automatic Locking" mode, the child restraint can move when your vehicle turns or stops suddenly. A child can be seriously injured or killed if the child restraint is not properly anchored in the car, including manually pulling the seat belt all the way out to shift the rectractor to the "Automatic Locking" mode.

To remove the child restraint, press the release button on the buckle and then pull the lap/shoulder belt out of the restraint and allow the seat belt to retract fully.

AIR BAG - ADVANCED SUPPLEMENTAL RESTRAINT SYSTEM



- (1) Driver's front air bag
- (2) Passenger's front air bag
- (3) Side impact air bag
- (4) Curtain air bag

This vehicle is equipped with an Advanced Supplemental Air Bag System for the driver's seat and front passenger's seats.

The front air bags are designed to supplement the three-point seat belts. For these air bags to provide protection, the seat belts must be worn at all times when driving.

You can be severely injured or killed in an accident if you are not wearing a seat belt. Air bags are designed to supplement seat belts, but do not replace them. Also, air bags are not designed to deploy in every collision. In some accidents, the seat belts are the only restraint protecting you.

A WARNING

AIR BAG SAFETY PRECAUTIONS

ALWAYS use seat belts and child restraints - every trip, every time, everyone! Even with air bags, you can be seriously injured or killed in a collision if you are improperly belted or not wearing your seat belt when the air bag inflates.

NEVER place a child in any child restraint or booster seat in the front passenger seat. An inflating air bag could forcefully strike the infant or child causing serious or fatal injuries.

ABC - Always Buckle Children under age 13 in the back seat. It is the safest place for children of any age to ride. If a child age 13 or older must be seated in the front seat, he or she must be properly belted and the seat should be moved as far back as possible.

All occupants should sit upright with the seatback in an upright position, centered on the seat cushion with their seat belt on, legs comfortably extended and their feet on the floor until the vehicle is parked and the power cell module is turned off. If an occupant is out of position during an accident, the rapidly deploying air bag may forcefully contact the occupant causing serious or fatal injuries.

You and your passengers should never sit or lean unnecessarily close to the air bags or lean against the door or center console.

Move your seat as far back as possible from front air bags, while still maintaining control of the vehicle. NHTSA recommends that drivers allow at least 10 inches (25 cm) between the center of the steering wheel and the chest.

Where are the air bags?

Driver's and passenger's front air bags

Your vehicle is equipped with a Advanced Supplemental Restraint System (SRS) and lap/shoulder belts at both the driver and passenger seating positions.

The SRS consists of air bags which are located in the center of the steering wheel and the passenger's side front panel pad above the glove box.

The air bags are labeled with the letters "AIR BAG" embossed on the pad covers.



■ Passenger's front air bag



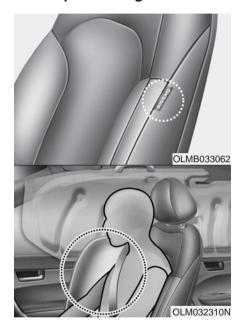
The purpose of the SRS is to provide the vehicle's driver and front passengers with additional protection than that offered by the seat belt system alone. The SRS uses sensors to gather information about the driver's seat position, the driver's and front passenger's seat belt usage and impact severity.

WARNING

To reduce the risk of serious injury or death from an inflating front air bags, take the following precautions:

- Seat belts must be worn at all times to help keep occupants positioned properly.
- Move your seat as far back as possible from front air bags, while still maintaining control of the vehicle.
- Never lean against the door or center console.
- Do not allow the front passenger to place their feet or legs on the dashboard.
- No objects should be placed over or near the air bag modules on the steering wheel, instrument panel, and the front passenger's panel above the glove box. Such objects could cause harm if the vehicle is in a crash severe enough to cause the air bags to deploy.

Side impact air bags



Your vehicle is equipped with a side impact air bag in each seat. The purpose of the air bag is to provide the vehicle's driver and the front passenger with additional protection than that offered by the seat belt alone.

The side impact air bags are designed to deploy only during certain side impact collisions, depending on the crash severity, angle, speed and point of impact.

The side impact air bags do not only deploy on the side of the impact but also on the opposite side.

For vehicles equipped with a rollover sensor the side and curtain air bags on both sides of the vehicle may deploy if a rollover or possible rollover is detected.

The side impact air bags are not designed to deploy in all side impact or rollover situations.

A WARNING

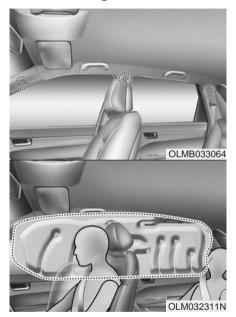
To reduce the risk of serious injury or death from an inflating side impact air bag, take the following precautions:

- Seat belts must be worn at all times to help keep occupants positioned properly.
- Do not allow passengers to lean their heads or bodies onto doors, put their arms on the doors, stretch their arms out of the window, or place objects between the doors and seats.
- Hold the steering wheel at the 9 o'clock and 3 o'clock positions, to minimize the risk of injuries to your hands and arms.
- Do not use any accessory seat covers. This could reduce or prevent the effectiveness of the system.
- Do not place any objects over the air bag or between the air bag and yourself.

A WARNING

- Do not place any objects between the door and the seat. They may become dangerous projectiles if the side impact air bag inflates.
- Do not install any accessories on the side or near the side impact air bags.
- Do not cause impact to the doors when the ignition switch is in the ON position or this may cause the side air bags to inflate.
- If the seat or seat cover is damaged, have the vehicle checked and repaired by an authorized HYUNDAI Tucson Fuel Cell dealer.

Curtain air bags



Curtain air bags are located along both sides of the roof rails above the front and rear doors.

They are designed to help protect the heads of the front seat occupants and the rear outboard seat occupants in certain side impact collisions.

The curtain air bags are designed to deploy only during certain side impact collisions, depending on the crash severity, angle, speed and impact.

The curtain air bags do not only deploy on the side of the impact but also on the opposite side.

For vehicles equipped with a rollover sensor the side and curtain air bags on both sides of the vehicle may deploy if a rollover or possible rollover is detected.

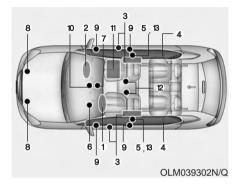
The curtain air bags are not designed to deploy in all side impact or rollover situations.

A WARNING

To reduce the risk of serious injury or death from an inflating curtain air bags, take the following precautions:

- All seat occupants must wear seat belts at all times to help keep occupants positioned properly.
- Properly secure child restraints as far away from the door as possible.
- Do not allow passengers to lean their heads or bodies onto doors, put their arms on the doors, stretch their arms out of the window, or place objects between the doors and seats.
- Do not open or repair the side curtain air bags.

How does the air bags system operate?



The SRS consists of the following components:

- 1. Driver's front air bag module
- 2. Passenger's front air bag module
- 3. Side impact air bag modules
- 4. Curtain air bag modules
- 5. Retractor pre-tensioner assemblies
- 6. Air bag warning light
- SRS control module (SRSCM)/ Rollover sensor
- 8. Front impact sensors
- 9. Side impact sensors

- "PASSENGER AIR BAG OFF" indicator
- 11. Occupant classification system
- 12. Driver's and front passenger's seat belt buckle sensors
- 13. Anchor pre-tensioner assembly

The SRSCM continually monitors all SRS components while the ignition switch is ON to determine if a crash impact is severe enough to require air bag deployment or pre-tensioner seat belt deployment.



SRS warning light

The SRS (Supplement Restraint System) air bag warning light on the instrument panel displays the air bag symbol depicted in the illustration. The system checks the air bag electrical system for malfunctions. The light indicates that there is a potential problem with your air bag system, which could include your side and curtain air bags used for rollover protection.

A WARNING

If your SRS malfunctions, the air bag may not inflate properly during an accident increasing the risk of serious injury or death.

If any of the following conditions occur, your SRS is malfunctioning:

- The light does not turn on for approximately six seconds when the ignition switch is placed in the ON position.
- The light stays on after illuminating for approximately six seconds.
- The light comes on while the vehicle is in motion.
- The light blinks when the power cell module is running.
 Have an authorized HYUNDAI Tucson Fuel Cell dealer inspect the SRS as soon as possible if any of these conditions occur.

During a moderate to severe frontal collision, sensors will detect the vehicle's rapid deceleration. If the rate of deceleration is high enough, the control unit will inflate the front air bags.

The front air bags help protect the driver and front passenger by responding to frontal impacts in which seat belts alone cannot provide adequate restraint. When needed, the side air bags help provide protection in the event of a side impact or rollover by supporting the side upper body area.

- Air bags are activated (able to inflate if necessary) only when the ignition switch is in the ON position.
- Air bags inflate in the event of a severe frontal or side collision to help protect the occupants from serious physical injury.
- There is no single speed at which the air bags will inflate. Generally, air bags are designed to inflate based upon the severity of a collision and its direction. These two factors determine whether the sensors produce an electronic deployment/inflation signal.

- Air bag deployment depends on a number of factors including vehicle speed, angles of impact and the density and stiffness of the vehicles or objects which your vehicle impacts during a collision. The determining factors are not limited to those mentioned above.
- The front air bags will completely inflate and deflate in an instant. It is virtually impossible for you to see the air bags inflate during an accident. It is much more likely that you will simply see the deflated air bags hanging out of their storage compartments after the collision.
- In addition to inflating in serious side collisions, vehicles equipped with a rollover sensor, side and curtain air bags will inflate if the sensing system detects a rollover.
 When a rollover is detected, side and curtain air bags will remain inflated longer to help provide protection from ejection, especially when used in conjunction with the seat belts.

- To help provide protection, the air bags must inflate rapidly. The speed of air bag inflation is a consequence of extremely short time in which to inflate the air bag between the occupant and the vehicle structures before the occupant impacts those structures. This speed of inflation reduces the risk of serious or life-threatening injuries and is thus a necessary part of air bag design.
 - However, the rapid air bag inflation can also cause injuries which can include facial abrasions, bruises and broken bones because the inflation speed also causes the air bags to expand with a great deal of force
- There are even circumstances under which contact with the air bag can cause fatal injuries, especially if the occupant is positioned excessively close to the air bag.

You can take steps to reduce the risk of being injured by an inflating air bag. The greatest risk is sitting too close to the air bag. An air bag needs about 10 inches (25 cm) of space to inflate. NHTSA recommends that drivers allow at least 10 inches (25 cm) between the center of the steering wheel and the chest.

A WARNING

To reduce the risk of serious injury or death from an inflating air bag, take the following precautions:

- NEVER place a child restraint in the front passenger seat.
 Always properly restrain children under age 13 in the rear seats of the vehicle.
- Adjust the front passenger's and driver's seats as far to the rear as possible while allowing you to maintain full control of the vehicle.
- Hold the steering wheel with hands at the 9 o'clock and 3 o'clock positions.
- Never place anything or anyone between the air bag and the seat occupant.
- Do not allow the front passenger to place their feet or legs on the dashboard.

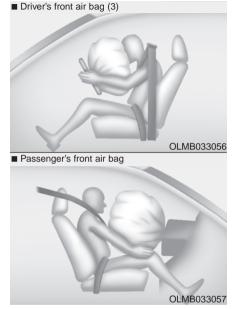


When the SRSCM detects a sufficiently severe impact to the front of the vehicle, it will automatically deploy the front air bags.



Upon deployment, tear seams molded directly into the pad covers will separate under pressure from the expansion of the air bags. Further opening of the covers allows full inflation of the air bags.

A fully inflated air bag, in combination with a properly worn seat belt, slows the driver's or the passenger's forward motion, reducing the risk of head and chest injury.



After complete inflation, the air bag immediately starts deflating, enabling the driver to maintain forward visibility and the ability to steer or operate other controls.

A WARNING

To prevent objects from becoming dangerous projectiles when the passenger's air bag inflates:

- Do not install or place any objects (drink holder, CD holder, stickers, etc.) on the front passenger's panel above the glove box where the passenger's air bag is located.
- Do not install a container of liquid air freshener near the instrument cluster or on the instrument panel surface.

What to expect after an air bag inflates

After a frontal or side air bag inflates, it will deflate very quickly. Air bag inflation will not prevent the driver from seeing out of the windshield or being able to steer. Curtain air bags may remain partially inflated for some time after they deploy.

A WARNING

After an air bag inflates, take the following precautions:

- Open your windows and doors as soon as possible after impact to reduce prolonged exposure to the smoke and powder released by the inflating air bag.
- Do not touch the air bag storage area's internal components immediately after an air bag has inflated. The parts that come into contact with an inflating air bag may be very hot.

A WARNING

- Always wash exposed skin areas thoroughly with lukewarm water and mild soap.
- Always have an authorized HYUNDAI Tucson Fuel Cell dealer replace the air bag immediately after deployment. Air bags are designed to be used only once.

Noise and smoke from inflating air bag

When the air bags inflate, they make a loud noise and they leave smoke and powder in the air inside of the vehicle. This is normal and is a result of the ignition of the air bag inflator. After the air bag inflates, you may feel substantial discomfort in breathing because of the contact of your chest with both the seat belt and the air bag, as well as from breathing the smoke and powder. The powder may aggravate asthma for some people. If you experience breathing problems after an air bag deployment, seek medical attention immediately.

Though the smoke and powder are nontoxic, they may cause irritation to the skin, eyes, nose, throat, etc. If this is the case, wash and rinse with cold water immediately and seek medical attention if the symptoms persist.

Occupant Classification System (OCS)



Your vehicle is equipped with an Occupant Classification System (OCS) in the front passenger's seat. The OCS is designed to detect the presence of a properly-seated front passenger and determine if the passenger's front air bag should be enabled (may inflate) or not. The driver's front air bag is not affected or controlled by the OCS.

Main components of the Occupant Classification System

- A detection device located within the front passenger seat cushion.
- Electronic system to determine whether the passenger air bag systems (both front and side) should be activated or deactivated.
- An indicator light located on the instrument panel which illuminates the words "PASSENGER AIR BAG OFF" indicating the front passenger air bag system is deactivated.
- The instrument panel air bag indicator light is interconnected with the OCS.

Front passenger seat adult occupants who are properly seated and wearing the seat belt properly, should not cause the passenger air bag to be automatically turned OFF. However, if the occupant does not sit in the seat properly (for example, by not sitting upright, by sitting on the edge of the seat, or by otherwise being out of position), this could cause the sensor to turn the air bag OFF.

You will find the "PASSENGER AIR BAG OFF" indicator on the center facia panel. This system detects the conditions 1-4 in the following table and activates or deactivates the front passenger air bag based on these conditions.

Always be sure that you and all vehicle occupants are seated properly and wearing the seat belt properly for the most effective protection by the air bag and the seat belt. The OCS may not function properly if the passenger takes actions which can affect the classification system. These include:

- Failing to sit in an upright position.
- Leaning against the door or center console.
- Sitting towards the sides of the front of the seat.
- Putting their legs on the dashboard or resting them on other locations which reduce the passenger weight on the front seat.
- Wearing the seat belt improperly.
- · Reclining the seatback.

Condition and operation in the front passenger Occupant Classification System

	Indicator/Warning light		Devices
Condition detected by the occupant classification system	"PASSENGER AIR BAG OFF" indicator light	SRS warning light	Front passenger air bag
1. Adult*1	Off	Off	Activated
2. Infant*2 or child restraint system with 12 months old*3	On	Off	Deactivated
3. Unoccupied	On	Off	Deactivated
4. Malfunction in the system	Off	On	Activated

^{*1} The system judges a person of adult size as an adult. When a smaller adult sits in the front passenger seat, the system may recognize him/her as a child depending on his/her physique and posture.

^{*2} Do not allow children to ride in the front passenger seat. When a larger child who has outgrown a child restraint system sits in the front passenger seat, the system may recognize him/her as an adult depending upon his/her physique or sitting position.

^{*3} Never install a child restraint system on the front passenger seat.

A WARNING

Riding in an improper position or placing weight on the front passenger's seat when it is unoccupied by a passenger adversely affects the OCS. To reduce the risk of serious injury or death:



 NEVER put a heavy load in the front seat or seatback pocket.



 NEVER ride with the seatback reclined when the vehicle is moving.



 NEVER place your feet on the front passenger seatback.



 NEVER place your feet or legs on the dashboard.



NEVER sit with your hips shifted towards the front of the seat.



 NEVER lean on the door or center console or sit on one side of the front passenger seat.



Proper seated position for OCS

If the "PASSENGER AIR BAG OFF" indicator is on when an adult is seated in the front passenger seat, place the ignition switch to the LOCK/OFF position and ask the passenger to sit properly (sitting upright with the seat back in an upright position, centered on the seat cushion with their seat belt on, legs comfortably extended and their feet on the floor). Restart the power cell module and have the person remain in that position. This will allow the system to detect the person and to enable the passenger air bag.

If the "PASSENGER AIR BAG OFF" indicator is still on, ask the passenger to move to the rear seat.

A WARNING

Never allow an adult passenger to ride in the front passenger seat when the "PASSENGER AIR BAG OFF" indicator is illuminated. During a collision, the air bag will not inflate if the indicator is illuminated. Have your passenger move to the rear seat.

* NOTICE

The "PASSENGER AIR BAG OFF" indicator illuminates for approximately 4 seconds after the ignition switch is in the ON position or after the power cell module is started. If the front passenger seat is occupied, the OCS will then classify the front passenger after several more seconds.

Do Not Install a Child Restraint in the Front Passenger's Seat



1.JBH3051

Even though your vehicle is equipped with the OCS, never install a child restraint in the front passenger's seat. An inflating air bag can forcefully strike a child or restraint resulting in serious or fatal injury.

A WARNING

- NEVER place a rear-facing or front-facing child restraint in the front passenger's seat of the vehicle.
- An inflating frontal air bag could forcefully strike a child resulting in serious injury or death.
- Always properly restrain children in an appropriate child restraint in the rear seat of the vehicle.

Why Didn't My Air Bag Go Off in a Collision? (Air bags are not designed to inflate in every collision.)

There are certain types of accidents in which the air bag would not be expected to provide additional protection. These include rear impacts, second or third collisions in multiple impact accidents, as well as low speed impacts. Damage to the vehicle indicates a collision energy absorption, and is not an indicator of whether or not an air bag should have inflated.

Air bag collision sensors

A WARNING

To reduce the risk of an air bag deploying unexpectedly and causing serious injury or death:

- Do not hit or allow any objects to impact the locations where air bags or sensors are installed.
- Do not perform maintenance on or around the air bag sensors. If the location or angle of the sensors is altered, the air bags may deploy when they should not or may not deploy when they should.
- Do not install bumper guards or replace the bumper with a non-genuine HYUNDAI parts.
 This may adversely affect the collision and air bag deployment performance.

(Continued)

(Continued)

- Place the ignition switch in the LOCK/OFF or ACC position when the vehicle is being towed to prevent inadvertent air bag deployment.
- Have all repairs conducted by an authorized HYUNDAI Tucson Fuel Cell dealer.



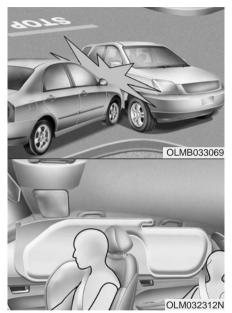
- OLIVII 01400214/OLIVID033000/OLIVID033003/OLIVI0390
- (1) SRS control module/Rollover sensor
- (2) Front impact sensor
- (3) Side impact sensor
- (4) Side impact sensor

Air bag inflation conditions



Front air bag

Front air bags are designed to inflate in a frontal collision depending on the intensity, speed, or angles of impact of the front collision.



Side impact and curtain air bags

Side impact and curtain air bags are designed to inflate when an impact is detected by side collision sensors depending on the strength, speed, or angles of impact resulting from a side impact collision.

Although the driver's and front passenger's air bags are designed to inflate only in frontal collisions, they also may inflate in other types of collisions if the front impact sensors detect a sufficient impact. Side impact and curtain air bags are designed to inflate only in side impact collisions or rollover situations, but they may inflate in other collisions if the side impact sensors detect a sufficient impact.

If the vehicle chassis is impacted by bumps or objects on unimproved roads, the air bags may deploy. Drive carefully on unimproved roads or on surfaces not designed for vehicle traffic to prevent unintended air bag deployment.

Air bag non-inflation conditions



In certain low-speed collisions the air bags may not deploy. The air bags are designed not to deploy in such cases because they may not provide benefits beyond the protection of the seat belts.

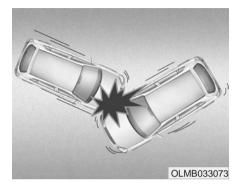


Front air bags are not designed to inflate in rear collisions, because occupants are moved backward by the force of the impact. In this case, inflated air bags would not provide any additional benefit.



Front air bags may not inflate in side impact collisions, because occupants move in the direction of the collision, and thus in side impacts, front air bag deployment would not provide additional occupant protection.

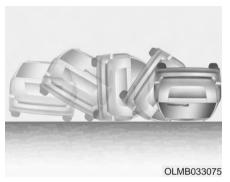
However, side impact and curtain air bags may inflate depending on the intensity, vehicle speed and angles of impact.



In an angled collision, the force of impact may direct the occupants in a direction where the air bags would not be able to provide any additional benefit, and thus the sensors may not deploy any air bags.



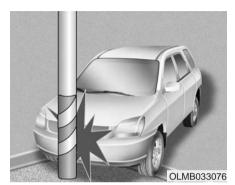
Just before impact, drivers often brake heavily. Such heavy braking lowers the front portion of the vehicle causing it to "ride" under a vehicle with a higher ground clearance. Air bags may not inflate in this "underride" situation because deceleration forces that are detected by sensors may be significantly reduced by such "underride" collisions.



Front air bags may not inflate in rollover accidents because air bag deployment could not provide protection to the occupants.

However, side impact and curtain air bags may inflate when the vehicle is rolled over by a side impact collision, if the vehicle is equipped with side impact air bags and curtain air bags.

Also, if the vehicle is equipped with a rollover sensor, side impact and curtain air bags may inflate in a rollover.



Air bags may not inflate if the vehicle collides with objects such as utility poles or trees, where the point of impact is concentrated and the collision energy is absorbed by the vehicle structure.

SRS care

The SRS is virtually maintenancefree and there are no parts you can safely service by yourself. If the SRS air bag warning light does not illuminate when the ignition switch is in the ON position, or continuously remains on, have your vehicle immediately inspected by an authorized HYUNDAI Tucson Fuel Cell dealer.

Any work on the SRS system, such as removing, installing, repairing, or any work on the steering wheel, the front passenger's panel, front seats and roof rails must be performed by an authorized HYUNDAI Tucson Fuel Cell dealer. Improper handling of the SRS system may result in serious personal injury.

A WARNING

To reduce the risk of serious injury or death, take the following precautions:

- Do not attempt to modify or disconnect the SRS components or wiring, including the addition of any kind of badges to the pad covers or modifications to the body structure.
- Do not place objects over or near the air bag modules on the steering wheel, instrument panel, or the front passenger's panel above the glove box.
- Clean the air bag pad covers with a soft cloth moistened with plain water. Solvents or cleaners could adversely affect the air bag covers and proper deployment of the system.

(Continued)

(Continued)

- We recommend that inflated air bags be replaced by an authorized HYUNDAI Tucson Fuel Cell dealer.
- If components of the air bag system must be discarded, or if the vehicle must be scrapped, certain safety precautions must be observed. Consult an authorized HYUNDAI Tucson Fuel Cell dealer for the necessary information. Failure to follow these precautions could increase the risk of personal injury.

Additional safety precautions

Passengers should not move out of or change seats while the vehicle is moving. A passenger who is not wearing a seat belt during a crash or emergency stop can be thrown against the inside of the vehicle, against other occupants, or be ejected from the vehicle.

Do not use any accessories on seat belts. Devices claiming to improve occupant comfort or reposition the seat belt can reduce the protection provided by the seat belt and increase the chance of serious injury in a crash

Do not modify the front seats.

Modification of the front seats could interfere with the operation of the supplemental restraint system sensing components or side air bags.

Do not place items under the front seats. Placing items under the front seats could interfere with the operation of the supplemental restraint system sensing components and wiring harnesses.

Do not cause impact to the doors. Impact to the doors when the ignition switch is in the ON position may cause the air bags to inflate.

Modifications to accommodate disabilities. If you require modification to your vehicle to accommodate a disability, contact the HYUNDAI Customer Connect Center at 1-877-378-8727.

Adding equipment to or modifying your air bag equipped vehicle

If you modify your vehicle by changing your vehicle's frame, bumper system, front end or side sheet metal or ride height, this may affect the operation of your vehicle's air bag system.

Air bag warning labels



Air bag warning labels, required by the U.S. National Highway Traffic Safety Administration (NHTSA), are attached to alert the driver and passengers of potential risks of the air bag system. Be sure to read all of the information about the air bags that are installed on your vehicle in this Owners Manual.

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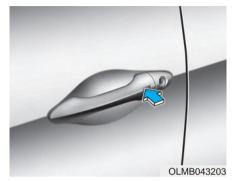
ACCESSING YOUR VEHICLE Smart key



Your HYUNDAI uses a Smart Key, which you can use to lock or unlock a door (and tailgate) and even start the vehicle.

- 1. Door Lock
- 2. Door Unlock
- 3. Tailgate Unlock
- 4. Panic

Locking



To lock:

- 1. Close all doors, power cell module compartment hood and tailgate.
- Either press the door handle button or press the Door Lock button
 on the smart key.
- The hazard warning lights will blink and the chime will sound once.
- Make sure the doors are locked by checking the position of the door lock button inside the vehicle.

* NOTICE

The door handle button will only operate when the smart key is within $28{\sim}40$ in. $(0.7{\sim}1$ m) from the outside door handle.

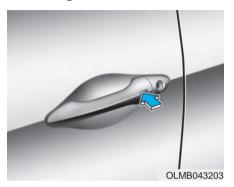
Even though you press the outside door handle button, the doors will not lock and the chime will sound for three seconds if any of the following occur:

- The Smart Key is in the vehicle.
- The POWER button is in ACC or ON position.
- · Any door except the tailgate is open.

A WARNING

Do not leave the Smart Key in your vehicle with unsupervised children. Unattended children could press the POWER button and may operate power windows or other controls, or even make the vehicle move, which could result in serious injury or death.

Unlocking



To unlock:

- 1. Carry the Smart Key.
- 2. Either press the door handle button or press the Door Unlock button (2) on the smart key.
- The driver's door will unlock. The hazard warning lights will blink two times.

* NOTICE

- The door handle button will only operate when the smart key is within 28~40 in. (0.7~1 m) from the outside door handle. Other people can also open the doors without the smart key in possession.
- If you press the Door Unlock button again within four seconds, then all the doors will unlock.
- After unlocking the doors, the doors will lock automatically after 30 seconds unless a door is opened.
- You can change the system to the central door unlock mode (unlock all the doors when you press the unlock button one time). If you want this feature, perform the following:

Unlock mode conversion (two stage unlock mode ↔ central door unlock mode)

The unlock mode changes alternately by pressing the lock button and unlock button on the smart key at the same time for 4 seconds or more. The hazard warning lights will blink four times to indicate that the mode conversion is completed.

Tailgate unlocking

To unlock:

- 1. Carry the smart key.
- Either press the tailgate handle button or press the Tailgate Unlock button (3) on the smart key for more than one second.
- 3. The hazard warning lights will blink two times.

Once the tailgate is opened and then closed, the tailgate will lock automatically.

* NOTICE

After unlocking the tailgate, the tailgate will lock automatically after 30 seconds unless the tailgate is opened.

Panic button

Press the Panic button (4) for more than 1.5 second. The horn sounds and hazard warning lights flash for about 30 seconds.

To cancel the panic mode, press any button on the smart key.

Start-up

You can start the vehicle without inserting the key. For detailed information refer to the POWER button in chapter 5.

A CAUTION

To prevent damaging the smart key:

- Keep the smart key away from water or any liquid. If the smart key is inoperative due to exposure to water or other liquids, it will not be covered by your manufacturer's vehicle warranty.
- Avoid dropping or throwing the smart key.
- Protect the smart key from extreme temperatures.

Mechanical key

If the Smart Key does not operate normally, you can lock or unlock the door by using the mechanical key.



Press and hold the release button (1) and remove the mechanical key (2). Insert the mechanical key in to the key hole on the door.

To reinstall the mechanical key, put the key into the hole and push it until a click sound is heard.

Loss of a smart key

A maximum of two smart keys can be registered to a single vehicle. If you happen to lose your smart key, you should immediately take the vehicle and remaining key to your authorized HYUNDAI Tucson Fuel Cell dealer or tow the vehicle, if necessary.

Smart key precautions

The smart key will not work if any of the following occur:

- 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 transmitter.
- The smart key is near a mobile two way radio system or a cellular phone.
- Another vehicle's smart key is being operated close to your vehicle.

When the smart key does not work correctly, open and close the door with the mechanical key. If you have a problem with the smart key, contact an authorized HYUNDAI Tucson Fuel Cell dealer.

If the smart key is in close proximity to your mobile phone, the signal could be blocked by your mobile phones normal operational signals. This is especially important when the phone is active such as making and receiving calls, text messaging, and/or sending/receiving emails. Avoid placing the smart key and your mobile phone in the same pants or jacket pocket and always try to maintain an adequate distance between the two devices.

This device complies with Part 15 of the FCC rules.

Operation is subject to the following two conditions:

- 1. This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

* NOTICE

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the device.

Battery replacement

If the Smart Key is not working properly, try replacing the battery with a new one.



Battery Type: CR2032 To replace the battery:

- 1. Pry open the rear cover of the smart key.
- 2. Remove the old battery and insert the new battery. Make sure the battery position is correct.
- Reinstall the rear cover of the smart key.

If you suspect your smart key might have sustained some damage, or you feel your smart key is not working correctly, contact an authorized HYUNDAI Tucson Fuel Cell dealer.

* NOTICE



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

Immobilizer System

The immobilizer system protects your vehicle from theft. If an improperly coded key (or other device) is used, the fuel system is disabled.

When the POWER button is placed in the ON position, the immobilizer system indicator should come on briefly, then go off. If the indicator starts to blink, the system does not recognize the coding of the key.

Place the POWER button to the LOCK/OFF position, then place the POWER button to the ON position again.

The system may not recognize your key's coding if another immobilizer key or other metal object (i.e., key chain) is near the key. The vehicle may not start because the metal may interrupt the transponder signal from transmitting normally.

If the system repeatedly does not recognize the coding of the key, contact your HYUNDAI Tucson Fuel Cell dealer.

Do not attempt to alter this system or add other devices to it. Electrical problems could result that may make your vehicle inoperable.

A WARNING

In order to prevent theft of your vehicle, do not leave spare keys anywhere in your vehicle. Your immobilizer password is a customer unique password and should be kept confidential.

A CAUTION

The transponder in your ignition key is an important part of the immobilizer system. It is designed to give years of trouble-free service, however you should avoid exposure to moisture, static electricity and rough handling. Immobilizer system malfunction could occur.

This device complies with Part 15 of the 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.

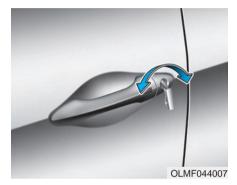
* NOTICE

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the device.

DOOR LOCKS

Operating door locks from outside the vehicle

Mechanical key



Turn the key toward the rear of the vehicle to unlock and toward the front of the vehicle to lock.

If you lock the door with a key, all vehicle doors will lock automatically. From the driver's door, turn the key to the right once to unlock the driver's door and once more within 4 seconds to unlock all doors.

Once the doors are unlocked, they may be opened by pulling the door handle.

When closing the door, push the door by hand. Make sure that doors are closed securely.

* NOTICE

You can change the system to the central door unlock mode (unlock all doors by turning the key to the right once). If you want this feature, perform the following:

Unlock mode conversion (two stage unlock mode ↔ central door unlock mode)

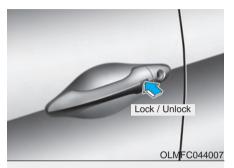
The unlock mode changes alternately by pressing the lock button and unlock button on the remote key (or smart key) at the same time for 4 seconds or more. The hazard warning lights will blink four times to indicate that the mode conversion is completed.

If your vehicle is equipped with a remote key, there is no key lock on the front passenger's door.

* NOTICE

- In cold and wet climates, door lock and door mechanisms may not work properly due to freezing conditions.
- If the door is locked/unlocked multiple times in rapid succession with either the vehicle key or door lock switch, the system may stop operating temporarily in order to protect the circuit and prevent damage to system components.

Smart key





To lock the doors, press the button on the outside door handle while carrying the smart key with you or press the door lock button on the smart key. Press the button on the outside door handle while carrying the smart key with you or press the door unlock button on the smart key, the driver's door will unlock. If you press the Door Unlock button on the smart key again within four seconds, then all the doors will unlock.

Once the doors are unlocked, they may be opened by pulling the door handle.

When closing the door, push the door by hand. Make sure that doors are closed securely.

* NOTICE

You can change the system to the central door unlock mode (unlock all the doors when you press the unlock button one time). If you want this feature, perform the following:

Unlock mode conversion (two stage unlock mode ↔ central door unlock mode)

(Continued)

(Continued)

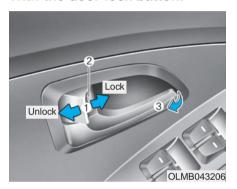
The unlock mode changes alternately by pressing the lock button and unlock button on the smart key at the same time for 4 seconds or more. The hazard warning lights will blink four times to indicate that the mode conversion is completed.

* NOTICE

- In cold and wet climates, door lock and door mechanisms may not work properly due to freezing conditions.
- If the door is locked/unlocked multiple times in rapid succession with either the vehicle key or door lock switch, the system may stop operating temporarily in order to protect the circuit and prevent damage to system components.

Operating door locks from inside the vehicle

With the door lock button:



- To unlock a door, push the door lock button (1) to the "Unlock" position. The red mark (2) on the door lock button will be visible.
- To lock a door, push the door lock button (1) to the "Lock" position. If the door is locked properly, the red mark (2) on the door lock button will not be visible.
- To open a door, pull the door handle (3) outward.

- If the inner door handle of the driver's (or front passenger's) door is pulled when the door lock button is in the lock position, the button is unlocked and the door will open.
- The front doors cannot be locked if the key is in the vehicle and any front door is open.
- The doors cannot be locked if the smart key is in the vehicle and any door is open.

* NOTICE

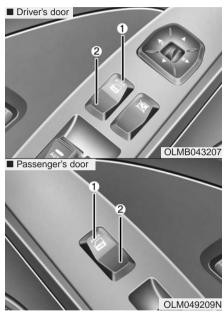
If a power door lock ever fails to function while you are in the vehicle try one or more of the following techniques to exit:

Operate the door unlock feature repeatedly (both electronic and manual) while simultaneously pulling on the door handle.

Operate the other door locks and handles, front and rear.

Lower a front window and use the mechanical key to unlock the door from outside.

With the central door lock switch:



When pressing the front portion (1) of the switch, all vehicle doors will lock.

When pressing the rear portion (2) of the switch, all vehicle doors will unlock.

- If the key is in the vehicle and any door is opened, the doors will not lock even though the lock button (1) of the central door lock switch is pressed.
- If the smart key is in the vehicle and any door is opened, the doors will not lock even though the lock button (1) of the central door lock switch is pressed.

A WARNING

The doors should always be fully closed and locked while the vehicle is in motion. If the doors are unlocked, the risk of being thrown from the vehicle in a crash is increased.

A WARNING

Do not leave children or animals unattended in your vehicle. An enclosed vehicle can become extremely hot, causing death or serious injury to unattended children or animals who cannot escape the vehicle. Children might operate features of the vehicle that could injure them, or they could encounter other harm, possibly from someone gaining entry to the vehicle.

A WARNING

Always secure your vehicle.

Leaving your vehicle unlocked increases the potential risk to you or others from someone hiding in your vehicle.

To secure your vehicle, while depressing the brake, move the shift lever to the P (Park) position, engage the parking brake, and place the POWER button in the LOCK/OFF position, close all windows, lock all doors, and always take the key with you.

A WARNING

Opening a door when something is approaching may cause damage or injury. Be careful when opening doors and watch for vehicles, motorcycles, bicycles or pedestrians approaching the vehicle in the path of the door.

Auto door lock/unlock features

- All doors will be automatically locked when moving the shift lever out of P (Park) when the vehicle is in READY mode.
- All doors will be automatically unlocked when shifting the gear shift lever shift lever into P (Park) with the vehicle is running.

* NOTICE

An authorized HYUNDAI Tucson Fuel Cell dealer can activate or deactivate some auto door lock/unlock features as follows:

- Auto door unlock by using the driver's door lock button
- Auto door unlock when the power cell module is off.
- Auto door lock/unlock by shifting the shift lever out of P (Park) or into P (Park)

If you want to activate or deactivate some door lock/unlock feature, consult an authorized HYUNDAI Tucson Fuel Cell dealer.

Child-protector rear door locks



The child safety lock is provided to help prevent children seated in the rear from accidentally opening the rear doors. The rear door safety locks should be used whenever children are in the vehicle.

The child safety lock is located on the edge of each rear door. When the child safety lock is in the lock position (), the rear door will not open if the inner door handle (1) is pulled.

To allow a rear door to be opened from inside the vehicle, unlock the child safety lock.

A WARNING

If children accidently open the rear doors while the vehicle is in motion, they could fall out of the vehicle. The rear door safety locks should always be used whenever children are in the vehicle.

THEFT-ALARM SYSTEM

This system helps to protect your vehicle and valuables. The horn will sound and the hazard warning lights will blink continuously if any of the following occurs:

- A door is opened without using the remote key or smart key.
- The tailgate is opened without using the remote key or smart key.
- The power cell module compartment hood is opened.

The alarm continues for 30 seconds and the alarm will repeat once more, then the system resets. To turn off the alarm, unlock the doors with the remote key or smart key.

The Theft Alarm System automatically sets 30 seconds after you lock the doors and the tailgate. For the system to activate, you must lock the doors and the tailgate from outside the vehicle with the remote key or smart key or by pressing the button on the outside of the door handles with the smart key in your possession.

The hazard warning lights will blink and the chime will sound once to indicate the system is armed.

Once the security system is set, opening any door, the tailgate, or the hood without using the remote key or smart key will cause the alarm to activate.

The Theft Alarm System will not set if the hood, the tailgate, or any door is not fully closed. If the system will not set, check the hood, the tailgate, or the doors are fully closed.

Do not attempt to alter this system or add other devices to it.

* NOTICE

- Do not lock the doors until all passengers have left the vehicle. If the remaining passenger leaves the vehicle when the system is armed, the alarm will be activated.
- If the vehicle is not disarmed with the remote key or smart key, open the doors by using the mechanical key and place the POWER button in the ON position (for remote key) or start the vehicle (for smart key) and wait for 30 seconds.

STEERING WHEEL

Electric Power Steering (EPS)

This system assists you with steering the vehicle.

If the power cell module is turned off or if the EPS becomes inoperative, you may still steer the vehicle, but it will require increased steering effort.

Should you notice any change in the effort required to steer during normal vehicle operation, have the EPS checked by an authorized HYUNDAI Tucson Fuel Cell dealer.

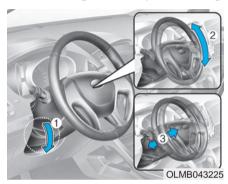
A CAUTION

If the Electric Power Steering System does not operate normally, the warning light (⊘!) will illuminate on the instrument cluster. The steering wheel may become difficult to control or operate. Take your vehicle to an authorized HYUNDAI Tucson Fuel Cell dealer and have the system checked as soon as possible.

* NOTICE

- The steering effort may be high immediately after placing the POWER button in the ON position. This happens as the system performs the EPS system diagnostics. When the diagnostics are completed, the steering effort will return to its normal condition.
- A click noise may be heard from the EPS relay after the POWER button is placed in the ON or LOCK/OFF position.
- A motor noise may be heard when the vehicle is at a stop or at a low driving speed.
- When you operate the vehicle in cold weather conditions, a noise may be heard when you operate the steering wheel. This is a normal condition. When the ambient temperature increases, the noise will disappear.

Tilt steering/Telescope steering



Pull down the lock-release lever (1) on the steering wheel column and adjust the steering wheel angle (2) and position (3, if equipped). Move the steering wheel, so it points toward your chest, not toward your face. Make sure you can see the instrument panel warning lights and gauges. After adjusting, pull up the lock-release lever (1) to lock the steering wheel in place. Push the steering wheel both up and down to be certain it is locked in position. Always adjust the position of the steering wheel before driving.

A WARNING

NEVER adjust the steering wheel while driving. This may cause loss of vehicle control resulting in an accident.

Horn



To sound the horn, press the area indicated by the horn symbol on your steering wheel (see illustration). The horn will operate only when this area is pressed.

A CAUTION

Do not strike the horn severely to operate it, or hit it with your fist. Do not press on the horn with a sharp-pointed object.

MIRRORS

Interior rearview mirrors

Before you start driving, adjust the rearview mirror to center the view through the rear window.

A WARNING

Make sure your line of sight is not obstructed. Do not place objects in the rear seat, cargo area, or behind the rear headrests which could interfere with your vision through the rear window.

A WARNING

To prevent serious injury during an accident or deployment of the air bag, do not modify the rearview mirror and do not install a wide mirror.

A WARNING

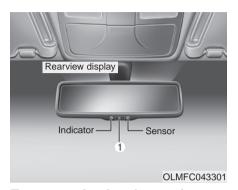
NEVER adjust the mirror while driving. This may cause loss of vehicle control resulting in an accident.

Electric chromic mirror (ECM) (if equipped)

The electric rearview mirror automatically controls the glare from the headlights of the car behind you in nighttime or low light driving conditions

When the power cell module is running, the glare is automatically controlled by the sensor mounted in the rearview mirror. The sensor detects the light level around the vehicle, and automatically adjusts to control the headlight glare from vehicles behind vou.

Whenever the shift lever is placed in R (Reverse), the mirror will automatically go to the brightest setting to improve the driver's view behind the vehicle.



To operate the electric rearview mirror:

 Press the ON/OFF button (1) to turn the automatic dimming function on. The mirror indicator light will illuminate.

Press the ON/OFF button to turn the automatic dimming function off. The mirror indicator light will turn off.

The mirror defaults to the ON position whenever the POWER button is turned on.

A CAUTION

When cleaning the mirror, use a paper towel or similar material dampened with glass cleaner. Do not spray glass cleaner directly on the mirror as that may cause the liquid cleaner to enter the mirror housing and damage the rearview mirror.

Electric chromic mirror (ECM) with compass

Your vehicle may be equipped with a Gentex Automatic-Dimming Mirror with a Z-Nav $^{\text{TM}}$ Electronic Compass Display.

During nighttime driving, this feature will automatically detect and reduce rearview mirror glare while the compass indicates the direction the vehicle is pointed.

Automatic-Dimming Night Vision SafetyTM (NVS*) Mirror (if equipped)

A CAUTION

The NVS® Mirror automatically reduces glare by monitoring light levels in the front and the rear of the vehicle. Any object that obstructs either light sensor will degrade the automatic dimming control feature.

For more information regarding NVS® mirrors and other applications, please refer to the Gentex website: www.gentex.com

The auto-dimming function can be controlled by pressing the ON/OFF button:

- 1. Pressing the button turns the autodimming function OFF which is indicated by the green Status Indicator LED turning off.
- Pressing the button again turns the auto-dimming function ON which is indicated by the green Status Indicator LED turning on.

The mirror defaults to the ON position each time the vehicle is started.

Z-NavTM Compass Display

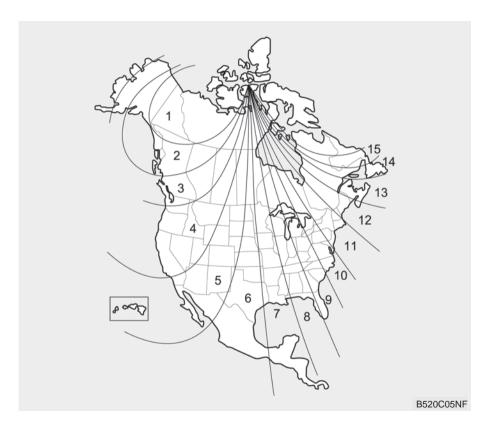
The NVS™ Mirror in your vehicle is also equipped with a Z-Nav™ Compass that shows the vehicle Compass heading in the Display Window using the 8 basic cardinal headings (N, NE, E, SE, etc.).

Compass function

The Compass can be turned ON and OFF and will remember the last state when the POWER button is cycled. To turn the display feature ON/OFF:

- 1. Press and release the \circ button to turn the display feature OFF.
- 2. Press and release the \circ button again to turn the display back ON. Additional options can be set with press and hold sequences of the button and are detailed below.

There is a difference between magnetic north and true north. To compensate for this difference you will need to adjust the Zone setting based on where you live.



To adjust the Zone setting:

- 1. Determine the desired Zone Number based upon your current location on the Zone Map.
- 2. Press and hold the \circlearrowleft button for more than 3 but less than 6 seconds, the current Zone Number will appear on the display.
- 3. Pressing and holding the ⁽⁾ button again will cause the numbers to increment (Note: they will repeat ...13, 14, 15, 1, 2, ...). Releasing the button when the desired Zone Number appears on the display will set the new Zone.
- Within about 5 seconds the compass will start displaying a compass heading again.

There are some conditions that can cause changes to the vehicle magnets, such as installing a ski rack or a CB antenna. Body repair work on the vehicle can also cause changes to the vehicle's magnetic field. In these situations, the compass will need to be re-calibrated to quickly correct these changes.

If you need to recalibrate the compass:

- Press and hold the button for more than 6 seconds. When the compass memory is cleared a "C" will appear in the display.
- 2. Drive the vehicle in 2 complete circles at less than 5 mph (8 km/h).

Outside rearview mirrors



Your vehicle is equipped with both lefthand and right-hand outside mirrors.

A WARNING

- The right outside rearview mirror is convex. Objects seen in the mirror are closer than they appear.
- Use your interior rearview mirror or turn your head and look to determine the actual distance of following vehicles when changing lanes.

A WARNING

Do not adjust or fold the outside rearview mirrors while driving. This may cause loss of vehicle control resulting in an accident.

! CAUTION

- Do not scrape ice off the mirror face; this may damage the surface of the glass.
- If the mirror is jammed with ice, do not adjust the mirror by force. Use an approved de-icer (not radiator antifreeze) spray, or a sponge or soft cloth with very warm water, or move the vehicle to a warm place and allow the ice to melt.



Adjusting the rearview mirrors:

Press either the L (driver's side) or R (passenger's side) button (1) to select the rearview mirror you would like to adjust.

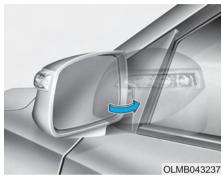
Use the mirror adjustment control (2) to position the selected mirror up, down, left or right.

After adjustment, press the L or R button (1) again to prevent inadvertent adjustment.

A CAUTION

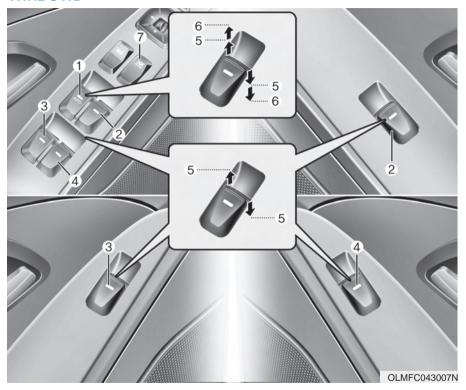
- The mirrors stop moving when they reach the maximum adjusting angles, but the motor continues to operate while the switch is pressed. Do not press the switch longer than necessary; the motor may be damaged.
- Do not attempt to adjust the outside rearview mirror by hand or the motor may be damaged.

Folding the outside rearview mirrors



To fold outside rearview mirror, grasp the housing of mirror and then fold it toward the rear of the vehicle.

WINDOWS



- (1) Driver's door power window switch
- (2) Front passenger's door power window switch
- (3) Rear door (left) power window switch
- (4) Rear door (right) power window switch
- (5) Window opening and closing
- (6) Automatic power window up*/down
- (7) Power window lock switch

*: if equipped

Power windows

The POWER button must be in the ON position to be able to raise or lower the windows.

Each door has a Power Window switch to control that door's window. The driver has a Power Window Lock switch which can block the operation of passenger windows. The power windows will operate for approximately 30 seconds after the POWER button is placed in the ACC or LOCK/OFF position. However, if the front doors are opened, the Power Windows cannot be operated even within the 30 second period.

A WARNING

To avoid serious injury or death, do not extend your head, arms or body outside the windows while driving.

Window opening and closing



To open:

Press the window switch down to the first detent position (5). Release the switch when you want the window to stop.

To close:

Pull the window switch up to the first detent position (5). Release the window switch when you want the window to stop.

Auto up/down window

Pressing or pulling up the power window switch momentarily to the second detent position (6) completely lowers or raises the window even when the switch is released. To stop the window at the desired position while the window is in operation, pull up or press down and release the switch.

To reset the power windows

If the power windows do not operate normally, the automatic power window system must be reset as follows:

- 1. Place the POWER button to the ON position.
- Close the windows and continue pulling up on the power window switch for at least one second.

If the power windows do not operate properly after resetting, have the system checked by an authorized HYUNDAI Tucson Fuel Cell dealer.

Automatic reverse



If a window senses any obstacle while it is closing automatically, it will stop and lower approximately 12 inches (30 cm) to allow the object to be cleared.

If the window detects the resistance while the power window switch is pulled up continuously, the window will stop upward movement then lower approximately 1 inches (2.5 cm).

If the power window switch is pulled up continuously again within five seconds after the window is lowered by the automatic window reversal feature, the automatic window reversal will not operate.

* NOTICE

The automatic reverse feature is only active when the "auto up" feature is used by fully pulling up the switch to the second detent.

A WARNING

Make sure heads, other body parts or other objects are safely out of the way before closing the windows to avoid injuries or vehicle damage.

Objects less than 0.16 inch (4 mm) in diameter caught between the window glass and the upper window channel may not be detected by the automatic reverse window and the window will not stop and reverse direction.

Power window lock button



The driver can disable the power window switches on the passengers' doors by pressing the power window lock switch.

- The driver's control can operate the driver's power window.
- The front passenger's control cannot operate the front passenger's power window.
- The rear passenger's control cannot operate the rear passenger's power window.

A WARNING

Do not allow children to play with the power windows. Keep the driver's door power window lock switch in the LOCK position (indicator illuminated). Serious injury or death can result from unintentional window operation by a child.



- To prevent possible damage to the power window system, do not open or close two windows or more at the same time. This will also ensure the longevity of the fuse.
- Never try to operate the main switch on the driver's door and the individual door window switch in opposing directions at the same time. If this is done, the window will stop and cannot be opened or closed.

HOOD

Opening the hood



- 1. Park the vehicle and set the parking brake.
- Pull the release lever located under the lower left corner of the dashboard to unlatch the hood. The hood should pop up slightly.



3. Raise the hood slightly, pull the secondary latch (1) inside of the hood center until it releases the hood and lift the hood (2).



4. Pull out the support rod and hold the hood open with the support rod (1).

WARNING

Grasp the support rod in the area wrapped in rubber. The rubber will help prevent you from being burned by hot metal when the power cell module is hot.

Closing the hood

- 1. Before closing the hood, check the following:
 - All filler caps in the power cell module compartment must be correctly installed.
 - Gloves, rags or any other combustible material must be removed from the power cell module compartment.
- 2. Return the support rod to its clip to prevent it from rattling.
- Lower the hood halfway and push down to securely lock in place. Then double check to be sure the hood is secure.

A WARNING

- Before closing the hood, ensure all obstructions are removed from around the hood opening.
- Always double check that the hood is firmly latched before driving away. If it is not latched, the hood could open while the vehicle is being driven, causing a total loss of visibility, which might result in an accident.
- Do not move the vehicle with the hood in the raised position, as vision is obstructed, which might result in an accident, and the hood could fall or be damaged.

TAILGATE

Opening the tailgate



- 1. Make sure the shift lever is in P (Park) and set the parking brake.
- 2. Perform one of the following:
 - Press the smart key Tailgate Unlock button for more than one second.
 - Press the button on the tailgate itself with the smart key in your possession.
 - Use the mechanical key.
- 3. Lift the tailgate up.

Closing the tailgate



Lower the tailgate and press down until it locks.

A WARNING

Always keep the tailgate completely closed while the vehicle is in motion. If the tailgate is left open or ajar while driving, damage to the tailgate or tailgate struts may occur.

A WARNING

Make sure there are no people or objects around the tailgate before opening or closing the tailgate.

A WARNING

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.

! CAUTION

To prevent damage to the tailgate lift cylinders and the attached hardware, always close the tailgate before driving.

* NOTICE

In cold and wet climates, door lock and door mechanisms may not work properly due to freezing conditions.

Emergency tailgate safety release



Your vehicle is equipped with an Emergency Tailgate Safety Release lever located inside on the bottom of the tailgate. When someone is inadvertently locked in the luggage compartment, the tailgate can be opened by moving the lever in the direction of the arrow and pushing the tailgate open.

A WARNING

- You and your passengers must be aware of the location of the Emergency Tailgate Safety Release lever in this vehicle and how to open the tailgate in case you are accidentally locked in the luggage compartment.
- NEVER allow anyone to occupy the luggage compartment of the vehicle at any time. If the tailgate is partially or totally latched and the person is unable to get out, serious injury or death could occur due to lack of ventilation. The luggage compartment is also a highly dangerous location in the event of a crash because it is not a protected occupant space but is a part of the vehicle's crush zone.

(Continued)

(Continued)

- Your vehicle should be kept locked and the key should be kept out of the reach of children. Parents should teach their children about the dangers of playing in the luggage compartment.
- Use the release lever for emergencies only.

FUEL FILLER DOOR

Opening the fuel filler door



The fuel filler door opener lever is located on the floor on the left side of the driver's seat. The fuel filler door must be opened from inside the vehicle. To open the fuel filler door:

- 1. Turn the power cell module off.
- 2. Pull up on the fuel filler door opener lever.

* NOTICE

If the fuel filler door does not open because ice has formed around it, tap lightly or push on the door to break the ice and release the door. If necessary, spray around the door with an approved de-icer fluid (do not use radiator anti-freeze) or move the vehicle to a warm place and allow the ice to melt.



- 3. Pull the fuel filler door out (1) to fully open.
- Remove the fuel tank receptacle dust cap before attaching the hydrogen gas dispenser.

Closing the fuel filler door

- 1. To install the fuel tank cap, push it until it clicks one time.
- 2. Close the fuel filler door until it is latched securely.

A WARNING

Hydrogen is a unique gaseous element that possesses the lowest molecular weight of any gas. It is colorless, odorless, flammable, and highly volatile. These guidelines may result in SERIOUS INJURY or DEATH:

- Read and follow all warnings posted at the hydrogen gas refueling station.
- Before refueling, note the location of the Emergency Gasoline Shut-Off, at the gas station.
- Before touching the fuel nozzle, you should eliminate the potential build-up of static electricity by touching a metal part of the vehicle, a safe distance away from the fuel filler neck, nozzle, or other gas source, with your bare hand.

(Continued)

(Continued)

- Do not use cellular phones while refueling. Electric current and/or electronic interference from cellular phones can potentially ignite hydrogen gas and cause a fire.
- Do not get back into a vehicle once you have begun refueling. You can generate a buildup of static electricity by touching, rubbing or sliding against any item or fabric capable of producing static electricity. Static electricity discharge can ignite hydrogen gas causing a fire. If you must re-enter the vehicle, you should once again eliminate potentially dangerous static electricity discharge by touching a metal part of the vehicle, away from the fuel tank receptacle, the hydrogen refueling nozzle, or other hydrogen gas source, with your bare hand.

(Continued)

(Continued)

- When refueling, always move the shift lever to the P (Park) position, set the parking brake, and place the POWER button to the LOCK/OFF position. Sparks produced by electrical components related to the power cell module can ignite fuel vapors causing a fire.
- Do not use matches or a lighter and do not smoke or leave a lit cigarette in your vehicle while at a gas station, especially during refueling.
- If a fire breaks out during refueling, leave the vicinity of the vehicle, and immediately contact the manager of the gas station and then contact the local fire department. Follow any safety instructions they provide.
- Always check that the fuel cap is installed securely to prevent fuel spillage in the event of an accident.

* NOTICE

Make sure to refuel your vehicle according to the "Fuel Requirements" suggested in the Introduction chapter.

INSTRUMENT CLUSTER



- 1. Power gauge
- 2. Speedometer
- 3. Fuel cell stack temperature gauge
- 4. Fuel gauge
- 5. Odometer/LCD display/Trip computer
- 6. Warning and indicator lights

- * The actual cluster in the vehicle may differ from the illustration.
 - For more details, refer to the "Gauges" in this chapter.

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Instrument Cluster Control

Adjusting Instrument Cluster Illumination



When the vehicle's parking lights or headlights are on, press the illumination control button to adjust the brightness of the instrument panel illumination.



- The brightness of the instrument panel illumination is displayed.
- If the brightness reaches to the maximum or minimum level, an alarm will sound.

Gauges

Speedometer



The speedometer indicates the speed of the vehicle and is calibrated in miles per hour (mph) and/or kilometers per hour (km/h).

Power gauge



This gauge indicates the power consumption amount of the traction motor or charging amount of the high voltage battery.

- OFF: When the POWER button is off.
- POWER: When the needle is in the POWER range, electric current is being applied to the traction motor (for example, when the vehicle is accelerating or when driving on an uphill road.)

The higher the needle is on the gauge, the greater the amount of electric current is being applied to the traction motor.

 CHARGE: When the needle is in the CHARGE range, electric current is being applied to the high voltage battery. The battery is being charged by the regenerative braking system (for example, when the vehicle is decelerating or driving on a downhill road.).

Fuel cell stack temperature gauge



This gauge shows the temperature of the fuel cell stack coolant when the POWER button is ON.

Do not continue driving with an overheated fuel cell stack. If your vehicle overheats, have the vehicle inspected by an authorized HYUNDAI Tucson Fuel Cell dealer.

ACAUTION

Fuel Cell Stack Overheats

A WARNING

Radiator Cap

Never remove the radiator cap when the fuel cell power module is hot. Otherwise the fuel cell stack coolant may be under pressure and cause severe burns. If the fuel cell stack coolant is low, have the vehicle inspected by an authorized HYUNDAI Tucson Fuel Cell dealer.

Hydrogen fuel gauge



This gauge indicates the approximate amount of fuel remaining in the fuel tank (The fuel tank capacity is given in chapter 8). The fuel gauge is supplemented by a low fuel warning light which will illuminate when the fuel tank is nearly empty.

A WARNING

Running Out of Fuel

Running out of fuel can expose vehicle occupants to danger.

You must stop and obtain additional fuel as soon as possible after the warning light comes on or when the gauge indicator comes close to the E (Empty) level.

* NOTICE - Hydrogen Fueling Station

The refueling equipment and hydrogen filling process will vary depending on the refueling station and the outside ambient temperature. In some instances, you may not be able to fill the tank completely.

Odometer



The odometer Indicates the total distance that the vehicle has been driven and should be used to determine when periodic maintenance should be performed.

- Odometer range : 0 ~ 999999 miles

Gear shift lever Indicator



This indicator displays which gear shift lever is selected.

Park: P
Reverse: R
Neutral: N
Drive: D
Economic: E
Low: L

* For the detailed explanation of each shift range, refer to "Gear shift lever" in chapter 5.

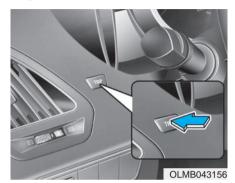
TRIP COMPUTER

The trip computer is a microcomputer-controlled driver information system that displays information related to driving.

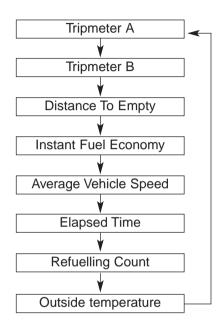
* NOTICE

All driving information stored in the trip computer (except Odometer and Distance to empty) resets if the battery is disconnected.

Trip Modes



Push the button to select the following modes:



Tripmeter



This mode indicates the distance of individual trips selected since the last tripmeter reset.

The meter's working range is from 0.0 to 999.9 miles (0.0 to 9999.9 km). Pressing the TRIP button for more than 1 second, when the tripmeter is displayed, clears the tripmeter to zero (0.0).

Distance to empty



This mode indicates the estimated distance to empty based on the current fuel in the fuel tank and the amount of fuel delivered to the power cell module. When the remaining distance is below 30 miles (50 km), "----" will be displayed and the distance to empty indicator will blink.

The meter's working range is from 30 to 9999 miles (50 to 9999 km).

* NOTICE

- If the vehicle is not on level ground or the battery (12V) power has been interrupted, the distance to empty function may not operate correctly.
- The distance to empty may differ from the actual driving distance as it is an estimate of the available driving distance.
- The fuel economy and distance to empty may vary significantly based on driving conditions, driving habits, and condition of the vehicle

Instant fuel economy



- This mode displays the instant fuel economy during the last few seconds when the vehicle speed is more than 6 mph (10 km/h).
 - Fuel economy range: 0 ~ 140 MPGe

Average vehicle speed



- The average vehicle speed is calculated by the total driving distance and driving time since the last average vehicle speed reset.
 - Speed range: 0 ~ 999 MPH
- To reset the average vehicle speed, press the TRIP button for more than 1 second when the average vehicle speed is displayed.

* NOTICE

- The average vehicle speed is not displayed if the driving distance has been less than 300 meters since the POWER button was turned to ON.
- Since the average vehicle speed is a function of the total driving time, the overall average speed will be reduced the vehicle is stopped while driving (for example, at a traffic signal).

Elapsed time



- The elapsed time is the total driving time since the last elapsed time reset
 - Time range (hh:mm): 00:00 ~ 99:59
- To reset the elapsed time, press the TRIP button for more than 1 second when the elapsed time is displayed.

* NOTICE

The elapsed time will continue to count even if the vehicle is stopped while driving (for example, at a traffic signal).

Refuelling count



 A refueling counter is set up in the instrument cluster to monitor the number of times the hydrogen storage tank is pressurized. After refueling, the Refuel Counter will indicate the number of times the vehicle has been refueled.

* NOTICE

The Refuel Counter will not increment the fuel count if the amount of hydrogen fill from the filling station is less than 150 bar differential pressure.

A WARNING

Refuelling Count



 The hydrogen storage tank has a life expectancy beyond 1.500 pressure cycles. However, after so many cycles government regulations mandate that the storage tank must be replaced. If the Refuel Counter reaches 1.501 times. a warning message will be displayed. "Refuel Count: Check hydrogen system". At this time, the vehicle will shut down, and the hydrogen storage system will need to be replaced. Have an authorized HYUNDAI Tucson Fuel Cell dealer replace the hydrogen storage tank.

(Continued)

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 When the Refuel Counter reaches 1,495 times, the service warning light come on and will be displayed in the cluster. This will act as a preliminary warning that the hydrogen tank storage system will need to be replaced soon.

Outside temperature mode



This mode indicates the current outside air temperatures by 1°F (1°C).

- Temperature range : -40°F ~ 140°F (-40°C ~ 60°C)
- The temperature indicated on the Outside Temperature display may differ slightly from the actual outside ambient temperature, and may not change as quickly as another temperature measuring device (for example, a digital thermometer).

The units of temperature can be changed from degrees Celsius to degrees Fahrenheit or from degrees Fahrenheit to degrees Celsius according to the procedure specified below.

Automatic Climate Control System Temperature Display:

Change the temperature units by pressing the OFF button and the AUTO button together for 3 seconds or more.

LCD DISPLAY

Warning Messages

Starting



• This message illuminates while you are starting the vehicle.

Go!



 This message illuminates if you have started the vehicle properly and there is no malfunction (Also, the READY indicator light comes on).

Cold Start. Please wait



 When attempting to start the vehicle in cold weather (below freezing conditions), the power cell module may need more time than normal to achieve the READY state.

At that time, the "Cold Start. Please wait..." message will appear in the instrument cluster. A progress status bar will also be displayed.

Powering down. Please wait



. If you turn off the vehicle at the low temperature, a blower will work to terminate the fuel cell electric system operation.

At that time, there is operating sound and this message illuminates.

Stop vehicle and check power system



· This warning message illuminates if a severe malfunction is detected on your vehicle. At that time, park the vehicle cautiously as soon as possible, turn off the vehicle, and then try to start the vehicle again. After that, if this warning message remains, have the vehicle inspected by an authorized HYUNDAI Tucson Fuel Cell dealer

Refuel to prevent hydrogen system damage



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• This warning message illuminates if the remaining hydrogen fuel is empty. If this warning message appears, move the vehicle to a safe location and turn off the vehicle. Have the vehicle towed to the closest hydrogen fueling station or to an authorized HYUNDAI Tucson Fuel Cell dealer.

A CAUTION

Refuel to prevent hydrogen system damage

Driving with the warning message "Refuel to prevent hydrogen system damage" illuminated may cause a severe damage of the fuel cell electric system.

Check fuel door



 When the fuel filler door is not closed securely, this warning message illuminates. The vehicle cannot be driven if the fuel filler door is open. Make sure the fuel filler door is closed before starting the vehicle.

Check fuel cell coolant



 This warning message illuminates if the coolant level in the fuel cell stack coolant reservoir is low. To refill the coolant, consult an authorized HYUNDAI Tucson Fuel Cell dealer.

For more details, refer to "Fuel Cell Stack Coolant" in chapter 7.

Check fuel cell coolant filter



 This warning message illuminates if the fuel cell coolant filter needs to be inspected or replaced. Have the vehicle inspected by an authorized HYUNDAI Tucson Fuel Cell dealer.

Checking hydrogen system



 This warning message illuminates for about 10 seconds and then disappears if a malfunction is detected on the sensor for the fuel filler door while refuelling (While this message is being displayed on the LCD display, you can not start the vehicle). If you have experienced this warning message, have the vehicle inspected by an authorized HYUNDAI Tucson Fuel Cell dealer.

Check brakes



 This warning message illuminates if the brake system needs to be checked. Have the vehicle inspected by an authorized HYUNDAI Tucson Fuel Cell dealer.

Shift to P



- This warning message illuminates if you try to turn off the vehicle without the shift lever in P (Park) position.
- At this time, the POWER button turns to the ACC position (If you press the POWER button once more, it will turn to the ON position).

Shfit to P or N to start



 This warning message illuminates if you try to start the vehicle with the shift lever not in the P (Park) or N (Neutral) position.

* NOTICE

You can start the vehicle with the shift lever in the N (Neutral) position.

But, for your safety, we recommend that you start the vehicle with the shift lever in the P (Park) position.

Press START button again



- This warning message illuminates when you press the POWER button, but the vehicle does not start. Press the POWER button again to attempt to start the vehicle.
- If the warning illuminates each time you press the POWER button, have the vehicle inspected by an authorized HYUNDAI Tucson Fuel Cell dealer.

Press brake pedal to start



- This warning message illuminates if the POWER button changes to the ACC position twice by pressing the button repeatedly without depressing the brake pedal.
- In order to start the vehicle, press the brake pedal while pressing the POWER button.

Low key battery



 This warning message illuminates when the battery of the smart key is low. The warning message illuminates after the vehicle is shut down (POWER button changes to the OFF position).

Key is not detected



 This warning message illuminates if the smart key is not detected when you press the POWER button.

Key is not in vehicle



 This warning message illuminates if the smart key is not in the vehicle when you press the POWER button.

Insert key



 This warning message illuminates if you press the POWER button while the warning message "Key is not detected" is being displayed on the LCD display. Also, the immobiliser indicator and the smart key holder light blinks for a while.

Remove key



 This warning message illuminates and the smart key holder light blinks if you turn off the vehicle with the smart key still in the smart key holder.

To remove the smart key, push the smart key once and pull it out from the smart key holder.

Press START button while turning wheel



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- This warning message illuminates if the steering wheel does not unlock normally when the POWER button is pressed.
- To unlock the steering wheel, press the POWER button while turning the steering wheel to the right or the left.

Steering wheel unlocked



 This warning message illuminates if the steering wheel does not lock when the POWER button changes to the OFF position.

Check steering wheel lock



 This warning message illuminates if the steering wheel does not lock normally when the POWER button changes to the OFF position.

Traction control disabled



- This warning message illuminates when the vehicle's traction control system is disabled.
- * For more details, refer to "Electronic Stability Control (ESC)" in chapter 5.

Traction & stability control disabled



- This message illuminates when the vehicle's traction control and electronic stability control system is disabled.
- For more details, refer to "Electronic Stability Control (ESC)" in chapter 5.

Warnings and indicators

All warning lights are checked by placing the ignition switch in the ON position (do not start the power cell module). Any light that does not illuminate should be checked by an authorized HYUNDAI Tucson Fuel Cell dealer.

After starting the power cell module, check to make sure that all warning lights are off. If any are still on, this indicates a situation that needs attention.

A WARNING

Do not continuously monitor the indicator while driving. It may distract you while driving and may cause an accident that results in severe personal injury.

Air bag warning light



This warning light illuminates:

- Once you set the POWER button to the ON position.
 - It illuminates for approximately 6 seconds and then goes off.
- When there is a malfunction with the SRS.

In this case, have the Supplemental Restraint System (SRS) inspected by an authorized HYUNDAI Tucson Fuel Cell dealer.

Anti-lock brake system (ABS) warning light



This warning light illuminates:

- Once you set the POWER button to the ON position.
 - It illuminates for approximately 3 seconds and then goes off.
- When there is a malfunction with the ABS (The normal braking system will still be operational without the assistance of the anti-lock brake system).

In this case, have the vehicle inspected by an authorized HYUNDAI Tucson Fuel Cell dealer.

Electronic brake force distribution (EBD) system warning light





If these two warning lights illuminate at the same time while driving, your vehicle may have a malfunction with the ABS and EBD system.

In this case, your ABS and regular brake system may not work normally. Have the vehicle checked by an authorized HYUNDAI Tucson Fuel Cell dealer as soon as possible.

A WARNING

If both ABS and brake warning lights are on and stay on, your vehicle's brake system will not work normally. So you may experience an unexpected and dangerous situation during sudden braking. In this case, avoid high speed driving and abrupt braking. Have your vehicle checked by an authorized HYUNDAI Tucson Fuel Cell dealer as soon as possible.

* NOTICE

If the ABS warning light or EBD warning light is on and stays on, the speedometer or odometer/tripmeter may not work. Also, the EPS warning light may illuminate and the steering effort may increase or decrease. In this case, have your vehicle checked by an authorized HYUNDAI Tucson Fuel Cell dealer as soon as possible.

Parking brake & brake fluid warning light



Parking brake warning

This light is illuminated when the parking brake is applied with the POWER button in the ON position. The warning light should go off when the parking brake is released while the power cell module is operating.

The parking brake warning chime will sound to remind you that the parking brake is applied when you are driving above 6 mph (10 km/h). Always release the parking brake before you drive

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

If the warning light remains on:

- 1. Drive carefully to the nearest safe location and stop your vehicle.
- 2. With the power cell module stopped, check the brake fluid level immediately and add fluid as required. Then check all brake components for fluid leaks.
- 3. Do not drive the vehicle if leaks are found, the warning light remains on or the brakes do not operate properly. Have the vehicle towed to any authorized HYUNDAI Tucson Fuel Cell dealer for a brake system inspection and for repairs if necessary.

Your vehicle is equipped with a dualdiagonal braking system. This means you still have braking on two wheels even if one of the brake circuits is damaged or malfunctions. With only one of the circuits working, more than normal pedal travel and greater pedal pressure are required to stop the car. Also, the car will not stop in as short a distance with only a portion of the brake system working.

To check bulb operation, check whether the parking brake and brake fluid warning light illuminates when the POWER button is in the ON position.

A WARNING

Driving the vehicle with a warning light on is dangerous. If the brake warning light remains on, have the brakes checked and repaired immediately by an authorized HYUNDAI Tucson Fuel Cell dealer.

Seat belt warning



Turn signal indicator



Light on indicator



This warning light informs the driver that the seat belt is not fastened.

* For more details, refer to the "Seat Belts" in chapter 2.

The left or right turn signal blinks when you signal a lane change or turn. If the arrow comes on but does not blink, blinks more rapidly than normal, or does not illuminate at all, a malfunction in the turn signal system is indicated. Your dealer should be consulted for repairs.

This indicator also blinks when the hazard warning flasher button is pressed.

The indicator illuminates when the parking (position) lights or headlights are ON.

High beam indicator



This indicator illuminates when the headlights are on and in the high beam position or when the turn signal lever is pulled into the Flash-to-Pass position.

Front fog light indicator (if equipped)

front fog lights are ON.



The indicator illuminates when the

Charging system warning light



Fuel Cell Stack Temperature Warning Light



This warning light illuminates:

· When there is a malfunction with the electrical charging system for 12V battery.

If the warning light continuously remains on when the vehicle is in "READY" state, or comes on during driving, this indicates that there may be a malfunction with the electrical charging system for 12V battery. If this occurs, have the vehicle inspected by an authorized HYUNDAI Tucson Fuel Cell dealer.

This warning light illuminates:

· When the fuel cell stack is overheated

Do not continue driving with an overheated fuel cell stack. If your vehicle remains overheated, have the vehicle inspected by an authorized HYUNDAI Tucson Fuel Cell dealer.

Door Ajar Warning Light



This warning light illuminates: When a door is not closed securely.

Tailgate Open Warning Light



This warning light illuminates: When the tailgate is not closed securely.

Low Fuel Level Warning Light



This warning light illuminates: When the fuel tank is nearly empty.

If the fuel tank is nearly empty: Add fuel as soon as possible.

A WARNING

Running Out of Fuel

Running out of fuel can expose vehicle occupants to danger.

You must stop and obtain additional fuel as soon as possible after the warning light comes on or when the gauge indicator comes close to the 0 (Empty) level.

* NOTICE - Hydrogen Fueling Station

The refueling equipment and hydrogen filling process will vary depending on the refueling station and the outside ambient temperature. In some instances, you may not be able to fill the tank completely.

Service Lamp



Power Down Warning Light



High Voltage Warning Light



This warning light illuminates:

 When the fuel cell electric vehicle control system is not working properly.

When the warning light continuously remains on, have the vehicle inspected by an authorized HYUNDAI Tucson Fuel Cell dealer.

This warning light illuminates:

 When the vehicle power should be limited due to a malfunction with the fuel cell stack.

If the warning light continuously remains on when the vehicle is in "READY" state, or comes on during driving, this indicates that there may be a malfunction with the fuel cell stack. If this occurs, have the vehicle inspected by an authorized HYUNDAI Tucson Fuel Cell dealer.

A WARNING

Power Down Warning Light

When the Power Down Warning Light comes on, the vehicle power will be limited. Avoid any sudden acceleration and try to avoid driving on any steep hills or roads. Take the vehicle to an authorized HYUNDAI Tucson Fuel Cell dealer as soon as possible.

This warning light illuminates:

• When there is a malfunction with the high voltage circuit.

If the warning light continuously remains on when the vehicle is in "READY" state, or comes on during driving, have the vehicle inspected by an authorized HYUNDAI Tucson Fuel Cell dealer.

Motor Overheat Warning Light

heated



Hydrogen Gas Leak Warning Light



This warning light illuminates

- When the motor or inverter is over-
 - Do not continue driving with an overheated motor or inverter. If your vehicle remains overheated, have the vehicle inspected by an authorized HYUNDAI Tucson Fuel Cell dealer.

This warning light illuminates:

WARNING

Motor Overheat Warning Light

If the Motor Overheat Warning Light illuminates, it indicates overheating that may damage the vehicle.

This warning light illuminates:

- [Red] When the hydrogen leakage is detected in the vehicle.
- [Yellow] When there is a malfunction with the hydrogen leakage detection sensor.

If the warning light continuously remains on when the vehicle is in "READY" state, or comes on during driving, this indicates that there may be hydrogen leakage or a malfunction with the hydrogen leakage detection sensor. If this occurs, stop the vehicle and have the hydrogen system inspected by an authorized HYUNDAI Tucson Fuel Cell dealer.

Immobilizer indicator



With smart key system

If any of the following occurs in a vehicle equipped with the smart key, the immobilizer indicator illuminates, blinks or goes off.

- When the smart key is in the vehicle, if the POWER button is in the ACC or ON position, the indicator will illuminate for approximately 30 seconds to indicate that you are able to start the power cell module. However, when the smart key is not in the vehicle, if the POWER button is pressed, the indicator will blink for a few seconds to indicate that you are not be able to start the power cell module.
- If the indicator illuminates only for 2 seconds and goes out when the POWER button is turned to ON position with the smart key in the vehicle, have the system checked by an authorized HYUNDAI Tucson Fuel Cell dealer.

 When the battery is weak, if the POWER button is pressed, the indicator will blink and you are not able to start the power cell module. However, you can start the power cell module by inserting the smart key in the smart key holder. Also, if the smart key system related parts have a problem, the indicator will blink.

ESC indicator (Electronic Stability Control)



The ESC indicator will illuminate when the POWER button is in the ON position, but should go off after approximately 3 seconds. When the ESC is on, it monitors the driving conditions and under normal driving conditions, the ESC indicator will remain off. When a slippery or low traction condition is encountered, the ESC will operate, and the ESC indicator will blink to indicate the ESC is operating. If the ESC system malfunctions the indicator illuminates and stays on. Take your vehicle to an authorized HYUNDAI Tucson Fuel

Cell dealer and have the system

checked.

ESC OFF indicator



The ESC OFF indicator will illuminate when the POWER button is in the ON position, but should go off after approximately 3 seconds. To switch to ESC function off, press the ESC OFF button. The ESC OFF indicator will illuminate indicating the ESC is deactivated.

ECO Indicator Light

ECO

Low tire pressure indicator



This indicator light illuminates:

When you activate the active ECO system by shifting the shift lever to the "E (Economic)" range.

For more details, refer to "Economical operation" in chapter 5. The low tire pressure indicator comes on for 3 seconds after the POWER button is in the ON position.

The low tire pressure indicator illuminates when one or more of your tires is significantly underinflated.

The low tire pressure indicator will illuminate after it blinks for approximately one minute when there is a problem with the Tire Pressure Monitoring System.

If this occurs, have the system checked by an authorized HYUNDAI Tucson Fuel Cell dealer as soon as possible.

For details, refer to the TPMS on chapter 6.

A WARNING

Safe Stopping

- The TPMS cannot alert you to severe and sudden tyre damage caused by external factors.
- If you notice any vehicle instability, immediately take your foot off the accelerator pedal, apply the brakes gradually with light force, and slowly move to a safe position off the road.

Electric power steering (EPS) system warning light



KEY OUT indicator

KEY OUT

READY Indicator Light



This indicator light comes on after the POWER button is in the ON position and then it will go out after the power cell module is started.

This light also comes on when the EPS is not functioning properly. If it comes on while driving, have your vehicle inspected by an authorized HYUNDAI Tucson Fuel Cell dealer.

When the the POWER button is in the ACC or ON position, if any door is open, the system checks for the smart key. If the smart key is not in the vehicle, the indicator will blink, and if all doors are closed, the chime will also sound for about 5 seconds. The indicator will go off while the vehicle is moving. Keep the smart key in the vehicle.

This indicator light illuminates:

When it is possible to drive the vehicle.

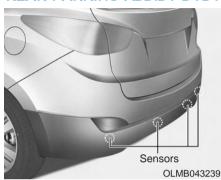
When the shift lever is in D (Drive), R(Reverse) position while "READY" indicator illuminates, if you open the door, the warning chime will sound. Drive the vehicle with all doors closed.

A WARNING

READY Indicator Light

Once the READY indicator light comes on, all functional checks have been completed and the vehicle is ready to be driven. Look around carefully before proceeding to drive the vehicle.

REAR PARKING ASSIST SYSTEM (IF EQUIPPED)



The rear parking assist system assists the driver during backward movement of the vehicle by chiming if any object is sensed within a distance of 47 in. (120 cm) behind the vehicle. This system is a supplemental system and it is not intended to nor does it replace the need for extreme care and attention of the driver. The sensing range and objects detectable by the back sensors are limited. Whenever backingup, pay as much attention to what is behind you as you would in a vehicle without a rear parking assist system.

A WARNING

The rear parking assist system is a supplementary function only. The operation of the rear parking assist system can be affected by several factors (including environmental conditions). It is the responsibility of the driver to always check the area behind the vehicle before and while backing up.

Operation of the rear parking assist system

Operating condition

- This system will activate when backing up with the POWER button ON.
 - If the vehicle is moving at a speed over 6 mph (10 km/h), the system will not be activated.
- The sensing distance while the rear parking assist system is in operation is approximately 47 in. (120 cm).
- When more than two objects are sensed at the same time, the closest one will be recognized first.

Types of warning sound

- When an object is 47 in. to 24 in. (120 cm to 61 cm) from the rear bumper: Buzzer beeps intermittently.
- When an object is 23 in. to 12 in. (60 cm to 31 cm) from the rear bumper: Buzzer beeps more frequently.
- When an object is within 11 in. (30 cm) of the rear bumper:

Buzzer sounds continuously.

Non-operational conditions of rear parking assist system

The rear parking assist system may not operate properly when:

- Moisture is frozen to the sensor. (It will operate normally when the moisture has been cleared.)
- The sensor is covered with foreign matter, such as snow or water, or the sensor cover is blocked. (It will operate normally when the material is removed or the sensor is no longer blocked.)
- 3. Driving on uneven road surfaces (unpaved roads, gravel, bumps, gradient).
- Objects generating excessive noise (vehicle horns or truck air brakes) are within range of the sensor.
- 5. Heavy rain or water spray exists.
- Wireless transmitters or mobile phones are within range of the sensor.
- 7. The sensor is covered with snow.
- 8. Trailer towing

The detecting range may decrease when:

- 1. The sensor is stained with foreign matter such as snow or water. (The sensing range will return to normal when removed.)
- Outside air temperature is extremely hot or cold.

The following objects may not be recognized by the sensor:

- 1. Sharp or slim objects such as ropes, chains or small poles.
- 2. Objects which tend to absorb the sensor frequency such as clothes, spongy material or snow.
- 3. Undetectable objects smaller than 40 in. (1 m) in height and narrower than 6 in. (14 cm) in diameter.

Rear parking assist system precautions

- The rear parking assist system may not sound sequentially depending on the speed and shapes of the objects detected.
- The rear parking assist system may malfunction if the vehicle bumper height or sensor installation has been modified or damaged. Any non-factory installed equipment or accessories may also interfere with the sensor performance
- The sensor may not recognize objects less than 11 in. (30 cm) from the sensor, or it may sense an incorrect distance. Use caution.
- When the sensor is frozen or stained with snow, dirt, or water, the sensor may be inoperative until the stains are removed using a soft cloth.
- Do not push, scratch or strike the sensor. Sensor damage could occur.

* NOTICE

This system can only sense objects within the range and location of the sensors; It can not detect objects in other areas where sensors are not installed. Also, small or slim objects, such as poles or objects located between sensors may not be detected by the sensors. Always visually check behind the vehicle when backing up. Be sure to inform any drivers of the vehicle that may be unfamiliar with the system regarding the systems capabilities and limitations.

A WARNING

Pay close attention when the vehicle is driven close to objects on the road, particularly pedestrians, and especially children. Be aware that some objects may not be detected by the sensors, due to the object's distance, size or material, all of which can limit the effectiveness of the sensor. Always perform a visual inspection to make sure the vehicle is clear of all obstructions before moving the vehicle in any direction.

Self-diagnosis

If you don't hear an audible warning sound or if the buzzer sounds intermittently when shifting the gear to the R (Reverse) position, this may indicate a malfunction in the rear parking assist system. If this occurs, we recommend that you have your vehicle checked by an authorized HYUNDAI Tucson Fuel Cell dealer as soon as possible.

A WARNING

Your new vehicle warranty does not cover any accidents or damage to the vehicle or injuries to its occupants due to a rear parking assist system malfunction. Always drive safely and cautiously.

REAR VIEW CAMERA (IF EQUIPPED)



The Rear View Camera will activate when the power cell module is running and the shift lever is in the R (Reverse) position.

Whenever the vehicle ignition is cycled off and on, the rear view camera will turn on when the shift lever is put into R (Reverse).

A WARNING

- ALWAYS look around your vehicle to make sure there are not any objects or obstacles before moving the vehicle in any direction to prevent a collision.
- Always pay close attention when the vehicle is driven close to objects, particularly pedestrians, and especially children.
- Always keep the camera lens clean. The camera may not work normally if the lens is covered with foreign matter.

LIGHTS

Exterior lights

Lighting control



To operate the lights, turn the knob at the end of the control lever to one of the following positions:

- (1) OFF Position
- (2) Parking Light Position
- (3) Headlight Position
- (4) AUTO Light Position (if equipped)



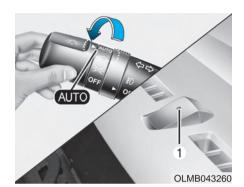
Parking light position (3005)

When the light switch is in the parking light position, the parking (position) lights, license plate lights, and instrument panel lights are turned ON.



Headlight position (⑤)

When the light switch is in the headlight position, the headlights, parking (position) lights, license plate lights, and instrument panel lights are turned ON.



AUTO light position

When the light switch is in the AUTO position, the parking lights and the headlights will be turned ON or OFF automatically depending on the amount of light outside the vehicle.

Even with the AUTO Light feature in operation, it is recommended to manually turn ON the lights when driving at night or in a fog, or when you enter dark areas, such as tunnels and parking facilities.

A CAUTION

- Do not cover or spill anything on the sensor (1) located on the instrument panel.
- Do not clean the sensor using a window cleaner. The cleaner may leave a light film which could interfere with sensor operation.
- If your vehicle has window tint or other types of metallic coating on the front windshield, the AUTO light system may not work properly.

High beam operation



To turn on the high beam headlights, push the lever away from you. Pull it back for low beams.

The high beam indicator will light when the headlight high beams are switched on.

A WARNING

Do not use the high beams when there are other vehicles approaching you. Using high beam could obstruct the other driver's vision.



To flash the high beam headlights, pull the lever towards you, then release the lever. The high beams will remain ON as long as you hold the lever towards you.

Battery saver function

The purpose of this feature is to prevent the battery from being discharged. The system automatically turns off the parking lights when the power cell module is turned off and the driver-side door is opened (in that order).

With this feature, the parking lights will be turned off automatically if the driver parks on the side of the road at night. If necessary, to keep the lights on when the key is removed (smart key: power cell module is turned OFF), perform the following:

- 1) Open the driver-side door.
- Turn the parking lights OFF and ON again using the light switch on the steering column.

Headlight escort function

If the key is removed from the POWER button or placed in the ACC position or the LOCK/OFF position with the headlights ON, the headlights (and/or parking lights) remain on for about 5 minutes. However, if the driver's door is opened and closed, the headlights are turned off after 15 seconds.

The headlights can be turned off by pressing the LOCK button on the remote key or smart key twice or turning the light switch to the OFF or AUTO position. However, if you turn the light switch to the AUTO position when it is dark outside, the headlights will not be turned off.

A CAUTION

If the driver gets out of the vehicle through other doors (except the driver's door), the battery saver function does not operate and the headlight escort function does not turn off automatically. Therefore, it causes the battery to be discharged. In this case, make sure to turn off the lamp before getting out of the vehicle.

Headlight welcome function

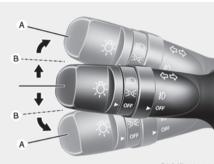
When the headlight switch is in the ON position or in the AUTO position and all doors (and tailgate) are closed and locked, if you press the door unlock button on the remote transmitter or smart key, the headlights will come on for about 15 seconds.

If the headlight switch is in the AUTO position, the function can only operate at night.

To turn off the headlights immediately, do one of the following:

- Press the door lock button.
- Press the unlock button twice within 4 seconds.
- Press the unlock button once more after 4 seconds.

Turn signals and lane change signals



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To signal a turn, move the lever up for a right turn or down for a left turn to position (A). The lever will return to the OFF position when the turn is completed.

To signal a lane change, move the lever slightly and hold it in position (B). The lever will return to the OFF position when released.

One-touch lane change function (if equipped)

To activate a one-touch triple turn signal, move the turn signal lever slightly and then release it. The lane change signals will blink 3 times.

A CAUTION

If the turn signal indicator stays on and does not flash, or if it flashes abnormally, a bulb may be burned out or have a poor electrical connection in the circuit. The bulb may require replacement.

Front fog light (if equipped)



Fog lights are used to provide improved visibility when conditions are poor due to fog, rain, snow, etc.

Use the switch next to the headlight switch to turn the Fog Lights ON and OFF. The fog lights will turn on when fog light switch (1) is turned to ON after the head-lights are turned on.

To turn off the fog lights, turn the switch to OFF.

You can use the fog lights only when the headlights are on low beam. When the headlight switch is in the AUTO position, you can also use the fog lights when the headlights turn on automatically. The fog lights will go OFF when the headlights turn OFF.

! CAUTION

When in operation, the fog lights consume large amounts of vehicle electrical power. Only use the fog lights when visibility is poor.

Hazard warning flasher



The Hazard Warning Flasher should be used whenever you find it necessary to stop the car in a hazardous location. When you must make such an emergency stop, always pull off the road as far as possible.

The hazard warning lights are turned on and off by pushing in the hazard switch. This causes all turn signal lights to blink. The Hazard Warning Lights will operate even though the POWER button is in the LOCK/OFF position.

Interior lights

A WARNING

Do not use the interior lights when driving in the dark. The interior lights may obscure your view and cause an accident.

A CAUTION

Do not use the interior lights for an extended period of time when the power cell module is turned off or the battery will discharge.

Front lamps



- (1) Front Map Lamp
- (2) Front Door Lamp

Front Map Lamp:

Press either the right or left lens to turn the map lamp on or off. This light produces a spot beam for convenient use as a map lamp at night or as a personal lamp for the driver and the front passenger.

Front Door Lamp:

The Front Door Lamp Switch activates the front and rear room lamps when the switch is pressed in either of the three positions indicated below:

DOOR:

With the switch in this position, the front and rear room lamps come on when the front or rear doors are opened, or when the doors are unlocked by the remote key or smart key.

Once all doors are closed, the room lamps will go out gradually after about 30 seconds.

If a door is open with the POWER button in the ACC position or the LOCK/OFF position, the lamps will remain on for about 20 minutes. If a door is open with the POWER button in the ON position, the lamps will stay on continuously.

ON:

With the Front Door Room Lamp in this position, the front and rear room lamps remain on at all times.

OFF:

With the Front Door Room Lamp in this position the front and rear room lamps remain off at all times.

Rear lamps



(1) Rear Room Lamp

Rear ROOM Lamp Switch:

Press this switch to turn the room lamps on and off.

Vanity mirror lamp (if equipped)



Push the switch to turn the light ON or OFF.

- 环 : The lamp will turn on if this button is pressed.
- O : The lamp will turn off if this button is pressed.

Glove box lamp



The Glove Box Lamp comes on when the glove box is opened.

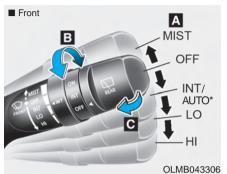
The parking lights or headlights must be ON for the glove box lamp to function.

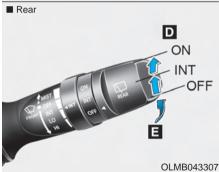
Luggage room lamp



The Luggage Room Lamp comes on when the tailgate is opened.

WIPERS AND WASHERS





A: Wiper speed control

- · MIST Single wipe
- · OFF Off
- $\cdot \ \mathsf{INT-Intermittent} \ \mathsf{wipe}$

AUTO – Auto control wipe (if equipped)

- · LO– Low wiper speed
- · HI High wiper speed
- B : Intermittent control wipe time adjustment
- C: Wash with brief wipes
- D : Rear wiper/washer control
 - · ON Continuous wipe
 - · INT Intermittent wipe (if equipped)
 - · OFF Off
- E: Wash with brief wipes (rear)

Front windshield wipers

Operates as follows when the POWER button is turned ON.

MIST: For a single wipe, push the lever upward and release. The wipers will operate continuously if the lever is pushed upward and held in this position.

OFF: Wiper is not in operation

INT: Wiper operates intermittently at the same wiping intervals. To vary the speed setting, turn the speed control knob.

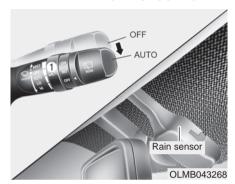
AUTO: The rain sensor located on the upper end of the windshield glass senses the amount of rainfall and controls the wiping cycle for the proper interval. The more it rains, the faster the wiper operates. When the rain stops, the wiper stops. To vary the speed setting, turn the speed control knob (B).

LO: The wiper runs at a lower speed. **HI**: The wiper runs at a higher speed.

A CAUTION

- If there is heavy accumulation of snow or ice on the windshield, defrost the windshield for about 10 minutes, or until the snow and/or ice is removed before using the windshield wipers to ensure proper operation.
- When you operate the wipers, if your vehicle has a problem in any part of the wiper operation system, the wiper may operate in the LO mode regardless of the wiper switch position. In this case, have your vehicle checked by an authorized HYUNDAI Tucson Fuel Cell dealer as soon as possible.
- When the power cell module is turned off, the wiper blade sometimes may move slightly to help reduce the deterioration of the windshield wipers.

AUTO control (if equipped)



The rain sensor located on the upper end of the windshield glass senses the amount of rainfall and controls the wiping cycle for the proper interval. The more it rains, the faster the wiper operates. When the rain stops, the wiper stops. To vary the speed setting, turn the speed control knob (1). If the wiper switch is set in AUTO mode when POWER button is in the ON position, the wiper will operate once to perform a self-check of the system. Set the wiper to OFF position when the wiper is not in use.

A WARNING

To avoid personal injury from the windshield wipers, when the power cell module is running and the windshield wiper switch is placed in the AUTO mode:

- Do not touch the upper end of the windshield glass facing the rain sensor.
- Do not wipe the upper end of the windshield glass with a damp or wet cloth.
- Do not put pressure on the windshield glass.

! CAUTION

- When washing the vehicle, set the wiper switch to the OFF position to stop the auto wiper operation. The wiper may operate and be damaged if the switch is set in the AUTO mode while washing the vehicle.
- Do not remove the sensor cover located on the upper end of the passenger side windshield glass. Damage to system parts could occur.

Front windshield washers



In the OFF position, pull the lever gently toward you to spray washer fluid on the windshield and to run the wipers 1- 3 cycles.

The spray and wiper operation will continue until you release the lever. If the washer does not work, you may need to add washer fluid to the washer fluid reservoir.

A WARNING

When the outside temperature is below freezing, ALWAYS warm the windshield using the defroster to prevent the washer fluid from freezing on the windshield and obscuring your vision which could result in an accident and serious injury or death.

! CAUTION

- To prevent possible damage to the washer pump, do not operate the washer when the fluid reservoir is empty.
- To prevent damage to the wiper arms and other components, do not attempt to move the wipers manually or operate the wipers when the windshield is dry.

Rear window wiper and washer



The rear window wiper and washer switch is located at the end of the wiper and washer switch lever. Turn the switch to the desired position to operate the rear wiper and washer.

- ON Normal wiper operation
- INT Intermittent wiper operation (if equipped)

OFF - Wiper is not in operation



Push the lever away from you to spray rear washer fluid and to run the rear wipers 1~3 cycles. The spray and wiper operation will continue until you release the lever.

DEFROSTER

A CAUTION

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

* NOTICE

If you want to defrost and defog the front windshield, refer to "Windshield defrosting and defogging" in this chapter.

Rear window defroster



The defroster heats the window to help remove frost, fog and thin ice from the rear window, while the vehicle is in the "READY" state.

To activate the rear window defroster, press the rear window defroster button located in the center facia switch panel. The indicator on the rear window defroster button illuminates when the defroster is ON.

If there is heavy accumulation of snow on the rear window, brush it off before operating the rear defroster. The rear window defroster automatically turns off after approximately 20 minutes or when the POWER button is in the OFF position. To turn off the defroster, press the rear window defroster button again.

Outside rearview mirror defroster (if equipped)

If your vehicle is equipped with the outside rearview mirror defrosters, they will operate at the same time you turn on the rear window defroster.

Front wiper deicer (if equipped)

The front wiper deicer will operate at the same time you turn on the front windshield defroster.

AUTOMATIC CLIMATE CONTROL SYSTEM



- 1. AUTO (automatic control) button
- 2. Driver's temperature control button
- 3. A/C display
- 4. Passenger's temperature control button
- 5. Dual temperature control selection button
- 6. OFF button

- 7. Front windshield defroster button
- 8. Air conditioning button
- 9. Fan speed control button
- 10. Air intake control button
- 11. Mode selection button

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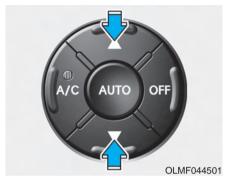
Automatic heating and air conditioning



When using the AUTO climate control mode, the fan speeds, mode selection, air intake control, and the air conditioning will be automatically controlled according to the desired temperature setting.

To enable this mode, perform the following steps:

1. Push the AUTO button.



2. Set the temperature button to the desired temperature.

* NOTICE

- To turn the automatic operation off, select any following buttons:
 - Mode selection button
 - Air conditioning button
 - Front windshield defroster button
 - Air intake control button
 - Fan speed control button The selected function will be controlled manually while other functions operate automatically.
- For your convenience and to improve the effectiveness of the climate control, use the AUTO button and set the temperature to 73°F (23°C).



* NOTICE

To ensure proper operation of the climate control system, never place anything over the sensor located on the dashboard near the front windshield.

Manual heating and air conditioning

The heating and cooling system can be controlled manually by pushing buttons other than the AUTO button. In this case, the system works sequentially according to the order of buttons selected.

* NOTICE

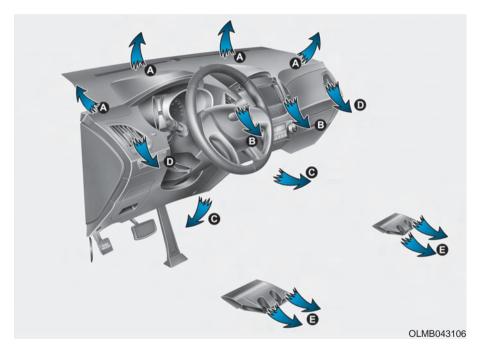
When pressing any button except the AUTO button while using automatic operation, the functions not selected will continue to be controlled automatically.

- 1. Start the vehicle.
- 2. Set the mode to the desired position.

To improve the effectiveness of heating and cooling;

- Heating: 🗸
- Cooling: 🖈
- 3. Set the temperature control to the desired position.
- 4. Set the air intake control to the outside (fresh) air position.
- 5. Set the fan speed control to the desired speed.
- 6. If air conditioning is desired, turn the air conditioning system on.

Press the AUTO button in order to convert to full automatic control of the system.



Mode selection



OLMF044502

The mode selection button controls the direction of the air flow through the ventilation system.

If you push the button once, the corresponding switch will turn on, and if you push the button again, the switch will turn off.

Air flow is directed toward the upper body and face. Additionally, each outlet can be controlled to direct the air discharged from the outlet.

Most of the air flow is directed to the floor.

Most of the air flow is directed to the windshield.

Also you may select 2~3 modes at the same time for desired air flow.

- face (نر-) + floor (رنر-) mode
- face (نر-) + defrost (نر-) mode
- floor (نر/) + defrost (نر/) mode
- face (نرت) + floor (رنرت) + defrost (زرم) mode



Maximum (MAX) defrost mode
When you select the MAX defrost
mode, the following system settings
will be made automatically:

- the air conditioning system will be turned on.
- the outside(fresh) air position will be selected.
- the fan speed will be set to the high speed.

To turn the MAX defrost mode off, press the mode button or MAX defrost button again or AUTO button.

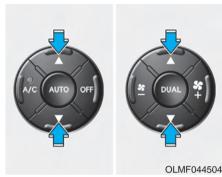


Instrument panel vents

The outlet vents can be opened or closed separately using the horizontal thumbwheel. To close the vent. rotate it left to the maximum position. To open the vent, rotate it right to the desired position.

Also, you can adjust the direction of air delivery from these vents using the vent control lever as shown.

Temperature control



The temperature will increase incrementally up to the maximum setting (HI) by holding the button.

The temperature will decrease incrementally down to the minimum setting (LO) by holding the button.

When pressing the button, the temperature will increase or decrease by 0.5°C/1°F. When set to the lowest temperature setting, the air conditioning will operate continuously.



Adjusting the driver and passenger side temperature individually

- 1. Press the DUAL button to operate the driver and passenger side temperature individually. Also, if the passenger side temperature control switch is operated, it will automatically change to the DUAL mode as well.
- 2. Operate the left temperature control to adjust the driver side temperature. Operate the right temperature control to adjust the passenger side temperature.

When the driver side temperature is set to the highest (HI) or lowest (LO) temperature setting, the DUAL mode is deactivated for maximum heating or cooling.

Adjusting the driver and passenger side temperature equally

- Press the DUAL button again to deactivate DUAL mode. The passenger side temperature will be set to the same temperature as the driver side.
- Operate the driver side temperature control switch. The driver and passenger side temperature will be adjusted equally.

Temperature conversion

You can switch the temperature mode between Fahrenheit to Celsius as follows:

- Automatic climate control system : While pressing the OFF button, press the AUTO button for 3 seconds or more.
- Cluster :

You can change the temperature unit by pressing the TRIP button for about 5 seconds when the distance to empty mode of the trip computer is being displayed on the LCD display.

The display will change from Fahrenheit to Celsius, or from Celsius to Fahrenheit.

If the battery has been discharged or disconnected, the temperature mode display will reset to Fahrenheit.

Air intake control



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The air intake control button is used to select the outside (fresh) air position or recirculated air position.

To change the air intake control position, push the control button.

Recirculated air position



With the recirculated air position selected, air from the passenger compartment will be drawn through the ventilation system and heated or cooled according to the function selected.

Outside (fresh) air position



With the outside (fresh) air position selected, air enters the vehicle from outside and is heated or cooled according to the function selected.

* NOTICE

Prolonged operation of the heater in the recirculated air position (without air conditioning selected) may cause fogging of the windshield and side windows and the air within the passenger compartment may become stale.

In addition, prolonged use of the air conditioning with the recirculated air position selected will result in excessively dry air in the passenger compartment.

A WARNING

- Continued use of the climate control system operation in the recirculated air position (without the air conditioning selected) may allow humidity to increase inside the vehicle which may fog the glass and obscure visibility.
- Do not sleep in a vehicle with the air conditioning or heating system on. It may cause serious injury or death due to a drop in the oxygen level and/or body temperature.
- Continued use of the climate control system operation in the recirculated air position can cause drowsiness or sleepiness, that may cause loss of vehicle control resulting in an accident. Set the air intake control to the outside (fresh) air position as much as possible while driving.

Fan speed control



The fan speed can be set to the desired speed by operating the fan speed control switches.

To change the fan speed, press the (♣+) the switch for higher speed, or press the (-♣) switch for lower speed. To turn the fan speed control off, press the front blower OFF button.

Air conditioning



Press the A/C button to turn the air conditioning system on (indicator light will illuminate).

Press the button again to turn the air conditioning system off.

OFF mode



Press the OFF button to turn off the air climate control system. However, you can still operate the mode and air intake buttons as long as the POWER button is in the ON position.

System operation

Ventilation

- 1. Set the mode to the 🔀 position.
- 2. Set the air intake control to the outside (fresh) air position.
- 3. Set the temperature control to the desired position.
- Set the fan speed control to the desired speed.

Heating

- 1. Set the mode to the 🔀 position.
- 2. Set the air intake control to the outside (fresh) air position.
- 3. Set the temperature control to the desired position.
- 4. Set the fan speed control to the desired speed.
- 5. If dehumidified heating is desired, turn the air conditioning system on.
- If the windshield fogs up, set the mode to the , or / position.

Operation Tips

- To keep dust or unpleasant odor from entering the car through the ventilation system, temporarily set the air intake control to the recirculated air position. Be sure to return the control to the fresh air position when the unpleasant odor has passed to keep fresh air in the vehicle. This will help keep the driver alert and comfortable.
- Air for the heating/cooling system is drawn in through the grilles just ahead of the windshield. Care should be taken that the grille openings are not blocked by leaves, snow, ice or other obstructions.
- To prevent the inside of the windshied from fogging, set the air intake control to the fresh air position and fan speed to the desired position, turn on the air conditioning system, and adjust the temperature control to desired temperature.

Air conditioning

HYUNDAI Air Conditioning Systems are filled with R-134a refrigerant.

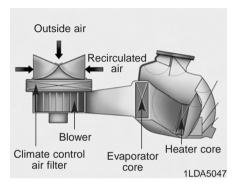
- 1. Start the vehicle. Push the air conditioning button.
- 2. Set the mode to the 🔀 position.
- 3. Set the air intake control to the outside air or recirculated air position.
- Adjust the fan speed control and temperature control to maintain the desired comfort.
- When maximum cooling is desired, set the temperature control to the minimum, then set the fan speed control to the highest speed.

Air conditioning system operation tips

- If the vehicle has been parked in direct sunlight during hot weather, open the windows for a short time to let the hot air inside the vehicle escape.
- To help reduce moisture inside of the windows on rainy or humid days, decrease the humidity inside the vehicle by operating the air conditioning system.
- Use the air conditioning system every month for a few minutes to ensure maximum system performance.
- When using the air conditioning system, you may notice clear water dripping (or even puddling) on the ground under the passenger side of the vehicle. This is a normal system operation characteristic.

- Operating the air conditioning system in the recirculated air position provides maximum cooling, however, continual operation in this mode may cause the air inside the vehicle to become stale.
- During cooling operation, you may occasionally notice a misty air flow because of rapid cooling and humid air intake. This is a normal system operation characteristics.

Climate control air filter



The climate control air filter installed behind the glove box filters the dust or other pollutants that come into the vehicle from the outside through the heating and air conditioning system. If dust or other pollutants accumulate in the filter over a period of time, the air flow from the air vents may decrease, resulting in moisture accumulation on the inside of the wind-shield even when the outside (fresh) air position is selected. If this happens, have the climate control air filter replaced by an authorized HYUNDAI Tucson Fuel Cell dealer.

* NOTICE

- Replace the filter according to the Maintenance Schedule.
 - If the car is being driven in severe conditions such as dusty or rough roads, more frequent climate control filter inspections and changes are required.
- When the air flow rate suddenly decreases, the system should be checked at an authorized HYUNDAI Tucson Fuel Cell dealer.

Checking the amount of air conditioner refrigerant and compressor lubricant

A WARNING



Because the refrigerant is at very high pressure, the air conditioning system should only be serv-

iced by trained and certified technicians. It is important that the correct type and amount of oil and refrigerant is used, otherwise damage to the vehicle and personal injury may occur. When the amount of refrigerant is low, the performance of the air conditioning is reduced. Overfilling also has a negative impact on the air conditioning system.

Therefore, if abnormal operation occurs, have the system inspected by an authorized HYUNDAI Tucson Fuel Cell dealer.

Air Conditioning refrigerant label



The actual Air Conditioning refrigerant label in the vehicle may differ from the illustration.

Each symbols and specification on air conditioning refrigerant label means as below;

- 1. Classification of refrigerant
- 2. Amount of refrigerant
- 3. Classification of Compressor lubricant

Refer to chapter 8 for more detail location of air conditioning refrigerant label.

WINDSHIELD DEFROSTING AND DEFOGGING

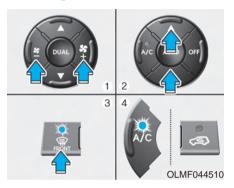
A WARNING

Windshield heating

Do not use the position during cooling operation in extremely humid weather. The difference between the temperature of the outside air and the windshield could cause the outer surface of the windshield to fog up, causing loss of visibility. In this case, set the mode selection to the position and fan speed control to the lower speed.

- For maximum defrosting, set the temperature control to the maximum, and the fan speed control to the highest speed.
- If warm air to the floor is desired while defrosting or defogging, set the mode to the floor-defrost position.
- Before driving, clear all snow and ice from the windshield, rear window, outside rear view mirrors, and all side windows.
- Clear all snow and ice from the hood and air inlet in the cowl grill to improve heater and defroster efficiency and to reduce the probability of fogging up the inside of the windshield.

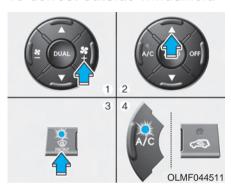
To defog inside windshield



- 1. Set the fan speed to the desired speed.
- 2. Select the desired temperature.
- 3. Press the defrost button ().
- The outside (fresh) air will be selected automatically. If the position is selected, air conditioning will also be selected automatically.

If the air conditioning and/or outside (fresh) air position are not selected automatically, press the corresponding button manually.

To defrost outside windshield



- 1. Set the fan speed to the highest speed.
- 2. Set the temperature to the highest temperature setting.
- 3. Press the defrost button (ﷺ).
- 4. The outside (fresh) air and air conditioning will be selected automatically.

STORAGE COMPARTMENTS

A WARNING

NEVER store cigarette lighters, propane cylinders, or other flammable/explosive materials in the vehicle. These items may catch fire or explode if the vehicle is exposed to hot temperatures for extended periods.

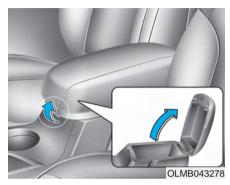
A WARNING

ALWAYS keep the storage compartment covers closed securely while driving. Items inside your vehicle are moving as fast as the vehicle. If you have to stop or turn quickly, or if there is a crash, the items may fly out of the compartment and may cause an injury if they strike the driver or a passenger.

A CAUTION

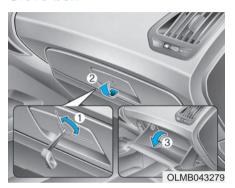
To avoid possible theft, do not leave valuables in the storage compartments.

Center console storage



To open the center console storage: Pull up the lever.

Glove box



The glove box can be locked and unlocked with a key. (1)

To open the glove box:

Pull the handle (2) and the glove box will automatically open (3).

A WARNING

ALWAYS close the glove box door after use. An open glove box door can cause serious injury to the passenger in an accident, even if the passenger is wearing a seat belt.

Sunglass holder



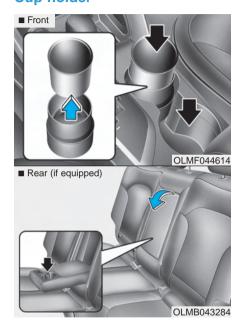
To open the sunglass holder:

Press the cover and the holder will slowly open. Place your sunglasses in the compartment door with the lenses facing out.

To close the sunglass holder:

Push back into position. Make sure the sunglass holder is closed while driving.

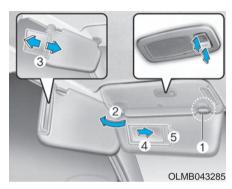
INTERIOR FEATURES Cup holder



A WARNING

- Avoid abrupt starting and braking when the cup holder is in use to prevent spilling your drink. If hot liquid spills, you could be burned. Such a burn to the driver could cause loss of vehicle control resulting in an accident.
- Only use soft cups in the cup holders. Hard objects can injure you in an accident.

Sunvisor



To use a sunvisor, pull it downward. To use a sunvisor for a side window, pull it downward, unsnap it from the bracket (1) and swing it to the side (2). To use the vanity mirror, pull down the sunvisor and slide the mirror cover (4). Adjust the sunvisor forward or backward (3) as needed. Use the ticket holder (5) to hold tickets.

* NOTICE

Always have the vanity mirror lamp switch in the OFF position when the vanity mirror lamp is not in use.

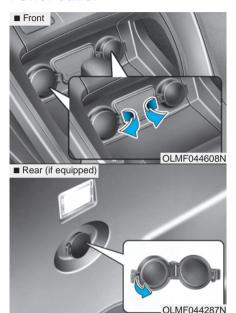
A WARNING

For your safety, do not block your view when using the sunvisor.

A CAUTION

Always use the sunvisor extension, after swinging the sunvisor to the side.

Power outlet



The power outlets are designed to provide power for mobile telephones or other devices designed to operate with vehicle electrical systems. The devices should draw less than 10 amps with the power cell module running.

A WARNING

Avoid electrical shocks. Do not place your fingers or foreign objects (pin, etc.) into a power outlet or touch the power outlet with a wet hand.

A CAUTION

To prevent damage to the Power Outlets:

 Use the power outlet only when the power cell module is running and remove the accessory plug after use. Using the accessory plug for prolonged periods of time with the power cell module off could cause the battery to discharge.

(Continue)

(Continue)

- Only use 12V electrical accessories which are less than 10A in electric capacity.
- Adjust the air-conditioner or heater to the lowest operating level when using the power outlet.
- Close the cover when not in use.
- Some electronic devices can cause electronic interference when plugged into a vehicle's power outlet. These devices may cause excessive audio static and malfunctions in other electronic systems or devices used in your vehicle.
- Push the plug in as far as it will go. If good contact is not made, the plug may overheat or the internal temperature fuse may open.

Digital clock

Clock settings

GPS Time check

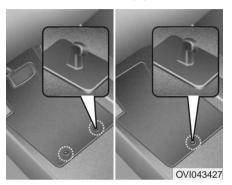
The clock is automatically updated through the GPS time.

For more details, please refer to the Digital Navigation System Manual that was supplied with your vehicle.

A WARNING

Do not adjust the clock while driving. You may lose your steering control and cause an accident that results in severe personal injury or death.

Floor mat anchor (s)



ALWAYS use the Floor Mat Anchors to attach the front floor mats to the vehicle. The anchors on the front floor carpet keep the floor mats from sliding forward.

Your vehicle was manufactured with driver's side floor mat anchors designed to securely hold the floor mat in place. To avoid any interference with pedal operation, HYUNDAI recommends only the HYUNDAI floor mat designed for use in your vehicle be installed.

A WARNING

If a floor mat is the wrong size or not properly installed, it can interfere with the accelerator or the brake pedal while driving. Take the following precautions when installing any floor mat:

- ALWAYS ensure the floor mats are securely attached to the vehicle's floor mat anchor(s) and do not interfere with the accelerator or brake pedal before driving the vehicle.
- Use only the HYUNDAI floor mats designed for use in your vehicle.
- Do not stack floor mats on top of one another (e.g. all-weather rubber mat on top of a carpeted floor mat).
- Only a single floor mat should be installed in each position.
- Do not place anything on top of the driver side floor mat.
- Do not place the floor mats bottom- side up or upside down.

Luggage net (if equipped)



To keep items from shifting in the cargo area, use the luggage net. Make sure the luggage net is securely attached to the holders in the cargo area.

A WARNING

Avold eye injury. DO NOT overstretch the luggage net. ALWAYS keep your face and body out of the luggage net's recoil path. DO NOT use the luggage net when the strap has visible signs of wear or damage.

Multimedia System

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Steering wheel audio control	4-3
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MULTIMEDIA SYSTEM

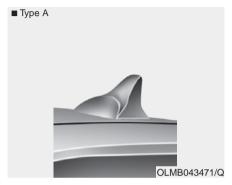
Detailed information about the multimedia system (AV or AVN) is described in a separately supplied manual.

* NOTICE

- If you install an aftermarket HID headlamp, your vehicle's audio and electronic device may malfunction.
- Prevent chemicals such as perfume, cosmetic oil, sun cream, hand cleaner, and air freshener from contacting the interior parts because they may cause damage or discoloration.

Antenna

Roof antenna



Your vehicle uses a roof antenna to receive both AM and FM broadcast signals.

A CAUTION

When cargo is loaded on the roof rack, do not place the cargo near the antenna to ensure proper reception.

Steering wheel audio control



The steering wheel may incorporate audio control buttons. These buttons are installed to promote safe driving.

! CAUTION

Do not operate audio remote control buttons simultaneously.

MODE (1)

Press the button to change audio source.

- FM(1~2) → AM → SAT(1~3) → CD → USB AUX(iPod) FM...

SEEK/PRESET ($^{\wedge}$ / $^{\vee}$) (2)

The SEEK/PRESET button has different functions based on the system mode.

For the following functions the button should be pressed for 0.8 second or more.

RADIO mode

It will function as the AUTO SEEK select button.

CD/USB/iPod mode

It will function as the FF/REW button.

If the SEEK/PRESET button is pressed for less than 0.8 second, it will work as follows in each mode.

RADIO mode

It will function as the PRESET STATION buttons.

CD/USB/iPod mode

It will function as TRACK UP/DOWN button.

VOLUME (VOL \land / \lor) (3)

- Push the lever upward (△) to increase the volume.
- Push the lever downward (∨) to decrease the volume.

MUTE (4)

- · Press the button to mute the sound
- Press the button to turn off the microphone during a telephone call.

Detailed information for audio control buttons is described in a separately supplied manual.

Aux, USB and iPod® port



If your vehicle has an aux and/or USB(universal serial bus) port, you can use an aux port to connect audio devices and the USB port to plug in a USB device.

* NOTICE

When using a portable audio device connected to the power outlet, noise may occur during playback. If this happens, use the power source of the portable audio device.

Driving your vehicle

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A WARNING

Keep the air intakes clear.

To assure proper operation of the ventilation system, keep the ventilation air intakes located in front of the windshield clear of snow, ice, leaves, or other obstructions.

A WARNING

CALIFORNIA PROPOSITION 65 WARNING

A wide variety of automobile components including components found in the interior furnishings in a vehicle, contain or emit harmful chemicals known to the State of California to cause cancer and birth defects and reproductive harm. In addition, certain fluids contained in vehicles and certain products of components contain or emit chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

BEFORE DRIVING

Before entering the vehicle

- Be sure all windows, outside mirror(s), and outside lights are clean and unobstructed.
- Remove frost, snow, or ice.
- Visually check the tires for uneven wear and damage.
- Check under the vehicle for any sign of leaks.
- Be sure there are no obstacles behind you if you intend to back up.

Before starting

- Make sure the hood, the tailgate, and the doors are securely closed and locked.
- Adjust the position of the seat and steering wheel.
- Adjust the inside and outside rearview mirrors.
- · Verify all the lights work.
- Fasten your seatbelt. Check that all passengers have fastened their seatbelts.
- Check the gauges and indicators in the instrument panel and the messages on the instrument display when the POWER button is in the ON position.
- Check that any items you are carrying are stored properly or fastened down securely.

A WARNING

To reduce the risk of SERIOUS INJURY or DEATH, take the following precautions:

- ALWAYS wear your seat belt. All passengers must be properly belted whenever the vehicle is moving. For more information, refer to "Seat Belts" in chapter 2.
- Always drive defensively. Assume other drivers or pedestrians may be careless and make mistakes.
- Stay focused on the task of driving. Driver distraction can cause accidents.
- Leave plenty of space between you and the vehicle in front of you.

A WARNING

NEVER drink or take drugs and drive. Drinking or taking drugs and driving is dangerous and may result in an accident and SERIOUS INJURY or DEATH.

Drunk driving is the number one contributor to the highway death toll each year. Even a small amount of alcohol will affect your reflexes, perceptions and judgment. Just one drink can reduce your ability to respond to changing conditions and emergencies and your reaction time gets worse with each additional drink.

Driving while under the influence of drugs is as dangerous or more dangerous than driving under the influence of alcohol.

(Continued)

(Continued)

You are much more likely to have a serious accident if you drink or take drugs and drive. If you are drinking or taking drugs, don't drive. Do not ride with a driver who has been drinking or taking drugs. Choose a designated driver or call a taxi.

DRIVING FUEL CELL ELECTRIC VEHICLE

Starting the Vehicle



- 1. Carry the smart key or leave it inside the vehicle.
- 2.Make sure the parking brake is firmly applied.
- 3. Place the gear shift lever in the P (Park).
- 4. Depress the brake pedal fully.
- Press the power switch until the "READY" indicator light on the instrument cluster comes on.

* NOTICE

- If the "READY" indicator light does not turn on, the vehicle will not start. In this case, try to start the vehicle again.
- If the "Powering Down Please wait" LCD is displayed, you can start the vehicle.
- When the outside temperature is below 41 50 °F [5 10 °C], if you turn off the power button after driving, you may hear the air blower operating sound. This condition is normal. When the vehicle is turned off, excess water is expelled using the air blower system. This prevents the possibility of any excess water freezing during cold ambient temperature conditions.

Virtual Engine Sound System (VESS)

The Virtual Engine Sound System generates a simulated sound for pedestrians to hear because there is no operating sound coming from the Tucson Fuel Cell vehicle when the power cell module is operating.

- When the gear shift lever is shifted to [D] or [N], if the vehicle is moving at below approximately 12.5 mph, the VESS will operated.
- When the gear shift lever is shifted to [R], the VESS will be operated continuously.

* NOTICE

The VESS does not operate if the vehicle speed exceeds 12.5 mph.

Turing off the Vehicle

- 1.Depress the brake pedal fully.
- 2.Place the gear shift lever in the P (Park).
- 3. Apply the parking brake firmly.
- 4. Press the power switch to turn the vehicle off.
- 5.Make sure the "Powering down please wait" indicator lights on the instrument cluster are turned off.

A CAUTION

If the "Powering down please wait" indicator light on the instrument cluster is still on, be careful that the vehicle is not turned off and can move when you place the gear shift lever in any position except P (Park).

IGNITION SWITCH

A WARNING

To reduce the risk of SERIOUS INJURY or DEATH, take the following precautions:

- NEVER allow children or any person who is unfamiliar with the vehicle to touch the ignition switch or related parts. Unexpected and sudden vehicle movement can occur.
- NEVER reach through the steering wheel for the ignition switch, or any other control, while the vehicle is in motion. The presence of your hand or arm in this area may cause a loss of vehicle control resulting in an accident.

POWER button



Whenever the front door is opened, the POWER button will illuminate and will go off 30 seconds after the door is closed.

A WARNING

To turn the power cell module off in an emergency:

Press and hold the POWER button for more than two seconds OR Rapidly press and release the POWER button three times (within three seconds).

If the vehicle is still moving, you can restart the power cell module without depressing the brake pedal by pressing the POWER button with the shift lever in the N (Neutral) position.

A WARNING

- NEVER press the POWER button while the vehicle is in motion except in an emergency. This will result in the power cell module turning off and loss of power assist for the steering and brake systems. This may lead to loss of directional control and braking function, which could cause an accident.
- Before leaving the driver's seat, always make sure the shift lever is in the P (Park) position, set the parking brake, press the POWER button to the OFF position, and take the Smart Key with you. Unexpected vehicle movement may occur if these precautions are not followed.

POWER button positions

Button Position	Action	Notes
OFF POWER	To turn off the power cell module, press the POWER button with shift lever in P (Park). When you press the POWER button without the shift lever in P (Park), the POWER button does not turn to the OFF position, but turns to the ACC position.	
ACC POWER	Press the POWER button when the button is in the OFF position without depressing the brake pedal. Electrical accessories are usable.	, , , , , , , , , , , , , , , , , , , ,

Button Position	Action	Notes
ON POWER &	Press the POWER button while it is in the ACC position without depressing the brake pedal. The warning lights can be checked before the power cell module is started.	tion for more than one hour, the battery power will turn off automatically to prevent the battery
START POWER U	brake pedal and press the POWER button	If you press the POWER button without depressing the brake pedal, the power cell module does not start and the POWER button changes as follows: OFF → ACC → ON → OFF

Starting the power cell module

A WARNING

Always wear appropriate shoes when operating your vehicle.

Unsuitable shoes, such as high heels, ski boots, sandals, flipflops, etc., may interfere with your ability to use the brake, accelerator and clutch pedals..

* NOTICE

- The power cell module will start by pressing the POWER button, only when the smart key is in the vehicle.
- Even if the smart key is in the vehicle, if it is far away from the driver, the power cell module may not start.
- When the POWER button is in the ACC or ON position, if any door is open, the system checks for the smart key. If the smart key is not in the vehicle, the " " " indicator and the "KEY OUT" indicator will blink, and if all doors are closed, the chime will also sound for about 5 seconds. The indicator will turn off while the vehicle is moving. Keep the smart key in the vehicle when using the ACC position or if the vehicle power cell module is ON.

- 1. Always carry the smart key with you.
- 2.Make sure the parking brake is applied.
- 3.Make sure the shift lever is in P (Park).
- 4. Depress the brake pedal.
- 5. Press the POWER button.

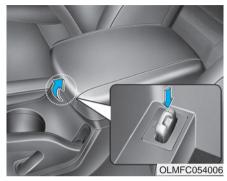
A CAUTION

To prevent damage to the vehicle:

Do not press the POWER button for more than 10 seconds except when the stop lamp fuse is blown.

When the stop lamp fuse is blown, you can't start the power cell module normally. Replace the fuse with a new one. If you are not able to replace the fuse, you can start the power cell module by pressing and holding the POWER button for 10 seconds with the POWER button in the ACC position.

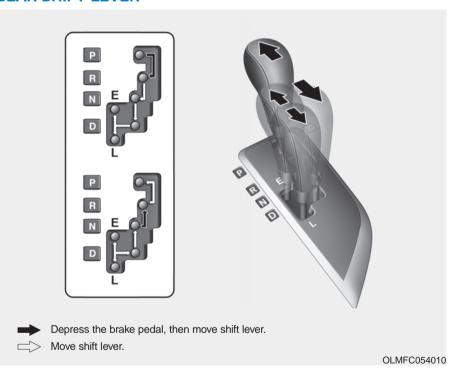
For your safety always depress the brake pedal before starting the power cell module.



* NOTICE

If the smart key battery is weak or the smart key does not work correctly, you can start the power cell module by inserting the smart key in the smart key holder. When you pull out the smart key from the smart key holder, press the smart key and pull it out.

GEAR SHIFT LEVER



A WARNING

To reduce the risk of serious injury or death:

- ALWAYS check the surrounding areas near your vehicle for people, especially children, before shifting a vehicle into D (Drive) or R (Reverse).
- Before leaving the driver's seat, always make sure the shift lever is in the P (Park) position, then set the parking brake, and place the POWER button in the LOCK/OFF position. Unexpected and sudden vehicle movement can occur if these precautions are not followed.

The indicator in the instrument cluster displays the shift lever position when the POWER button is in the ON position.

P (Park)

Always come to a complete stop before shifting into P (Park).

To shift from P (Park), you must depress firmly on the brake pedal and make sure your foot is off the accelerator pedal.

If you have done all of the above and still cannot shift the lever out of P (Park), see "Shift-Lock Release" on page 5-15.

The shift lever must be in P (Park) before turning the power cell module off.

A WARNING

- Shifting into P (Park) while the vehicle is in motion may cause you to lose control of the vehicle.
- After the vehicle has stopped, always make sure the shift lever is in P (Park), apply the parking brake, and turn the power cell module off.
- Do not use the P (Park) position in place of the parking brake.

R (Reverse)

Use this position to drive the vehicle backward.

A CAUTION

Always come to a complete stop before shifting into or out of R (Reverse); you may damage the gear shift lever if you shift into R (Reverse) while the vehicle is in motion.

N (Neutral)

The wheels and gear shift lever are not engaged.

Use N (Neutral) to disconnect the drive wheels from the traction motor. Shift into P (Park) if you need to leave your vehicle for any reason.

Always depress the brake pedal when you are shifting from N (Neutral) to another gear.

A WARNING

Do not shift into gear unless your foot is firmly on the brake pedal.

D (Drive)

This is the normal driving position. The gear shift lever will convert the traction motor rotational speed to provide optimal torque output to the drive wheels.

E (Economic)

Use this mode to drive the vehicle on high fuel efficiency mode.

* NOTICE

In the E (Econimic) mode, the vehicle power may be limited for reducing the fuel consumption.

L (Low)

With the gear shift lever in L (Low), the maximum amount of regenerative braking is applied. Use this mode when driving down a steep grade, such as a mountain road. The regenerative braking that is applied will have a similar effect as engine braking in a conventional vehicle.

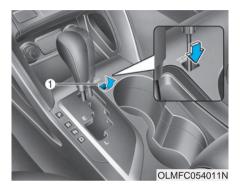
Shift-lock system

For your safety, the gear shift lever has a shift-lock system which prevents shifting the gear shift lever from P (Park) or N (Neutral) into R (Reverse) unless the brake pedal is depressed.

To shift the gear shift lever from P (Park) or N (Neutral) into R (Reverse):

- 1. Depress and hold the brake pedal.
- Start the power cell module or place the POWER button in the ON position.
- 3. Move the shift lever.

Shift-lock release



If the shift lever cannot be moved from the P (Park) or N (Neutral) position into R (Reverse) position with the brake pedal depressed, continue depressing the brake, and then do the following:

- 1. Place the ignition switch in the LOCK/OFF position.
- 2. Apply the parking brake.
- 3. Carefully remove the cap (1) covering the shift-lock access hole.
- 4. Insert a key (or screwdriver) into the access hole and press down on the key (or screwdriver).

- Move the shift lever to N (Neutral) while holding down the key (or screwdriver).
- 6. Remove the key (or screwdriver) from the shift-lock access hole then install the cap.
- 7. Depress the brake pedal, and then restart the engine.

If you need to use the shift-lock release, have your vehicle inspected by an authorized HYUNDAI Tucson Fuel Cell dealer immediately.

Parking

Always come to a complete stop and continue to depress the brake pedal. Move the shift lever into the P (Park) position, apply the parking brake, and place the POWER button in the LOCK/OFF position. Take the Key with you when exiting the vehicle.

Good driving practices

- Never move the shift lever from P
 (Park) or N (Neutral) to any other
 position with the accelerator pedal
 depressed.
- Never move the shift lever into P (Park) when the vehicle is in motion.
 - Be sure the vehicle is completely stopped before you attempt to shift into R (Reverse) or D (Drive).
- Do not move the shift lever to N (Neutral) when driving. Doing so may result in an accident because of a loss of the gear shift lever could be damaged.
- Do not drive with your foot resting on the brake pedal. Even light, but consistent pedal pressure can result in the brakes overheating, brake wear and possibly even brake failure.
- Always apply the parking brake when leaving the vehicle. Do not depend on placing the gear shift lever in P (Park) to keep the vehicle from moving.

- Exercise extreme caution when driving on a slippery surface. Be especially careful when braking, accelerating or shifting gears. On a slippery surface, an abrupt change in vehicle speed can cause the drive wheels to lose traction and may cause loss of vehicle control resulting in an accident.
- Optimum vehicle performance and economy is obtained by smoothly depressing and releasing the accelerator.

A WARNING

To reduce the risk of SERIOUS INJURY or DEATH:

- ALWAYS wear your seatbelt. In a collision, an unbelted occupant is significantly more likely to be seriously injured or killed than a properly belted occupant.
- Avoid high speeds when cornering or turning.
- Do not make quick steering wheel movements, such as sharp lane changes or fast, sharp turns.
- The risk of rollover is greatly increased if you lose control of your vehicle at highway speeds.
- Loss of control often occurs if two or more wheels drop off the roadway and the driver over steers to reenter the roadway.

(Continued)

(Continued)

- In the event your vehicle leaves the roadway, do not steer sharply. Instead, slow down before pulling back into the travel lanes.
- HYUNDAI recommends you follow all posted speed limits.

BRAKING SYSTEM

Power brakes

Your vehicle has power-assisted brakes that adjust automatically through normal usage.

If the power cell module is not running or is turned off while driving, the power assist for the brakes will not work. You can still stop your vehicle by applying greater force to the brake pedal than typical. The stopping distance, however, will be longer than with power brakes.

When the power cell module is not running, the reserve brake power is partially depleted each time the brake pedal is applied. Do not pump the brake pedal when the power assist has been interrupted.

Pump the brake pedal only when necessary to maintain steering control on slippery surfaces.

A WARNING

Take the following precautions:

- Do not drive with your foot resting on the brake pedal. This will create abnormal high brake temperatures, excessive brake lining and pad wear, and increased stopping distances.
- When descending a long or steep hill, use the regenerative braking mode by shifting to L (Low) gear and avoid continuous application of the brakes. Applying the brakes continuously will cause the brakes to overheat and could result in a temporary loss of braking performance.

(Continued)

(Continued)

 Wet brakes may impair the vehicle's ability to safely slow down: the vehicle may also pull to one side when the brakes are applied. Applying the brakes lightly will indicate whether they have been affected in this way. Always test your brakes in this fashion after driving through deep water. To dry the brakes, lightly tap the brake pedal to heat up the brakes while maintaining a safe forward speed until brake performance returns to normal. Avoid driving at high speeds until the brakes function correctly.

Disc brakes wear indicator

When your brake pads are worn and new pads are required, you will hear a high pitched warning sound from your front or rear brakes. You may hear this sound come and go or it may occur whenever you depress the brake pedal.

Please remember some driving conditions or climates may cause a brake squeal when you first apply (or lightly apply) the brakes. This is normal and does not indicate a problem with your brakes.

A CAUTION

To avoid costly brake repairs, do not continue to drive with worn brake pads.

* NOTICE

Always replace brake pads as complete front or rear axle sets.

Parking brake



Always set the parking brake before leaving the vehicle, to apply:

■ Foot type

Firmly depress the brake pedal.

Depress the parking brake pedal down as far as possible.

A WARNING

To reduce the risk of SERIOUS INJURY or DEATH, do not operate the parking brake while the vehicle is moving except in an emergency situation. It could damage the brake system and lead to an accident.



To release:

■ Foot type

Firmly depress the brake pedal.

Depress the parking brake pedal down and it will release automatically.

A WARNING

 Whenever leaving the vehicle or parking, always come to a complete stop and continue to depress the brake pedal. Move the shift lever into the P (Park) position, then apply the parking brake, and place the POWER button in the LOCK/OFF position.

Vehicles with the parking brake not fully engaged are at risk for moving inadvertently and causing injury to yourself or others.

 NEVER allow anyone who is unfamiliar with the vehicle to touch the parking brake. If the parking brake is released unintentionally, serious injury may occur.

(Continued)

(Continued)

 Only release the parking brake when you are seated inside the vehicle with your foot firmly on the brake pedal.

A CAUTION

- Do not apply the accelerator pedal while the parking brake is engaged. If you depress the accelerator pedal with the parking brake engaged, warning will sound. Damage to the parking brake may occur.
- Driving with the parking brake on can overheat the braking system and cause premature wear or damage to brake parts. Make sure the parking brake is released and the Brake Warning Light is off before driving.



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Check the Parking Brake Warning Light by placing the POWER button to the ON position (do not start the power cell module).

This light will be illuminated when the parking brake is applied with the POWER button in the START or ON position.

Before driving, be sure the parking brake is released and the Brake Warning Light is OFF.

If the Parking Brake Warning Light remains on after the parking brake is released while power cell module is running, there may be a malfunction in the brake system. Immediate attention is necessary.

If at all possible, cease driving the vehicle immediately. If that is not possible, use extreme caution while operating the vehicle and only continue to drive the vehicle until you can reach a safe location.

Anti-lock Brake System (ABS)

A WARNING

An Anti-Lock Braking System (ABS) or an Electronic Stability Control (ESC) system will not prevent accidents due to improper or dangerous driving maneuvers. Even though vehicle control is improved during emergency braking, always maintain a safe distance between you and objects ahead of vou. Vehicle speeds should always be reduced during extreme road conditions. The braking distance for cars equipped with ABS or ESC may be longer than for those without these systems in the road conditions described below.

(Continued)

(Continued)

Drive your vehicle at reduced speeds during the following conditions:

- Rough, gravel or snow-covered roads.
- On roads where the road surface is pitted or has different surface height.
- Tire chains are installed on your vehicle.

The safety features of an ABS or ESC equipped vehicle should not be tested by high speed driving or cornering. This could endanger the safety of yourself or others.

ABS is an electronic braking system that helps prevent a braking skid. ABS allows the driver to steer and brake at the same time.

Using ABS

To obtain the maximum benefit from your ABS in an emergency situation, do not attempt to modulate your brake pressure and do not try to pump your brakes. Depress your brake pedal as hard as possible.

When you apply your brakes under conditions which may lock the wheels, you may hear sounds from the brakes, or feel a corresponding sensation in the brake pedal. This is normal and it means your ABS is active.

ABS does not reduce the time or distance it takes to stop the vehicle.

Always maintain a safe distance from the vehicle in front of you.

ABS will not prevent a skid that results from sudden changes in direction, such as trying to take a corner too fast or making a sudden lane change. Always drive at a safe speed for the road and weather conditions.

ABS cannot prevent a loss of stability. Always steer moderately when braking hard. Severe or sharp steering wheel movement can still cause your vehicle to veer into oncoming traffic or off the road.

On loose or uneven road surfaces, operation of the anti-lock brake system may result in a longer stopping distance than for vehicles equipped with a conventional brake system.

The ABS warning light ((19)) will stay on for several seconds after the POWER button is in the ON position. During that time, the ABS will go through self-diagnosis and the light will go off if everything is normal. If the light stays on, you may have a problem with your ABS. Contact an authorized HYUNDAI Tucson Fuel Cell dealer as soon as possible

A WARNING

A CAUTION

Restart the power cell module. If the ABS warning light is off, then your ABS system is normal.

Otherwise, you may have a problem with your ABS system. Contact an authorized HYUNDAI Tucson Fuel Cell dealer as soon as possible.

* NOTICE

When you jump start your vehicle because of a drained battery, the ABS warning light (((a))) may turn on at the same time. This happens because of the low battery voltage. It does not mean your ABS is malfunctioning. Have the battery recharged before driving the vehicle.

Electronic Stability Control (ESC)



The Electronic Stability Control (ESC) system helps to stabilize the vehicle during cornering maneuvers. ESC checks where you are steering and where the vehicle is actually going. ESC applies braking pressure to any one of the vehicle's brakes and intervenes in the power cell module management system to assist the driver with keeping the vehicle on the intended path. It is not a substitute for safe driving practices. Always adjust your speed and driving to the road conditions.

A WARNING

Never drive too fast for the road conditions or too quickly when cornering. The ESC system will not prevent accidents. Excessive speed in turns, abrupt maneuvers, and hydroplaning on wet surfaces can result in severe accidents.

ESC operation

ESC ON condition

When the POWER button is in the ON position, the ESC and the ESC OFF indicator lights illuminate for approximately three seconds and goes off, then the ESC is turned on. If this light stays on, your vehicle may have a malfunction with the ESC system. Have your vehicle checked by an authorized HYUNDAI Tucson Fuel Cell dealer as soon as possible.

When operating



When the ESC is in operation, the ESC indicator light blinks:

- When you apply your brakes under conditions which may lock the wheels, you may hear sounds from the brakes, or feel a corresponding sensation in the brake pedal. This is normal and it means your ESC is active.
- When the ESC activates, the power cell module may not respond to the accelerator as it does under routine conditions.

ESC OFF condition



To cancel ESC operation:

State 1

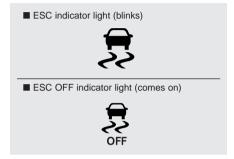
Press the ESC OFF button shortly (ESC OFF indicator light illuminates). At this state, the control function does not operate. In other words, the traction control function does not operate but only the brake control function operates.

• State 2

Press the ESC OFF button for more than 3 seconds. ESC OFF indicator light illuminates and ESC OFF warning chime will sound. At this state, control function and brake control function does not operate. In other words, the vehicle stability control function does not operate any more.

If the POWER button is placed to the LOCK/OFF position when ESC is off, ESC remains off. Upon restarting the power cell module, the ESC will automatically turn on again.

Indicator lights



When the POWER button is placed to the ON position, the ESC indicator light illuminates, then goes off if the ESC system is operating normally.

The ESC indicator light blinks whenever the ESC is operating.

If ESC indicator light stays on, your vehicle may have a malfunction with the ESC system. When this warning light illuminates have your vehicle checked by an authorized HYUNDAI Tucson Fuel Cell dealer as soon as possible.

The ESC OFF indicator light comes on when the ESC is turned off with the button.

A WARNING

When the ESC is blinking, this indicates the ESC is active:

Drive slowly and NEVER attempt to accelerate. NEVER press the ESC OFF button while the ESC indicator light is blinking or you may lose control of the vehicle resulting in an accident.

! CAUTION

Driving with varying tire or wheel sizes may cause the ESC system to malfunction. When replacing tires, make sure they are the same size as your original tires for this vehicle.

ESC OFF usage

When driving

The ESC OFF mode should only be used briefly to help free the vehicle if stuck in snow or mud by temporarily stopping operation of the ESC to maintain wheel torque.

To turn ESC off while driving, press the ESC OFF button while driving on a flat road surface.

A CAUTION

To prevent damage to the gear shift lever:

- Do not allow wheel(s) of one axle to spin excessively while the ESC, ABS, and brake warning lights are displayed. The repairs would not be covered by the vehicle warranty. Reduce power cell module's power and do not spin the wheel(s) excessively while these lights are displayed.
- When operating the vehicle on a dynamometer, ensure the ESC is turned off (ESC OFF light illuminated).

* NOTICE

Turning the ESC OFF does not affect ABS or standard brake system operation.

Vehicle Stability Management (VSM)

Vehicle Stability Management (VSM) helps ensure the vehicle stays stable when accelerating or braking suddenly on wet, slippery and rough roads where traction over the four tires can suddenly become uneven.

A WARNING

Take the following precautions when using the Vehicle Stability Management (VSM):

- ALWAYS check the speed and the distance to the vehicle ahead. The VSM is not a substitute for safe driving practices.
- Never drive too fast for the road conditions. The VSM system will not prevent accidents. Excessive speed in bad weather, slippery and uneven roads can result in severe accidents.

VSM operation

VSM ON condition

The VSM operates when:

- The Electronic Stability Control (ESC) is on.
- Vehicle speed is approximately above 9mph (15 km/h) on curve roads.
- Vehicle speed is approximately above 18mph (30 km/h) when the vehicle is braking on rough roads.

When operating

When you apply your brakes under conditions which may activate the ESC, you may hear sounds from the brakes, or feel a corresponding sensation in the brake pedal. This is normal and it means your VSM is active.

* NOTICE

The VSM does not operate when:

- Driving rearward.
- ESC OFF indicator light is on.
- EPS (Electric Power Steering) warning light (⊖!) is on.

VSM OFF condition

To cancel VSM operation, press the ESC OFF button. ESC OFF indicator light (♣) will illuminate.

To turn on VSM, press the ESC OFF button again. The ESC OFF indicator light will go out.

A WARNING

If ESC indicator light (♣) or EPS warning light (♠!) stays on, your vehicle may have a malfunction with the VSM system. When the warning light illuminates, have your vehicle checked by an authorized HYUNDAI Tucson Fuel Cell dealer as soon as possible.

A CAUTION

Driving with varying tire or wheel sizes may cause the ESC system to malfunction. When replacing tires, make sure they are the same size as your original tires for this vehicle.

Good braking practices

A WARNING

Whenever leaving the vehicle or parking, always come to a complete stop and continue to depress the brake pedal. Move the shift lever into the P (Park) position, then apply the parking brake, and place the POWER button in the LOCK/OFF position.

Vehicles with the parking brake not fully engaged are at risk for moving inadvertently and causing injury to yourself or others. Wet brakes can be dangerous! The brakes may get wet if the vehicle is driven through standing water or if it is washed. Your vehicle will not stop as quickly if the brakes are wet. Wet brakes may cause the vehicle to pull to one side.

To dry the brakes, apply the brakes lightly until the braking action returns to normal, taking care to keep the vehicle under control at all times. If the braking action does not return to normal, stop as soon as it is safe to do so and call an authorized HYUNDAI Tucson Fuel Cell dealer for assistance.

DO NOT drive with your foot resting on the brake pedal. Even light, but constant pedal pressure can result in the brakes overheating, brake wear, and possibly even brake failure. If a tire goes flat while you are driving, apply the brakes gently and keep the vehicle pointed straight ahead while you slow down. When you are moving slowly enough for it to be safe to do so, pull off the road and stop in a safe location.

Keep your foot firmly on the brake pedal when the vehicle is stopped to prevent the vehicle from rolling forward

SPECIAL DRIVING CONDITIONS

Hazardous driving conditions

When hazardous driving conditions are encountered such as water, snow, ice, mud or sand:

Drive cautiously and allow extra distance for braking.

Avoid sudden movements in braking or steering.

If stuck in snow, mud, or sand, use second gear. Accelerate slowly to avoid spinning the drive wheels.

Use sand, rock salt, or other non-slip material under the drive wheels to provide traction when stalled in ice, snow, or mud.

Rocking the vehicle

If it is necessary to rock the vehicle to free it from snow, sand, or mud, first turn the steering wheel right and left to clear the area around your front wheels. Then, shift back and forth between R (Reverse) and a forward gear. Try to avoid spinning the wheels, and do not race the power cell module.

To prevent gear shift lever wear, wait until the wheels stop spinning before shifting gears. Release the accelerator pedal while shifting, and press lightly on the accelerator pedal while the gear shift lever is in gear. Slowly spinning the wheels in forward and reverse directions causes a rocking motion that may free the vehicle.

A WARNING

If the tires spin at high speed the tires can explode, and you or others may be injured. Do not attempt this procedure if people or objects are anywhere near the vehicle.

Spin the wheels as little as possible and avoid spinning the wheels at speeds over 35 mph (56 km/h) as indicated on the speedometer.

A CAUTION

If you are still stuck after rocking the vehicle a few times, have the vehicle pulled out by a tow vehicle to avoid power cell module overheating, possible damage to the gear shift lever, and tire damage. See "Towing" in chapter 6.

To prevent damage to the gear shift lever, turn OFF the ESC prior to rocking the vehicle.

Smooth cornering



Avoid braking in corners, especially when roads are wet. Ideally, corners should always be taken under gentle acceleration.

Economical operation

Gear shift lever shifting

• E (ECO) - Economic driving mode : To minimize the fuel consumption, drive the vehicle with the gear lever in E (ECO).

* NOTICE

With the gear in E (ECO), the vehicle's reaction to acceleration may become slower to reduce the fuel consumption.

 L (Low) - Regenerative braking maximized mode :

Place the gear lever in L (Low) when driving down a steep grade, such as a mountain road. This maximizes the regenerative braking energy and charges the high voltage battery more rapidly. The regenerative braking that is applied will have a similar effect as engine braking in a conventional vehicle.

* NOTICE

Avoid driving your vehicle with the gear shift lever in N (Neutral) because the regenerative braking system does not operate when the vehicle is in neutral.

Air Conditioning Operation

The air conditioning system is operated by the electric power of the fuel cell stack and high voltage battery. If you use the air conditioning more than necessary, fuel economy will become worse due to excessive consumption of the electric energy.

For better fuel economy, we recommend you select "AUTO" mode with the temperature in 23 °C (73 °F).

Distance to Empty

Distance to empty when the fuel is full varies between 250 and 300 miles depending on following conditions.

- Driving pattern
- Road condition : highway, uphill road, down hill road, mountain road
- State of fuel cell stack
- Frequency of air conditioning use
- Luggage weight
- Tire pressure
- Weather and air temperature

Driving at night



Night driving presents more hazards than driving in the daylight. Here are some important tips to remember:

- Slow down and keep more distance between you and other vehicles, as it may be more difficult to see at night, especially in areas where there may not be any street lights.
- Adjust your mirrors to reduce the glare from other driver's headlights.

- Keep your headlights clean and properly aimed. Dirty or improperly aimed headlights will make it much more difficult to see at night.
- Avoid staring directly at the headlights of oncoming vehicles. You could be temporarily blinded, and it will take several seconds for your eyes to readjust to the darkness.

Driving in the rain



Rain and wet roads can make driving dangerous. Here are a few things to consider when driving in the rain or on slick pavement:

- Slow down and allow extra following distance. A heavy rainfall makes it harder to see and increases the distance needed to stop your vehicle.
- Replace your windshield wiper blades when they show signs of streaking or missing areas on the windshield

- Be sure your tires have enough tread. If your tires do not have enough tread, making a quick stop on wet pavement can cause a skid and possibly lead to an accident. See "Tire Tread" in chapter 7.
- Turn on your headlights to make it easier for others to see you.
- Driving too fast through large puddles can affect your brakes. If you must go through puddles, try to drive through them slowly.
- If you believe your brakes may be wet, apply them lightly while driving until normal braking operation returns.

Hydroplaning

If the road is wet enough and you are going fast enough, your vehicle may have little or no contact with the road surface and actually ride on the water. The best advice is SLOW DOWN when the road is wet. The risk of hydroplaning increases as the depth of tire tread decreases, refer to "Tire Tread" in chapter 7.

Driving in flooded areas

Avoid driving through flooded areas unless you are sure the water is no higher than the bottom of the wheel hub. Drive through any water slowly. Allow adequate stopping distance because brake performance may be reduced.

After driving through water, dry the brakes by gently applying them several times while the vehicle is moving slowly.

Reducing the risk of a rollover

Your multi-purpose passenger vehicle is defined as a Sports Utility Vehicle (SUV). SUV's have higher ground clearance and a narrower track to make them capable of performing in a wide variety of off-road applications. The specific design characteristics give them a higher center of gravity than ordinary vehicles making them more likely to roll over if you make abrupt turns. Utility vehicles have a significantly higher rollover rate than other types of vehicles. Due to this risk, driver and passengers are strongly recommended to buckle their seat belts. In a rollover crash, an unbelted person is significantly more likely to die than a person wearing a seat belt.

There are steps that a driver can make to reduce the risk of a rollover. If at all possible, avoid sharp turns or abrupt maneuvers, do not load your vehicle with heavy cargo on the roof, and never modify your vehicle in any way.

A WARNING

Utility vehicles have a significantly higher rollover rate than other types of vehicles. To prevent rollovers or loss of control:

- Take corners at slower speeds than you would with a passenger vehicle.
- Avoid sharp turns and abrupt maneuvers.
- Do not modify your vehicle in any way that you would raise the center of gravity.
- · Keep tires properly inflated.
- Do not carry heavy cargo on the roof.

A WARNING

- In a rollover crash, an unbelted person is significantly more likely to die than a person wearing a seat belt. Make sure all passengers are wearing their seat belts.
- Specific design characteristics (higher ground clearance, nar-rower track, etc.) give this vehicle a higher center of gravity than ordinary vehicles.

WINTER DRIVING Snow or icy conditions



You need to keep sufficient distance between your vehicle and the vehicle in front of you.

Apply the brakes gently. Speeding, rapid acceleration, sudden brake applications, and sharp turns are potentially very hazardous practices. During deceleration, use low gear braking to the fullest extent. Sudden brake applications on snowy or icy roads may cause skids to occur.

To drive your vehicle in deep snow, it may be necessary to use snow tires or to install tire chains on your tires.

Always carry emergency equipment. Some of the items you may want to carry include tire chains, tow straps or chains, a flashlight, emergency flares, sand, a shovel, jumper cables, a window scraper, gloves, ground cloth, coveralls, a blanket, etc.

Snow tires

A WARNING

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

If you mount snow tires on your vehicle, make sure to use radial tires of the same size and load range as the original tires. Mount snow tires on all four wheels to balance your vehicle's handling in all weather conditions. The traction provided by snow tires on dry roads may not be as high as your vehicle's original equipment tires. Check with the tire dealer for maximum speed recommendations.

* NOTICE

Do not install studded tires without first checking local, state and municipal regulations for possible restrictions against their use.

Tire chains



Since the sidewalls of radial tires are thinner than other types of tires, they may be damaged by mounting some types of tire chains on them. Therefore, the use of snow tires is recommended instead of tire chains. Do not mount tire chains on vehicles equipped with aluminum wheels; if unavoidable use a wire type chain. If tire chains must be used, use genuine HYUNDAI parts and install the tire chain after reviewing the instructions provided with the tire chains. Damage to your vehicle caused by improper tire chain use is not covered by your vehicle manufacturer's warrantv.

A WARNING

The use of tire chains may adversely affect vehicle handling:

- Drive less than 20 mph (30 km/h) or the chain manufacturer's recommended speed limit, whichever is lower.
- Drive carefully and avoid bumps, holes, sharp turns, and other road hazards, which may cause the vehicle to bounce.
- Avoid sharp turns or locked wheel braking.

* NOTICE

- Install tire chains on the front tires for 2WD vehicles. It should be noted that installing tire chains on the tires will provide a greater driving force, but will not prevent side skids.
- Do not install studded tires without first checking local, state and municipal regulations for possible restrictions against their use.

Chain installation

When installing tire chains, follow the manufacturer's instructions and mount them as tightly possible. Drive slowly (less than 20 mph (30 km/h)) with chains installed. If you hear the chains contacting the body or chassis, stop and tighten them. If they still make contact, slow down until the noise stops. Remove the tire chains as soon as you begin driving on cleared roads.

When mounting snow chains, park the vehicle on level ground away from traffic. Turn on the vehicle Hazard Warning Flasher and place a triangular emergency warning device behind the vehicle (if available). Always place the vehicle in P (Park), apply the parking brake and turn off the power cell module before installing snow chains.

A CAUTION

When using tire chains:

- Wrong size chains or improperly installed chains can damage your vehicle's brake lines, suspension, body and wheels.
- Use SAE "S" class or wire chains.
- If you hear noise caused by chains contacting the body, retighten the chain to prevent contact with the vehicle body.
- To prevent body damage, retighten the chains after driving 0.3~0.6 miles (0.5~1.0 km).
- Do not use tire chains on vehicles equipped with aluminum wheels. If unavoidable, use a wire type chain.
- Use wire chains less than 0.59 inch (15 mm) wide to prevent damage to the chain's connection.

VEHICLE LOAD LIMIT

Two labels on your driver's door sill show how much weight your vehicle was designed to carry: the Tire and Loading Information Label and the Certification Label.

Before loading your vehicle, familiarize yourself with the following terms for determining your vehicle's weight ratings, from the vehicle's specifications and the Certification Label:

Base Curb Weight

This is the weight of the vehicle including a full tank of fuel and all standard equipment. It does not include passengers, cargo, or optional equipment.

Vehicle Curb Weight

This is the weight of your new vehicle when you picked it up from your dealer plus any aftermarket equipment.

Cargo Weight

This figure includes all weight added to the Base Curb Weight, including cargo and optional equipment.

GAW (Gross Axle Weight)

This is the total weight placed on each axle (front and rear) - including vehicle curb weight and all payload.

GAWR (Gross Axle Weight Rating)

This is the maximum allowable weight that can be carried by a single axle (front or rear). These numbers are shown on the Certification Label. The total load on each axle must never exceed its GAWR.

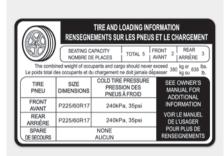
GVW (Gross Vehicle Weight)

This is the Base Curb Weight plus actual Cargo Weight plus passengers.

GVWR (Gross Vehicle Weight Rating)

This is the maximum allowable weight of the fully loaded vehicle (including all options, equipment, passengers and cargo). The GVWR is shown on the Certification Label located on the driver's door sill.

Tire loading information label



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The label located on the driver's door sill gives the original tire size, cold tire pressures recommended for your vehicle, the number of people that can be in your vehicle and vehicle capacity weight.

Vehicle capacity weight

838 lbs. (380kg)

Vehicle capacity weight is the maximum combined weight of occupants and cargo.

Seating capacity

Total: 5 persons

(Front seat : 2 persons, Rear seat : 3 persons)

Seating capacity is the maximum number of occupants including a driver, your vehicle may carry. However, the seating capacity may be reduced based upon the weight of all of the occupants, and the weight of the cargo being carried. Do not overload the vehicle as there is a limit to the total weight, or load limit including occupants and cargo, the vehicle can carry.

Steps for determining correct load limit

- Locate the statement "The combined weight of occupants and cargo should never exceed XXX kg or XXX lbs." on your vehicle's placard.
- 2.Determine the combined weight of the driver and passengers that will be riding in your vehicle.
- 3.Subtract the combined weight of the driver and passengers from XXX kg or XXX lbs.
- 4.The resulting figure equals the available amount of cargo and luggage load capacity. For example, if the "XXX" amount equals 1400 lbs. and there will be five 150 lb. passengers in your vehicle, the amount of available cargo and luggage load capacity is 650 lbs. (1400 750 (5 x 150) = 650 lbs.)
- 5.Determine the combined weight of luggage and cargo being loaded on the vehicle. That weight may not safely exceed the available cargo and luggage load capacity calculated in Step 4.

A WARNING

Do not overload the vehicle as there is a limit to the total weight, or load limit, including occupants and cargo, the vehicle can carry. Overloading can shorten the life of the vehicle. If the GVWR or the GAWR is exceeded, parts on the vehicle can break, and it can change the handling of your vehicle. These could cause you to lose control and result in an accident.

Example 1	Vehicle Capacity	≥	44	+	
	Maximum Load (1400 lbs.) (635 kg)		Passenger Weight (150lbs. × 2 = 300 lbs.) (68 kg × 2 = 136kg)		Cargo Weight (1100 lbs.) (499 kg)
Example 2	Vehicle Capacity	≥	444 44	+	
	Maximum Load (1400 lbs.) (635 kg)		Passenger Weight (150lbs. × 5 = 750 lbs.) (68 kg × 5 = 340kg)		Cargo Weight (650 lbs.) (295 kg)
Example 3	Vehicle Capacity	≥	444	+	
	Maximum Load (1400 lbs.) (635 kg)		Passenger Weight (172lbs. x 5 = 860 lbs.) (78 kg x 5 = 390kg)		Cargo Weight (540 lbs.) (245 kg)

Certification label



The certification label is located on the driver's door sill at the center pillar and shows the maximum allowable weight of the fully loaded vehicle. This is called the GVWR (Gross Vehicle Weight Rating). The GVWR includes the weight of the vehicle, all occupants, fuel and cargo.

This label also tells you the maximum weight that can be supported by the front and rear axles, called Gross Axle Weight Rating (GAWR).

The total weight of the vehicle, including all occupants, accessories, cargo, and trailer tongue load must not exceed the Gross Vehicle Weight Rating (GVWR) or the Gross Axle Weight Rating (GAWR). To find out the actual loads on your front and rear axles, you need to go to a weigh station and weigh your vehicle. Be sure to spread out your load equally on both sides of the centerline.

A WARNING

Overloading

- Never exceed the GVWR for your vehicle, the GAWR for either the front or rear axle and vehicle capacity weight. Exceeding these ratings can affect your vehicle's handling and braking ability, and cause an accident.
- Do not overload your vehicle. Overloading your vehicle can cause heat buildup in your vehicle's tires and possible tire failure, increased stopping distances and poor vehicle handling-all of which may result in a crash.

A CAUTION

Overloading your vehicle may cause damage. Repairs would not be covered by your warranty. Do not overload your vehicle.

A WARNING

If you carry items inside your vehicle (e.g., suitcases, tools, packages, or anything else), they are moving as fast as the vehicle. If you have to stop or turn quickly, or if there is a crash, the items will keep going and can cause an injury if they strike the driver or a passenger.

- Put items in the cargo area of your vehicle. Try to spread the weight evenly.
- Do not stack items, like suitcases, inside the vehicle above the tops of the seats.
- Do not leave an unsecured child restraint in your vehicle.
- When you carry something inside the vehicle, secure it.

TRAILER TOWING

We do not recommend using this vehicle for trailer towing.

What to do in an emergency

Hazard warning flasher	6-2
In case of an emergency while driving	6-3
If an accident occurs	
If a fire occurs	6-3
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HAZARD WARNING FLASHER



The hazard warning flasher serves as a warning to other drivers to exercise extreme caution when approaching, overtaking, or passing your vehicle.

It should be used whenever emergency repairs are being made or when the vehicle is stopped near the edge of a roadway.

To turn the hazard warning flasher on or off, press the hazard warning flasher button with the POWER button in any position. The button is located in the center console switch panel. All turn signal lights will flash simultaneously.

- The hazard warning flasher operates whether your vehicle is running or not.
- The turn signals do not work when the hazard flasher is on.

IN CASE OF AN EMERGENCY WHILE DRIVING

If an accident occurs

1.Stop the vehicle, move the shift lever to the P(Park) position, depress the parking brake, and turn the vehicle off.

The flow of hydrogen into the fuel cell stack will be shut off to prevent the electricity from being generated.

- 2. Evacuate to the safety place.
- 3.Call emergency services for help and let them know the vehicle is a Hydrogen Fuel Cell Electric Vehicle

If a fire occurs

1.Stop the vehicle, move the shift lever to the P(Park) position, depress the parking brake, and turn the vehicle off.

The flow of hydrogen into the fuel cell stack will be shut off to prevent the electricity from being generated.

2.If the fire is small, you can extinguish the fire with water when the vehicle power is turned off.

A WARNING

Do not use water to extinguish a fire when the vehicle power is turned on. Serious electric shock may result.

If the fire is too big to be extinguished with the fire extinguisher, evacuate from the vehicle, call the fire department, and let them know the vehicle is a Hydrogen Fuel Cell Electric Vehicle. Do not come close to the vehicle until the fire is totally extinguished.

Emergency venting of hydrogen gas

If the temperature near the safety valve located at the rear under vehicle is over 230°F (110°C) caused by a fire or other reasons, the safety valve will open to vent hydrogen gas. Venting the hydrogen gas makes a loud noise because the venting speed is very fast. Stay well away from the vehicle. The discharge of hydrogen gas from the vehicle is flammable and could cause a fire.

If a submersion in water occurs

If your vehicle was flooded and has soaked carpeting or water on the flooring, you should not try to start the vehicle by pressing the POWER button.

Contact an authorized HYUNDAI Tucson Fuel Cell dealer immediately.

If the vehicle stalls at a crossroad or crossing

If the vehicle stalls at a crossroad or crossing, set the shift lever in the N (Neutral) position and then push the vehicle to a safe place.

If you have a flat tire while driving

If a tire goes flat while you are driving:

- 1. Take your foot off the accelerator pedal and let the vehicle slow down while driving straight ahead. Do not apply the brakes immediately or attempt to pull off the road as this may cause a loss of control. When the vehicle has slowed to such a speed that it is safe to do so, brake carefully and pull off the road. Drive off the road as far as possible and park on firm, level ground. If you are on a divided highway, do not park in the median area between the two traffic lanes.
- When the vehicle is stopped, turn on your emergency hazard flashers, set the parking brake and move the shift lever to the P(Park) position.
- Have all passengers get out of the vehicle. Be sure they all get out on the side of the vehicle that is away from traffic.

If the vehicle stalls while driving

- Reduce your speed gradually, keeping a straight line. Move cautiously off the road to a safe place.
- 2. Turn on your emergency flashers.
- 3. Try to start the vehicle again. If your vehicle will not start, contact an authorized HYUNDAI Tucson Fuel Cell dealer.

IF THE VEHICLE WILL NOT START

- 1. Check if the shift lever is in the N(Neutral) or P(Park) position.
- Check the intensity of the luggage room lamp. If the light is weak, it is need to recharge the battery. If necessary, try to jump start the vehicle referring to "Emergency starting" in this chapter.
- If the vehicle will not start after following above steps, call an authorized HYUNDAI Tucson Fuel Cell dealer.

Do not push or pull the vehicle to start it.

JUMP STARTING

Jump starting can be dangerous if done incorrectly. Follow the jump starting procedure in this section to avoid serious injury or damage to your vehicle. If in doubt about how to properly jump start your vehicle, we strongly recommend that you have a service technician or towing service do it for you.

A 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.

(Continued)

(Continued)



Batteries contain sulfuric acid which 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.

- When lifting a plastic-cased battery, excessive pressure on the case may cause battery acid to leak. Lift with a battery carrier or with your hands on opposite corners.
- Do not attempt to jump start your vehicle if your battery is frozen.

(Continued)

(Continued)

- NEVER attempt to recharge the battery when the vehicle's battery cables are connected to the battery.
- The electrical ignition system works with high voltage. NEVER touch these components with the engine running or when the POWER button is in the ON position.

* NOTICE



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

! CAUTION

To prevent damage to your vehicle:

- Only use a 12-volt power supply (battery or jumper system) to jump start your vehicle.
- Do not attempt to jump start your vehicle by push-starting.

Jump starting procedure

- Make sure the booster battery is 12-volt and that its negative terminal is grounded.
- If the booster battery is in another vehicle, do not allow the vehicles to touch.
- Turn off all unnecessary electrical loads.
- 4. First connect one end of a jumper cable to the positive terminal of the discharged battery in the luggage room, then connect the other end to the positive terminal on the booster battery. Proceed to connect one end of the other jumper cable to the negative terminal of the booster battery, then the other end to a solid, stationary, metallic point away from the battery (for example, the tailgate latch). Do not connect it to or near any part that moves when the vehicle is started.

Do not allow the jumper cables to contact anything except the correct battery terminals or the correct ground. Do not lean over the battery when making connections.

A CAUTION

Battery cables

Do not connect the jumper cable from the negative terminal of the booster battery to the negative terminal of the discharged battery. This can cause the discharged battery to overheat and crack, releasing battery acid.

- Start the vehicle with the booster battery and let it run, then start the vehicle with the discharged battery.
- 6. After a few minutes, turn off both of the vehicles.
- 7. Remove the negative terminal cable first, and then remove the positive terminal cable.

If the cause of your battery discharging is not apparent, have your vehicle checked by an authorized HYUNDAI Tucson Fuel Cell dealer.

Push-starting

Your vehicle cannot be push-started. Follow the directions in this chapter for jump-starting.

A WARNING

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

TIRE PRESSURE MONITORING SYSTEM (TPMS)



(1) Low Tire Pressure Telltale/ TPMS Malfunction telltale

A WARNING

Over-inflation or under-inflation can reduce tire life, adversely affect vehicle handling, and lead to sudden tire failure that may cause loss of vehicle control resulting in an accident. Each tire including the spare (if provided), should be checked monthly when cold and inflated to the inflation pressure recommended by the vehicle manufacturer on the vehicle placard or tire inflation pressure label. (If your vehicle has tires of a different size than the size indicated on the vehicle placard or tire inflation pressure label, you should determine the proper tire inflation pressure for those tires.)

As an added safety feature, your vehicle has been equipped with a tire pressure monitoring system (TPMS) that illuminates a low tire pressure telltale when one or more of your tires is significantly under-inflated. Accordingly, when the low tire pressure telltale illuminates, you should stop and check your tires as soon as possible, and inflate them to the proper pressure. Driving on a significantly under-inflated tire causes the tire to overheat and can lead to tire failure. Under-inflation also reduces fuel efficiency and tire tread life, and may affect the vehicle's handling and stopping ability.

Please note that the TPMS is not a substitute for proper tire maintenance, and it is the driver's responsibility to maintain correct tire pressure, even if under-inflation has not reached the level to trigger illumination of the TPMS low tire pressure telltale.

Your vehicle has also been equipped with a TPMS malfunction telltale to indicate when the system is not operating properly. The TPMS malfunction telltale is combined with the low tire pressure telltale. When the system detects a malfunction, the telltale will flash for approximately one minute and then remain continuously illuminated. This sequence will continue upon subsequent vehicle start-ups as long as the malfunction exists. When the malfunction telltale is illuminated, the system may not be able to detect or signal low tire pressure as intended.

TPMS malfunctions may occur for a variety of reasons, including the installation of replacement or alternate tires or wheels on the vehicle that prevent the TPMS from functioning properly. Always check the TPMS malfunction telltale after replacing one or more tires or wheels on your vehicle to ensure that the replacement or alternate tires and wheels allow the TPMS to continue to function properly.

* NOTICE

If the TPMS Low Tire Pressure Telltale does not illuminate for three seconds the POWER button is turned to the ON position, or if it remains illuminated after coming on for approximately three seconds, take your vehicle to your nearest authorized HYUNDAI Tucson Fuel Cell dealer and have the system checked.



Low tire pressure telltale

When the low tire pressure telltale is illuminated, one or more of your tires is significantly under-inflated.

If the indicator illuminates, immediately reduce your speed, avoid hard cornering and anticipate increased stopping distances. You should stop and check your tires as soon as possible. Inflate the tires to the proper pressure as indicated on the vehicle's placard or tire inflation pressure label located on the driver's side center pillar outer panel. Contact an authorized HYUNDAI Tucson Fuel Cell dealer.

The Low Tire Pressure Telltale will remain on and the TPMS Malfunction Telltale may blink for one minute and then remain illuminated (when the vehicle is driven approximately 20 minutes at speed above 15.5 mph (25 km/h)) until you have the low pressure tire repaired and replaced on the vehicle.

A CAUTION

pressure.

In winter or cold weather, the Low Tire Pressure Telltale may be illuminated if the tire pressure was adjusted to the recommended tire inflation pressure in warm weather. It does not mean your TPMS is malfunctioning because the decreased temperature leads to a proportional lowering of tire pressure. When you drive your vehicle from a warm area to a cold area or from a cold area to a warm area, or the outside temperature is greatly higher or lower, you should check the tire inflation pressure and adjust the tires to the recommended tire inflation

A WARNING

- Significantly low tire pressure makes the vehicle unstable and can contribute to loss of vehicle control and increased braking distances.
- Continued driving on low pressure tires can cause the tires to overheat and fail.



TPMS malfunction telltale

The TPMS malfunction telltale comes on after it blinks for approximately one minute when there is a problem with the Tire Pressure Monitoring System.

Have the system checked by an authorized HYUNDAI Tucson Fuel Cell dealer as soon as possible to determine the cause of the problem.

* NOTICE

The TPMS malfunction telltale may illuminate after blinking for one minute if the vehicle is near electric power supply cables or radio transmitters such as police stations, government and public offices, broadcasting stations, military installations, airports, transmitting towers, etc. Additionally, the TPMS malfunction telltale may illuminate if snow chains are used or electronic devices such as computers, chargers, remote starters, navigation, etc. This may interfere with normal operation of the TPMS.

Cautions when you have a flat tire

You may not be able identify a low tire by simply looking at it. Always use a good quality tire pressure gauge to measure the tire's inflation pressure. Please note that a tire that is hot (from being driven) will have a higher pressure measurement than a tire that is cold (from sitting stationary for at least 3 hours and driven less than 1 mile (1.6 km) during that 3 hour period).

Allow the tire to cool before measuring the inflation pressure. Always be sure the tire is cold before inflating to the recommended pressure.

A cold tire means the vehicle has been sitting for 3 hours and driven for less than 1 mile (1.6 km) in that 3 hour period.

A CAUTION

We recommend that you do not use any tire sealant except the Tire Mobility Kit approved by HYUNDAI if your vehicle is equipped with a Tire Pressure Monitoring System. The liquid sealant can damage the tire pressure sensors.

A WARNING

TPMS

- The TPMS cannot alert you to severe and sudden tire damage caused by external factors such as nails or road debris.
- If you feel any vehicle instability, immediately take your foot off the accelerator, apply the brakes gradually and with light force, and slowly move to a safe position off the road.

A WARNING

Protecting TPMS

Tampering with, modifying, or disabling the Tire Pressure Monitoring System (TPMS) components may interfere with the system's ability to warn the driver of low tire pressure conditions and/or TPMS malfunctions. Tampering with, modifying, or disabling the Tire Pressure Monitoring System (TPMS) components may void the warranty for that portion of the vehicle.

This device complies with Part 15 of the FCC rules.

Operation is subject to the following two conditions:

- 1. This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Tampering with, modifying, or disabling the TPMS components may interfere with the system's ability to function and may void the warranty for that portion of the vehicle.

Changing a Tire with TPMS

If you have a flat tire, the Low Tire Pressure Telltale will illuminate. If you believe you have a flat tire or feel any vehicle instability, take your foot off the accelerator pedal and let the vehicle slow down while driving straight ahead. Do not apply the brakes immediately or attempt to pull off the road as this may cause a loss of control resulting in an accident.

When the vehicle has slowed to such a speed that it is safe to do so, brake carefully and pull off the road. Drive off the road as far as possible and park on firm, level ground. If you are on a divided highway, do not park in the median area between the two traffic lanes. Repair the flat tire with the Tire Mobility Kit(TMK).

Once the original tire equipped with a tire pressure monitoring sensor is reinflated to the recommended pressure and reinstalled on the vehicle, the Low Tire Pressure Telltale and TPMS Malfunction Telltale will go off within a few minutes.

If the indicators do not extinguish after a few minutes, please visit an authorized HYUNDAI Tucson Fuel Cell dealer.

Each wheel is equipped with a tire pressure sensor mounted inside the tire behind the valve stem (except for the spare tire). You must use TPMS specific wheels. It is recommended that you always have your tires serviced by an authorized HYUNDAI Tucson Fuel Cell dealer as soon as possible.

IF YOU HAVE A FLAT TIRE (WITH TIRE MOBILITY KIT)



For safe operation, carefully read and follow the instructions in this manual before use.

- (1) Compressor
- (2) Sealant bottle

The Tire Mobility Kit is a temporary fix to the tire and we recommend that the system be inspected by an authorized HYUNDAI Tucson Fuel Cell dealer

! CAUTION

One sealant for one tire

When two or more tires are flat, do not use the tire mobility kit because the supported one sealant of Tire Mobility Kit is only used for one flat tire.

A WARNING

Tire wall

Do not use the Tire Mobility Kit to repair punctures in the tire walls. This can result in an accident due to tire failure.

A WARNING

Temporary fix

Have your tire repaired as soon as possible. The tire may loose air pressure at any time after inflating with the Tire Mobility Kit.

Introduction



With the Tire Mobility Kit you stay mobile even after experiencing a tire puncture.

The system of compressor and sealing compound effectively and comfortably seals most punctures in a passenger car tire caused by nails or similar objects and reinflates the tire.

After you ensured that the tire is properly sealed you can drive cautiously on the tire (distance up to 120 miles (200 km)) at a max. speed of 50 mph (80 km/h) in order to reach a service station or tire dealer to have the tire replaced.

It is possible that some tires, especially with larger punctures or damage to the sidewall, cannot be sealed completely.

Air pressure loss in the tire may adversely affect tire performance.

For this reason, you should avoid abrupt steering or other driving maneuvers, especially if the vehicle is heavily loaded or if a trailer is in use.

The Tire Mobility Kit is not designed or intended as a permanent tire repair method and is to be used for one tire only.

This instruction shows you step by step how to temporarily seal the puncture simply and reliably.

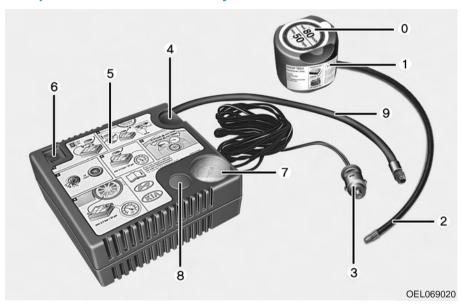
Read the section "Notes on the safe use of the Tire Mobility Kit".

Notes on the safe use of the Tire Mobility Kit

- Park your car at the side of the road so that you can work with the Tire Mobility Kit away from moving traffic.
- To be sure your vehicle will not move, even when you're on fairly level ground, always set your parking brake.
- Only use the Tire Mobility Kit for sealing/inflation passenger car tires. Only punctured areas located within the tread region of the tire can be sealed using the tire mobility kit.
- Do not use on motorcycles, bicycles or any other type of tires.
- When the tire and wheel are damaged, do not use Tire Mobility Kit for your safety.
- Use of the Tire Mobility Kit may not be effective for tire damage larger than approximately 0.24 in (6 mm).
 If the tire cannot be made roadworthy with the Tire Mobility Kit, we recommend that you contact an authorized HYUNDAI Tucson Fuel Cell dealer.

- Do not use the Tire Mobility Kit if a tire is severely damaged by driving run flat or with insufficient air pressure
- Do not remove any foreign objects such as nails or screws that have penetrated the tire.
- Provided the car is outdoors, leave the vehicle running. Otherwise operating the compressor may eventually drain the car battery.
- Never leave the Tire Mobility Kit unattended while it is being used.
- Do not leave the compressor running for more than 10 min. at a time or it may overheat.
- Do not use the Tire Mobility Kit if the ambient temperature is below -22°F (-30°C).

Components of the Tire Mobility Kit



- 0.Speed restriction label
- 1.Sealant bottle and label with speed restriction
- 2. Filling hose from sealant bottle to wheel
- 3.Connectors and cable for the power outlet direct connection

- 4. Holder for the sealant bottle
- 5.Compressor
- 6.On/off switch
- 7.Pressure gauge for displaying the tire inflation pressure
- 8.Button for reducing tire inflation pressure

 Hose to connect compressor and sealant bottle or compressor and wheel

A WARNING

Expired sealant

Do not use the Tire sealant after the sealant has expired (i.e. pasted the expiration date on the sealant container). This can increase the risk of tire failure.

A WARNING

Sealant

- Keep out of reach of children.
- Avoid contact with eyes.
- Do not swallow.

Connectors, cable and connection hose are stored in the compressor housing.

Strictly follow the specified sequence, otherwise the sealant may escape under high pressure.

Using the Tire Mobility Kit

- Detach the speed restriction label (0) from the sealant bottle (1), and place it in a highly visible place inside the vehicle such as on the steering wheel to remind the driver not to drive too fast.
- 2. Screw connection hose (9) onto the connector of the sealant bottle.
- 3. Ensure that button (8) on the compressor is not pressed.
- 4. Unscrew the valve cap from the valve of the defective wheel and screw filling hose (2) of the sealant bottle onto the valve.
- 5. Insert the sealant bottle into the housing of the compressor (4)so that the bottle is upright.



- 6. Ensure that the compressor is switched off, position 0.
- Connect between compressor and the vehicle power outlet using the cable and connectors.
- 8. With the POWER button on, switch on the compressor and let it run for approximately 5~7 minutes to fill the sealant up to proper pressure. (refer to the Tire and Wheels, chapter 8). The inflation pressure of the tire after filling is unimportant and will be checked/corrected later.

Be careful not to overinflate the tire and stay away from the tire when filling it.

A CAUTION

Tire pressure

Do not attempt to drive your vehicle if the tire pressure is below 29 PSI(200kpa). This could result in an accident due to sudden tire failure.

- 9. Switch off the compressor.
- Detach the hoses from the sealant bottle connector and from the tire valve.

Return the Tire Mobility Kit to its storage location in the vehicle.

A WARNING

Carbon monoxide

Do not leave your vehicle running in a poorly ventilated area for extended periods of time. Carbon monoxide poisoning and suffocation can occur.

Distributing the sealant

11. Immediately drive approximately 4~6 miles (7~10 km or, about 10min) to evenly distribute the sealant in the tire.

Do not exceed a speed of 50 mph (80 km/h). If possible, do not fall below a speed of 12 mph (20 km/h). While driving, if you experience any unusual vibration, ride disturbance or noise, reduce your speed and drive with caution until you can safely pull off of the side of the road.

Call for road side service or towing. When you use the Tire Mobility Kit,

the tire pressure sensors and wheel may be damaged by sealant, remove the sealant stained with tire pressure sensors and wheel and inspect in authorized dealer.

Checking the tire inflation pressure

- 1. After driving approximately 4~6 miles (7~10 km or about 10 min), stop at a safety location.
- Connect connection hose (9) of the compressor directly to the tire valve.
- 3. Plug the compressor power cord into the vehicle power outlet.
- 4. Adjust the tire inflation pressure to the recomended tire inflation.

With the POWER button on, proceed as follows.

To increase the inflation pressure: Switch on the compressor, position I. To check the current inflation pressure setting, briefly switch off the compressor.

* NOTICE

The pressure gauge may show higher than actual reading when the compressor is running. To get an accurate tire reading, the compressor needs to be turned off.

-To reduce the inflation pressure: Press the button 8 on the compressor.

A CAUTION

Tire pressure sensor

The sealant on the tire pressure sensor and wheel should be removed when you replace the tire with a new one and inspect the tire pressure sensors in authorized dealer.

Technical Data

System voltage : DC 12 V Working voltage : DC 10 - 15 V Amperage rating : max. 15 A Suitable for use at temperatures : -22 ~ +158°F (-30 ~ +70°C)

Max. working pressure :

6 bar (87 psi)

Size

Compressor : 6.6 x 5.9 x 2.7 in.

(168 x 150 x 68 mm)

Sealant bottle: 4.1 x ø 3.3 in.

(104 x ø 85 mm)

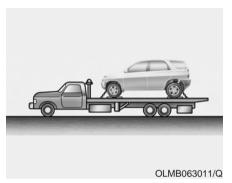
Compressor weight:

2.31 lbs (1.05 kg)

Sealant volume:

18.3 cu. in. (300 ml)

TOWINGTowing service



If emergency towing is necessary, we recommend having it done by an authorized HYUNDAI Tucson Fuel Cell dealer or a commercial towtruck service. Proper lifting and towing procedures are necessary to prevent damage to the vehicle. The use of a flat bed trailer is recommended.

It is acceptable to tow the vehicle with the rear wheels on the ground (without dollies) and the front wheels off the ground. If any of the loaded wheels or suspension components are damaged, tow the vehicle using a flat bed trailer.

When being towed by a commercial tow truck, the front of the vehicle should always be lifted, not the rear.



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⚠ CAUTION

- Do not tow the vehicle with the front wheels on the ground as this may cause damage to the vehicle.
- Do not tow with sling-type equipment. Use a wheel lift or flatbed equipment.

A WARNING

If your vehicle is equipped with a rollover sensor, set the POWER button in the OFF or ACC position when the vehicle is being towed. The side impact and curtain air bag may deploy if the sensor detects the situation as a rollover.

When towing your vehicle in an emergency without wheel dollies:

- 1. Set the POWER button in the ACC position.
- 2. Place the shift lever in N (Neutral).
- 3. Release the parking brake.

A CAUTION

Failure to place the gear shift lever in N (Neutral) may cause internal damage to the gear.

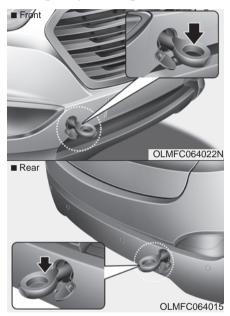
Removable towing hook



- 1. Open the tailgate, and remove the towing hook from the tool case.
- 2. Remove the hole cover pressing the lower part of the cover on the front or rear bumper.

- Install the towing hook by turning it clockwise into the hole until it is fully secured.
- 4. Remove the towing hook and install the cover after use

Emergency towing



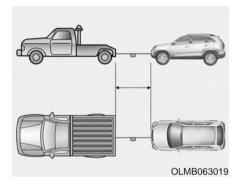
If towing is necessary, we recommend you have it done by an authorized HYUNDAI Tucson Fuel Cell dealer or a commercial tow truck service. If towing service is not available in an emergency, your vehicle may be temporarily towed using a cable or chain secured to the emergency towing hook at the front (or rear) of the vehicle.

Use extreme caution when towing the vehicle with a cable or chain. A driver must be in the vehicle to steer it and operate the brakes.

Towing in this manner may be done only on hard-surfaced roads for a short distance and at low speeds. Also, the wheels, axles, power train, steering and brakes must all be in good condition.

Always follow these emergency towing precautions:

- Set the POWER button in the ACC position so the steering wheel is not locked. (if equipped)
- Place the shift lever in N (Neutral).
- · Release the parking brake.
- Depress the brake pedal with more force than normal since you will have reduced braking performance.
- More steering effort will be required because the power steering system will be disabled.
- Use a vehicle heavier than your own to tow your vehicle.
- The drivers of both vehicles should communicate with each other frequently.
- Before emergency towing, check that the hook is not broken or damaged.
- Fasten the towing cable or chain securely to the hook.
- Do not jerk the hook. Apply steady and even force.



- Use a towing cable or chain less than 16 feet (5 m) long. Attach a white or red cloth (about 12 inch (30 cm) wide) in the middle of the cable or chain for easy visibility.
- Drive carefully so the towing cable or chain remains tight during towing.

A CAUTION

To avoid damage to your vehicle and vehicle components when towing:

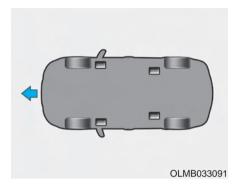
- Always pull straight ahead when using the towing hooks.
 Do not pull from the side or at a vertical angle.
- Do not use the towing hooks to pull a vehicle out of mud, sand or other conditions from which the vehicle cannot be driven out under its own power.

A CAUTION

Gear shift lever

- If the car is being towed with all four wheels on the ground, it can be towed only from the front. Be sure that the gear is in neutral. Be sure the steering is unlocked by setting the POWER button in the ACC position. A driver must be in the towed vehicle to operate the steering and brakes.
- To avoid serious damage to the gear shift lever, limit the vehicle speed to 10 mph (15 km/h) and drive less than 1 mile (1.5 km) when towing.

Tie-down hook



A WARNING

Do not use the tie-down hook(s) for towing purposes. If the tie-down hook(s) are used for towing, the tie-down hook(s) or bumper will be damaged and this could lead to serious injury.

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High mounted stop light	
License plate light bulb replacement	
Interior light bulb replacement	
Appearance care	
Exterior care	
Interior care	
California perchlorate notice	7-83

FUEL CELL POWER MODULE COMPARTMENT



- 1. Brake fluid reservoir
- 2. Air cleaner
- 3. Fuse box
- 4. Windshield washer fluid reservoir
- 5. Traction motor coolant reservoir
- 6. Traction motor radiator cap
- 7. Fuel cell stack coolant reservoir
- 8. Fuel cell stack radiator cap

★ The actual FUEL CELL POWER MODULE compartment in your vehicle may differ slightly from the illustration

OLMF074001N

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.

We recommend you have your vehicle maintained and repaired by an authorized HYUNDAI Tucson Fuel Cell dealer. An authorized HYUNDAI Tucson Fuel Cell 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.

A WARNING

High voltage caution

Do not disassemble or perform maintenance on the fuel cell system unless you are qualified. The fuel cell system can be highly dangerous since there are many high voltage parts inside even if when power is off.

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 Owner's Handbook & Warranty Information booklet

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. Several procedures can be done only by an authorized HYUNDAI Tucson Fuel Cell dealer with special tools.

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. Certain modifications may also be in violation of regulations established by the U.S. Department of Transportation and other federal or state agencies.

* NOTICE

Improper owner maintenance during the warranty period may affect warranty coverage. For details, read the separate Owner's Handbook & Warranty Information booklet provided with the vehicle. If you're unsure about any service or maintenance procedure, have it done by an authorized HYUNDAI Tucson Fuel Cell 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 Tucson Fuel Cell dealer. ALWAYS follow these precautions for performing maintenance work:

- Park your vehicle on level ground, move the shift lever into the P (Park), apply the parking brake, place the POWER button in 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.

(Continued)

(Continued)

- If you must run the fuel cell power module during maintenance, do so out doors or in an area with plenty of ventilation.
- Keep flames, sparks, or smoking materials away from the battery and fuel-related parts.
- Working under the hood with the vehicle in "READY" state is dangerous. It becomes even more dangerous when vou wear iewelry or loose clothing. These can become entangled in moving parts and result in injury. Therefore. if you work under the hood with the vehicle in "READY" state make certain that you remove all iewelry (especially rings, bracelets, watches, and necklaces) and all neckties, scarves, and similar loose clothing before getting near the fuel cell power module (for example, traction motor).

The following lists are vehicle checks and inspections that should be performed by the owner or an authorized HYUNDAI Tucson Fuel Cell 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.

Owner maintenance schedule

Before driving your vehicle:

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

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.
- Check the gear shift lever 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 the operation of all exterior lights, including the stop lamps, turn signals and hazard warning flashers.
- Check the inflation pressure of all four tires. Inspect each tire and replace tires that are worn, show uneven wear, or show signs of damage.
- Check for loose wheel lug nuts.

At least twice a year: (i.e., every Spring and Fall):

- Check radiator, heater and air conditioning hoses for leaks or damage.
- Check windshield washer spray and wiper operation. Clean wiper blades with 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.
- · Check the brake fluid level.

SCHEDULED MAINTENANCE SERVICES

Follow Normal Maintenance Schedule if the vehicle is usually operated where none of the following conditions apply. If any of the following conditions apply, you must follow the Maintenance Under Severe Usage Conditions.

- · Repeated short distance driving.
- Driving in dusty conditions or sandy areas.
- · Extensive use of brakes.
- Driving in areas where salt or other corrosive materials are used.
- Driving on rough or muddy roads.
- · Driving in mountainous areas.
- Driving for a prolonged period in cold temperatures and/or extremely humid climates.
- More than 50% driving in heavy city traffic during hot weather above 90°F (32°C).

For additional information or assistance see your authorized HYUNDAI Tucson Fuel Cell dealer

Normal maintenance schedule (Hydrogen system parts)

MAINTENANCE		lumber of months or driving distance, whichever comes first							
INTERVALS	Miles×1,000	6.5	13	19.5	26	32.5	39	45.5	52
MAINTENANCE	Km×1,000	10	20	30	40	50	60	70	80
ITEM	Months	6	12	18	24	30	36	42	48
Hydrogen system (Check the hydro	the hydrogen leakage) Inspect every 6,500 miles (10,000 km) or 12 months								
FCEV cleaner filter	Replace every at 6,500 miles (10,000 km)								
Traction motor coolant	At first, replace at 130,000 miles (200,000 km) or 120 months: after that, replace every 26,000 miles (40,000 km) or 24 months								
Fuel cell stack coolant	Replace every at 38,000 miles (60,000 km) or 36 months			1					
Ion filter	Replace every at 6,500 miles (10,000 km)								
Gear shift fluid		Maintenance not required							

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

R: Replace

Maintenance under severe usage conditions (Hydrogen system parts)

The following items must be serviced more frequently on cars mainly used under severe driving conditions. Refer to the chart below for the appropriate maintenance intervals.

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

Maintenance item	Maintenance operation	Maintenance intervals	Driving condition
Hydrogen system (Check the hydrogen leakage)	I	Inspect more frequently depending on the condition	C, D, F, G, J, L
FCEV cleaner filter	I	Inspect more frequently depending on the condition	C, D, E
Traction motor coolant	R	Replace more frequently depending on the condition	C, D, E, F, J, K, L
Fuel cell stack coolant	R	Replace more frequently depending on the condition	C, D, F, G, L
Ion filter	R	Replace more frequently depending on the condition	C, D, F, G, L
Gear shift fluid	R	78,000 miles (120,000 km)	C, F, G, I, J

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

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

☐ Inspect fair conditioning reingerant ☐ Inspect brake hoses and lines ☐ Inspect brake hoses and lines	19,500 miles (31,000 km) or 18 months
□ Rotate tires □ Inspect air conditioning refrigerant □ Inspect brake hoses and lines □ Inspect brake hoses and lines	e tires
☐ Inspect air conditioning refrigerant ☐ Inspect brake hoses and lines ☐ Inspect brake hoses and lines	26,000 miles (42,000 km) or 24 months
□ Inspect drive sharts and boots □ Inspect front brake disc/pads, calipers □ Inspect rear brake disc/pads □ Inspect steering gear box, linkage & boots/lower arm ball joint, upper arm ball joint □ Inspect suspension mounting bolts □ Replace climate control air filter (for evaporator and blower unit) □ Inspect linspect suspension mounting bolts □ Replace Climate Control air filter □ Inspect linspect suspension mounting bolts □ Replace Climate Control air filter □ Inspect linspect linsp	et tires ct air conditioning refrigerant ct brake hoses and lines ct drive shafts and boots ct front brake disc/pads, calipers ct rear brake disc/pads ct steering gear box, linkage & boots/lower arm ball cupper arm ball joint ct suspension mounting bolts ct brake fluid ct parking brake ce climate control air filter (aporator and blower unit)

32,500 miles (52,000 km) or 30 months	45,500 miles (73,000 km) or 42 months
☐ Rotate tires	☐ Rotate tires

39,000 miles (63,000 km) or 36 months
□ Rotate tires □ Inspect air conditioning refrigerant □ Inspect brake hoses and lines □ Inspect drive shafts and boots □ Inspect front brake disc/pads, calipers □ Inspect rear brake disc/pads □ Inspect steering gear box, linkage & boots/lower arm ball joint, upper arm ball joint □ Inspect suspension mounting bolts □ Replace climate control air filter
(for evaporator and blower unit)

52,000 miles (84,000 km) or 48 months	58,500 miles (94,000 km) or 54 months
 □ Rotate tires □ Inspect air conditioning refrigerant □ Inspect brake hoses and lines □ Inspect drive shafts and boots □ Inspect front brake disc/pads, calipers □ Inspect rear brake disc/pads □ Inspect steering gear box, linkage & boots/lower arm ball joint, upper arm ball joint □ Inspect suspension mounting bolts □ Inspect brake fluid □ Inspect parking brake □ Replace climate control air filter (for evaporator and blower unit) 	☐ Rotate tires 65,000 miles (105,000 km) or 60 months ☐ Rotate tires ☐ Inspect air conditioning refrigerant ☐ Inspect brake hoses and lines ☐ Inspect drive shafts and boots ☐ Inspect front brake disc/pads, calipers ☐ Inspect rear brake disc/pads ☐ Inspect steering gear box, linkage & boots/lower arm ball joint, upper arm ball joint
	☐ Inspect suspension mounting bolts ☐ Replace climate control air filter (for evaporator and blower unit)

71,500 miles (115,000 km) or 66 months	84,500 miles (136,000 km) or 78 months
□ Rotate tires	□ Rotate tires
78,000 miles (126,000 km) or 72 months	91,000 miles (147,000 km) or 84 months
 □ Rotate tires □ Inspect air conditioning refrigerant □ Inspect brake hoses and lines □ Inspect drive shafts and boots □ Inspect front brake disc/pads, calipers □ Inspect rear brake disc/pads □ Inspect steering gear box, linkage & boots/lower arm ball joint, upper arm ball joint □ Inspect suspension mounting bolts □ Inspect brake fluid □ Inspect parking brake □ Inspect drive belts (First, 60,000 miles (96,000 km) or 72 months after every 15,000 miles (24,000 km) or 24 months) *1 	 □ Rotate tires □ Inspect air conditioning refrigerant □ Inspect brake hoses and lines □ Inspect drive shafts and boots □ Inspect front brake disc/pads, calipers □ Inspect rear brake disc/pads □ Inspect steering gear box, linkage & boots/lower arm ball joint, upper arm ball joint □ Inspect suspension mounting bolts □ Inspect drive belts (First, 60,000 miles (96,000 km) or 72 months after every 15,000 miles (24,000 km) or 24 months) *1 □ Replace climate control air filter (for evaporator and blower unit)

Maintenance under severe usage conditions (General parts) (Cont.)

The following items must be serviced more frequently on cars normally used under severe driving conditions. Refer to the chart below for the appropriate maintenance intervals.

R: Replace

I: Inspect and, after inspection, clean, adjust, repair or replace if necessary

MAINTENANCE ITEM	MAINTENANCE OPERATION	MAINTENANCE INTERVALS	DRIVING CONDITION
Front brake disc/pads, calipers	1	More frequently	C, D, G, H
Rear brake disc /pads	I	More frequently	C, D, G, H
Parking brake	I	More frequently	C, D, G, H
Steering gear box, linkage & boots/lower arm ball joint, upper arm ball joint	I	More frequently	C, D, E, F, G, H, I
Drive shafts and boots	I	Every 7,500 miles (12,000 km) or 6 months	C, D, E, F, G, H, I, J
Climate control air filter (for evaporator and blower unit)	R	More frequently	C, E

Severe driving conditions

- A Repeatedly driving short distance of less than 5 miles (8 km) in normal temperature or less than 10 miles (16 km) in freezing temperature
- B Driving on rough, dusty, muddy, unpaved, graveled or salt-spread roads
- C Driving in areas using salt or other corrosive materials or in very cold weather
- D Driving in sandy areas

- E Driving in heavy traffic area over 90°F (32°C)
- F Driving on uphill, downhill, or mountain road
- G Towing a trailer, or using a camper, or roof rack
- H Driving as a patrol car, taxi, other commercial use or vehicle towing
- I Driving over 106 mph (170 km/h)
- J Frequently driving in stop-and-go conditions

TRACTION MOTOR COOLANT

- The high-pressure cooling system has a reservoir filled with yearround antifreeze coolant. The reservoir is filled at the factory.
- Check the antifreeze protection and coolant concentration level at least once a year, at the beginning of the winter season, and before traveling to a colder climate.

Checking the coolant level

A WARNING



Removing radiator cap

 Never attempt to remove the radiator cap while the vehicle is operating or hot. Doing so might lead to cooling system and fuel cell power module damage and could result in serious personal injury from escaping hot coolant or steam. Turn off the power switch and wait until it cools down.

(Continued)

(Continued)

- Use extreme care when removing the radiator cap. Wrap a thick towel around it. Turn it counterclockwise slowly to the first stop and step back while the pressure is released from the cooling system. When you are sure all the pressure has been released, press down on the cap, using a thick towel, and continue turning counterclockwise to remove it.
- Even if the vehicle is not operating, do not remove the radiator cap or the drain plug while the fuel cell power module and radiator are hot. Hot coolant and steam may still blow out under pressure, causing serious injury.

A WARNING



The electric motor for the cooling fan may continue to operate or start up when the power cell module is

not running and can cause serious injury. Keep hands, clothing and tools away from the rotating fan blades of the cooling fan.



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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 F and the L marks on the side of the coolant reservoir when the fuel cell power module is cool.

If the coolant level is low, add enough distilled (deionized) water to bring the level to the F mark, but do not overfill. If frequent additions are required, we recommend that you see an authorized HYUNDAI Tucson Fuel Cell dealer for a cooling system inspection.

Changing the coolant



OLMF079998

For the fuel cell stack, an exclusive coolant must be used. When changing the coolant, we recommend that you consult an authorized HYUNDAI Tucson Fuel Cell dealer.

A WARNING



Do not remove the radiator cap when the fuel cell power module and radiator are hot. Scalding hot

coolant and steam may blow out under pressure causing serious injury.

A WARNING

Do not use radiator coolant or antifreeze in the washer fluid reservoir. Radiator coolant can severely obscure visibility when sprayed on the windshield and may cause loss of vehicle control or damage to paint and body trim.

A CAUTION

Do not mix-up the caps of traction motor coolant and fuel cell stack coolant because the fluid material is different. If the cap is mixed, the fuel cell system may be damage.

We recommend that you consult an authorized HYUNDAI Tucson Fuel Cell dealer.

FUEL CELL STACK COOLANT

- The high-pressure cooling system has a reservoir filled with yearround antifreeze coolant. The reservoir is filled at the factory.
- Check the antifreeze protection and coolant concentration level at least once a year, at the beginning of the winter season, and before traveling to a colder climate.

Checking the coolant level

A WARNING



Removing radiator cap

 Never attempt to remove the radiator cap while the vehicle is operating or hot. Doing so might lead to cooling system and fuel cell power module damage and could result in serious personal injury from escaping hot coolant or steam. Turn off the power switch and wait until it cools down.

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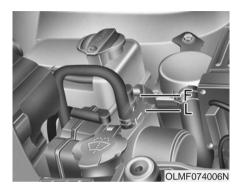
- Use extreme care when removing the radiator cap. Wrap a thick towel around it. Turn it counterclockwise slowly to the first stop and step back while the pressure is released from the cooling system. When you are sure all the pressure has been released, press down on the cap, using a thick towel, and continue turning counterclockwise to remove it.
- Even if the vehicle is not operating, do not remove the radiator cap or the drain plug while the fuel cell power module and radiator are hot. Hot coolant and steam may still blow out under pressure, causing serious injury.

A WARNING



The electric motor for the cooling fan may continue to operate or start up when the FUEL CELL POWER

MODULE is not running and can cause serious injury. Keep hands, clothing and tools away from the rotating fan blades of the cooling fan.



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 F and the L marks on the side of the coolant reservoir when the fuel cell power module is cool.

Changing the coolant



For the fuel cell stack, an exclusive coolant must be used. When changing the coolant, we recommend that you consult an authorized HYUNDAI Tucson Fuel Cell dealer.

A WARNING



Do not remove the radiator cap when the fuel cell power module and radiator are hot. Scalding hot

coolant and steam may blow out under pressure causing serious injury.

A WARNING

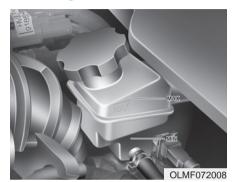
Do not use radiator coolant or antifreeze in the washer fluid reservoir. Radiator coolant can severely obscure visibility when sprayed on the windshield and may cause loss of vehicle control or damage to paint and body trim.

A CAUTION

Do not mix-up the caps of traction motor coolant and fuel cell stack coolant because the fluid material is different. If the cap is mixed, the fuel cell system may be damage.

We recommend that you consult an authorized HYUNDAI Tucson Fuel Cell dealer.

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. The level will fall with accumulated mileage. This is a normal condition associated with the wear of the brake linings. If the fluid level is excessively low, have the brake system checked by an authorized HYUNDAI Tucson Fuel Cell dealer.

A WARNING

If the brake system requires frequent additions of fluid this could indicate a leak in the brake system. Have the vehicle inspected by an authorized HYUNDAI Tucson Fuel Cell dealer.

A WARNING

Do not allow brake fluid to come in contact with your eyes. 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.

A CAUTION

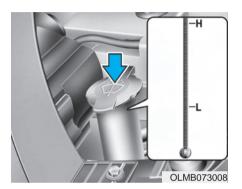
- Do not allow brake fluid to contact the vehicle's body paint, as paint damage will result.
- Brake fluid, which has been exposed to open air for an extended time should NEVER be used as its quality cannot be guaranteed. It should be disposed of properly.
- Do use the wrong kind of brake fluid. A few drops of mineral based oil, in your brake system can damage brake system parts.

* NOTICE

Use only the specified brake fluid (refer to "Recommended Lubricants and Capacities" in chapter 8).

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.

A CAUTION

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

- Do not use traction motor coolant, fuel cell stack coolant, or antifreeze in the washer fluid reservoir.
- The coolant can severely obscure visibility when sprayed on the windshield and may cause loss of vehicle control 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 poisonous to humans and animals.
- Keep washer fluid away from children and animals.

PARKING BRAKE Checking the parking brake



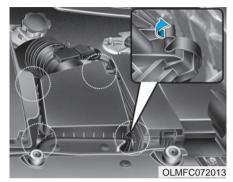
Check whether the stroke is within specification when the parking brake pedal is depressed with 44 lb (20 kg, 196 N) of force. Also, the parking brake alone should securely hold the vehicle on a fairly steep grade. If the stroke is more or less than specified, have the parking brake adjusted by an authorized HYUNDAI Tucson Fuel Cell dealer.

Stroke: 4 notch at a force of 44 lbs (20 kg, 196 N)

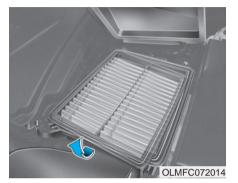
AIR CLEANER

Filter replacement

The air cleaner filter can be cleaned for inspection using compressed air. Do not attempt to wash or to rinse it, as water will damage the filter. If soiled, the air cleaner filter must be replaced.



- 1. Loosen the air cleaner cover attaching clips and open the cover.
- 2. Wipe the inside of the air cleaner.



- 3. Replace the air cleaner filter.
- 4. Lock the cover with the cover attaching clips.

Replace the filter according to the Maintenance Schedule

* NOTICE

If the vehicle is operated in extremely dusty or sandy areas, replace the element more often than the usual recommended intervals (refer to "Maintenance Under Severe Usage Conditions" in this chapter).

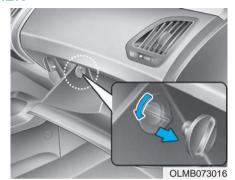
A CAUTION

- Do not drive with the air cleaner filter removed. This will result in excessive wear.
- When removing the air cleaner filter, be careful that dust or dirt does not enter the air intake, or damage may result.
- Use HYUNDAI genuine parts, use of non-genuine parts could damage the air flow sensor.

CLIMATE CONTROL AIR CLEANER

Filter inspection

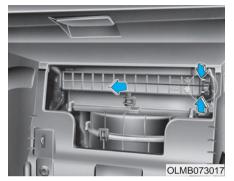
The climate control air filter should be replaced according to the Maintenance Schedule. If the vehicle is operated in severely air-polluted cities or on dusty rough roads for a long period, it should be inspected more frequently and replaced earlier. When you replace the climate control air filter, replace it performing the following procedure, and be careful to avoid damaging other components.



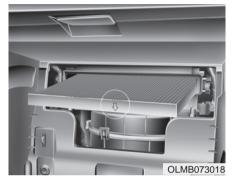
1. With the glove box open, remove the stoppers on both sides to allow the glove box to hang freely on the hinges.



2. Remove the support rod.



3. Remove the climate control air filter case by pulling out both sides of the cover.



- 4. Replace the climate control air filter.
- 5. Reassemble in the reverse order of disassembly.

* NOTICE

When replacing the climate control air filter install it properly. Otherwise, the system may produce noise and the effectiveness of the filter may be reduced.

WIPER BLADES Blade inspection



Contamination of either the windshield or the wiper blades with foreign matter can 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 a clean cloth dampened with washer fluid.

A CAUTION

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.
- Use non-specified wiper blades.

* NOTICE

Commercial hot waxes applied by automatic car washes have been known to make the windshield difficult to clean.

Blade replacement

Front windshield wiper blade

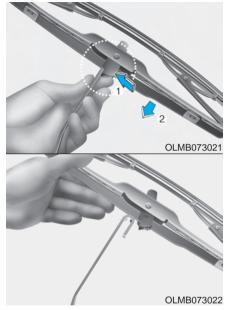


Type A

 Raise the wiper arm and slightly rotate the wiper blade assembly to expose the plastic locking clip.

A CAUTION

Do not allow the wiper arm to fall against the windshield, since it may chip or crack the windshield.



- 2. Press the clip (1) and slide the blade assembly downward (2).
- 3. Lift it off the arm.
- 4. Install the blade assembly in the reverse order of removal.
- Return the wiper arm on the windshield.

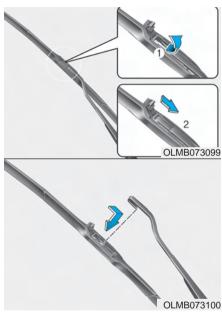


■ Type B

1. Raise the wiper arm.

A CAUTION

Do not allow the wiper arm to fall against the windshield, since it may chip or crack the windshield.



- 2. Lift up the wiper blade clip (1). Then pull down the blade assembly (2) and remove it.
- 3. Install the new blade assembly in the reverse order of removal.
- Return the wiper arm on the windshield.

Rear windshield wiper blade



- 1. Raise the wiper arm.
- 2. Slightly rotate the wiper blade (1) assembly and pull it out.



- Install the new blade assembly by inserting the center part into the slot on the wiper
- 4. Make sure the blade assembly is installed firmly by trying to pull it slightly.

A CAUTION

To prevent damage to the wiper arms or other components, have an authorized HYUNDAI Tucson Fuel Cell dealer replace the wiper blade.

BATTERY

A 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.

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(Continued)



Batteries contain sulfuric acid which 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.

- When lifting a plastic-cased battery, excessive pressure on the case may cause battery acid to leak. Lift with a battery carrier or with your hands on opposite corners.
- Do not attempt to jump start your vehicle if your battery is frozen.

(Continued)

(Continued)

- NEVER attempt to recharge the battery when the vehicle's battery cables are connected to the battery.
- The electrical ignition system works with high voltage. NEVER touch these components with the fuel cell power module running or when the POWER button is in the ON position.

A WARNING

CALIFORNIA PROPOSITION 65 WARNING

Battery posts, terminals, and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer, birth defects and reproductive harm. Batteries also contain other chemicals known to the State of California to cause cancer. Wash hands after handling.

! CAUTION

- When you do not use the vehicle for a long time in a low temperature area, disconnect the battery.
- Always charge the battery fully to prevent battery case damage in low temperature areas.

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 acid from the battery immediately with a solution of water and baking soda.

Battery recharging

By battery charger

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

- If the battery becomes discharged in 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 electric load while the vehicle is being used, recharge it at 20-30A for two hours.

A 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 place the POWER button in the LOCK/OFF position.
- 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.

(Continued)

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- Watch the battery during charging, and stop or reduce the charging rate if the battery cells begin boiling violently.
- The negative battery cable must be removed first and installed 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.
- Always use a genuine HYUNDAI approved battery when you replace the battery.

Reset features

Some items need to be reset after the battery has been discharged or the battery has been disconnected. See chapter 3 for:

- Auto up/down window
- Sunroof
- Trip computer
- · Climate control system
- Clock
- Audio system

TIRES AND WHEELS

A 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.

(Continued)

(Continued)

- 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 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 fuel 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 should be checked when the tires are cold. "Cold tires" means the vehicle has not been driven for at least three hours or driven less than one mile (1.6 km).

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 "Tire and Wheels" in chapter 8.

A 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 could result in loss of vehicle control resulting in an accident. Severe under-inflation can lead to severe heat build-up, causing blowouts, tread separation and other tire failures that can result in the loss of vehicle control resulting in an accident. This risk is much higher on hot days and when driving for long periods at high speeds.

A CAUTION

Under-inflation results in excessive wear, poor handling and reduced fuel economy. Wheel deformation is also possible. Keep your tire pressures at the proper levels. If a tire frequently needs refilling, have it checked by an authorized HYUNDAI Tucson Fuel Cell 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, 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.

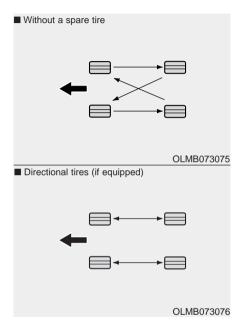
If you overfill the tire, release air by pushing on the metal stem in the center of the tire valve. Recheck the tire pressure with the tire gauge. Be sure to put the valve caps back on the valve stems. Without the valve cap, dirt or moisture could get into the valve core and cause air leakage. If a valve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

Tire rotation

To equalize tread wear, HYUNDAI recommends that the tires be rotated every 7,500 miles (12,000 km) or sooner if irregular wear develops.

During rotation, check the tires for correct balance.

When rotating tires, check for uneven wear and damage. Abnormal wear is usually caused by incorrect tire pressure, improper wheel alignment, out-of-balance wheels, severe braking or severe cornering. Look for bumps or bulges in the tread or side of tire. Replace the tire if you find either 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 lug nut tightness (proper torque is 65-79 lb.ft [9-11 kg.m]).



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

* NOTICE

Rotate radial tires that have an asymmetric tread pattern only from front to rear and not from right to left.

A 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.

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.

A CAUTION

Improper wheel weights can damage your vehicle's aluminum wheels. Use only approved wheel weights.

Tire replacement



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 1/16 inch (1.6 mm) 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.

A 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.

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.

(Continued)

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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.

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.

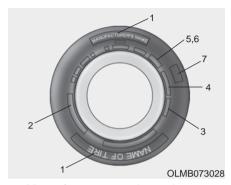
Tire maintenance

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.)

225/55R18 105T

- 225 Tire width in millimeters.
- 55 Aspect ratio. The tire's section height as a percentage of its width.
- R Tire construction code (Radial).
- 18 Rim diameter in inches.
- 105 Load Index, a numerical code associated with the maximum load the tire can carry.
- T 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:

6.5JX18

- 6.5 Rim width in inches.
- J Rim contour designation.
- 18 Rim diameter in inches.

Tire speed ratings

The chart below lists many of the different speed ratings currently being used for passenger car 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	112 mph (180 km/h)	
Т	118 mph (190 km/h)	
Н	130 mph (210 km/h)	
V	149 mph (240 km/h)	
Z	Above 149 mph (240 km/h)	

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

Any tires that are over six years old, based on the manufacturing date, 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: XXXX XXXX OOOO

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

For example:

DOT XXXX XXXX 1614 represents that the tire was produced in the 16th week of 2014.

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 pounds 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:

TREAD wear 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 (1½) 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.

A WARNING

The traction grade assigned to this tire is based on straightahead 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. Grade C responds to a level of performance which all passenger car tires must meet under the Federal Motor Vehicle Safety Standard No. 109. Grades B and A represent higher levels of performance on the laboratory test wheel than the minimum required by law.

A 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 pounds per square inch (psi) or kilopascal (kPa).

Accessory Weight

This means the combined weight of optional accessories. Some examples of optional accessories are gear shift lever, 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 pounds per square inch (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

A code molded into the sidewall of a tire signifying that the tire is in compliance with the U.S. Department of Transportation motor vehicle safety standards. 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.

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 150 pounds (68 kg).

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.

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 1/16 inch 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 150 lbs. (68 kg) 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 75 mph (120 km/h) 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.

A 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

Low aspect ratio tires, the aspect ratio is lower than 50, are provided for sporty looks.

Because low aspect ratio tires are optimized for handling and braking, it may be more uncomfortable to ride in and there is more noise compare with normal tires.

A CAUTION

Because the sidewall of the low aspect ratio tire is shorter than the normal, the wheel and tire of the low aspect ratio tire is easier to be damaged. So, follow the instructions below.

- When driving on a rough road or off road, drive cautiously because tires and wheels may be damaged. And after driving, inspect tires and wheels.
- When passing over a pothole, speed bump, manhole, or curb stone, drive slowly so that the tires and wheels are not damaged.

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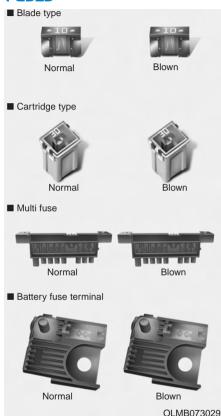
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- If the tire is impacted, we recommend that you inspect the tire condition or contact an authorized HYUNDAI Tucson Fuel Cell dealer.
- To prevent damage to the tire, inspect the tire condition and pressure every 1,864 miles (3,000km).

A CAUTION

- It is not easy to recognize tire damage with your own eyes.
 But if there is the slightest hint of tire damage, have the tire checked or replaced because the tire damage may cause air leakage from the tire.
- If the tire is damaged by driving on a rough road, off road, pothole, manhole, or curb stone, it will not be covered by the warranty.

FUSES



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

This vehicle has 3 fuse panels, one located in the driver's side panel bolster, the others in the fuel cell power module 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, 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 and immediately consult an authorized HYUNDAI Tucson Fuel Cell dealer.

* NOTICE

Three kinds of fuses are used: blade type for lower amperage rating, cartridge type, and fusible link for higher amperage ratings.

A WARNING

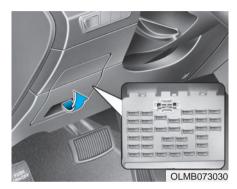
NEVER replace a fuse with anything but another fuse of the same rating.

- A higher capacity fuse could cause damage and possibly 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.

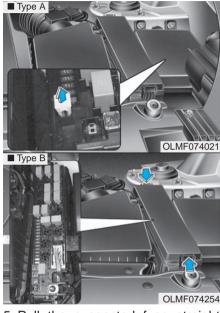
A CAUTION

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 the POWER button off.
- 2. Turn all other switches OFF.
- 3. Open the fuse panel cover.
- Refer to the label on the inside of the fuse panel cover to locate the suspected fuse location



Pull the suspected fuse straight out. Use the removal tool provided in the fuel cell power module compartment fuses panel.

- Remove and check the suspected fuse; replace it if it is blown. Spare fuses are provided in the instrument panel fuse panels (or in the fuel cell power module compartment fuse panel).
- Push in a new fuse of the same rating, and make sure it fits tightly in the clips. If it fits loosely, consult an authorized HYUNDAI Tucson Fuel Cell 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, such as the cigarette lighter fuse.

If the headlights or other electrical components do not work and the fuses are OK, check the fuse panel in the fuel cell power module compartment. If a fuse is blown, it must be replaced.

Memory fuse (SHUNT connector)



Your vehicle is equipped with a memory fuse (SHUNT connector) to prevent battery discharge if your vehicle is parked without being operated for prolonged periods. Use the following procedures before parking the vehicle for prolonged periods.

- 1. Turn off the fuel cell power module.
- 2. Turn off the headlights and parking lights.
- Open the driver's side panel cover and pull out the memory fuse (SHUNT connector).

* NOTICE

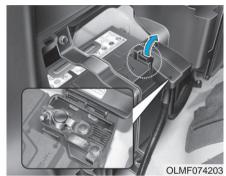
- If the memory fuse is pulled up from the fuse panel, the warning chime, audio, clock and interior lamps, etc., will not operate. Some items must be reset after replacement. Refer to "Battery" in this chapter.
- Even though the memory fuse is pulled up, the battery can still be discharged by operation of the headlights or other electrical devices.

Fuel cell power module compartment panel fuse replacement



- 1. Turn the POWER button off.
- 2. Turn all other switches OFF.
- 3. Remove the fuse panel cover by pressing the tap and pulling up.
- 4. Remove and check the suspected fuse; replace it if it is blown. To remove or insert the fuse, use the fuse puller in the fuel cell power module compartment fuse panel.
- Push in a new fuse of the same rating, and make sure it fits tightly in the clips. If it fits loosely, consult an authorized HYUNDAI Tucson Fuel Cell dealer.

Main fuse



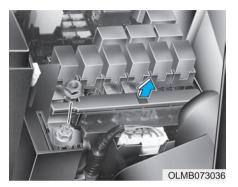
If the main fuse is blown, it must be removed as follows:

- 1. Turn off the POWER button.
- 2. Disconnect the negative battery cable.
- 3. Remove the fuse panel cover by pressing the tap and pulling it up.
- 4. Remove the nuts shown in the picture above.
- 5. Replace the fuse with a new one of the same rating.
- Reinstall in the reverse order of removal.

* NOTICE

- * If the main fuse is blown, consult an authorized HYUNDAI Tucson Fuel Cell dealer.
- FCEV 12V battery is located on the left side in the luggage room.

Multi fuse



If the multi fuse is blown, it must be removed as follows:

- 1. Turn off the POWER button.
- 2. Disconnect the negative battery cable.
- 3. Remove the fuse panel cover by pressing the tap and pulling up.
- 4. Remove the bolts shown in the picture above.
- 5. Replace the fuse with a new one of the same rating.
- Reinstall in the reverse order of removal.

* NOTICE

If the multi fuse is blown, consult an authorized HYUNDAI Tucson Fuel Cell dealer.

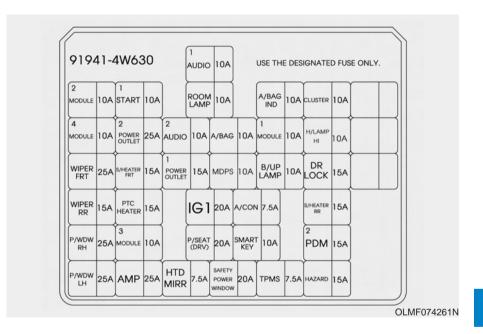
Fuse/Relay panel description

Instrument panel fuse panel

Inside the fuse/relay box cover, you can find the fuse/relay label describing fuse/relay name and capacity.

* NOTICE

Not all fuse panel descriptions in this manual may be applicable to your vehicle; the information is accurate at the time of printing. When you inspect the fuse box on your vehicle, refer to the fuse box label.



Instrument panel

Fuse Name	Fuse rating	Circuit Protected	
AUDIO 1	10A	A/V & Navigation Head Unit	
ROOM LAMP	10A	E/R Fuse & Relay Box (Interior Lamp Relay), BCM, Auto Light & Photo Sensor, Data Link Connector, RF Receiver, Instrument Cluster, A/C Control Module, Luggage Lamp	
MODULE 2	10A	ICM Relay Box (Rear Seat Warmer Relay), Electro Chromic Mirror, BCM, PDM, A/C Compressor, VESS Unit	
MODULE 4	10A	E/R Fuse & Relay Box (H/LAMP HI Relay, Blower Relay), COD Heater, A/C Control Module, Cluster Ionizer	
WIPER FRT	25A	Multifunction Switch, Front Wiper Motor, E/R Fuse & Relay Box (Wiper FRT Relay)	
WIPER RR	15A	Multifunction Switch, Rear Wiper Motor, ICM Relay Box (Rear Wiper Relay)	
P/WDW RH	25A	Power Window Main Switch, Rear Power Window Switch RH	
P/WDW LH	25A	Power Window Main Switch, Rear Power Window Switch LH	
START 1	10A	E/R Fuse & Relay Box (ATM P/N Relay)	
POWER OUTLET 2	25A	Cigarette Lighter & Front Power Outlet, Rear Power Outlet	
S/HEATER FRT	15A	Console Switch	
PTC HEATER	15A	E/R Fuse & Relay Box (PTC Heater Relay)	
MODULE 3	10A	Code Division Multiple Access, Data Logger	
AMP	25A	AMP	
AUDIO 2	10A	Smart Key Control Module, Power Outside Mirror Switch, AMP, A/V & Navigation Head Unit, BCM, PDM	
POWER OUTLET 1	15A	Cigarette Lighter & Front Power Outlet	
IG 1	20A	E/R Fus3e & Relay Box (Fuse : AHB3, ESC3, BHDC1)	

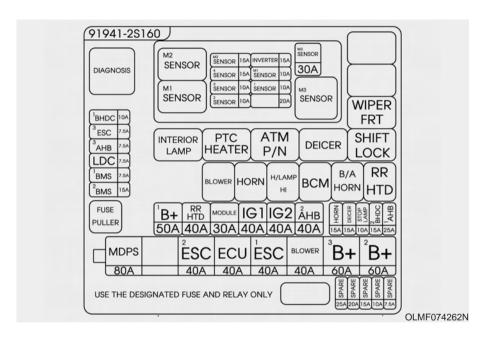
Fuse Name	Fuse rating	Circuit Protected	
P/SEAT (DRV)	20A	Driver Seat Manual Switch	
HTD MIRR	7.5A	Rear Defogger Switch, Driver Power Outside Mirror, Passenger Power Outside Mirror	
A/BAG	10A	SRS Control Module, Tell Tail Lamp, Passenger Occupant Detection Sensor	
MDPS	10A	MDPS Unit	
A/CON	7.5A	A/C Control Module	
SMART KEY	10A	Fob Holder, Start/Stop Button Switch, PDM, Smart Key Control Module	
SAFETY POWER WINDOW	20A	Driver Safety Power Window Module	
A/BAG IND	10A	Net Used	
MODULE 1	10A	ESC Off Switch, BCM, Smart Key Control Module, CSD Switch, PDM, Tire Pressure Monitoring Module, Multifunction Switch, Rear Parking Assist Sensor, Rear Impact Sensor Code Division Multiple Access, Gear Differential Unit, MCU, Stop Lamp Switch, Cooling Fa Motor LH, Cooling Fan Motor RH, E/R Fuse & Relay Box (ATM P/N Relay)	
B/UP LAMP	10A	Rear Combination Lamp (In) LH/RH, ATM Shift Lever ILL., BCM, A/V & Navigation Head Uni Electro Chromic Mirror	
TPMS	7.5A	E/R Fuse & Relay Box (Shift Lock Relay), ATM Shift Lever, Tire Pressure Monitoring Module, Rear Parking Assist Buzzer	
CLUSTER	10A	A/C Control Module, Seat Belt Reminder Switch, Console Switch, Instrument Cluster, A/V & Navigation Head Unit, ATM Shift Lever ILL., E/R Fuse & Relay Box (PTC Heater Relay)	
H/LAMP HI	10A	E/R Fuse & Relay Box (H/LAMP HI Relay)	
DR LOCK	15A	Door Lock/Unlock Relay, Tail Gate Relay, ICM Relay Box (Two Turn Unlock Relay)	
S/HEATER RR	15A	ICM Relay Box (Rear Seat Warmer Relay LH/RH)	
PDM 2	15A	PDM	
HAZARD	15A	ICM Relay Box (Flasher Sound Relay), BCM	

Fuel cell power module compartment

Inside the fuel cell power module box cover, you can find the fuel cell power module label describing fuel cell power module name and capacity.

* NOTICE

Not all fuse panel descriptions in this manual may be applicable to your vehicle; the information is accurate at the time of printing. When you inspect the fuse panel in your vehicle, refer to the fuse panel label.



Fuel cell power module compartment

Fuse	Fuse Name	Fuse rating	Circuit Protected		
MULTI FUSE	MDPS	80A	MDPS Unit		
	-	-	-		
	ESC 2	40A	ESC Module, Multipurpose Check connector		
	ECU	40A	EMS Box (Fuse - SENSOR M2, SENSOR M3)		
	ESC 1	40A	ESC Module, Multipurpose Check connector		
	BLOWER	40A	E/R Fuse & Relay Box (Blower Relay)		
	B+ 3	60A	Smart Junction Box (Fuse - TPMS, P/SEAT(DRV), SAFETY POWER WINDOW, SMART KEY, Power Connector - AUDIO 1, ROOM LAMP)		
	B+ 2	60A	Smart Junction Box (Fuse - PTC HEATER, MODULE3, AMP, IPS0 ,1 ,2 ,3, Power Window Relay)		
	B+ 1	50A	Smart Junction Box (Fuse - S/HEATER RR, PDM2, DR LOCK, HAZARD, H/LAMP HI, IPS4 ,5 ,6 ,7)		
	RR HTD	40A	E/R Fuse & Relay Box (RR HTD Relay)		
FUSE	MODULE	30A	E/R Fuse & Relay Box (Fuse - BMS1, BMS2, LDC)		
	IG 1	40A	PDM Relay Box (IGN1 Relay, ACC Relay)		
	IG 2	40A	PDM Relay Box (IGN2 Relay)		
	AHB 2	40A	АНВ		
	HORN	15A	E/R Fuse & Relay Box (Horn Relay, B/A Horn Relay)		
	DEICER	15A	E/R Fuse & Relay Box (Deicer Relay)		
	STOP LAMP	10A	Stop Lamp Switch, Stop Signal Electronic Module		

Fuse	Fuse Name	Fuse rating	Circuit Protected		
BHDC 2 AHB 1 BHDC 1	BHDC 2	15A	High Voltage DC-DC Converter		
	AHB 1	25A	AHB		
	BHDC 1	10A	High/Low Voltage DC-DC Converter, BMS Control Module, FCU		
FUSE	ESC 3	7.5A	ESC Module, Multipurpose Check Connector		
Al L Bi	AHB 3	7.5A	AHB		
	LDC	7.5A	E/R Fuse & Relay Box (BMS Relay), Low Voltage DC-DC Converter		
	BMS 1	7.5A	BMS Control Module		
	BMS 2	15A	BMS Blower Motor Relay		

No.	Relay Name	Туре
E63	Wiper FRT Relay	Plug Micro (5P)
E64	Interior Lamp Relay	Plug Micro (5P)
E65	PTC Heater Relay	Plug Micro (5P)
E66	ATM P/N Relay	Plug Micro (4P)
E67	Deicer Relay	Plug Micro (4P)
E68	Shift Lock Relay	Plug Micro (5P)
E69	Blower Relay	Plug Micro (4P)
E70	Horn Relay	Plug Micro (4P)
E71	H/Lamp HI Relay	Plug Micro (4P)
E72	BCM Relay	Plug Micro (4P)
E73	B/A Horn Relay	Plug Micro (4P)
E74	RR HTD Relay	Plug Micro (4P)

EMS BOX

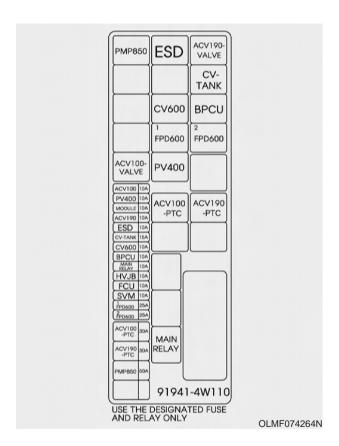
Name	Fuse rating	Circuit Protected
SENSOR M3	30A	EMS Box (SENSOR M3 Relay)
INVERTER	15A	-
SENSOR M1	10A	-
SENSOR 1	10A	-
-	-	-
SENSOR M2	15A	MCU
SENSOR 4	15A	Stack Voltage Monitor Unit
SENSOR 3	10A	lon Conductivity Transmitter, FPD, Hydrogen Sensor
SENSOR 2	10A	Air Intake Flow Sensor

Fuel cell power module compartment 2

Inside the fuse/relay box cover, you can find the fuse/relay label describing fuse/relay name and capacity.

* NOTICE

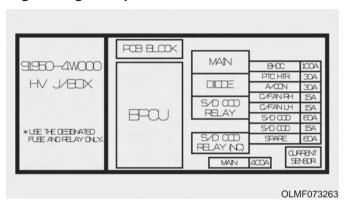
Not all fuse panel descriptions in this manual may be applicable to your vehicle; the information is accurate at the time of printing. When you inspect the fuse box on your vehicle, refer to the fuse box label.



Name	Fuse rating	Circuit Protected
ACV100	10A	FLM Fuse & Relay Box (ACV100 Valve Relay)
PV400	10A	FLM Fuse & Relay Box (PV400 Relay)
MODULE	10A	HSCU
ACV190	10A	FLM Fuse & Relay Box (ACV190 Valve Relay)
ESD	10A	FLM Fuse & Relay Box (ESD Relay)
CV-TANK	15A	FLM Fuse & Relay Box (CV-Tank Relay)
CV600	10A	FLM Fuse & Relay Box (CV600 Relay)
BPCU	10A	FLM Fuse & Relay Box (BPCU Relay)
MAIN RELAY	10A	FLM Fuse & Relay Box (Main Relay)

Name	Fuse rating	Circuit Protected
HVJB	10A	HV Box (HV COD Relay, BPCU)
FCU	10A	FCU
SVM	10A	Stack Voltage Monitor Unit
1 FPD600	25A	FLM Fuse & Relay Box (FPD600 1 Relay)
2 FPD600	25A	FLM Fuse & Relay Box (FPD600 2 Relay)
ACV100 -PTC	30A	FLM Fuse & Relay Box (ACV100 PTC Relay)
ACV190 -PTC	30A	FLM Fuse & Relay Box (ACV190 PTC Relay)
PMP850	50A	FLM Fuse & Relay Box (PMP850 Relay)

High voltage box panel



Name	Fuse rating	Circuit Protected
BHDC	100A	High Voltage DC-DC Converter
PTC HTR	30A	PTC Heater
A/CON	30A	A/C Compressor
C/FAN RH	15A	Cooling Fan Motor RH
C/FAN LH	15A	Cooling Fan Motor LH
S/D COD	60A	HV COD #1 Relay
S/D COD	15A	HV COD #2 Relay
SPARE	60A	-
MAIN	400A	Fuse (S/D COD 60A/15A, BHDC 100A, PTC HTR 30A, A/CON 30A, C/FAN LH/RH

LIGHT BULBS

Consult an authorized HYUNDAI Tucson Fuel Cell 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.

* NOTICE

After heavy driving, rain or washing, headlight and taillight lenses could appear frosty. This condition is caused by the temperature difference between the lamp inside and the outside temperature. This is similar to the condensation on your windows inside your vehicle during the rain and doesn't indicate a problem with your vehicle. If the water leaks into the lamp bulb circuitry, have your vehicle checked by an authorized HYUNDAI Tucson Fuel Cell dealer.

A WARNING

- Prior to replacing a light, depress the foot brake, move the shift lever into P (Park) apply the parking brake, place the POWER button in the LOCK/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.

Headlight, parking light, turn signal light, side marker and front fog light bulb replacement



- (1) Turn signal light
- (2) Headlight (High/Low)
- (3) Parking (Position) light
- (4) Parking (Position) light*
- (5) Side marker
- (6) Fog light*
- * if equipped

Headlight



Halogen bulb

A WARNING

- Handle halogen bulbs with care. Halogen bulbs contain pressurized gas that will produce flying pieces of glass that could cause injuries if broken.
- Wear eye protection when changing a bulb. Allow the bulb to cool down before handling it.

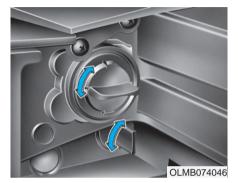
- Always handle them carefully, and avoid scratches and abrasions. If the bulbs are lit, avoid contact with liquids.
- Never touch the glass with bare hands. Residual oil may cause the bulb to overheat and burst when lit.
- A bulb should be operated only when installed in a headlamp.
- If a bulb becomes damaged or cracked, replace it immediately and carefully dispose of it.



- 1. Open the hood.
- 2. Remove the headlamp bulb cover by turning it counterclockwise.
- 3. Disconnect the headlamp bulb socket-connector.
- 4. Remove the socket from the assembly by turning the socket counterclockwise until the tabs on the socket align with the slots on the assembly.

- 5. Remove the bulb by pulling it out.
- 6. Insert a new bulb into the socket.
- 7. Install the socket in the assembly by aligning the tabs on the socket with the slots in the assembly. Push the socket into the assembly and turn the socket clockwise.
- 8. Install the headlight bulb cover by turning it clockwise.

Turn signal light



- Remove the socket from the assembly by turning the socket counterclockwise until the tabs on the socket align with the slots on the assembly.
- Remove the bulb from the socket by pressing it in and rotating it counterclockwise until the tabs on the bulb align with the slots in the socket. Pull the bulb out of the socket
- Insert a new bulb into the socket and rotating it until it locks into place.

4. Install the socket in the assembly by aligning the tabs on the socket with the slots in the assembly. Push the socket into the assembly and turn the socket clockwise.

Parking (Position) light bulbs

If the LED light does not operate, have the vehicle checked by an authorized HYUNDAI Tucson Fuel Cell dealer.

Fog light bulbs

- 1. Remove the front bumper under cover.
- 2. Reach your hand into the back of the front bumper.
- 3. Disconnect the power connector from the socket
- Remove the bulb-socket from the housing by turning the socket counter clockwise until the tabs on the socket align with the slots on the housing.
- Install the new bulb-socket into the housing by aligning the tabs on the socket with the slots in the housing. Push the socket into the housing and turn the socket clockwise.
- 6. Connect the power connector to the socket.
- 7. Reinstall the front bumper under cover.

Side repeater light replacement



■ Type A

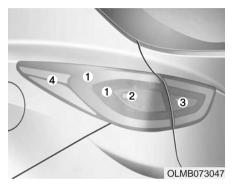
If the LED light does not operate, have the vehicle checked by an authorized HYUNDAI Tucson Fuel Cell dealer.



■ Type B

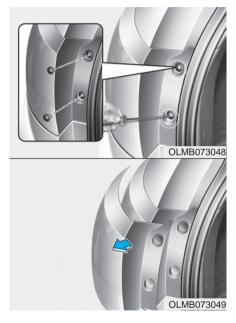
- Remove the light assembly from the vehicle by prying the lens and pulling the assembly out.
- 2. Reinstall a new light assembly to the body of the vehicle.

Rear combination light bulb replacement



- (1) Stop/tail light
- (2) Turn signal light
- (3) Back-up light
- (4) Side marker

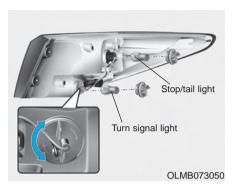
Outside light



Turn signal light and stop/tail light

- 1. Open the tailgate.
- Loosen the lamp assembly retaining screws with a cross-tip screwdriver.

 Remove the rear combination lamp assembly from the body of the vehicle.



- 4. Remove the socket from the assembly by turning the socket counterclockwise until the tabs on the socket align with the slots on the assembly.
- Remove the bulb from the socket by pressing it in and rotating it counterclockwise until the tabs on the bulb align with the slots in the socket. Pull the bulb out of the socket.
- Insert a new bulb into the socket and rotating it until it locks into place.

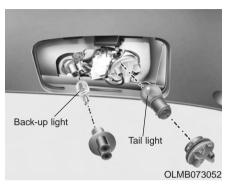
- 7. Install the socket in the assembly by aligning the tabs on the socket with the slots in the assembly. Push the socket into the assembly and turn the socket clockwise.
- 8. Reinstall the lamp assembly to the body of the vehicle.

Inside light



Tail light and Back-up light

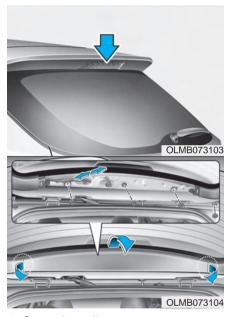
- 1. Open the tailgate.
- 2. Remove the service cover using a flat-blade screwdriver.



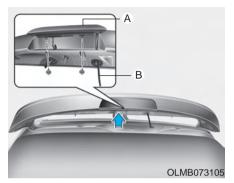
- 3. Remove the socket from the assembly by turning the socket counterclockwise until the tabs on the socket align with the slots on the assembly.
- 4. Tail light: Remove the bulb from the socket by pressing it in and rotating it counterclockwise until the tabs on the bulb align with the slots in the socket. Pull the bulb out of the socket.
 - Back-up light: Remove the bulb from the socket by pulling it out.
- 5. Insert a new bulb into the socket.

- Install the socket into the assembly by aligning the tabs on the socket with the slots on the assembly and turning the socket clockwise.
- 7. Reinstall the light assembly to the body of the vehicle

High mounted stop light

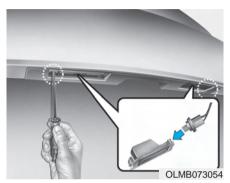


- 1. Open the tailgate.
- 2. Gently remove the center cover of the rear tailgate trim.
- Disconnect the electrical connector.



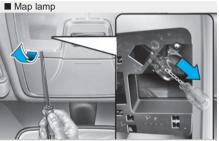
- 4. Loosen the retaining nuts and remove the spoiler.
- 5. Remove the high mounted stop light assembly (A) after loosening the nuts and washer nozzle (B).
- 6. Reinstall a new light assembly in the reverse order of removal.

License plate light bulb replacement



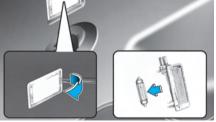
- 1. Loosen the lens retaining screws with a philips head screwdriver.
- 2. Remove the lens.
- 3. Remove the bulb by pulling it straight out.
- 4. Install a new bulb.
- 5. Reinstall the lens securely with the lens retaining screws.

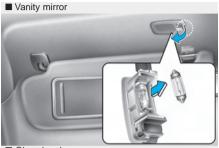
Interior light bulb replacement











■ Glove box lamp



OLMF074040N/OLMB073056/OLMF074058N/ OLMB073057/OLMB073059

- 1. Using a flat-blade screwdriver, gently pry the lens from the interior lamp housing.
- 2. Remove the bulb by pulling it straight out.
- 3. Install a new bulb in the socket.
- 4. Align the lens tabs with the interior lamp housing notches and snap the lens into place.

A WARNING

Use care not to dirty or damage lenses, lens tabs, and plastic housings.

APPEARANCE CARE

Exterior care

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.

A 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.

A CAUTION

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



A CAUTION

- Water washing in the fuel cell power module compartment including high pressure water washing may cause the failure of electrical circuits located in the fuel cell power module compartment.
- Never allow water or other liquids to come in contact with electrical/electronic components inside the vehicle as this may damage them.

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.

A CAUTION

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

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, have the vehicle inspected at your authorized Hyundai Tucson Fuel Cell dealer.

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 brightmetal 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 fuel lines, frame, floor pan and exhaust system, 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.

A 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 and chrome wheel maintenance

The aluminum and chrome wheels are coated with a clear protective finish.

! CAUTION

- Do not use abrasive cleaner, polishing compound, solvent, or wire brushes on aluminum or chrome 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 or acid detergents.

Corrosion protection

Protecting your vehicle from corrosion

By using the most advanced design and construction practices to combat corrosion, HYUNDAI produces cars 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 car 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 the 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 car 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 car 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 vinyl.

A CAUTION

- 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

Vinyl

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

Fabric

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.

A CAUTION

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

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.

A CAUTION

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

CALIFORNIA PERCHLORATE NOTICE

Perchlorate Material-special handling may apply, See: www.dtsc.ca.gov/hazardouswaste/perchlorate.

Notice to California Vehicle Dismantlers:

Perchlorate containing materials, such as air bag inflators, seatbelt pretensioners and keyless remote entry batteries, must be disposed of according to Title 22 California Code of Regulations Section 67384.10 (a).

Specifications, Consumer information and Reporting safety defects

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Refrigerant label	
Consumer information	
Reporting safety defects	

DIMENSIONS

Item	in (mm)
Overall length	173.6 (4410)
Overall width	71.6 (1820)
Overall height	65.4 (1660)
Front tread	62.4 (1584.7)
Rear tread	62.8 (1596)
Wheelbase	103.9 (2640)

AIR CONDITIONING SYSTEM

Item	Weight of volume	Classification
Refrigerant	R-134a : 550±25g	
Compressor lubricant	POE : 130±10g	

We recommend that you contact an authorized HYUNDAI Tucson Fuel Cell dealer for more details.

BULB WATTAGE

Light Bulb	Wattage
Headlights (Low/High)	55/55
Front turn signal lights	28
Position lights	LED
Side repeater lights (Outside mirror)*	LED
Front fog lights*	27
Stop and tail lights (Outside)	LED
Rear turn signal lights (Outside)	27
STOP & TAIL	LED
Back-up lights (Inside)	16
High mounted stop light	LED
License plate lights	5
Map lamps	10
Room lamps	10
Luggage lamp*	8
Glove box lamp*	5
Vanity mirror lamps*	5

^{*} If equipped

TIRES AND WHEELS

Item	Tire size	Wheel size	Inflation pressure psi (kPa)		Wheel lug nut torque
item	Tile Size	Wileel Size	Front	Rear	lb•ft (kgf•m, N•m)
Full size tire	225/60R17	6.5J×17	35 (240)	35 (240)	65~79 (9~11, 88~107)

* NOTICE

It is permissible to add 3psi (21 kPa) to the standard tire pressure specification if colder temperatures are expected soon. Tires typically loose 1psi for every 12°F (-11°C) temperature drop. If extreme temperature variations are expected, re-check your tire pressure as necessary to keep them properly inflated.

A CAUTION

When replacing tires, use the same size originally supplied with the vehicle. Using tires of a different size can damage the related parts or make it work irregularly.

Specifications, Consumer information and Reporting safety defects

LUGGAGE VOLUME

SAE	1st row: 53.8cuft (1,524L)	
	2 nd row : 23.8cuft (675L)	

GROSS VEHICLE WEIGHT

lbs (kg)

SAE	4,960 (2250)

RECOMMENDED LUBRICANTS AND CAPACITIES

To help achieve proper power cell module and powertrain performance and durability, use only lubricants of the proper quality.

The correct lubricants also help promote power cell module efficiency that results in improved fuel economy.

Lubricant		Volume	Classification	
Coolant	Fuel cell stack	For the volume and classification, we recommend that you consult a specified Tucson Fuel Cell dealer.	Propylene Glycol, Water	
Traction motor		For the volume and classification, we recommend that you consult a specified Tucson Fuel Cell dealer.	Mixture of antifreeze and water (Ethylene glycol base coolant for aluminum radiator)	
Brake fluid		0.7~0.8 US qt. (0.7~0.8 <i>l</i>)	FMVSS116 DOT-3 or DOT-4	
Fuel		36.9 US qt. (140 <i>l</i>)	Refer to "Fuel requirements" in section 1	

VEHICLE IDENTIFICATION NUMBER (VIN)



The vehicle identification number (VIN) is the number used in registering your car and in all legal matters pertaining to its ownership, etc.

The number is punched on the floor under the passenger seat. To check the number, open the cover.



The VIN is also on a plate attached to the top of the dashboard. The number on the plate can easily be seen through the windshield from outside.

VEHICLE CERTIFICATION LABEL



The vehicle certification label attached on the driver's side center pillar gives the Vehicle Identification Number (VIN).

TIRE SPECIFICATION AND PRESSURE LABEL



The tires supplied on your new vehicle are chosen to provide the best performance for normal driving.

The tire label located on the driver's side center pillar gives the tire pressures recommended for your car.

REFRIGERANT LABEL (IF EQUIPPED)



The refrigerant label provides information such as refrigerant type and amount.

The label is located on the underside of the hood.

CONSUMER INFORMATION

This consumer information has been prepared in accordance with regulations issued by the National Highway Traffic Safety Administration of the U.S. Department of Transportation. Your HYUNDAI Tucson Fuel Cell dealer will help answer any questions you may have as you read this information.

HYUNDAI motor vehicles are designed and manufactured to meet or exceed all applicable safety standards.

For your safety, however, we strongly urge you to read and follow all directions in this Owner's Manual, particularly the information under the headings "NOTICE", "CAUTION" and "WARNING".

If, after reading this manual, you have any questions regarding the operation of your vehicle, please contact your nearest HYUNDAI Motor America Regional Office as listed in the following:

Eastern Region:

Connecticut, Delaware,
Maine, Massachusetts, New
Hampshire, New Jersey, New York,
Pennsylvania, Rhode Island,
Vermont.
Eastern Region
1122 Cranbury South River Road
Jamesburg, NJ 08831
(800) 633-5151

Southern Region:

Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia. Southern Region

3025 Chastain Meadows Parkway Suite 100 Marietta, GA 30066 (800) 633-5151

South Central Region:

Alabama, Arkansas, Louisiana, Mississippi, New Mexico, Oklahoma, Tennessee, Texas. South Central Region

1421 South Beltline Road, Suite 400 Coppell, TX 75019 (800) 633-5151

Central Region:

Illinois, Indiana, Iowa, Kentucky, Michigan, Minnesota, Nebraska, North Dakota, South Dakota, Ohio, Wisconsin, Kansas, Missouri.

Central Region 1705 Sequoia Drive Aurora, Illinois 60506 (800) 633-5151

Western Region:

Alaska, Hawaii, Arizona, California, Colorado, Idaho, Montana, Nevada, Oregon, Utah, Washington, Wyoming.

Western Region

10550 Talbert Avenue P.O.Box 20850 Fountain Valley, California 92728-0850

(800) 633-5151

REPORTING SAFETY DEFECTS

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying HYUNDAI MOTOR AMERICA.

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or HYUNDAI MOTOR AMERICA.

To contact NHTSA, you may call the Vehicle Safety Hotline toll-free at 1-888- 327-4236 (TTY: 1-800-424-9153); go to http://www.safercar.gov; or write to: Administrator, NHTSA

1200 New Jersey Ave, SE, West Building Washington, D.C. 20590.

You can also obtain other information about motor vehicle safety from http://www.safercar.gov.

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