PERODUA

Owner's Manual



MYVI

PASSION ENGINEERED

Foreword

We are pleased to welcome you to the family of Perodua owners. As you know, the performance and durability of a vehicle depends, to a large extent, upon the way it is maintained and driven. This manual will assist you to benefit most from your Perodua vehicle. Before you operate your vehicle, read this manual carefully and use it as a reference source whenever necessary.

If you have any questions, feel free to contact your authorised Perodua Service Centre. We are ready to provide qualified service and assistance.

PERODUA SALES SDN. BHD.

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PERODUA SALES SDN. BHD.

Your Owner's Manual

- Before you operate your Perodua, carefully read this manual.

  To protect yourself and extend the life of your Perodua, follow the instructions in this manual.

  Failure to observe these instructions may result in serious bodily injury and damage to your vehicle.
- Throughout this manual, we have made general references to WARNINGS, CAUTIONS and NOTES.

⚠ WARNING
If warning items are not observed, a danger resulting in life-threatening injuries or serious injuries may occur.

CAUTION
If caution items are not observed, there is a danger of resulting in injuries, accidents, or damages to the vehicle.

NOTE
These are the items to be observed for safe operations of the vehicle.

- All information, illustrations and specifications in this manual are current at the time of printing. We reserve the right to discontinue or change specifications or designs at any time without prior notice and without incurring any obligation.
- This manual is applicable for all variants and it provides technical explanations for all equipment in the vehicle including optional equipment. Therefore, the manual may contain description of some equipment which is not installed in your Perodua.
- If you sell your Perodua, leave this manual in the vehicle for use of the future owner.

- The model and the engine types described in this manual stand for as follows:

Model	Description
M804RS	Type 1NR-VE engine (1,300cc) mounted vehicle
M806RS	Type 2NR-VE engine (1,500cc) mounted vehicle

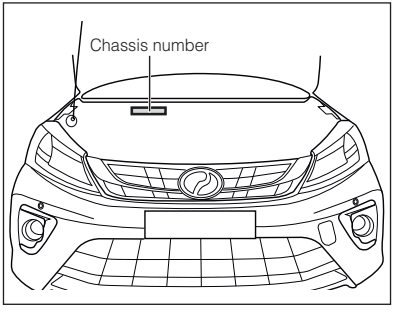
Engine	Description
1NR-VE	1,300 cc EFI[*1]+DOHC[*2] + Dual VVT-I[*3] engine
2NR-VE	1,500 cc EFI[*1]+DOHC[*2] + Dual VVT-I[*3] engine

[*1] Electronic Fuel Injection
[*2] Double Overhead Cam
[*3] Variable Valve Timing - Intelligent

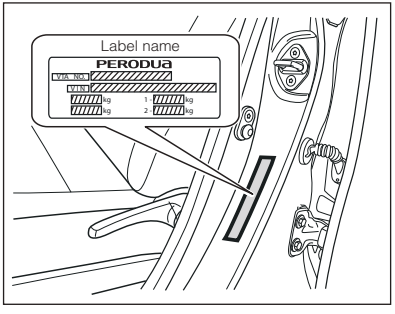
Your responsibility for maintenance

It is the owner's responsibility to make sure that the specified maintenance is performed. Section 13 gives details of maintenance requirements.

Vehicle identification

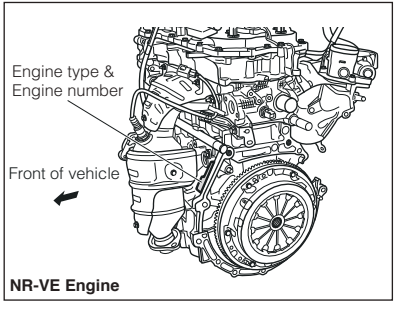


The vehicle identification number is stamped on the location as shown in the illustration.



The vehicle identification number (label name) is also visible on the left side center pillar as shown in the illustration.

Engine identification



NR-VE Engine

The engine identifications are stamped on the location as shown in the illustration.

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15 Alarm/central locking

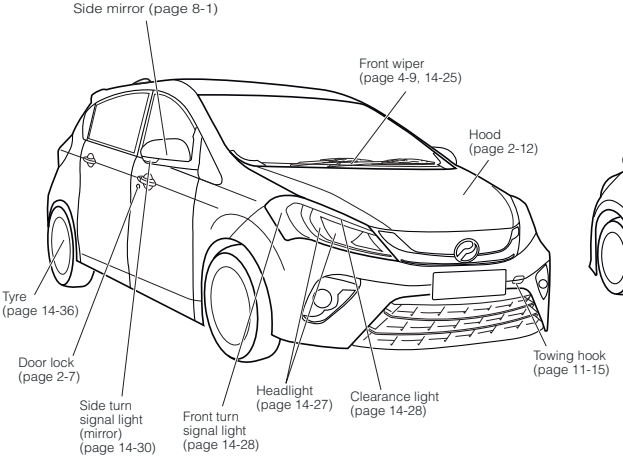
16 Reverse/front corner sensor

17 Specifications

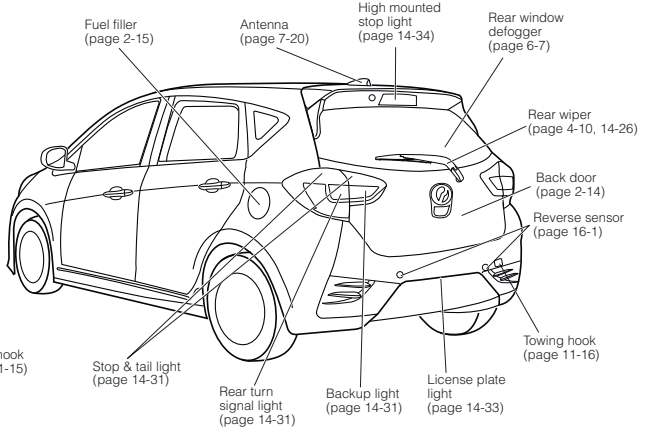
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Exterior view

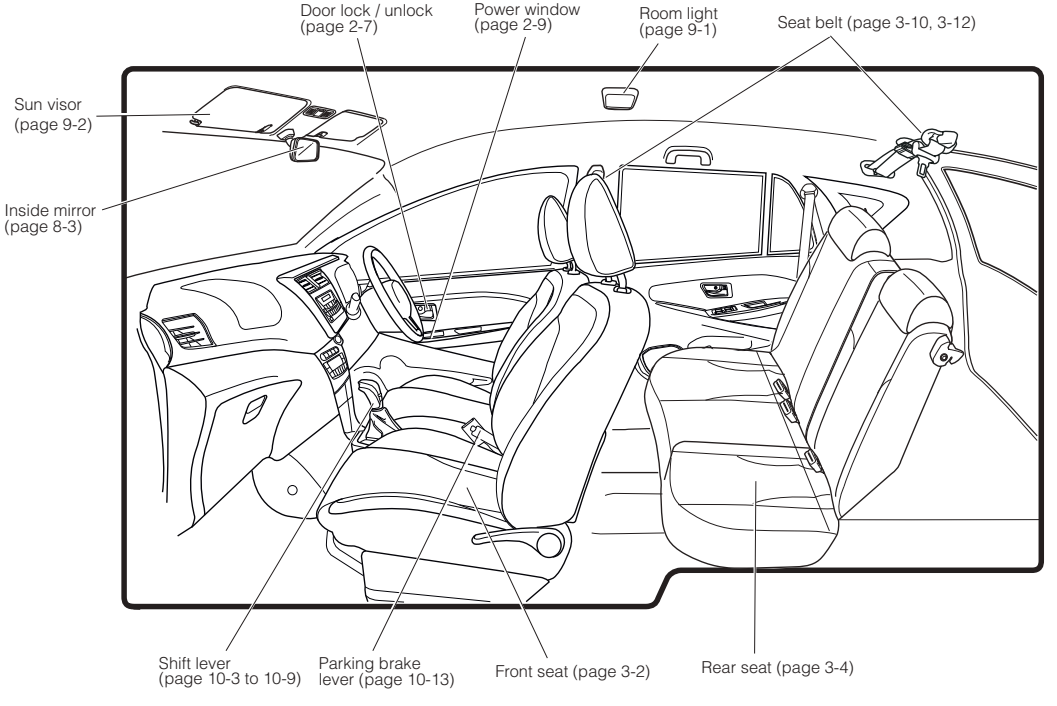
Front view



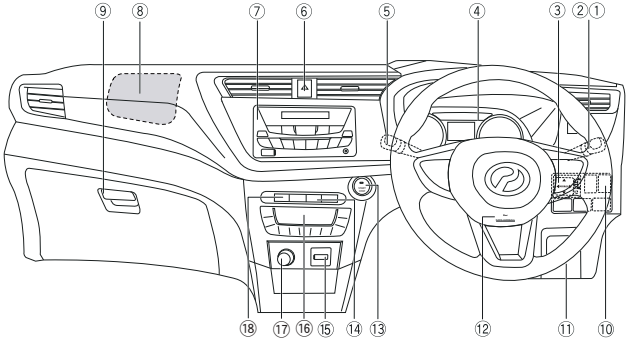
Rear view



Interior view



Instrument panel overview



① Fog light switch (page 4-8)
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③ Remote control outer mirror switch (page 8-1)
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⑤ Wiper and washer switches (page 4-9)
⑥ Hazard warning signal switch (page 4-10)
⑦ Radio control panel (page 7-2, 7-5, 7-7)
⑧ SRS air bags for front passenger (page 3-31)
⑨ Glove box (page 9-3)
⑩ Headlight leveling switch (page 4-11)
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Section 1



Special precautions for your vehicle

Engine exhaust gas 1–1
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Bring your children and keys with you whenever you leave the car 1–4
Fuel recommendation 1–4
Modification of your vehicle 1–4
Installation / use of electronic items in your vehicle 1–5
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⚠WARNING

Do not inhale exhaust gases.

They contain carbon monoxide, a poisonous gas that is colourless and odourless. Inhalation of this gas can cause unconsciousness or even death.

Whenever you suspect that exhaust fumes may have entered the vehicle, find out the cause. Have the condition corrected immediately.

If you must drive your vehicle under this condition, drive with all side windows fully open.

To prevent exhaust gas accident, follow the precautions below.

Maintenance;

Always maintain the engine exhaust system, vehicle body, and ventilation system in their correct operating conditions. Make sure the exhaust system has no loose connections or holes. We recommend that the exhaust system and vehicle body be inspected by competent repair facilities in the following cases:

- Whenever your vehicle has its oil changed
- Whenever you notice a change in the exhaust sound
- Whenever the exhaust system has been damaged or corroded
- Whenever you hit an object

In addition, follow the maintenance schedule in Section 13.

Ventilation system;

To allow the ventilation system of your vehicle to operate properly at all times, make sure that the air inlet ducts in front of the windshield are always free from dust, leaves and other obstructions.

Daily operation;

We recommend that you do not run the engine for any extended periods of time while the vehicle is parked or stopped.

There are possibilities that carbon monoxide may be admitted into your vehicle due to improperly-maintained or a damaged exhaust system.

Do not run the engine in a garage or an enclosed area except when required for driving the vehicle in or out.

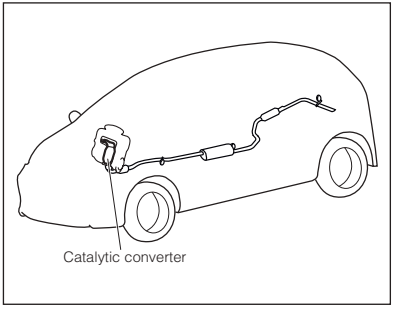
Make sure that foreign objects do not accumulate around the tail pipe to prevent exhaust gases from accumulating under the vehicle body.

⚠WARNING

Turn off the engine when taking a nap in the car.

- **This is to prevent accidentally activating the shift lever and depressing the accelerator pedal for a long period of time while napping.**
- **This is also to prevent deadly toxic gases from flowing into the passenger compartment.**

Catalytic converter



The catalytic converter is an emission control device installed in the exhaust system to reduce pollutants in exhaust gas.

⚠ **WARNING**

- **The exhaust system becomes hot and hot exhaust gas is emitted while the engine is running.**
- **Be sure to keep the rear end of your vehicle at least 30 cm away from combustibles such as wood or plywood when parking. Less space may cause discoloration or deformation of the combustibles or even fire by the exhaust gas.**
- **Do not drive or park your vehicle over anything combustible, such as grass, leaves, paper, or rags etc.**
- **Also, keep people or combustible objects away from the exhaust system.**

CAUTION

A large amount of unburned gas introduced into the catalytic converter may overheat the converter, which may cause a fire and damage to the connector.

To prevent this and other damages, observe the followings;

- **Do not drive with an extremely low fuel level.**
- **Do not run the engine at fast idle speed for more than 10 minutes or at idle speed for more than 20 minutes.**
- **Do not turn off the engine while the vehicle is moving.**
- **In your attempt to start the engine, never push or pull the vehicle.**
- **Avoid racing the engine.**
- **Use only unleaded fuel.**

Follow the periodic inspections specified in the Perodua maintenance schedule to ensure that the engine itself, catalytic converter and entire emission control system are operating properly.

If the engine cannot starts, stalls frequently, or pings or knocks during acceleration, have your vehicle checked as soon as possible by an authorised Perodua Service Centre.



For your safety

We at Perodua want you to enjoy your new vehicle with all its capabilities. We also hope that you could consider your safety while driving which includes in learning about the capabilities and limitations of a vehicle, and realizing that vehicles designed for different purposes may handle differently.

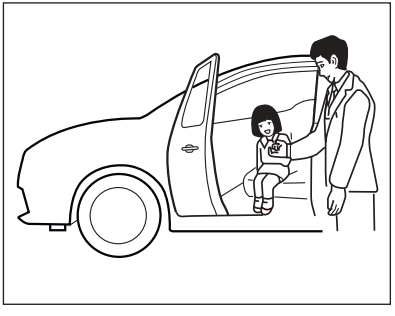
Read and understand all WARNINGS, CAUTIONS and NOTES in this manual.

⚠ WARNING

- **Avoid sharp turns, abrupt maneuvers or any unsafe actions. Failure to do so may result in a loss of control, an accident, roll-over of the vehicle and serious bodily injury.**
- **Do not attempt off-road use.**
- **All passengers must use seat belts. (See "Instructions on seat belts" in Section 3)**
- **Remember that operation of any vehicle after drinking or taking drugs is dangerous to you and others.**
- **Obey the traffic laws.**
- **Do not operate any equipment or mechanism from outside.**

Remember that while you rely on the manufacturer to make a good vehicle, the manufacturer and the motoring public rely on you to drive safely.

Bring your children and key with you whenever you leave the car



⚠ WARNING

Do not leave your children alone in the car.

Children will suffer from heatstroke if they are left in the car parked under a burning sun as it becomes very hot in the cabin.

Avoid leaving the key in the ignition as it can be tampered with by children. This can lead to faulty operation of the electric parts, e.g. power windows, etc., accidental starting of the car or a fire accident and consequently cause a serious accident.

Fuel recommendation

Use only unleaded fuel with its Research Octane Number 95 or higher.

CAUTION

Make sure to use unleaded gasoline for your Perodua.

Modification of your vehicle

Never modify your Perodua.

Modification of your vehicle could affect its performance, safety or durability, and may even violate governmental regulations.

Damage or performance problems resulting from modification may not be covered under warranty.

In addition, vehicle modifications can cause a loss of control, an accident, or serious bodily injury.

Accessories, spare parts and modification of your Perodua.

A wide variety of non–genuine spare parts and accessories for Perodua vehicles are currently available in the market. Using these spare parts and accessories which are not genuine Perodua products may adversely affect the safety of your vehicle.

Perodua therefore cannot accept any liability or guarantee spare parts and accessories which are not genuine Perodua products, nor for replacement or installation involving such parts.

This vehicle should not be modified with non–genuine Perodua products. Modification with non–genuine Perodua products could affect its performance, safety or durability, and may even violate governmental regulations.

In addition, damage or performance problems resulting from the modification may not be covered under warranty.

Installation / use of electronic items in your vehicle

When any electronic item which will likely to generate a strong electromagnetic wave, such as a two-way radio system, mobile telephone and computer, is installed and used in your vehicle, be sure to consult with an authorised Perodua Service Centre.

The electromagnetic wave generated from these pieces of electronic equipment could affect adversely those systems, such as the EFI (Electronic Fuel Injection) system, ABS (Anti-lock Braking System) and SRS air bags of your vehicle, resulting in improper operation.

Break-in period

The internal friction, which is high in a new vehicle, will decrease gradually as all moving parts adjust to each other.

We recommend observing the following precautions during the first 1,000 km to extend the future performance and economy of your vehicle.

- Do not drive over 90 km/h (55 mph)
- Do not drive for long periods at any one constant speed, either fast or slow.
- Avoid full throttle start.
- Avoid sudden stops except in case of an emergency, especially during the first 300 km.

Section 2



Doors and locks

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Smart key transmitter 2–5
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Child safety lock 2–8
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Hood 2–12
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Fuel filler 2–15

Engine immobilizer system

The engine immobilizer system is a theft-preventive system. The transponder chip in smart key sends an electric signal to the vehicle. Then, this electric signal is matched with the ID code pre-registered in the vehicle. If the electric signal is matched with the ID code, the engine can be started. If they are not matched with each other, the engine cannot be started.

The system is maintenance-free.

Smart key (with engine immobilizer system)

The vehicle is equipped with two encoded keys.
Only these two keys make it possible to start your engine.

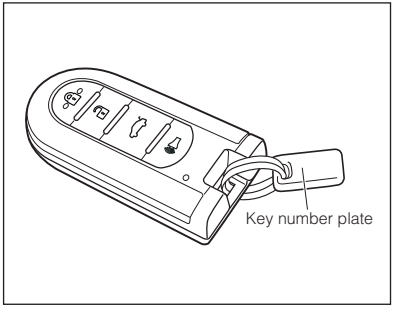
⚠ WARNING

Do not make any alterations to the immobilizer system.

NOTE

1. **When it becomes necessary to make a new key, for example, when you lose one of your two keys, the remaining one is needed for Perodua to make a new key. Hence, be sure to keep one of your two keys in a safe place.**

   Both of these two keys have a function whereby the identification code of the key can be in-putted into the immobilizer system. That is why you must bring your key for producing the new key.
2. **If you lose all the keys, consult with an authorised Perodua Service Centre immediately.**



When you make new keys, you are required to bring your key along with the key number to an authorised Perodua Service Centre. Hence, we recommend that you keep the key number plate in a safe place.

NOTE

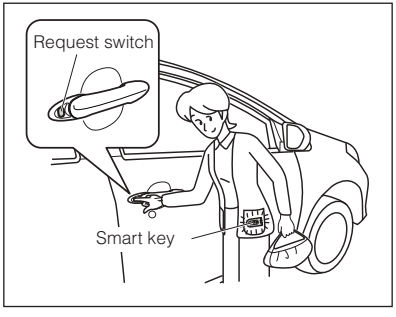
You can register and make your keys up to 4 pieces.

Smart entry

CAUTION

The head of the key is installed with transponder chip that is important to this engine immobilizer system. Please make sure to observe the following points when you are handling the keys.

1. **Do not cover the key grip with an object (e.g. aluminum gloves) that shuts off electromagnetic waves.**
2. **Be careful not to apply any impact to the key.**
3. **Do not expose the key to high temperature for a long time. For example, do not leave the key at the instrument panel exposed to direct sunrays.**
4. **Never soak the key in water and wash it in a supersonic wave washing machine.**
5. **Do not use the key together with an electromagnetic object (e.g. magnetic bracelet).**
6. **Never bend the key grip.**



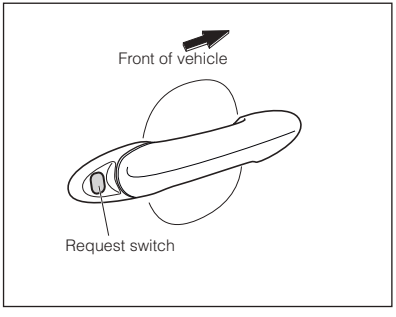
The key-free system allows you to lock and unlock the door just by pressing the request switch on the door when you are carrying your smart key on you. You can also start the engine without having to insert the key. Without taking your key out of your pocket or bag, sensors around the vehicle detect the presence of the smart key and activate the locking mechanism.

Once inside the vehicle, engine can be started by pushing the start button.

(See “Starting engine” in Section 10).

(See “Smart key transmitter” for function of the button on smart key).

Smart door lock and unlock



To lock doors

After confirming that all doors and back door are closed, press the request switch on the outer handle of driver’s door. The hazard light will flash once, the buzzer will sound once and the room light will go off to indicate that all doors are locked.

To unlock doors

(i) Driver’s door unlock (1st press)

Press the request switch on the outer handle of driver’s door.

The hazard will blink twice, the buzzer will sound twice and the room light will go on for 15 seconds to indicate that driver’s door is unlocked.

(ii) All doors and back door unlock (2nd press)
After pressing the request switch on the outer handle of driver's door once, **press the switch again within 5 seconds.**
The hazard will blink twice, the buzzer will sound twice and the room light will go on for 15 seconds to indicate that all doors are unlocked.

NOTE

Ensure all doors are locked before leaving the vehicle.

Operating range

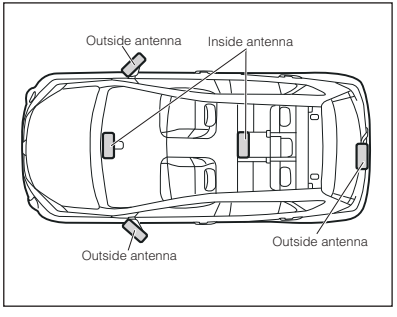
The operating range may vary by surrounding conditions.

(i) Key-free operating range:
Within 3 meter from the center of the vehicle.

(ii) Request switch operating range:
When the smart key is within approximately 80 cm from the outside door handle.

NOTE

- **The request switch on the outer handle may not operate normally depending on the way smart key is carried.**
- **During high water pressure washing, make sure the devided nozzle tip is not close to the request switch. The water pressure could damage the request switch.**
- **Do not clean the request switch with a sharp-edge tool when wax is adhered around the switch.**
- **Under the following conditions, the key-free system may not operate properly even in the operating range:**
  - **The smart key is brought too close to the door glass or door handle when locking or unlocking the doors.**
  - **The smart key is brought too close to the request switch on the back door when opening the back door.**
  - **The smart key is near the ground or at a high place.**
  - **There are facilities that generate strong radio waves such as a power plant, broadcast station, gas station, TV tower and airport.**
  - **The smart key is carried together with radio communication equipment, such as a cell phone, laptop, portable audio system or electronic key of other vehicle.**
  - **The smart key is in contact with a metal object or is covered.**
  - **Battery of the smart key is weak.**

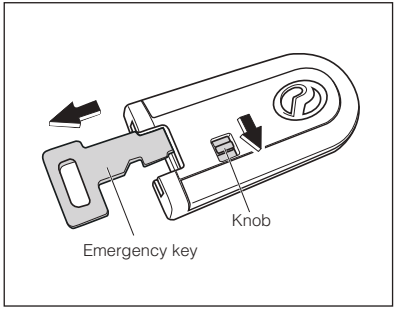


⚠ **WARNING**

- **For person who is using implanted cardiac pacemaker or implanted defibrillator, please do not approach within about 22 cm from the vehicle key-free antennas.**
- **The radio waves emitted from the key-free antennas of the vehicle when operating request switch operation of each door (during door opening and closing), or when starting engine, have the risk to give an impact to the operation an implanted cardiac pacemaker , of the implanted defibrillator .**

- **For persons who use medical electrical device other than implanted cardiac pacemaker or implanted defibrillator, please check in advance with the manufacturer.**
- **Radio waves may affect the operation of medical electrical equipment.**

Emergency key



Push the knob to remove the emergency key.

Carry the emergency key together with the smart key. If the smart key battery is weak or the key-free system does not operate properly, you will need the emergency key.

Warning buzzer

Warning when leaving the engine switch on (Smart key not detected inside the vehicle while engine switch on)

(i) The warning buzzer keeps sounding in short beeps if the driver's door is opened while the engine switch is in "ACC".

(ii) The warning buzzer sounds in a long beeps if you press the request switch on the door while the engine switch is in "ACC" or "ON".

Turn the engine switch to "OFF" and close the door to stop the warning buzzer.

Warning when leaving smart key inside the vehicle

(i) The buzzer will sounds if you press the request switch on the door while the smart key left inside the cabin.

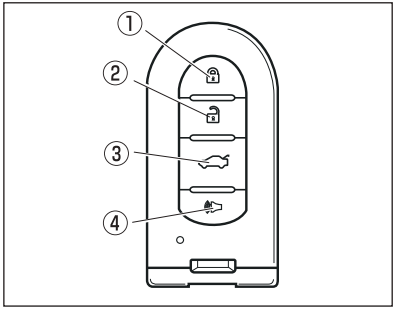
(ii) The buzzer will sounds if the smart key is left inside the luggage room. Press the request switch on the back door to pop it up.

Make sure you have smart key with you when locking the door.

Door ajar warning

The warning buzzer sounds in a long beeps when you lock the door using request switch or smart key when any of the door are open or incompletely closed. Close and lock all the doors to stop the warning buzzer.

Smart key transmitter



You can lock and unlock the doors without using the key.

Press the button on the smart key for the following operations:

Lock ①

After confirming that all doors and back door are closed, press button ①.

The hazard light will flash once, the buzzer will sound once and the room light will go off to indicate that all doors are locked.

Unlock ②

(i) Driver's door unlock (1st press)

Press button ② once.

The hazard will blink twice, the buzzer will sound twice and the room light will go on for 15 seconds to indicate that driver's door is unlocked.

(ii) All doors unlock (2nd press)

After pressing button ② once, press the button again within 5 seconds.

The hazard will blink twice, the buzzer will sound twice and the room light will go on for 15 seconds to indicate that all doors are unlocked.

If the door remains closed for approximate 30 seconds after unlocking, all the doors are locked automatically.

Back door open ③

Press button ③ for more than 1 second to open the back door.

Buzzer will sound.

Panic button ④

When button ④ of type 2 is pressed for more than 1 second, or button ① of type 1 is pressed for more than 3 seconds, horn will sound, room light will turn on, hazard will flash, and security indicator will turn on. To stop, press button ①, ② or ④.

Horn will sound for 45 seconds if no button ①, ② or ④ is pressed.

CAUTION

1. **There are cases where the smart key transmitter may not function properly when it is more than 10 meters away from the center of the vehicle.**
2. **There are cases where the smart key transmitter may not function properly, depending upon the surrounding conditions, for instance, when there are facilities that are emitting strong electric waves, such as a generating plant, high-voltage wires, broadcasting station and TV tower.**
3. **The smart key transmitter has incorporated precision electronic parts. Hence, be sure to observe the following points. Failure to observe these points may cause malfunctions.**

- **Never apply strong impacts or pressure to the smart key transmitter.**
- **Never leave the smart key transmitter under direct sunlight or high temperature.**
- **Do not allow water to get to the smart key transmitter.**
- **When you leave your vehicle, be sure to confirm that the locking has been made securely by pulling the door handle by your hand.**
- **In cases where no door is opened within 30 seconds after the unlocking has been made by means of the smart key transmitter, all doors will be automatically locked again.**

Security alarm control

Set/unset the alarm by the smart key transmitter. The alarm starts when any of the doors or back door are opened without unlocking the door by the smart key.

Alarm:

Horn sounds and hazard light blink for 30 seconds. Horn and hazard light will be off after 30 seconds.

To deactivate alarm

- All doors including back door must be closed or
- Press the “Lock or Unlock” button of the smart key transmitter or

  (See “Car alarm/central lock” in Section 15).

Replacement of battery

The button battery incorporated inside has a lifetime of approximately 2 years on the assumption that the locking / unlocking operations are made 10 times a day.

(However, in the case of a new-car, the lifetime of the smart key transmitter battery may be shorter.)

When the operation becomes unstable or the operation becomes no longer possible, most likely the battery has been consumed.

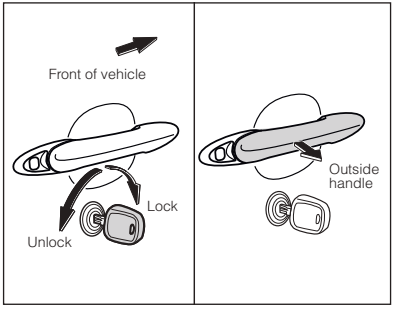
Replace the battery or please consult with an authorised Perodua Service Centre.

(See “Warning lights” in Section 5).

(See “Replacement of battery in the smart key transmitter” in Section 15).

⚠ WARNING

- **Ensure the safety around the vehicle before opening any door.**
- **Before driving, be sure that all doors are securely closed. This will help to prevent the door from being accidentally opened, and the occupants from being thrown out of the vehicle.**
- **Never leave infants or pets unattended in the vehicle on a hot day. The inside of the vehicle will reach an extremely high temperature.**
- **Be sure not to accidentally lock your key inside the vehicle.**

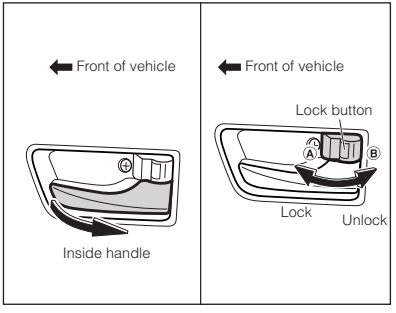


To lock / unlock doors with key from outside

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

Pull the outside handle to open the door.

When you lock or unlock the driver side door, the other door(s) will not automatically be locked or unlocked.



To lock / unlock doors with lock button from inside

Push the front side of lock button Ⓐ to lock the door. Push the rear side of lock button Ⓑ to unlock the door.

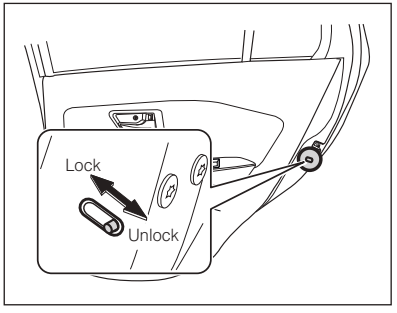
Pull the inside handle toward you to open the door.

You can also lock the door from the outside by pushing the front side of lock button and pulling the outside door handle.

Yo do not have to pull the outside handle to lock the rear door.

NOTE

Be careful not to leave the key inside the vehicle.



The child safety lock are provided to prevent the rear doors from being accidentally opened when the inside handle is pulled.

Turn the child safety knob to the “LOCK” position and close the door to lock.

The door can now only be opened from the outside.

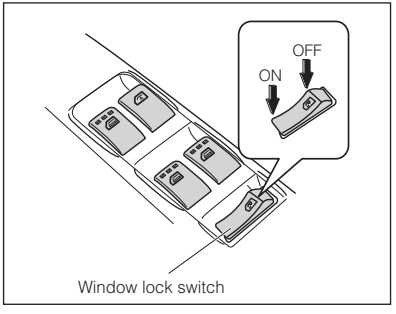
We recommend using the child safety lock whenever children are in the vehicle.

⚠ WARNING

Be sure to observe the following warning in order to avoid serious personal injuries.

- **Before closing the power windows, always make sure that the heads, hands and other body parts of all occupants are inside the vehicle.**
  When closing a window, if the neck, head or hands of an occupant get caught, it could lead to serious injuries.
  When any occupant closes a power window, make sure that he/she operates the window safely.
- **When small children are in the vehicle, never allow them to operate the power window switches when unattended.**
  Be sure to use the window lock switch to prevent children from using the window switches unexpectedly.
- **Be sure to turn the ignition switch to "OFF" and bring the key when you leave the vehicle.**
- **Never leave small children unattended in the vehicle, especially when the ignition switch is "ON". Small children could operate the power window switches, resulting in them getting caught in a window.**
  Unattended children could be involved in serious accidents.

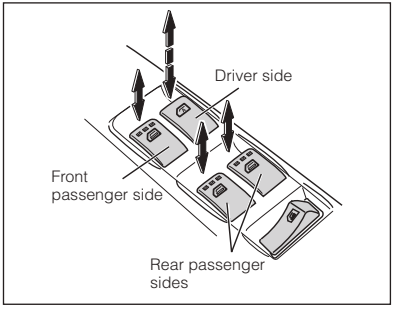
Power window lock switch



The power windows operate with the ignition switch turned "ON".

All door windows can be controlled by the master switch provided on the driver side door. When the window lock switch is set to the "OFF" position, all other windows except the driver side window cannot be raised or lowered.

Master switch



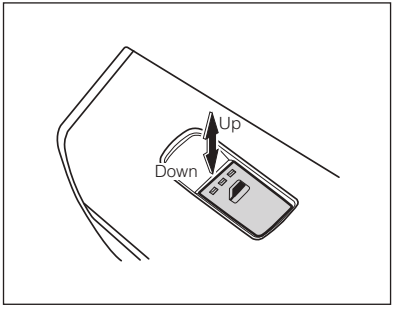
Pull up the switch to raise the window. Push it down to lower the window. The window will move as long as the switch is being operated.

The driver side window will lower automatically when the switch is pushed down fully.

To stop the window halfway, lightly pull up the switch.

The driver side window will rise automatically when the switch is pull-up fully. If there is obstruction between the glass and window frame during auto-up, the window will automatically stop (Jam Pro function).

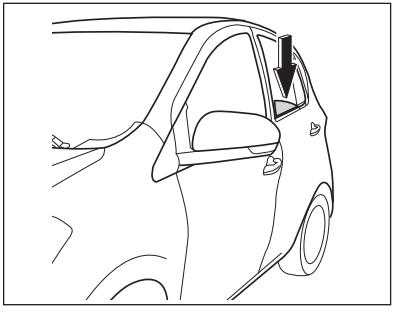
Window switch



Front passenger / rear passenger sides

Pull up the switch to raise the window. Push it down to lower the window.

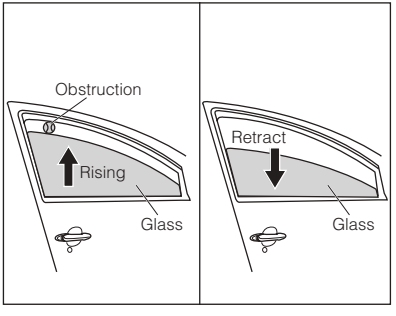
The window will move as long as the switch is being operated.



CAUTION

The rear passenger side window cannot be lowered fully.

Window Jam Pro (Driver's window only)



Window Jam Pro is the auto-reverse safety feature. The window will stop rising and automatically retract if the sensor detects an obstruction between the glass and window frame.

The power window must be iniatilized in order to ensure proper operation. Hold the power window switch in the one-touch opening position until the window has opened completely while the engine switch is turned to the "ON" position.

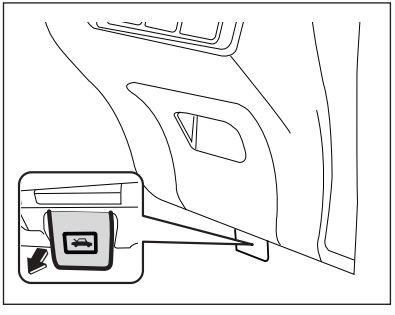
Hold the power window switch in the one-touch closing position. Continue holding the switch for a further 2 seconds after the window has closed completely.

NOTE

- **When the obstruction is too small, the sensor may not detect it presence and the auto-reverse function cannot be activated.**
- **Depending on surroundings and driving conditions, impacts sustained by the window glass that behave similar to an obstruction may trigger the auto-reverse sensor.**

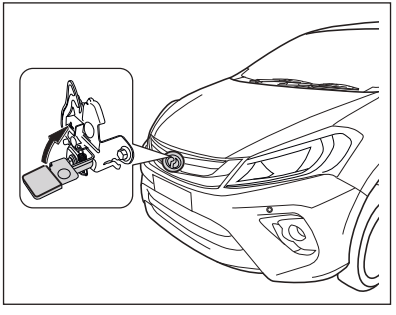
⚠ WARNING

- **Never use any part of your body to intentionally activate the auto-reverse function.**
- **The auto-reverse function may not work if something get caught just before the window fully closes.**



To open hood

1. Pull the hood lock handle under the driver side instrument panel toward you.

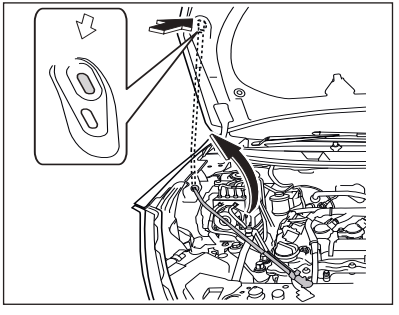


2. Stand in front of the vehicle. Raise the auxiliary catch with your fingers and raise the engine hood.

CAUTION

- **Never open the hood with the wiper arms and blades raised. The hood may be scratched or the wiper arms and blades may be damaged.**
- **Do not use tools to open the hood.**

  It may damage the latch.

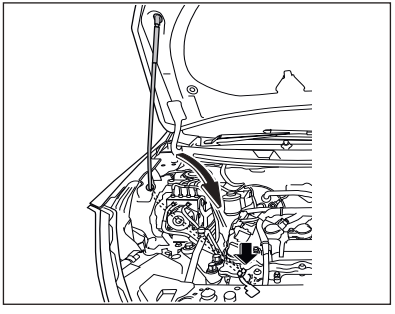


To support hood

Insert the hood brace into the slot that near the arrow marking on the hood.

⚠ WARNING

Make sure the hood brace supports the hood securely after inserting it. Failure to do so may cause the hood to fall and result in serious bodily injury.



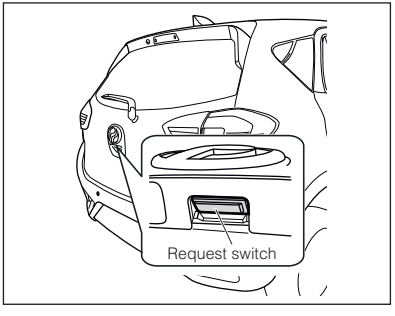
To close hood

1. Set the hood brace in the original position, while holding the hood by your one hand.
2. Lower the hood. Pull your hands out and away from the hood allowing it to drop down and securely closed.

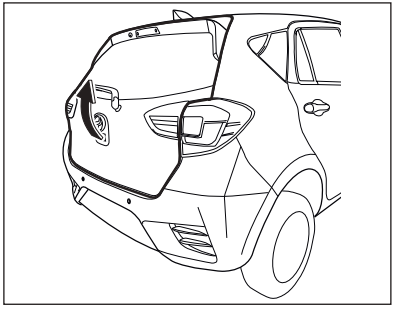
⚠ WARNING

- **Make sure the hood is securely closed and latched before driving. Otherwise, the driver's vision will be blocked if the hood is fully opened without notice.**
- **While driving, if you notice that the hood is not securely locked, stop your vehicle immediately to the side of the road and latch the hood securely.**

Back door



You can unlock the back door by pressing the request switch when you carry the smart key together.



To open back door

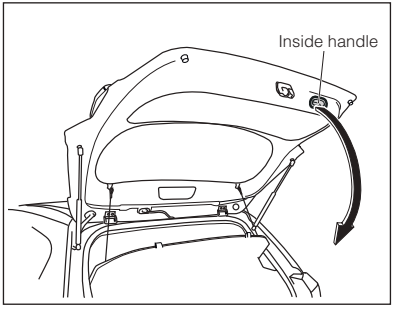
After unlock the back door, raise the lid slowly. Back door will open effortlessly without handle pulling force.

When the back door is fully open, it is held in a raised position.

⚠ WARNING

- **Never pen the back door with rear wiper raised.**

  The wiper blade may cause an injury.
- **Release your hand as the door open by itself to avoid any injury.**



Back door inside handle

This panel will help you to close the back door easily.

To close back door

Make sure that any luggage will not interfere with the back door.

Lightly pull the back door using the back door inside handle.

⚠ WARNING

Keep the door closed at all times while driving. Poisonous exhaust gas will enter the vehicle and lead to death.

Fuel filler

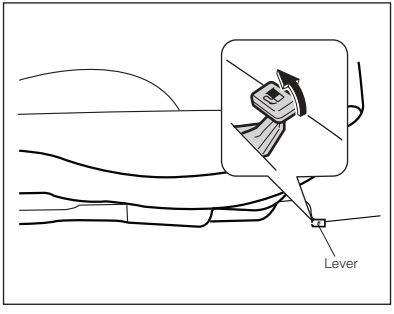
NOTE

- **Confirm the back door closing completely before drive your car.**
- **Keep away from child when opening or closing back door, to prevent injury.**
- **Never put human or animal in back door area. It may cause death or serious injury to them due to suffocation.**
- **Use back door with fully opened. If it is not fully opened, back door might close out of sudden and hit a person.**

⚠ WARNING

- **To prevent a fire when refuelling, always turn the engine off. Also, do not smoke or use any flame near the fuel filler.**
- **Never carry any fuel container in your vehicle.**
  The fuel may leak from the container and may cause an explosion or a fire.

Remote fuel lid lever



Opening / closing of fuel lid:

To open:

Pull up the remote fuel lid lever located on the lower right side of the driver's seat to unlock the fuel lid.

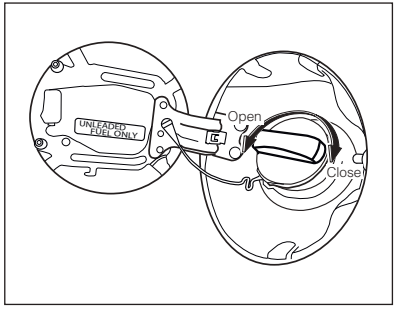
To close:

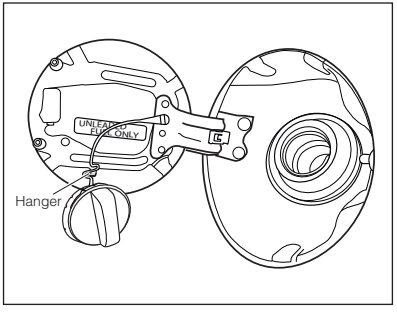
Close the fuel lid, from the outside.

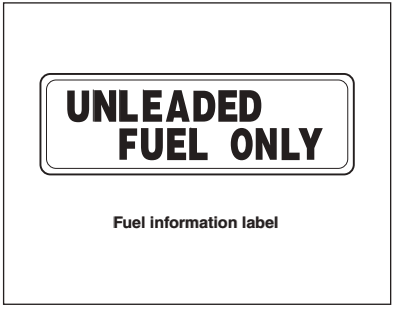
NOTE

Make sure the fuel lid is securely locked.

Fuel tank cap







Fuel information label

To open cap

1. Turn the fuel tank cap counter clockwise to open.

⚠ WARNING

- **Open the cap slowly to release pressure gradually.**
  This could prevent damage to the paint finish and your skin by spilt fuel.
- **Make sure the cap is securely closed by hearing a clicking sounds to prevent fuel spillage.**
- **Use only Perodua genuine fuel tank cap. Failure to do so may cause fuel leakage.**

2. Use the hanger to hold the fuel tank cap.

To close cap

To make sure that the fuel tank cap is securely closed, turn it clockwise until you hear a clicking sounds.

CAUTION

A fuel information label is attached on the back of the fuel lid. Fill the fuel complying with the instruction only.

⚠ WARNING

When there are possibilities that fuel leakage or fuel odour has occurred, contact an authorised Perodua Service Centre.

Section 3



Seats and seat belts

Seats 3–1
Front seats 3–2
Rear seats 3–4
Head restraint 3–6
Instructions on seat belts 3–8
3-point emergency lock retractor (ELR) type seat belts 3–10
3-point emergency lock retractor (ELR) type seat belts (separate type) 3–12
Seat belt warning light and buzzer 3–14
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SRS (Supplement Restraint System) air bags for driver and front passenger 3–31
SRS side air bags, SRS curtain air bags 3–44
Air bag computer 3–48
Vehicle data recordings 3–48
Event data recorder 3–49

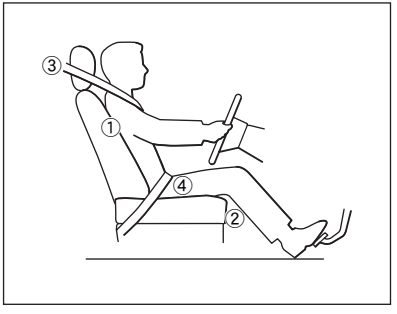
When driving, make sure that all occupants are seated properly in the seats, wearing the seat belts properly.

⚠ WARNING

If any occupant is not seated properly in the seat or does not wear the seat belt properly, never drive your car. For example, if any occupant sits on top of the folded-down seat cushion, or in the luggage room.

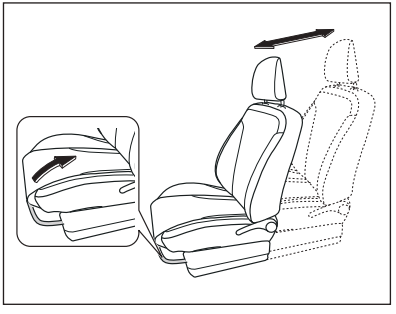
Failure to observe this warning may cause serious injury in the event of sudden stop or collision.

Correct driving posture



To ensure safe driving operation, follow the instructions below to adjust your seat and the proper driving posture:

1. Sit comfortably and ensure your back is against the seat.
2. Ensure you can adequately reach the foot pedals and you can push all pedals to full stroke.
3. Ensure the height of the seat belt rest's center is at a position behind your ears.
4. Ensure you are wearing your seat belt correctly.



To adjust seat position

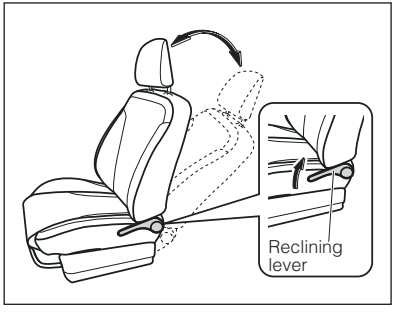
Raise the seat adjusting bar and slide the seat to your desired position,while applying slight body pressure in forward or backward direction.

Then, release the lever.

⚠ WARNING

- **After adjusting, make sure the seat is securely locked in position by trying to slide it forward and backward.**
- **If the seat is not locked securely, the seat could move accidentally and could cause loss control of the vehicle.**
- **Never attempt to adjust the driver seat while driving.**

  This could cause loss control of the vehicle and an accident.



To adjust seatback angle

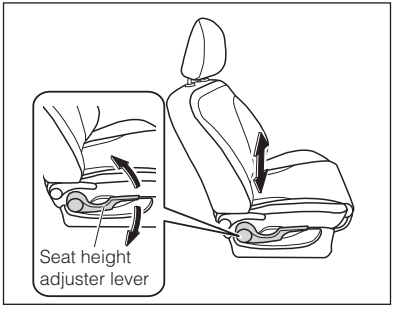
Lean slightly forward and pull the reclining lever upward. Slowly tilt the seatback to the desired angle.

Then release the lever.

⚠ **WARNING**

- **After adjusting, make sure the seatback is securely locked in position by exerting body pressure. This could prevent accidental movement of the seatback, which could cause loss control of the vehicle.**
- **Never attempt to adjust the driver seatback while driving. This could cause loss control of the vehicle and an accident.**
- **Avoid reclining the seatback any more than needed to reduce the risk of sliding under the seat belt in a collision.**

Driver's seat height adjuster (If equipped)



Every time you raise the lever, the seat cushion will be raised.

Every time you lower the lever, the seat cushion will be lowered.

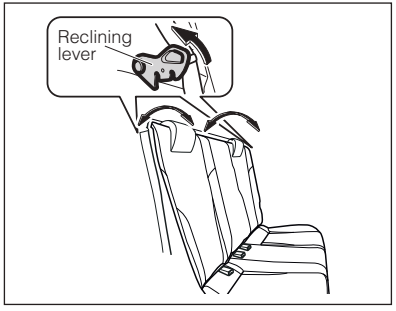
⚠ **WARNING**

Never attempt to adjust the seat height while driving.

This could cause loss control of the vehicle and an accident.

Rear seats

To adjust seatback angle



Pull the reclining lever upward. Adjust the seatback position by slowly tilting it.

Then release the lever.

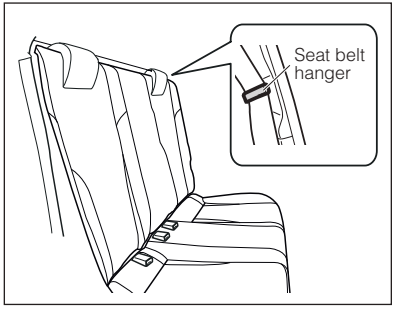
NOTE

The left and the right seat can be adjusted separately.

⚠ WARNING

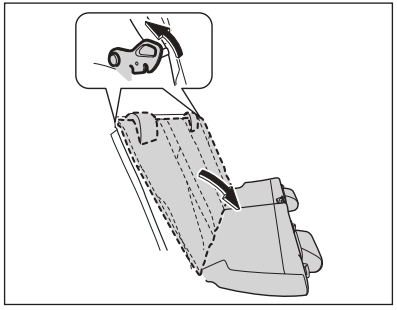
- **Make sure that after adjusting, the seatback is locked securely in position by exerting body pressure. This could prevent accidental movement of the seatback.**
- **If the seat is not locked securely, the seat could move accidentally and it could cause injury.**
- **Make sure not to adjust the seat when the vehicle is running.**

Before folding the seatback



1. Park the vehicle in a safe place.
2. Adjust the position of the front seat so that the seat cushion of the rear seat may not touch the front seat.
3. Before folding the rear seatback, insert the seat belt webbing into the rear seat belt hanger so that it will not be pinched by the seat.

Folding the seatback



1. Release the seatback lock levers upward.
2. Fold the seatback forward.
3. To return the rear seatback to its original position, lift the seatback up until its securely locked.

CAUTION

When returning the seatback to its upright position, be careful not to pinch the webbing of the seat belt with the seatback. Pinching the webbing may result in damage to the webbing or otherwise impair the effectiveness of the seat belt.

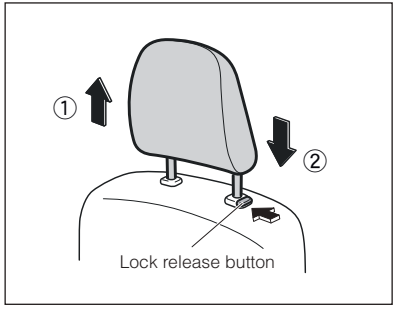
⚠ WARNING

To reduce the risk and/or severity of personal injury in the event of an accident:

- **Never allow anyone to ride in the luggage room. It is not designed for occupants.**
- **Do not pile anything in the luggage room higher than the seatback.**
- **Make sure that the rear seatback has been returned to the upright position and securely locked with seat belts fully visible.**

Head Restraints

Adjusting the head restraints



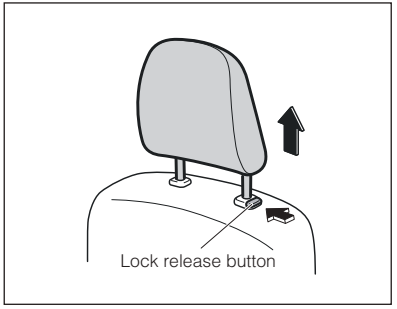
① Up

Pull the head restraints up.

② Down

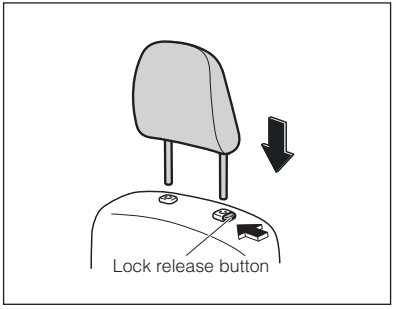
Push the head restraint down while pressing the lock release button.

Removing the head restraints



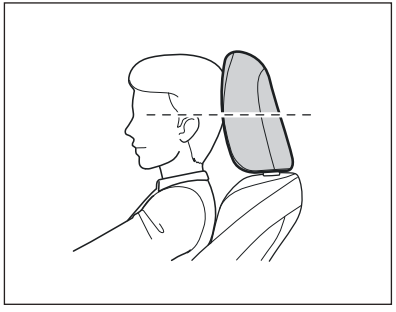
Pull the head restraint up while pressing the lock release button.

Installing the head restraints



Align the head restraint with the installation holes while pressing the lock release button and push it down to the lock position. Press and hold the lock release button when lowering the head restraint.

Adjusting the height of the head restraints (front seats)

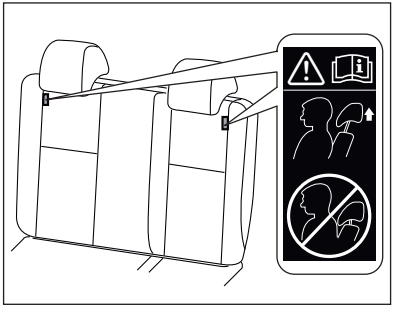


Make sure that the head restraints are adjusted so that the center of the head restraint is closest to the top of your ears.

⚠ WARNING

- **After adjusting the head restraint, make sure it is securely locked by pushing it down until locked. This could prevent accidental movement of the headrest, which could cause serious injury.**
- **Do not drive the vehicle with the headrest removed or improperly adjusted. Headrest will provide significant protection against whiplash injury.**
- **Headrest are most effective when closest to your head. A cushion on the seatback is not recommended.**
- **Do not adjust the driver headrest while driving. This could cause loss control of the vehicle and an accident.**
- **Do not insert the headrest in a wrong direction. It will not lock if it faces the opposite side.**

Head restraints for rear seat



Make sure to adjust the head restraint before use.

⚠ WARNING

Observe the following precautions regarding the head restraints. Failure to do so may result in death or serious injury.

- **Use the head restraints designed for each respective seat.**
- **Adjust the head restraints to the correct position at all time.**
- **After adjusting the head restraints, push down on them and make sure they are locked in position.**
- **Do not drive with the head restraint removed.**

Instructions on seat belts

All occupants must be properly restrained with a seat belt provided at all times. Observe the following precautions for proper function of the seat belt. Failure to do so could result in serious bodily injury in an accident or sudden braking.

The seat belts provided are designed for people of adult size, large enough to properly wear them.

Check the belt system periodically and if any seat belt fails to function properly, have the system checked immediately by an authorised Perodua Service Centre.

Child;

Use a child restraint system appropriate for the children until the child becomes large enough to properly wear seat belt. See "Child restraint system" for details.

If a child is too large for a child restraint system, the child should sit in the rear seat and be restrained with a seat belt. According to accident statistics, children are safer when properly restrained in the rear seat than in the front seat.

- Do not allow them to stand up or kneel on the seat.
- Do not hold a child in your arms. In an accident, a child held in your arms could be crushed between the vehicle interior and you.

Small-framed person or youth;

If the shoulder belt comes across the neck or face of a front seat passenger, move the seat forward or backward so that the belt will snugly fit the person.

Pregnant woman;

The lap belt should be worn securely and as low as possible over the hips, not on the waist. Consult your doctor for recommendation.

Disable Person;

Consult your doctor for recommendation.

⚠ WARNING

- **Seat belts are designed to bear upon the bony structure of the body, and should be worn low across the front of the pelvis or the pelvis, chest and shoulders, as applicable; wearing the lap section of the belt across the abdominal area must be avoided.**
- **Seat belts should be adjusted as firmly as possible, consistent with comfort, to provide the protection for which they have been designed. A slack belt will greatly reduce the protection afforded to the wearer.**
- **Care should be taken to avoid contamination of the webbing with polishes, oils and chemicals, and particularly battery acid. Cleaning may safely be carried out using mild soap and lukewarm water.The belt should be replaced if webbing becomes worn, contaminated or damaged.**

- It is essential to replace the entire assembly after it has been worn in a severe impact even if damage to the assembly is not obvious.
- Belts should not be worn with straps twisted.
- Each belt assembly must only be used by one occupant; it is dangerous to put a belt around a child being carried on the occupant's lap.
- No modifications or additions should be made by the user which will prevent the seat belt adjusting devices from operating to remove slack.
- Do not allow anyone to use the shoulder belt if it crosses above the chest or near the neck or face.
- Do not insert the tongue plate into the wrong buckle.

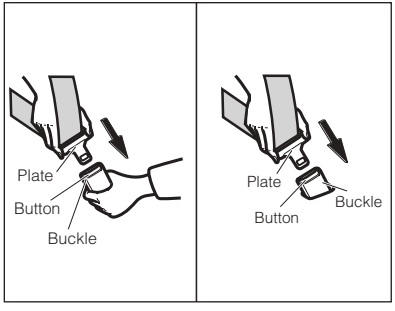
- Never wear the shoulder belt under your outer arm or behind your back.
- Do not recline the seatback more than needed.
- Do not fasten the seat belt over hard or fragile objects, such as eye glasses, jewellery, pens and keys.
- Do not wear the seat belt on heavy clothing. It could prevent proper positioning of the belt.
- Do not modify or disassemble the system.
- If the seat belt system has been subjected to a severe impact, have it replaced by an authorised Perodua Service Centre, even if damage is not obvious.

CAUTION

- Be careful not to damage the seat belt webbing or hardware by pinching between the seat, door etc.
- Arrange and store the seat belt neatly when they are not in use.
- Cleaning may safely be carried out using mild soap or lukewarm water.

  Never use bleach, dye, or use abrasive cleaners. They may severely damage the belt.
- Do not remove the belt when cleaning. Retract the belt after drying thoroughly.

3-point emergency lock retractor (ELR) type seat belts



To fasten belt

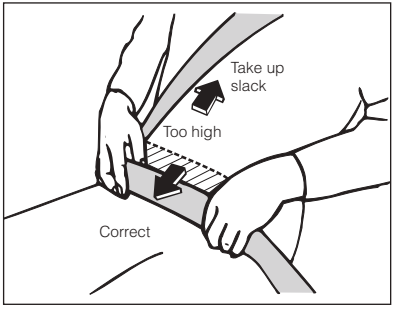
Pull the seat belt from the retractor and insert the tongue plate into the buckle until it clicks.

NOTE

If the seat belt lock is pulled, try releasing the seat belt and gently pulling it again. If this fail, pull the seat belt with force and release it. Gently pull the seat belt again to fasten.

⚠ WARNING

For full restraint, make sure, after inserting the tongue plate, the connection is securely locked and the belt is not twisted.

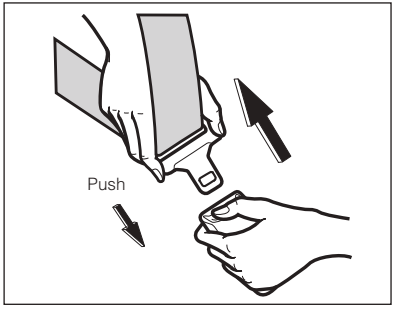


To adjust belt

Place the belt as low as possible on your hips, not on your waist.

Pull the shoulder portion of the belt toward the retractor to remove any slack.

It is not necessary to adjust the length of the seat belt since it has been designed to ensure that it normally extends and retracts according to the movement of the body and it may be locked in the case of emergency (hard braking, collision, etc.).



To unfasten belt

Push the buckle release button.

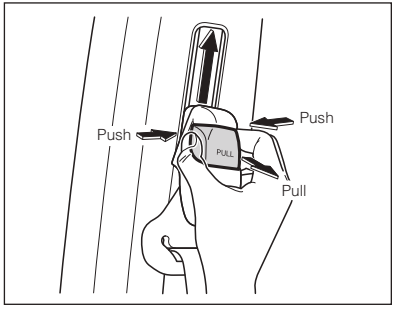
Allow the retractor to retract the belt completely.

Make sure that the belt is not twisted as it is being retracted.

NOTE

When using the rear centre seat belt, make sure to use the buckle with the *CENTER* mark.

Adjustable shoulder belt anchors (Front seats)



To adjust height

To lower the shoulder belt anchor position, pull the anchor while pressing both sides of the knob. In this way, release the lock.

Lower the position, until you hear a clicking sound.

To raise the shoulder belt anchor, simply move the adjuster upward.

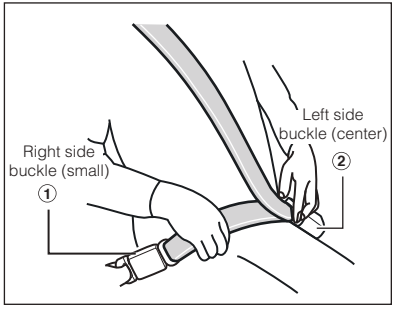
Raise the position, until you hear a clicking sound.

The belt anchor can be adjusted in four stages.

⚠ WARNING

After adjusting, make sure the shoulder belt anchor is securely locked to prevent accidental movement while the vehicle is moving.

3-point emergency lock retractor (ELR) type seat belts (separate type)



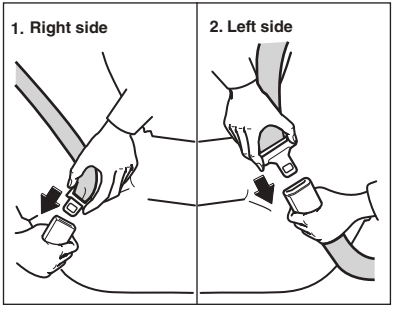
Rear center seat belt

The rear center seat belt is a 3-point ELR type seat belts with 2 buckles. Both seat belt buckles must be correctly located and securely latched for proper operation.

Make sure buckle ① is securely latched for ready-use of the center seat belt.

NOTE

The two tongue plates have different shapes to prevent the belt from buckled in the wrong place.

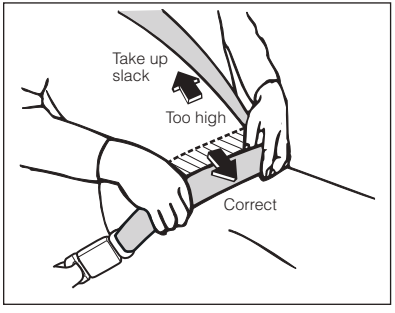


To fasten belt

1. Pull the seat belt from the retractor and insert the right small tongue plate into the right side buckle ① until it clicks.
2. Insert the left tongue plate into the center buckle ② until it clicks.

⚠ WARNING

For full restraint, make sure after inserting the tongue plate, the connection is securely locked and the belt is not twisted.

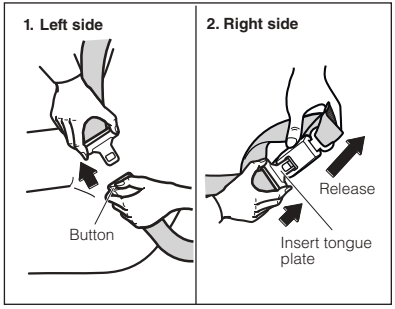


To adjust belt

Place the belt as low as possible on your hips, not on your waist.

Pull the shoulder portion of the belt toward the retractor to remove any slack.

It is not necessary to adjust the length of the seat belt, for the seat belt has been so designed that it normally extends and retracts according to the movement of the body and it may be locked in the case of emergency (hard braking, collision, etc.).

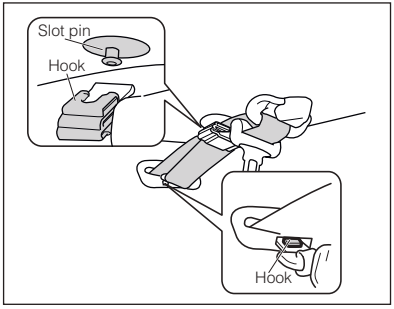


To unfasten belt

1. Push the center buckle ② release button.
2. In order to release the small tongue plate, insert the tongue plate into the right side buckle ① and allow the retractor to retract the belt completely. Make sure that the belt is not twisted as it is retracted.

CAUTION

- **When using the separate type seat belt, make sure that the right plate is connected with the buckle during the use. If they are not connected, the seat belt will not perform its designed operation.**
- **Do not use the rear center seat belt with either buckle released.**
- **Always make sure the shoulder belt is positioned across the center of your shoulder. The belt should be kept away from your neck, but not falling off your shoulder. Failure to do so could reduce the amount of protection in an accident and cause serious injures in a collision.**
- **Do not separate the right plate from the buckle unless the rear seat is to be tilted forward.**



When not in use, hang the small tongue plate on the hook of the seat belt inserting slot and insert the other hook to the upper slot pin.

Seat belt warning light and buzzer

Driver side/ front passenger side



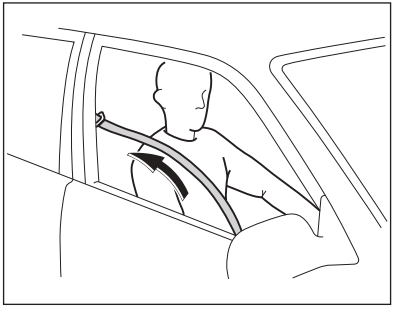
If the driver side seat belt or front passenger seat belt is not fastened, the warning light flashes and the buzzer sounds after the vehicle speed exceed more than 20 km/h.

Rear passenger side



If any of the rear passenger side seat belt is not fastened, the warning light will turn on according to which rear seat belt is not fastened. Buzzer will sound for 32 seconds when there is a changing condition of the seat belt from fasten to unfasten after the vehicle speed exceeds 5 km/h.

Front seat belt pretensioner



The pre-tensioner mechanism is actuated when subjected to a strong impact from the front. The pre-tensioner instantly retracts the seat belt, thus securely restraining the upper body of the occupant and enhancing the effects of the seat belt and SRS air bags.

When the seat belt pre-tensioner is actuated, operating sound and odour will be emitted.

The pre-tensioner mechanism is actuated when vehicle is subjected to a strong impact from the front even if the seat belt is not fastened.

For details, refer to the air bag section.

NOTE

If the seat belt pretensioner of your vehicle is actuated, be sure to have the seat belt pretensioner replaced with a new one by an authorised Perodua Service Centre.

⚠ WARNING

- **Do not modify or replace the seat belt retractor, with other seat belt-related parts and the suspension system. Such modification will reduce the effectiveness of the seat belt pretensioner.**
- **Consult with an authorised Perodua Service Centre before the following operations are carried out.**
  - **When your vehicle is scrapped;**
  - **When removal of the front seat belt is required;**
  - **When electric welding is conducted;**
  - **When body repairs are conducted;**
  - **When paint repairs are conducted;**
  - **When the front end structure is changed;**
  - **When any equipment is installed to the front end, such as a grill guard;**
- **Please keep it in your mind that your vehicle is equipped with the seat belt pretensioner. When you sell your vehicle, be sure to inform the buyers about the equipment of the seat belt pretensioner.**

Force limiter mechanism

The front seat belt with pretensioner is equipped with a force limiter mechanism. The force limiter mechanism is a mechanism which is actuated only when it is subjected to a strong impact from the front direction and the load exceeds a certain level so that no greater load may be applied to the occupant. This force limiter mechanism reduces force applied to the chest of the occupant.

NOTE

There are cases where the force limiter mechanism will not operate even when the pretensioner mechanism has operated.

Child restraint precautions

Perodua strongly urges the use of child restraint systems for children small enough to use them.

If a child is too large for a child restraint system, the child should sit in the rear seat and must be restrained using the vehicle's seat belt. See “3-point emergency lock retractor type seat belts”.

⚠ WARNING

- **For effective protection in automobile accidents and sudden stops, a child must be properly restrained, using a seat belt or child restraint system depending on the age and size of the child. Holding a child in your arms is not a substitute for a child restraint system. In an accident, the child can be crushed against the windshield, or between you and the vehicle's interior.**
- **Perodua strongly urges the use of a proper child restraint system which meets to the size of the child, installed on the rear seat. According to accident statistics, the child is safer when properly restrained in the rear seat than in the front seat.**
- **Do not use an infant carrier or a child seat on the front seat, for it may lead to serious injuries or even to death in the event of an accident. In the event of an accident, force resulting from the rapid inflation of the front passenger airbag can cause serious injuries or even to death to the child.**
- **Make sure that you have complied with all installation instructions provided by the child restraint manufacturer and the system is properly secured.**

Child restraint system (CRS)

A child restraint system for a small child or baby must be properly restrained on the seat with the seatbelt. Consult the child restraint system manufacturer's instructions carefully.

To provide proper restraint, follow the manufacturer's instructions about the appropriate age and size of the child for the child restraint system.

Perodua recommends the use of child restraint system that conforms to the regulation "ECE No. 44".

Install the child restraint system correctly following all the installation instructions provided by its manufacturer. General instructions are also provided under the following illustrations.

The child restraint system should be properly installed on the rear seat.

⚠ **WARNING**

- **Do not use an infant carrier or a child seat on the front seat. It may lead to serious injuries or even death in the event of an accident.**
- **After installing the child restraint system, make sure it is restrained securely. If not, it may cause serious injury or even death to the child in the event of a sudden stop or accident.**
- **Never let children play with the seat belt.The seat belt can get entangled around the child's neck and leads to choking or other serious injuries that could result in death. If this should happen inadvertently and the buckle of the seat belt cannot be unfastened, cut the seat belt with scissors or the like.**

When not using the child restraint system, keep it secured with the seat belt or place it somewhere other than the passenger compartment. This will prevent it from injuring passengers in the event of a sudden stop or accident.

Types of child restraint system

Child restraint systems are classified into the following 5 groups according to the regulation ECE No.44.

Group 0	Up to 10 kg (0-9 months)
Group 0^+	Up to 13 kg (0-2 years)
Group I	9 to 18 kg (9 months-4 years)
Group II & III	15 to 36 kg (4-12 years)

In this owner's manual, the following popular 3 types of child restraint secured with the seat belts are explained.

(1) Baby seat...equal to Group 0 and 0+ of ECE No.44

(2) Child seat...equal to Group 0+ , I and II of ECE No.44

(3) Junior seat...equal to Group III of ECE No.44

When purchasing a child seat, ask the manufacturer which type of child restraint system is appropriate for your child and vehicle.

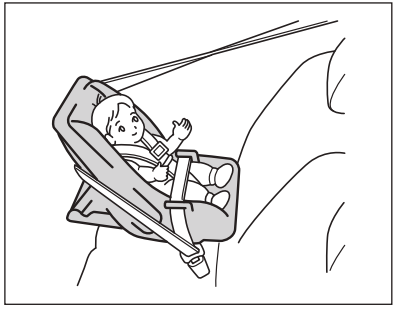
Select the child restraint system which is suitable for each seating position. Refer to the next table, "Child restraint system suitability for various seating positions".

Your vehicle has top-tether anchors for securing the top strap of a child restraint system.

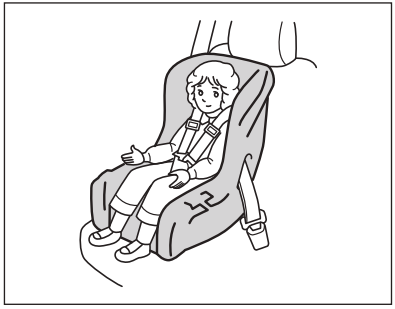
For instructions about how to use the top-tether anchors, see "Using a top strap".

An ISO FIX child restraint system approved for your vehicle may also be used. See "ISO FIX Child restraint system". Install the child restraint system following the instructions provided by its manufacturer.

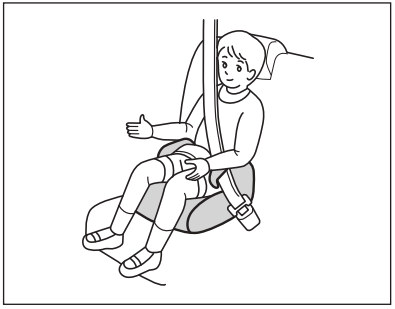
Types of child restraint seat



(1) Baby seat



(2) Child seat



(3) Junior seat

Other child restraint system which is different from the system mentioned also can be used, but the suitability of the system must be carefully checked with the child restraint system manufacturer or retailer.

⚠ WARNING

The use of any child restraint system which is not suitable for this vehicle would not properly secure the infant or child. Therefore, they could be killed or seriously injured if accident happened.

Child restraint system (CRS) suitability for various seating positions

The information provided in the table shows the suitability of your child restraint system for various seating positions.

1. Conventional CRS

Mass group	Seating position		
	Front passenger	Rear outboard	Rear center
0 - up to 10 kg (0 - 9 months)	X	U	X
0^+- up to 13 kg (0 - 2 years)	X	U	X
I - 9 to 18 kg (9 months - 4 years)	X	U	X
II & III - 15 to 36 kg (4-12 years)	X	U	X

CRS : Child Restraint System
U : Suitable for "universal" category restraints approved for use in this mass group
X : Seat position not suitable for children in this mass group

2. ISO FIX CRS

Mass group	Size class	Fixture	Vehicle ISO FIX position
			Rear outboard
Carrycot	F	ISO / L1	X
	G	ISO / L2	X
0 - up to 10 kg	E	ISO / R1	X
0+ - up to 13 kg	E	ISO / R1	X
	D	ISO / R2	X
	C	ISO / R3	X
I - 9 to 18 kg	D	ISO / R2	X
	C	ISO / R3	X
	B	ISO / F2	IUF
	B1	ISO / F2X	IUF
	A	ISO / F3	IUF
II -15 to 25 kg	–	–	X
III - 22 to 36 kg	–	–	X

Key of letters in the above table;

IUF = suitable for ISO FIX forward child restraints systems of universal category approved for use in the mass group.

X = Seat position not suitable for children in this mass group

⚠ WARNING

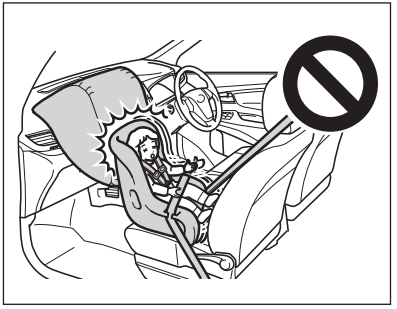
The use of any child restraint system which is not suitable for this vehicle would not properly secure the infant or child. Therefore, they could be killed or seriously injured.

When installing a child restraint system

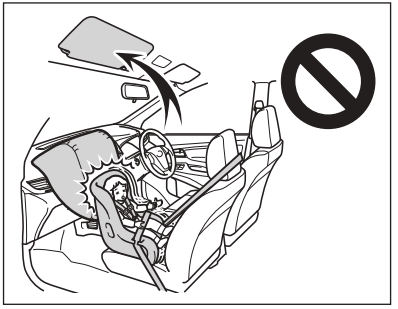


⚠ WARNING

Never use a rearward facing child restraint on a seat protected by an ACTIVE AIR BAG in front of it, DEATH or SERIOUS INJURY to the Child can occur.



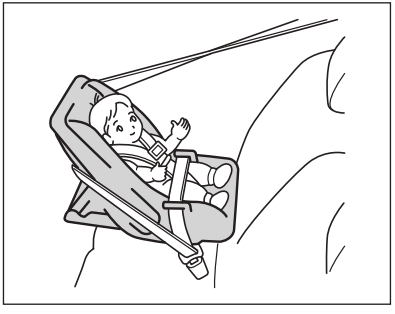
Never use a rear-facing child restraint system on the front passenger seat. The force of the rapid inflation of the front passenger airbag can cause death or serious injury to children in the event of an accident.



There is a label on the passenger side sun visor, indicating it is forbidden to attach a rear-facing child restraint system to the front passenger seat.

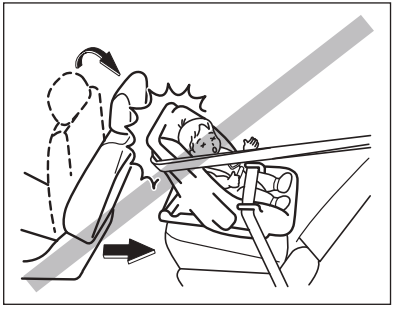
Details of the label is shown in the illustration above.

Installation with seat belt



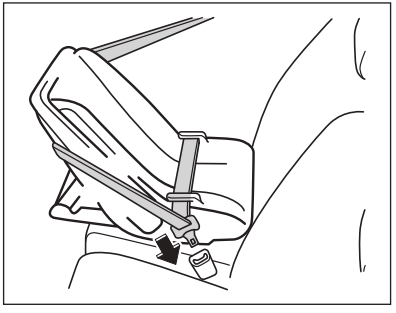
(1) Baby seat installation

A baby seat is used in rear-facing position only.



⚠ WARNING

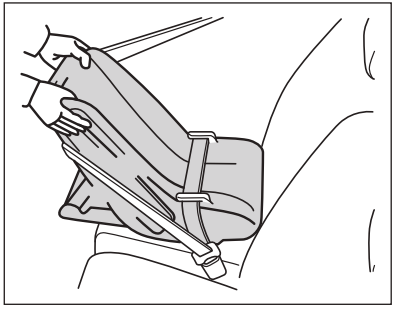
- **Do not install a child restraint system on the rear seat if it interferes with the lock mechanism of the front seats. This can cause serious injury or even death to the child and front passenger in case of sudden stop or an accident.**
- **If the driver's seat position does not provide sufficient space for safe installation, install the child restraint system on rear left seat.**



1. Arrange the lap and shoulder belt through or around the baby seat following the instructions provided by its manufacturer and insert the tab into the buckle taking care not to twist the belt. Keep the lap portion of the belt tight.

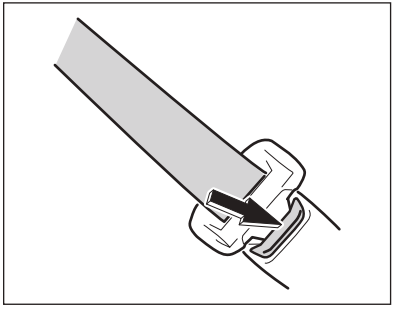
⚠ WARNING

- **After inserting the tab, make sure the tab and buckle are locked and the lap and shoulder portions of the belt are not twisted.**
- **Do not insert coins, clips, etc. in the buckle as this may prevent you from properly latching the tab and buckle.**
- **If the seat belt does not arrange properly, it cannot protect your child from injury. Contact an authorised Perodua Service Centre, immediately. Do not use the child restraint system until the seat belt is fixed.**



⚠ WARNING

Make sure that the child restraint system is installed securely by pushing and pulling it in every directions. Follow all the installation instructions provided by its manufacturer.

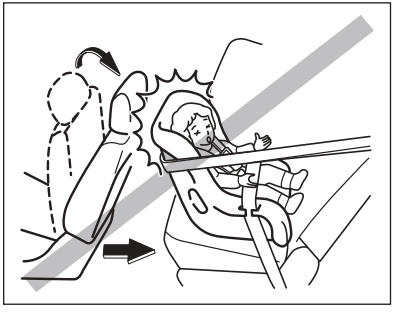


2. To remove the baby seat, press the buckle-release button and allow the belt to retract completely. The belt will move freely again and be ready to work for an adult or bigger child passenger.



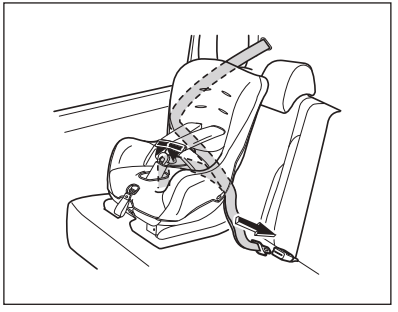
(2) Child seat installation

A child seat is used in forward-facing or rear-facing position depending on the child's age and size. When installing, follow the manufacturer's instruction about the applicable child's age and size as well as directions for installing the child restraint system.



⚠ WARNING

- **Do not install a child restraint system on the rear seat if it interferes with the lock mechanism of the front seats. This can cause serious injury or even death to the child and front passenger in case of sudden stop or an accident.**
- **If the driver's seat position does not provide sufficient space for safe installation, install the child restraint system on the rear left seat.**

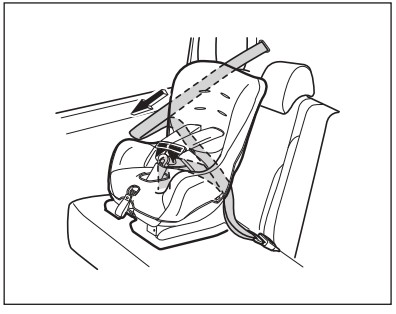


1. Arrange the lap and shoulder belt through or around the child seat following the instructions provided by its manufacturer and insert the tab into the buckle taking care not to twist the belt. Keep the lap portion of the belt tight.

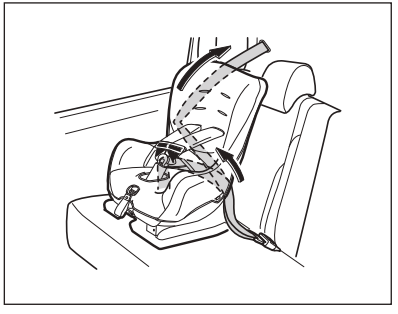
⚠ WARNING

- **After inserting the tab, make sure the tab and buckle are locked and that the lap and shoulder portions of the belt are not twisted.**

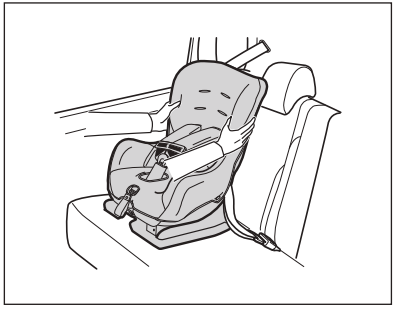
- **Do not insert coins, clips, etc. in the buckle as this may prevent you from properly latching the tab and buckle.**
- **If the seat does not arrange properly, it cannot protect your child from injury. Contact an authorised Perodua Service Centre. Do not use the child restraint system until the seat belt is fixed.**



2. Extend the shoulder belt fully and fix it according to the child restraint system manufacturer's instructions.

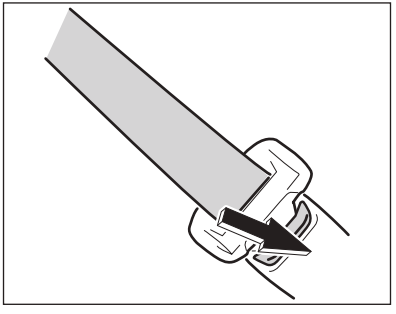


3. While pressing the child seat firmly against the seat cushion and seatback, let the shoulder belt retract as far as it will go to hold the child seat.

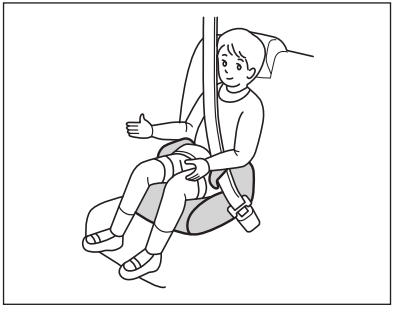


⚠ WARNING

Make sure that the child restraint system is securely installed by pushing and pulling it in every directions. Follow all the installation instructions provided by its manufacturer.

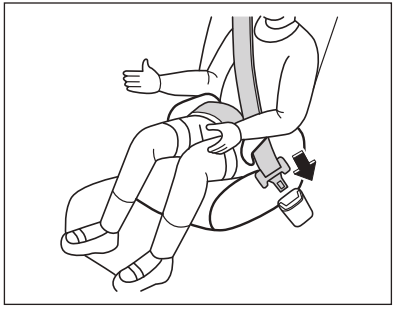


4. To remove the child seat, press the buckle-release button and allow the belt to retract completely. The belt will move freely again and be ready to work for an adult or bigger child passenger.

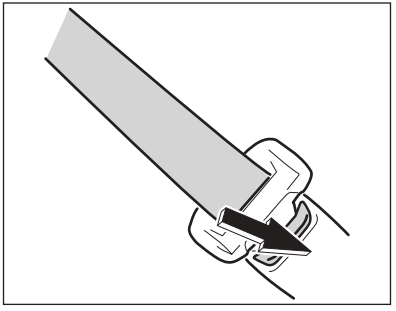


(3) Junior seat installation

A junior seat is used in forward-facing position only.



1. Sit the child on a junior seat. Arrange the lap and shoulder belt through or around the junior seat and child following the instructions provided by its manufacturer and insert the tab into the buckle taking care not to twist the belt.
2. Make sure the shoulder belt is positioned correctly across the child's shoulder and that the lap belt is positioned as low as possible on the child's hips. See "3-point emergency lock retractor type seat belts".

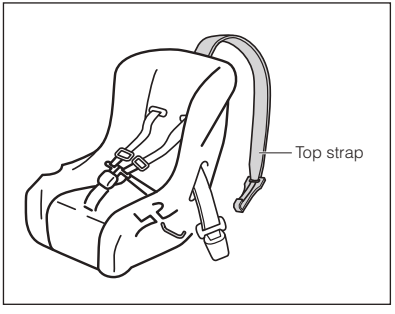


3. To remove the junior seat, press the buckle-release button and allow the belt to retract.

⚠ WARNING

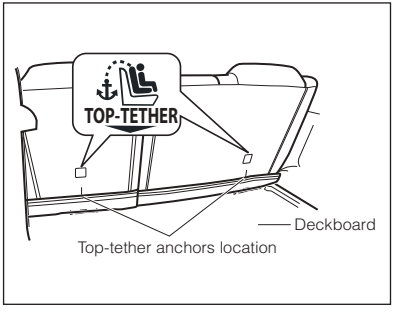
- **Always make sure the shoulder belt is positioned across the center of child's shoulder. The belt should be kept away from child's neck, but not fall off child's shoulder. Failure to do so may reduce the performance of protection in an accident and cause serious injury or even death in the event of a sudden stop or accident.**
- **Both high-positioned lap belts and loose-fitting belt could cause serious injuries due to sliding under the lap belt during a collision or other unintended result. Keep the lap belt positioned as low on a child's hips as possible.**
- **For child's safety, do not place the shoulder belt under child's arm.**
- **After inserting the tab, make sure the tab and buckle are locked and the lap and shoulder portions of the belt are not twisted.**
- **Do not insert coins, clips, etc. in the buckle as this may prevent your child from properly latching the tab and buckle.**
- **If the seat belt does not arrange properly, it cannot protect your child from injury. Contact an authorised Perodua Service Centre, immediately. Do not use the child restraint system until the seat belt is fixed.**

Using a top strap



If your child restraint system has a top strap, it should be anchored.

Follow the procedure below for a child restraint system that requires the use of a top strap.

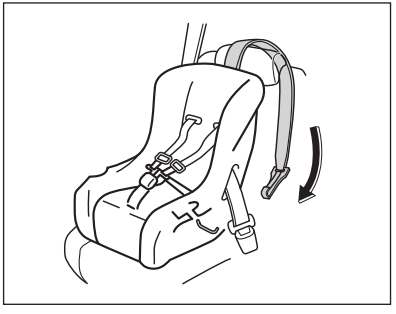


Use the top-tether anchors behind the rear seatbacks to attach the top strap.

Top-tether anchors are installed for each rear seating position.

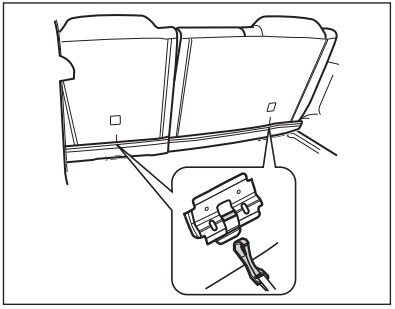
The symbol indicates the locations of user ready top-tether anchors.

Using top-tether anchors



To use the top-tether anchors

1. Remove the rear package tray. (if necessary)
2. Securely fasten the child restraint system with the seat belt.
3. Route the top strap over the seatback.



4. Latch the hook onto the top-tether anchors and tighten the top strap.

For instructions to install the child restraint system using seatbelt, see "Child restraint system".

⚠ WARNING

- **Make sure the top strap is securely latched, and check that the child restraint system is secured by pushing and pulling it in every directions. Follow all the installation instructions provided by its manufacturer.**
- **Do not attach the top strap to anything other than the correct top-tether anchor point.**

ISO* FIX Child restraint system

Rear seat

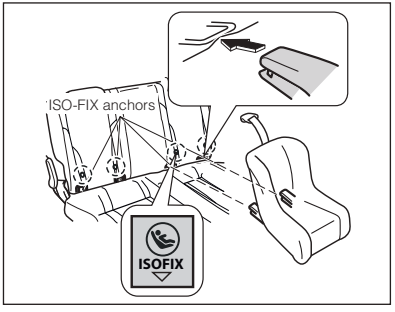
This vehicle is equipped with ISO FIX compliant child restraint system ISO-FIX anchors and top-tether anchors that allow you to install compatible child restraint systems.

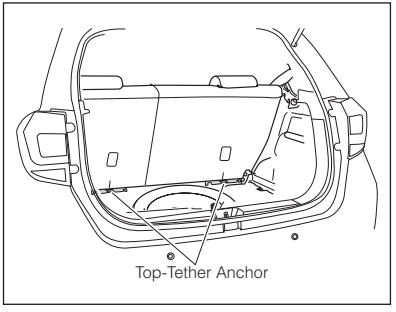
For these ISO FIX compliant child restraint system ISO-FIX anchors and top-tether anchors, only install a child restraint system that conforms to the specific road vehicle safety standards for this car. (Perodua genuine ISO FIX compliant child restraint system ISO-FIX anchors and top-tether anchors supported child restraint system). For more information, please consult your authorised Perodua Service Centre.

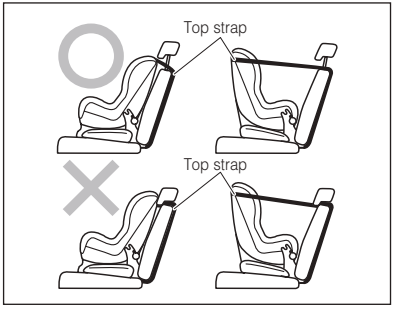
NOTE

The installation method is different from child or infant seat types that are supported by the seat belts.

* ISO - International Organization for Standardization







To Install

1. Widen the gap between the seat cushion and seatback slightly and confirm the location of the ISO FIX compliant child restraint system ISO-FIX anchors or top-tether anchors.
2. Move the front seats forward if necessary.
3. Connect the fixtures of the appropriate child restraint system to the ISO FIX compliant child restraint system ISO-FIX anchors or top-tether anchors. (For the installation method, please read the installation manual provided by the child restraint system manufacturer).
4. Gently move the child restraint system to confirm that it has been installed correctly.

⚠ WARNING

- **For rear seat that equipped with headrest, always connect the top-tether anchor after adjusting the headrest to its most upward position when installing a child restraint system. If it still interfere with the child seat or top strap, remove the headrest and keep it at a safe place.**

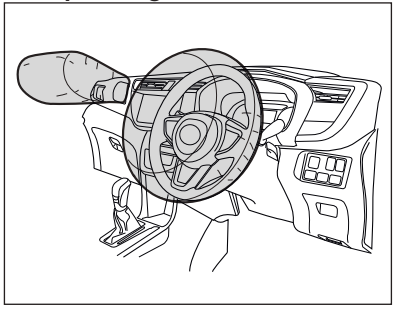
- If the headrest is kept in a lowered position, it may interfere with the top strap causing it to become slack. This may allow the child seat to move in an emergency situation such as a collision causing serious injury.

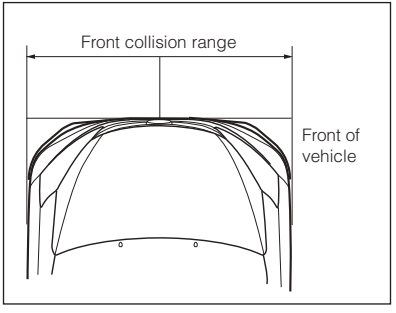
⚠ WARNING

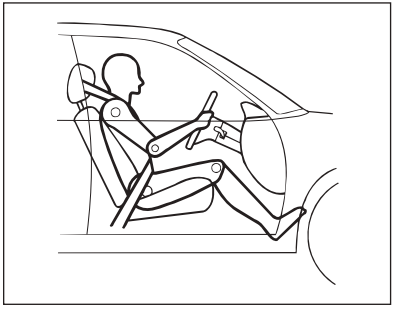
- Once the seat position has been set, do not change it. If you encounter an accident, you may be seriously injured.
- For installation and removal of your child restraint system, read carefully and follow the installation manual provided by the manufacturer.
- When installing a child restraint system, ensure there are no foreign objects placed around the ISO FIX compliant child restraint system ISO-FIX anchors or top-tether anchors, and there are no objects such as seat belts caught in the mechanism.

  If seat belts or foreign objects do get caught, the child restraint system may not be properly secured, causing serious injury in the case of a collision.
- If the child restraint system is left in the car unrestrained, it may hit objects or occupants causing an accident when hard braking.

SRS (Supplemental Restraint System) air bags for driver and front passenger







The SRS air bags are so constructed that they are deployed instantly at the moment when a severe impact is applied from the front of the vehicle. Thus, in combination with the function of the seat belts that restrain the driver's and front passenger's bodies, the SRS air bags reduce impacts being applied to the driver's and passenger's faces, heads, chests and so forth.

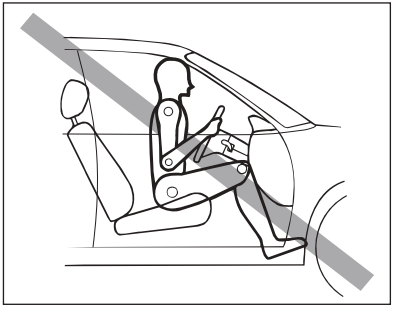
The SRS air bags are supplemental devices, which are by no means substitutes for the seat belts.

The passenger air bag is activated even with no passenger in the front seat in the event of severe frontal impact.

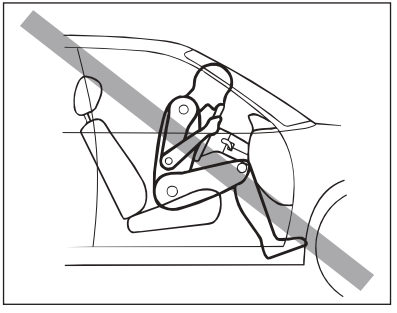
⚠ WARNING

Failure to observe the following warning may lead to serious injuries or death in the case of severe frontal collision, even if SRS air bags are equipped.

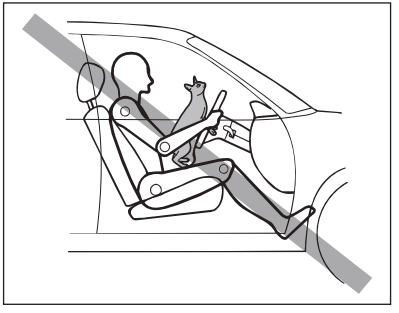
1. **Be sure to adjust the seat cushion and seatback to an optimum position.**
2. **Be sure to be seated properly and deeply so that the distance between the steering wheel and your body as well as the distance between the instrument panel and the front passenger is not too small.**
3. **Be sure to wear the seat belt securely.**



4. Do not seat toward the end of seat.

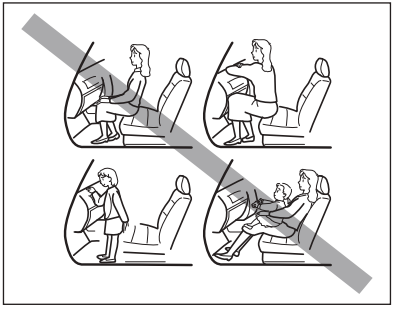


5. Do not lean on the steering wheel and instrument panel.



6. Do not put anything, such as pets and bags, between the driver and the steering wheel as well as between the instrument panel and the front passenger.
7. Do not hold the pad section of the steering wheel and the instrument panel when driving.
8. Do not use an infant seat or child seat at the front seat.

   Refer to "Child restraint system".



9. Do not allow children to stand in front of the SRS air bag or hold children on your knees.
   Refer to "Instructions on seat belts ".
   For more details of the warning, see the following NOTE.

NOTE

1. If you fail to wear each seat belt correctly, it will greatly increase the possibilities of serious injuries or death in the case of accidents, even if the SRS air bags are equipped.

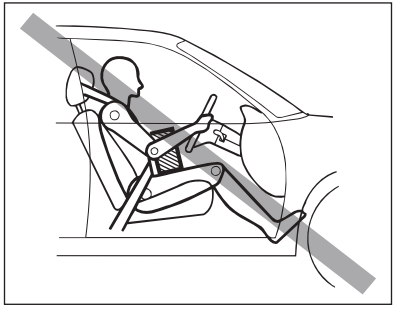
The reasons are:

- The air bags are only supplemental restraint devices. Therefore, the air bags alone will not support you securely in the event of severe frontal collision. Moreover, the air bags inflate rapidly, and they deflate immediately. Hence, they cannot protect you from impacts once the air bags have deflated.
- The effectiveness of SRS air bags will not reduce serious bodily injuries which may be caused if you do not wear each seat belt securely or are not seated correctly. This is because not only the SRS air bags may fail to reduce impacts applied to you, but also because they may hurt you by its operation due to improper distance between the steering wheel, instrument panel and your body.
- When the warning light is illuminated or flashes, there will be cases where the SRS air bags do not operate, even if the vehicle is subjected to severe frontal collisions.
- The SRS air bags operate in severe frontal collisions only.

Therefore, there are possibilities that the SRS air bags may not operate when low-level impacts are applied to the sensor in the control unit, for example, in the following cases given below:

- Frontal collision to a concrete wall with a speed of less than 25 km/h;
- When your vehicle dives into below the rear cargo bed of a large-sized truck;
- When your vehicle receives impacts from the side or rear of the vehicle;
- When your vehicle collides with an electricity pole, etc.
- When your vehicle turns sideways or turns over.

2. **Do not lean on the steering wheel/ instrument panel (air bag unit) during driving, it will lead to serious body injuries by the inflation of the air bags in the event of severe frontal collision.**
3. **The SRS air bags will not operate, unless the ignition switch is turned "ON". Therefore, the SRS air bag will not operate even if your vehicle collides head-on with other vehicle or objects while the ignition switch is turned to "OFF" or "ACC".**



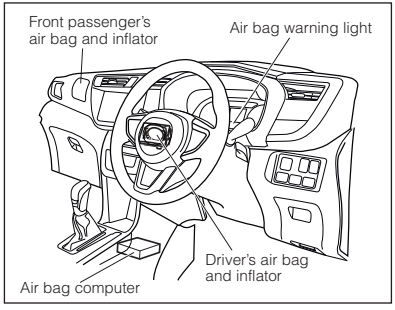
4. **If you put any object between the driver / front passenger and the steering wheel / the instrument panel, it may lead to serious body injuries due to improper operation of the air bag in the event of severe frontal collision.**
5. **If you hold the pad section of the steering wheel / the instrument panel, it may cause serious injuries by the operation of the air bag in the event of severe frontal collision.**

Warning label



⚠ WARNING

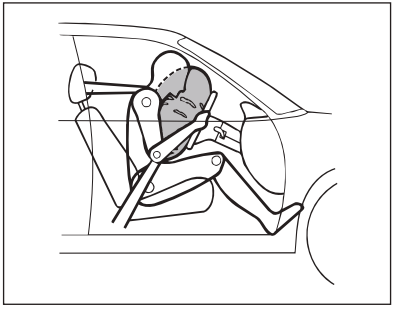
Never use a rearward facing child restraint on a seat protected by an ACTIVE AIR BAG in front of it, DEATH or SERIOUS INJURY to the Child can occur.



Main components in your vehicle

- The air bag for the driver is incorporated in the steering wheel.
- The air bag for the front passenger is incorporated in the upper section of the instrument panel.
- The air bag computer is incorporated in the lower section of the centre console.
- The air bag warning light is to warn you of a malfunction.
- The control unit has a diagnosis function, whereby the air bag warning light goes on for six seconds after the ignition switch is turned “ON”.
- If no malfunction exists in the system, the air bag warning light goes out after a lapse of six seconds. Then, the diagnosis function mode is changed to the normal check mode so as to always detect any malfunction of the components themselves and electrical system.
- If any malfunction is detected during this normal check mode, the air bag warning light goes on to warn the driver of the malfunction.
- One backup condenser is equipped in the control unit for the backup power supply in cases where the electrical power supply is disconnected at the time of severe frontal collision.

How air bag operates



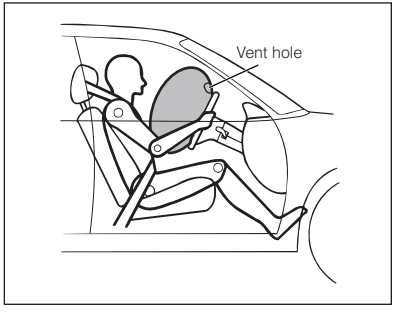
If your vehicle encounters a severe frontal collision, the SRS air bags will instantly inflate to help protect your face, head and chest.

You may hear a deployment sound and see white smoke or powder when the air bags inflate.

This phenomenon, that is caused by the inflation of the SRS air bags, is quite normal.

⚠ **WARNING**

- **There are instances where the occupants get injured, burned or bruised due to the operation of the air bag.**
- **If you get injured or blister, consult with your doctor immediately.**
- **The gas which expand the air bags contains a minute amount of stimulant, but whose amount is not harmful to a normal healthy person. However, this stimulant could be harmful to persons with respiratory problems and allergic diseases. Therefore, when the air bags has deployed, open the windows to introduce the fresh air into the vehicle interior, or get out of the vehicle, provided that the safety is assured.**
- **Also, if you feel irritation on your skin, eyes, nose or throat, rinse the irritated area with cool water. Breath the fresh air if your nose or throat is irritated. Then, consult with your doctor if the irritation continues.**



⚠ **WARNING**

Do not touch the inflator section of the SRS air bags for 30 minutes after the air bags has inflated and do not touch the vent holes on airbag cushion where the gaseous come out (Due to hot surface). The inflator section may be extremely hot immediately after the SRS air bags has inflated. You may get scalded seriously by touching the section.



The SRS air bags will deflate immediately after the air bag has fully inflated to restore the visibility and steerability.

NOTE

When you need to move the vehicle away from the accident site after inflation of the SRS air bags, tuck the deflated SRS air bag into the steering wheel to ensure easy handling.

⚠ **WARNING**

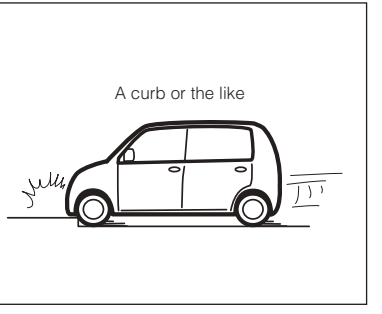
- **Wash your hands with water after you have tucked the deflated SRS air bag.**

  Failure to observe this warning may irritate your hands.
- **Do not touch the inflator section of the SRS air bags for 30 minutes after the air bags has inflated.The inflator section may be extremely hot immediately after the SRS air bags has inflated. You may get burned seriously by touching the section.**

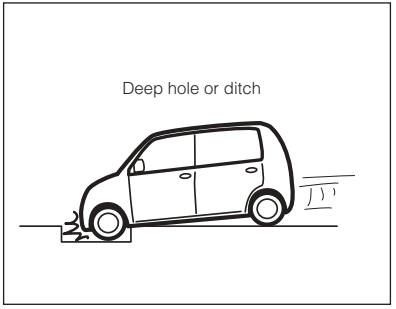
Cases where the air bags are actuated

The SRS air bags are actuated when a strong impact is applied to the front bumper from the vehicle front direction.

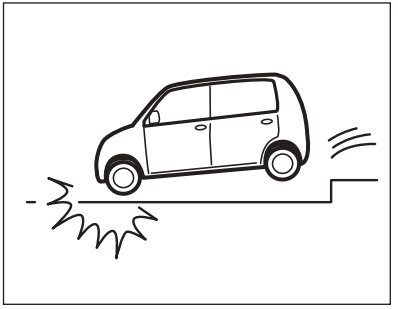
In an exceptional case, the SRS air bags may be actuated when a strong impact is applied to the underneath of the vehicle from the road, etc. while running.



- When the vehicle hits a curb or the like at a high speed;



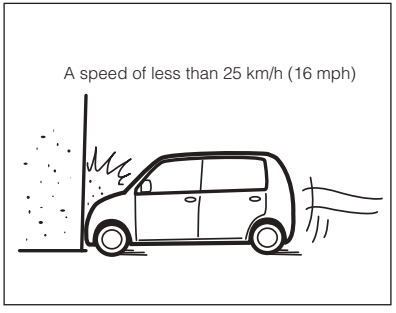
- When the vehicle falls into a deep hole or ditch;



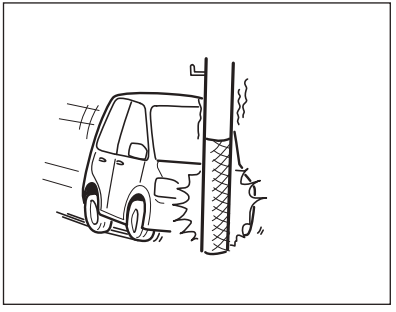
- When the vehicle jumps and hits the ground;

Cases where the air bags are not actuated

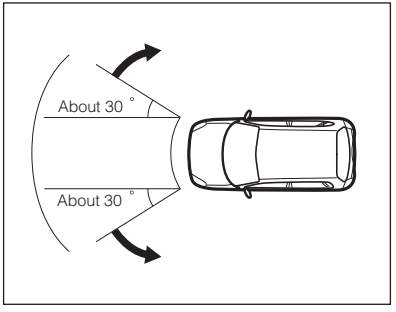
The SRS air bags may not be actuated under the cases set forth below, including the case where the impact from the front is weak or where the impact has been fully absorbed by the vehicle body, whether the vehicle is severely damaged or not.



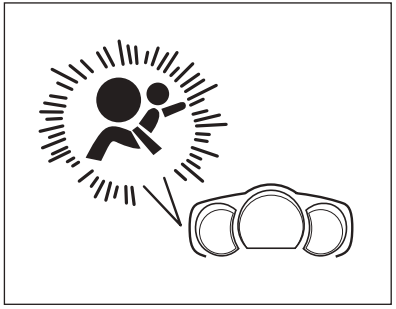
- When your vehicle encounters a frontal collision with a concrete wall with a speed of less than 25 km/h (16 mph);



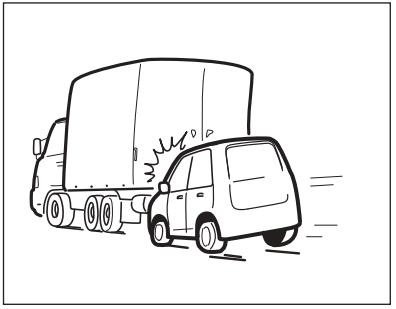
- When your vehicle collides with an electric pole, tree, etc;



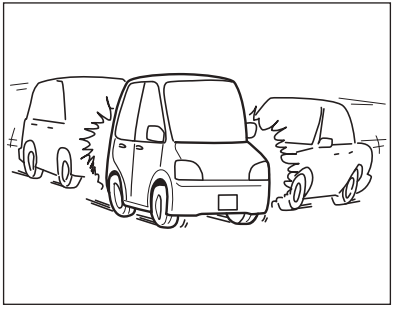
- When the vehicle hits a concrete wall or guard rail at an angle of about 30° or more from the front direction;



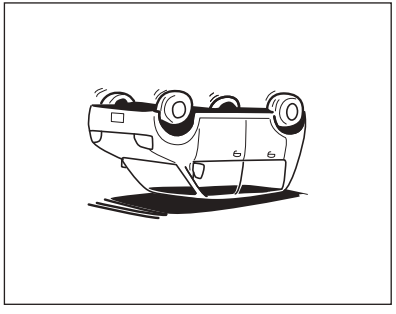
- When the SRS air bag warning light is on;



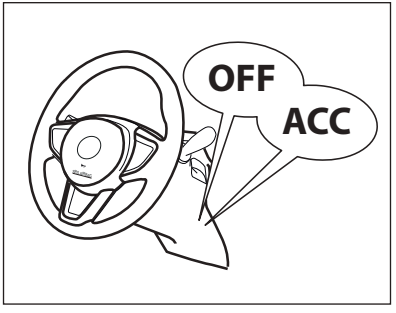
- When your vehicle dives into below the rear cargo bed of a large-sized truck;



- When your vehicle receives impacts from the side or rear of the vehicle;

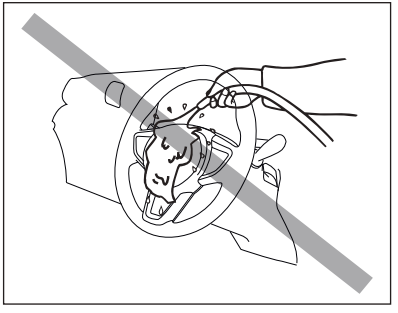


- When your vehicle turns sideways or turns over;



- When your vehicle encounters with a collision with the ignition switch set to "OFF" or “ACC”, the air bags will not be actuated.

Important safety warning

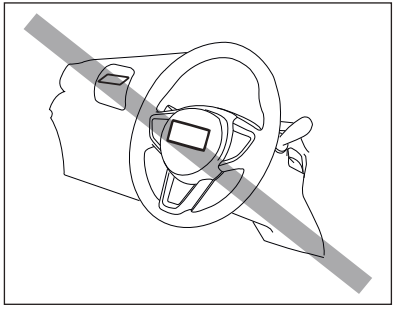


1. Never wash the vehicle interior with water or detergent.

   The gas generator of this SRS air bags contains a poisonous substance or a flame-prone substance.

   Hence, there is a strong likelihood that the contents of the gas generator may change to a poisonous gas or explosive substance when they come into contact with acids, water or heavy metals.

   If a gas is generated from the gas generator, immediately open the windows and breathe fresh air. Then, have the SRS air bag unit replaced with a new one by an authorised Perodua Service Centre immediately.

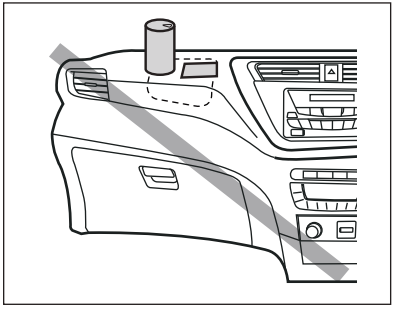


2. The SRS air bags will not operate properly, if you damage the SRS air bags cover.

   Therefore, be careful not to open or damage the air bag cover.
3. Never add seals, stickers and so forth on the horn pad of the steering wheel/ instrument panel.

   Failure to observe this warning may prevent the air bag from proper inflation.
4. Never add or install a cover, an accessory and so forth on the horn pad of the steering wheel. The air bag is accommodated inside the horn pad.

   Therefore, when the SRS air bags inflate, those accessories may scatter around the vehicle interior, resulting in injuries to the occupants.



5. Do not put articles on the instrument panel. Also, do not put articles which come out of the pocket of the instrument panel.

   Failure to observe this caution may result in improper deployment of the air bag or may scatter these articles in the vehicle interior when the air bag is deployed, leading to injuries of the passengers.
6. Do not put accessories on the window glass or inside mirror.

   When the air bag is deployed, accessories may scatter in the vehicle interior, leading to injuries of the passengers.
7. Do not lean an umbrella, etc. on the instrument panel.

   It may lead to injuries of the passengers when the air bag is deployed.
8. Do not apply severe impacts to the steering wheel and instrument panel or their related parts. Failure to observe this warning may cause the air bag to deploy accidentally.
9. When you request for any repair or service, be sure to inform the dealer or service shop that your vehicle is equipped with air bags.

   Failure to observe the instruction, caution and warning described in the relevant service manuals prepared by Perodua may result in serious personal injuries, death or damage to the system.
10. Please keep in mind that your vehicle is equipped with air bags.

    When you sell your vehicle, be sure to inform the buyers about the equipment of the air bags.
11. Do not utilize the air bags unit for other purpose. It is designed only for the SRS (Supplementary Restrain System) use.



Service instructions

You must have the inspection, replacement or other service of the SRS air bag system conducted by an authorised Perodua Service Centre in the following cases.

- Once the SRS air bags have been inflated: The SRS air bags (driver and front passenger) and control unit must be replaced with new ones.
  Do not remove or destroy the inflated air bags by yourself.
- When the air bag warning light illuminates after the engine has started:
- When your vehicle encounters an accident:

⚠ WARNING

1. Consult with an authorised Perodua Service Centre before the following operations are carried out;

- **When removal of the horn pad is required;**
- **When removal of the steering wheel is required;**
- **When removal of the instrument panel is required;**
- **When a radio unit is installed;**
- **When your vehicle is scrapped;**
- **When the SRS air bag is scrapped;**
- **When electric welding is conducted;**
- **When body repairs are conducted;**
- **When paint repairs are conducted.**
- **When the front end structure is changed;**
- **When any equipment is installed to the front end, such as a grill guard and winches;**

2. Do not modify or replace the steering wheel, other SRS air bag related parts and the suspension system. Such modification will reduce the effectiveness of the SRS air bag or make the SRS air bag inoperative.

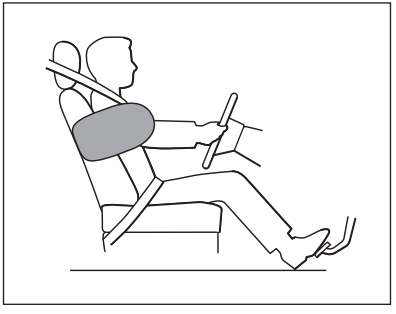
3. The SRS air bag may inflate accidentally if the following operations are performed. It may lead to serious body injuries or even death. For your enhanced safety, be sure to have the removal or installation, or inspection of the steering-related parts conducted by an authorised Perodua Service Centre.

- **Never attempt to remove the steering wheel pad assembly by yourself.**
- **Never check the SRS air bag system with a circuit tester or the like by yourself.**
- **Never heat the SRS air bag system related parts with a heater or dryer.**

SRS side air bags, SRS curtain air bags (if equipped)

The SRS side air bags and SRS curtain air bags are supplemental devices which are by no means substitutes for the seat belts. They are deployed instantly when receive a moderate-to-severe impact from the side.

SRS side air bags



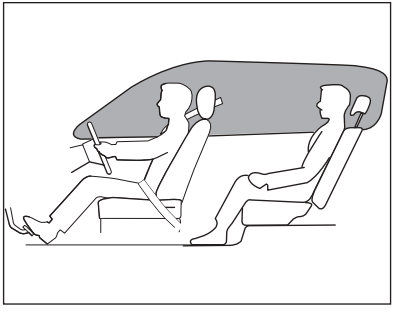
The SRS side air bags are located in the outside edge of the driver's and passenger's seatback and it helps to protect the upper torso of the driver or a front passenger during a moderate-to-severe side impact.

How SRS side air bags operates

When the sensors detect a moderate-to-severe side impact, the control unit signals the side air bag on the impact side to immediately inflate. If the impact is on the passenger side, the air bag deploys even if there is no passenger in the passenger seat.

You may hear a deployment sound and see white smoke or powder when the air bags inflate. This is a normal phenomenon that is caused by the inflation of the SRS air bags.

SRS curtain air bags (if equipped)



The SRS curtain air bags are located in the ceiling above the side window on both sides of the vehicle. It helps to protect the heads of the driver and passengers during a moderate-to-severe side impact.

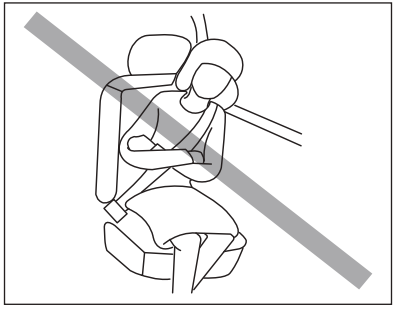
How SRS curtain air bags operates

In a moderate-to-severe side impact, sensors will detect rapid deceleration and signal the control unit to instantly inflate the curtain air bag on the driver's or the passenger's side of the vehicle. If the impact is on the passenger's side, the passenger's curtain air bag will inflate even if there are no occupants on the side of the vehicle.

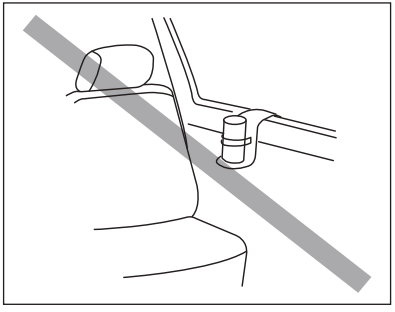
⚠ **WARNING**

Failure to observe the following may lead to serious injuries or death in the case of moderate-to-severe side impact, even if the SRS side or curtain air bags are equipped.

1. **Be sure to adjust the seat cushion and seatback to an optimum position.**
2. **Be sure to wear the seat belt securely.**



3. **Be sure to be seated properly with the right posture. Do not let the front passenger lean sideways with the head in the deployment path of the side air bag. An inflating side air bag can strike with strong and seriously injure passenger.**



4. **Do not attach accessories on or near the SRS side air bag as they can interfere with the proper operation of the air bag, or hurt someone if the SRS side air bag inflates.**

5. Do not modify, remove, cover or replace the front seat and front seat cover without consulting an authorised Perodua Service Centre. Improperly modification, removal, replacing or covering the front seat and front seat cover can prevent your side air bags from properly deploying during a side impact.
6. Do not attach any objects to the side windows or roof pillars as they can interfere with the proper operation of the SRS curtain air bags.
7. Do not modify the suspension because as the height of the car changes, it may cause a malfunction to the SRS curtain air bags.

CAUTION

You may hear a deployment sound and see white smoke or powder when the air bags inflate. This is a normal phenomenon that is caused by the inflation of the SRS air bags

⚠ WARNING

- **There are instances where the occupants get injured, burned or bruised due to the operation of the air bag.**
- **If you get injured or blister, consult with your doctor immediately.**
- **The gas which expand the air bags contains a minute amount of stimulant, but whose amount is not harmful to a normal healthy person. However, this stimulant could be harmful to persons with respiratory problems and allergic diseases. Therefore, when the air bags has deployed, open the windows to introduce the fresh air into the vehicle interior, or get out of the vehicle, provided that the safety is assured.**
- **Also, if you feel irritation on your skin, eyes, nose or throat, rinse the irritated area with cool water. Breath the fresh air if your nose or throat is irritated. Then, consult with your doctor if the irritation continues.**

⚠ WARNING

- **Wash your hands with water after you have tucked the deflated SRS air bag.**

  Failure to observe this warning may irritate your hands.
- **Do not touch the inflator section of the SRS air bags for 30 minutes after the air bags has inflated. The inflator section may be extremely hot immediately after the SRS air bags has inflated. You may get burned seriously by touching the section.**

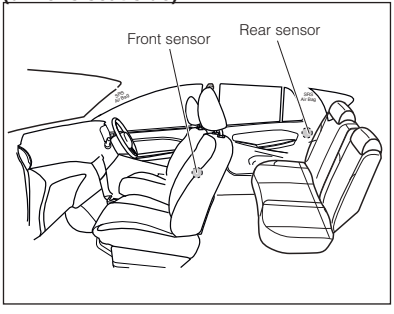
Cases where the SRS side air bags and SRS curtain air bags are actuated

Because the air bag system senses sudden acceleration, a strong impact to the side of the vehicle's framework can cause the air bag to deploy. In such cases, there may be a little or no damage, but the side impact sensors detected a severe impact to deploy the air bag.

Cases where the SRS side air bags and SRS curtain air bags are not actuated

It is possible for the air bag to not deploy during an impact that results in apparently severe damage. This can occur when the point of impact was towards the far front or rear of the vehicle, or when the vehicle's crushable body parts absorbed most of the crash energy. In either case, the air bag would not have been needed nor provided protection even if it had deployed.

Side/curtain air bags sensor (driver's seat side)



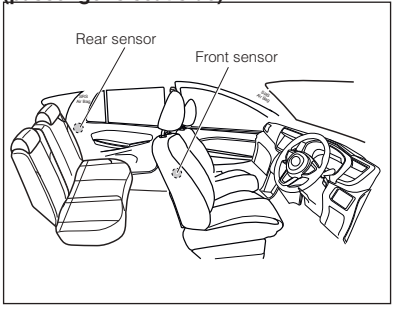
Front sensor

The sensor is attached to the inside of the pillar on the driver's side and at the passenger's side.

Rear sensor

The sensor is attached to the inside of the left and right rear pillar.

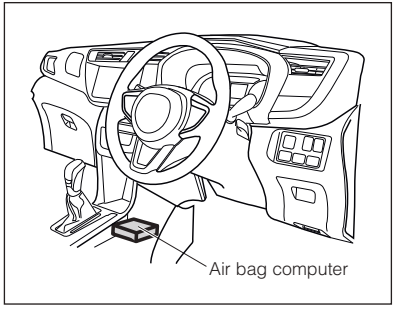
Side/curtain air bags sensor (passenger's seat side)



⚠ WARNING

- **Under no circumstance should the sensor be removed or dissembled. Failure to observe this warning may cause the air bags to deploy wrongly or fail to deploy in the event of emergency.**
- **Never strongly tap or kick the air bag sensor or its adjacent places.**

Air bag computer



⚠ **WARNING**

1. **Under no circumstance should the air bag computer be removed or disassembled. Failure to observe this warning may cause the air bags to deploy wrongly or fail to deploy in the event of emergency.**
2. **Be careful not to apply water, juice or anything similar to the air bag computer.**
3. **Never strongly tap or kick the air bag computer or its adjacent places.**
4. **Be sure to consult with an authorised Perodua Service Centre in the following cases. Attempts to perform repairs privately may result in unexpected deployment of the air bags, leading to malfunctions or accidents.**
   - **When removing the steering wheel**
   - **When repairing the vehicle front section**
   - **When installing radio equipment**
   - **When disposing of the air bag**
   - **When your vehicle is scrapped**
5. **The SRS air bags cannot be reused once it has deployed.**

Vehicle data recordings

Your vehicle is equipped with several computers to control your vehicle. They record data concerning the vehicle control and operations. The recorded data varies according to the vehicle grade level and options with which it is equipped. Furthermore, these computers do not record conversations, sounds or pictures.

Data usage

Perodua may use the data recorded in these computers to diagnose malfunctions, conduct research and development, and improve quality. Perodua will not disclose the recorded data to a third party except:

- With the consent of the vehicle owner or with the consent of the lessee if the vehicle is leased.
- In response to an official request by the police, a court of law or a government agency.
- For use by Perodua in a lawsuit.
- For research purposes where the data is not tied to a specific vehicle or vehicle owner.

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 airbag 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. However, data may not be recorded depending on the severity and type of a crash.

The EDR in this vehicle is designed to record such data as:

- How various systems in your vehicle were operating;
- 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.

Disclosure of the EDR data

Perodua will not disclose the data recorded in an EDR to a third party except when:

- An agreement from the vehicle's owner (or the lessee for a leased vehicle) is obtained.
- In response to an official request by the police, a court of law or a government agency.
- For use by Perodua in a lawsuit.

However, if necessary, Perodua may:

- Use the data for research on vehicle safety performance.
- Disclose the data to a third party for research purposes without disclosing information about the specific vehicle or vehicle owner.

Section 4



Instruments and controls

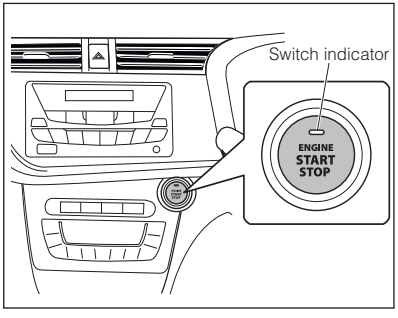
Push start system 4–1
Multi-control switch 4–6
Fog light switch 4–8
Auto light off function 4–8
Follow-me-home light function 4–8
Wiper and washer switches 4–9
Hazard warning signal switch 4–10
Front passenger seat belt indicator 4–10
Central doors lock switch 4–11
Front corner sensor switch 4–11
Headlight leveling switch 4–11
VSC & TRC OFF switch 4–12
Eco Idle OFF switch 4–12
Advanced Safety Assist (ASA) OFF switch 4–12
Electronic toll collection device 4–13
Power socket 4–13
USB power outlet 4–14
Stereo camera 4–14

Push start system

Push start system is a system that allows you to start and stop the engine by simply pushing and holding a button without having to reach for your keys.

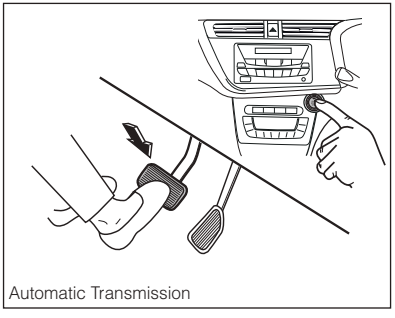
A smart key must be inside of the vehicle to activate the system. The signal from the smart entry will allow you to start the engine with an engine start/stop button.

Engine start/stop button



The switch indicator on the button (engine switch) will illuminate or flashes in green colour depending on the switch mode.

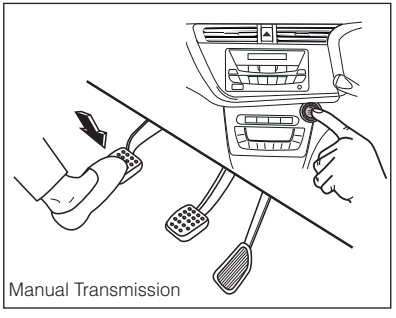
To start engine



Automatic Transmission

Automatic Transmission

1. Move the shift lever into Ⓟ or Ⓝ range.
2. Depress the brake pedal.
3. When the indicator of the engine switch turns green, push the engine switch.



Manual Transmission

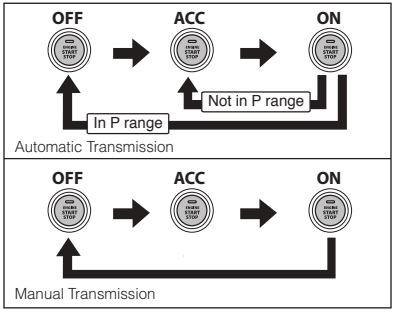
1. Move the shift lever into Ⓝ range.
2. Depress the clutch pedal and brake pedal.
3. When the indicator of the engine switch turns green, push the engine switch.

NOTE

- **Make sure to carry the smart key with you inside the vehicle.**
- **Before starting the engine, ensure you are seated properly with the seat belt fastened.**

  (See "Correct driving posture" in Section 3)

To switch engine switch mode



Automatic transmission

Without depressing the brake pedal, the engine switch mode can be changed to "OFF", "ACC" or "ON" each time the engine switch is pushed.

Manual transmission

Without depressing the clutch pedal, the engine switch mode can be changed to "OFF", "ACC" or "ON" each time the engine switch is pushed. (Continue to depress the brake pedal during this operation).

NOTE

For automatic transmission, the engine switch mode cannot be changed to "OFF" if the shift lever is not in Ⓟ range.

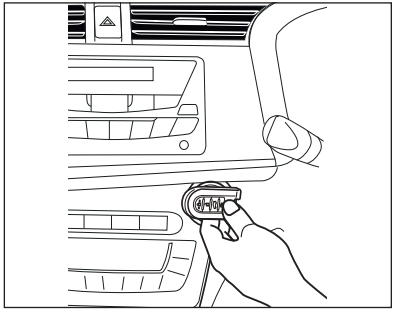
To stop engine

Automatic transmission

1. Stop the vehicle completely.
2. Move the shift lever into Ⓟ range.
3. Apply parking brake.
4. Push the engine switch.
5. When you remove your foot from the brake pedal, make sure the engine switch indicator light is off.

Manual transmission

1. Stop the vehicle completely.
2. Move the shift lever into Ⓝ range.
3. Apply parking brake.
4. Push the engine switch.
5. When you remove your foot from the clutch pedal and brake pedal, make sure the engine switch indicator light is off.



If the battery of the smart key is weak or the communication between smart key and the vehicle is interfered, engine cannot be started normally. Follow the steps below to start the engine.

1. Move the shift lever into Ⓟ range (automatic transmission) or Ⓝ range (manual transmission).
2. Continue to depress the brake pedal (automatic transmission) or clutch pedal (manual transmission).
3. Touch the smart key with the engine switch until the buzzer sounds and the engine switch indicator turns green.
4. Push the engine switch within 4 seconds after the buzzer sounds and the engine switch indicator turns green.

Steering lock

- During steering lock (engine switch is "OFF"), the steering can be unlocked when the engine switch is turned to "ACC".
- When you open and close the driver's door after the engine switch is "OFF", the steering is locked. When you operate the engine switch, steering lock is released automatically.
- If the driver's door is open when the engine switch is turned to "OFF" and steering is not locked, the buzzer will sound. Close the driver's door and check the steering lock is locked.

NOTE

If the engine switch indicator continuously blink fast in green colour for 30 seconds, steering lock cannot be unlocked.

In this case, push the engine switch again after turning the steering wheel.

Precaution for engine switch

⚠ WARNING

Emergency engine stop method

When you do the following operations, engine will stop even while running. However, do not operate the engine switch except in an emergency while running. It may lead to an unexpected accident.

- **Push and hold the engine switch for more than 3 seconds or;**
- **Push the engine switch more than 3 times.**

CAUTION

- **If the engine switch indicator light changes to orange colour, the system may be malfunctioning. Without switching "OFF" the engine, contact an authorised Perodua Service Centre. (If you switched "OFF" the engine, the engine may have a problem to restart again)**
- **If you notice the engine switch is different from its normal condition such as the following, do not operate the switch.**
  - **The engine switch stuck or get caught**
  - **Drinks or liquid spilled on the switch.**
  - **The engine switch indicator light is not turned "ON" even after you have turned on the clearance lights.**

  Please contact an authorised Perodua Service Centre immediately.

NOTE

- **If stopping and starting of the engine repeatedly at short intervals, there are cases where the engine cannot be started.**

  Wait for more than about 10 seconds and perform the start-up operation of the engine again.
- **If you push the engine switch too fast, you may not be able to switch modes (engine start/stop). Make sure to push the switch one by one.**
- **To prevent battery from running out, during engine switched off, do not let the engine switch turned to "ON" in a long time.**
- **For automatic transmission vehicle, if the shift lever is other than Ⓟ range, do not stop the engine.**

  If you stop the engine when the shift lever is other than Ⓟ range, engine switch will change to "ACC" mode. This could cause the battery flat.
- **There are cases where the engine switch is not working correctly even the smart key is within the operating range.**

  It may depend on the location of the smart key and surrounding conditions.
- **Warning buzzer of the key free system will sound if operation error is detected such as taking out smart key from vehicle, or forget to turn "OFF" engine switch without closing the door.**
- **Do not take the smart key out from vehicle once the engine is started. If the smart key is not in the vehicle and you turn the engine "OFF", the engine cannot be restarted again.**

  Please note that the buzzer will not sound if you take out the smart key through the window even though the door is closed.

- **After disconnecting the battery terminal, the engine may not be started immediately. In this case, after the battery terminal is connected, wait for more than 10 seconds and restart the engine again.**
- **The vehicle always remembers the engine switch mode (“ACC” or “ON”). When you reconnect the battery of the vehicle, it can return to the state it was in before the engine switch was cut off.**
- **When you remove the battery of the vehicle for repair, maintenance etc., always perform after the engine switch is turned “OFF”.**
- **If the battery is weak and you are not sure the previous engine switch mode, turn “OFF” the engine switch once.**

Engine switch automatic “OFF”

- **Automatic transmission:**

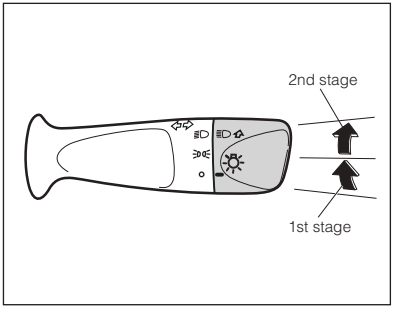
  When the shift lever is in Ⓟ range, and you leave the engine switch in “ACC” mode for about 1 hour, the engine switch will be turned “OFF” automatically to prevent the battery from running out.

- **Manual transmission:**

  If you leave the engine switch in “ACC” mode for about 1 hour, the engine switch will be turned “OFF” automatically to prevent the battery from running out.

Multi-control switch

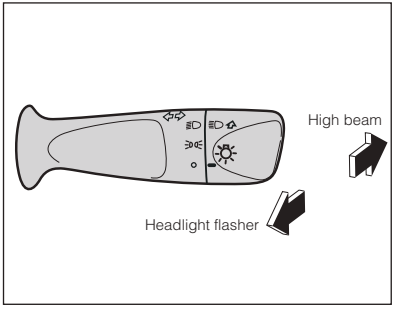
Headlight control



Turn the multi-control switch knob to turn the headlights on.

Switch positions

Position / Light	1st stage	2nd stage
Headlights	OFF	ON
Clearance lights	ON	ON
Tail lights	ON	ON
License plate lights	ON	ON
Instrument panel lights	ON	ON



To turn on/off high beam

With the headlights on, push the lever forward to turn on high beam and pull it back to return to low beam.

When the high beam headlights are turned on, the indicator light on the instrument panel will glow.

To flash lights

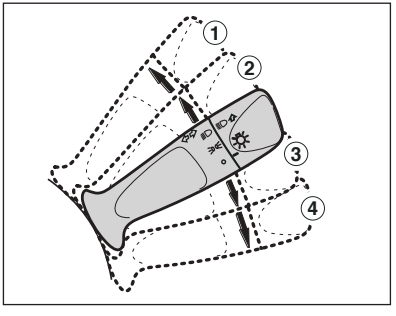
Pull the lever lightly and release.

The headlight flasher works with the headlight is in “ON” or “OFF” position.

CAUTION

- **When driving through a town or when there is an oncoming vehicle, high beams may annoy or endanger the vehicle or pedestrians. In these cases, set your headlights to low beam.**
- **Avoid leaving lights on for a long time after stopping the engine. This may drain the battery.**

Turn signal light control



The turn signal lights flash with the ignition turned “ON”. The indicator lights on the instrument panel will begin flashing.

Operation

① Left turn
Left turn signal will blink continuously while the lever is kept ① position.

② Left turn signal will blink three times, when the lever is pushed to ② position and released immediately.

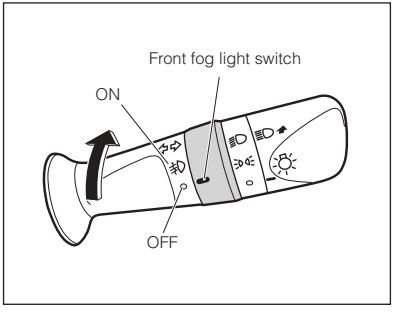
③ Right turn signal will blink three times, when the lever is pushed to ③ position and released immediately.

④ Right turn
Right turn signal will blink continously while the lever is kept ④ position.

NOTE

- **If the lights flash faster than normal, a bulb may be burned out.**
- **If the turning angle is too small, the lever may not return to its original position automatically. Return the lever manually by your hand.**

Fog light switch (If equipped)



The front fog lights illuminate with the multi-control switch turned 1st stage or 2nd stage and with the front fog light switch turned “ON”.

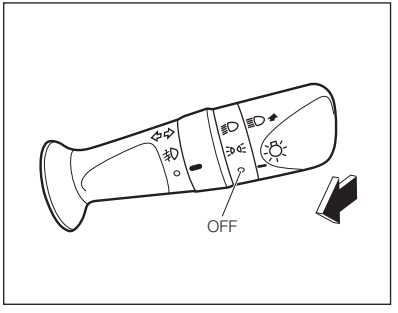
NOTE

If the multi-control switch is turned “OFF” when the front fog lights are illuminated, the front fog lights will extinguish.

Auto light off function

For the purpose of preventing flat battery on the vehicle, the lights are automatically turned off if the driver’s door is opened when the engine switch is turned to “OFF” or “ACC” while the lights are on.

Follow-me-home light function



This function makes the headlights turn on in a low beam for a certain time after the user turn on the function. It is a convenient feature that helps the driver to see their way safely to the door at night.

To turn on the function

Engine switch and headlights is in “OFF” position.

Pull the lever backward once.

The headlights will turn “ON” for 30 seconds before it will automatically turn “OFF”.

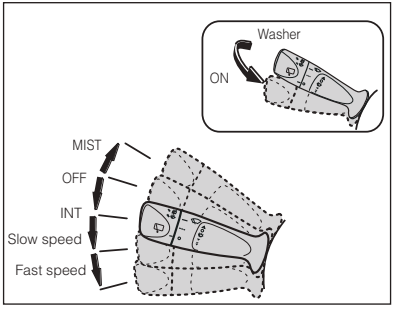
⚠ WARNING

- **Worn or dirty wiper blades could reduce your visibility.**
- **Be sure to maintain and replace wiper blades if necessary.**

CAUTION

- **Washer tank shall be filled with washer fluid only.**
- **Do not operate the washer if the washer tank is empty. This may damage the motor.**
- **Do not operate the wiper when the window is dry. This may damage the wiper blades.**
- **After long periods of non-use, check that the wiper blade is not stuck to the window glass. Operating the wipers while stuck to the window glass may damage the wiper motor or cause a malfunction.**
- **Avoid spraying the washer fluid continuously for more than 20 seconds. Also, avoid operating the washer switch if there is something preventing the washer fluid from spraying out. This may overload the motor, leading to damage.**
- **When raising the wiper arms, be sure to raise the wiper arm on the right side of the vehicle first. When returning the wiper arms to their original positions, be sure to return the wiper arm on the left side of the vehicle first.**

Windshield wiper and washer switch

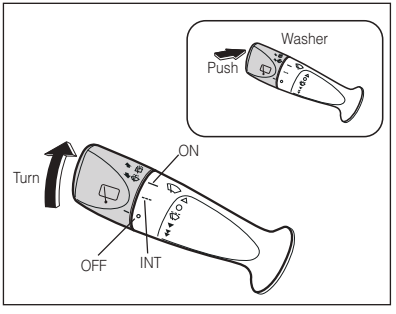


The wipers and the washer operate with the ignition turned “ON”. Push the wiper switch lever down to turn the wiper on.The wiper operates intermittently when the wiper switch is set to the “INT” position.While the wiper switch is being pushed up from the “OFF” position to the “MIST” position, the wiper operates at a low speed. When you release your hand, the wiper switch returns to the “OFF” position. Pull the lever toward you to activate the washer. The wiper operates at a low speed, interlocking with the washer.

NOTE

During intermittent operation, the interval becomes shorter as the driving speed rises.

Rear wiper and washer switch



The rear wiper and washer operate with the ignition turned “ON”.

The wiper operates intermittently when the wiper knob is set to “INT” position.

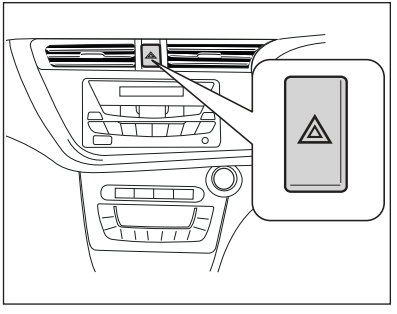
When the knob is turned to the “ON” position, the rear wiper operates normally.

Push the lever to activate the washer.

NOTE

When the front wiper is switched “ON”, the rear wiper will automatically operate 2 times when the reverse gear is engaged.

Hazard warning signal switch



Push the switch to flash all the turn signal lights.

The indicator lights on the instrument panel will begin flashing. Push it again to turn it off.

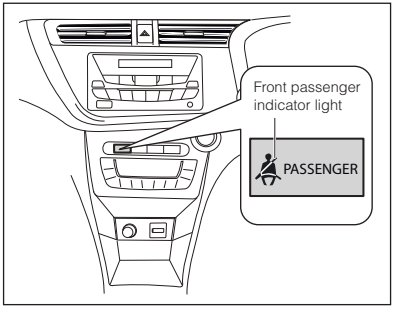
The turn signal switch will not operate when this switch is on.

Do not operate this switch except in an emergency.

⚠ WARNING

Pull off the road in case of an emergency to prevent an accident. Avoid operation for long periods of time while the engine has stopped. This may drain the battery.

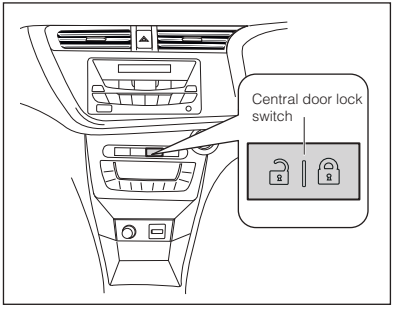
Front passenger seat belt indicator



If the front passenger side seat belt is not fastened, the indicator light flashes and the buzzer sounds after the vehicle speed exceeds more than 20 km/h.

(See “Warning lights” in section 5).

Central doors lock switch

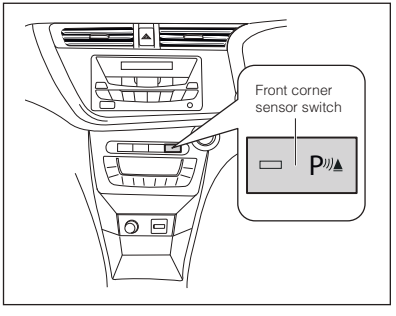


Push the switch to lock or unlock all doors.

When pushing the right side of the switch, all doors will be locked.

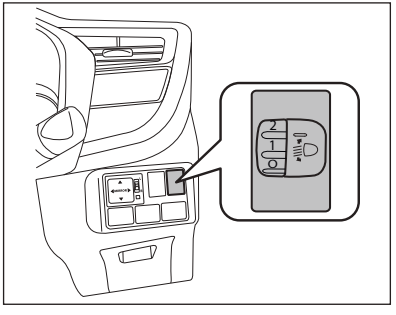
When pushing the left side of the switch, all doors will be unlocked.

Front corner sensor switch
(If equipped)



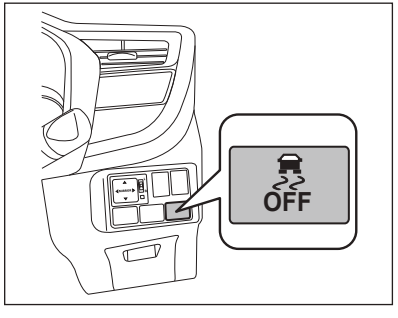
1. Press the front corner sensor switch to activate the system. The switch will show green illumination and the system will generate 'beep' sound.
2. To deactivate the system, press the switch again and the green illumination will dissappear.

Headlight leveling switch



The headlight illumination direction can be adjusted using the leveling switch when the headlight is on. Rotate the dial upward or downward to change the direction. The higher the number, the more downward position is set.

VSC & TRC OFF switch



Switch TRC OFF

With the ignition switch in the “ON” position, push the switch once to turn off TRC.

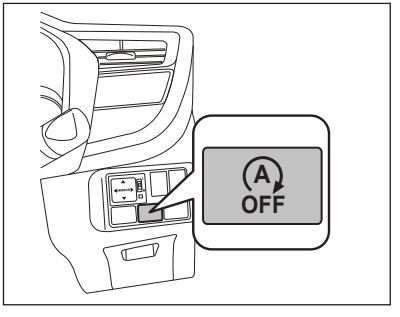
The TRC OFF indicator lights will illuminate at meter panel.

Switch VSC OFF

With the ignition switch in the “ON” position, push the switch more than 3 seconds to turn off VSC. The TRC OFF indicator and VSC OFF indicator lights will illuminate.

Push the switch again for more than 1 second to turn it back to “ON” (in a ready state). The TRC OFF indicator and VSC OFF indicator light will then go off.

Eco Idle OFF switch (If equipped)



Push the switch to turn “OFF” the Eco Idle function.The Eco Idle OFF indicator light will illuminate and the Eco Idle ready indicator will go off. (See “ Indicator lights” in section 5).

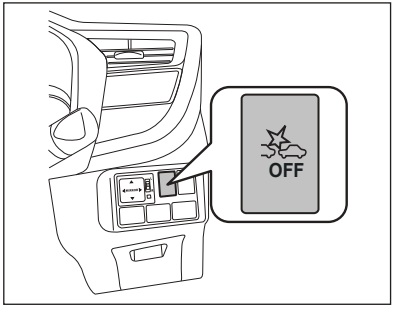
Push the switch again to turn “ON” the Eco Idle function. The Eco Idle OFF Indicator light will then go off, Eco Idle ready indicator will illuminate.

NOTE

During Eco Idle, if the Eco Idle OFF switch is pushed, the system will stop and the engine will restart. The Eco Idle OFF indicator light will illuminate.

Every time you start the engine by the engine switch operation, Eco Idle will return to the ready state.

Advanced Safety Assist (ASA) OFF switch (If equipped)

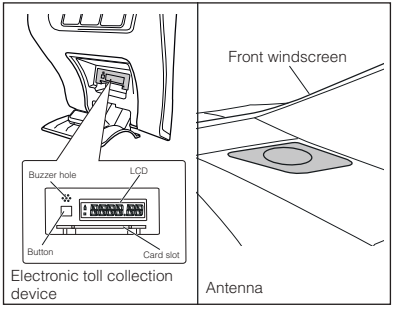


Push the switch more than 2 seconds to turn “OFF” the Advanced Safety Assist (ASA) function. ASA OFF indicator light will illuminate at the meter panel. Push the switch again more than 2 seconds to turn “ON” the ASA function. The ASA OFF indicator light will then go off.

NOTE

Every time you start the engine by the engine switch operation, ASA function will return to the ready state.

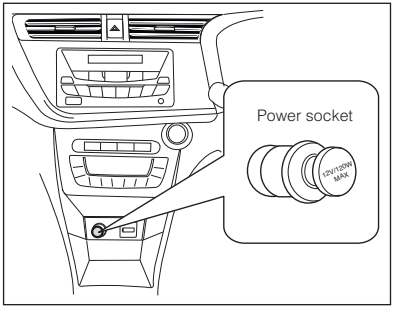
Electronic toll collection device
(If equipped)



The electronic toll collection device and the antenna are equipped at an instrument panel. The electronic toll collection device is located at the lower right corner and the antenna is located at top right corner. It is an integrated unit which does not require to replace a battery. User however need to have a prepaid card to be inserted in the electronic toll collection device.

See “electronic toll collection system” in section 10 for function and warning.

Power socket



The power socket is located at the instrument panel console lower centre.

This power socket can be used to plug in electrical accessories such as mobile phone charger, multimedia equipment and etc. which operates at 12V, with maximum power of 120W.

To use the power socket, remove the power socket knob and the ignition switch must be in “ACC” or “ON” position.

NOTE

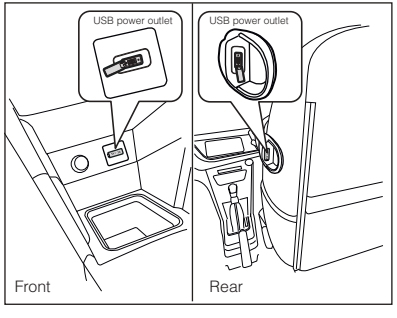
This power socket is only for electrical accessories and not for cigarette lighter purpose.

Always put back the knob when not in use to prevent unnecessary object entering into the socket.

⚠ WARNING

Use of electrical accessories which exceed the specified power rating might cause a fire.

USB power outlet (If equipped)



Open the USB door and plug in phone charging cable into the USB port.

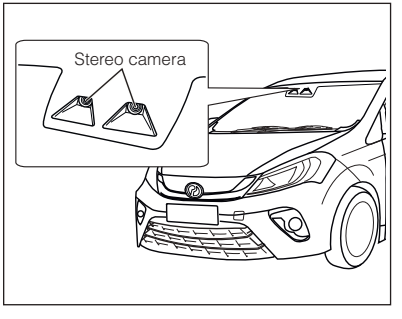
NOTE

- **This provide a charging output of 5V ⎓ 2A**
- **This unit may unable to charge mobile phone due to compatibility of protecting charger interfaces inside mobile phone.**

⚠ WARNING

- **Do not pull or push rear USB while trying to operate electrical equipment located at front area.**
- **Do not push rear USB while trying to reach item at rear seat.**
- **Do not step on rear USB while trying to reach item at package tray.**

Stereo camera (If equipped)



The stereo camera is used to monitor the area in front of the vehicle for Advanced Safety Assist (ASA) function as follows.

- Pre-Collision Warning.
- Pre-Collison Braking.
- Pedal Misoperation Control.
- Front Departure Alert.

See “stereo camera” in section 10 for detail and warnings.

Section 5

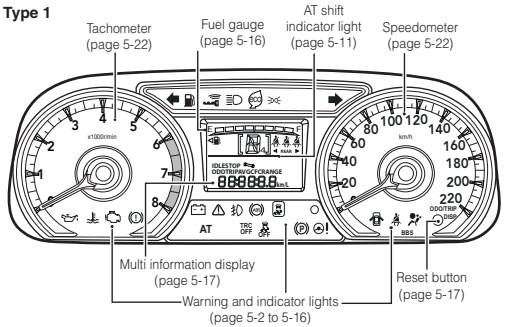


Meters and gauges

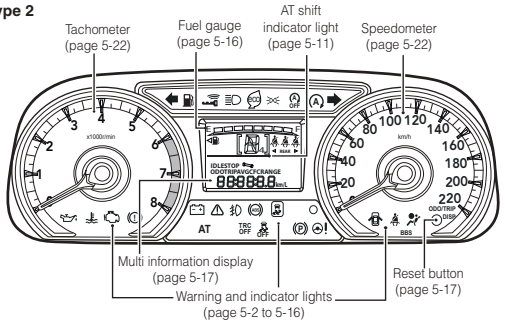
Combination meter panel overview 5–1
Warning lights 5–2
Indicator lights 5–11
Fuel gauge 5–16
Odometer and trip meter 5–17
Multi information display 5–17
Speedometer 5–22
Tachometer 5–22
Digital clock 5–23

Combination meter panel overview

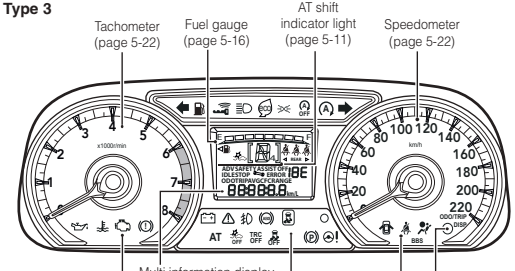
Type 1



Type 2



Type 3



Warning lights

The warning lights indicate abnormal conditions in the respective systems.

⚠ WARNING

- **If you have to stop the engine or the vehicle for emergency, pull the vehicle to a safe place at the side of the road. Shut off the engine and turn the hazard warning signal lights on.**
- **Allow the engine to cool before checking any component in the engine compartment to prevent burn injury.**
- **Keep hands, clothing and other objects away from any moving part in the engine compartment to prevent serious bodily injury.**

To check all warning lights

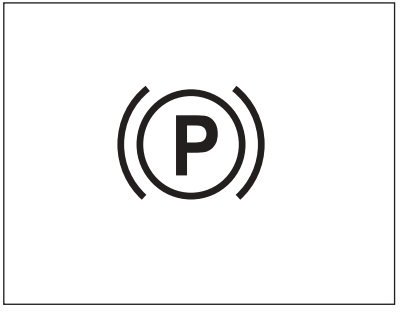
1. Apply the parking brake.
2. Turn the ignition "ON", but do not start the engine. All the warning lights should go on.

   The ABS (Anti-lock Braking System) warning light will go out a few seconds later.

   The air bag warning light will go out 5 seconds later.
3. After the engine has started and the parking brake lever has been lowered, the warning lights should go out.

   If any warning light does not function, have it checked by an authorised Perodua Service Centre as soon as possible.

Parking brake warning light



The parking brake warning light goes on when the parking brake is applied. In additon, a warning buzzer will sound if the vehicle speed exceeds 5 km/h.

Brake warning light



If the brake fluid level drops to near the "MIN" line of the brake fluid reserve tank while the engine is running, the warning light goes on and the buzzer sounds after the vehicle speed exceeds more than 5 km/h.

Add the brake fluid, if necessary, and check the fluid leakage.

If the warning light goes on, the brake system requires increased force and the stopping distance will be increased.

Brake warning light also serving for EBD (Electronic Brake-force Distribution)

The brake warning light will go on when the ignition switch is turned "ON" and goes out a few seconds later.

When the EBD control is malfunctioning, the brake warning light goes on.

⚠ WARNING

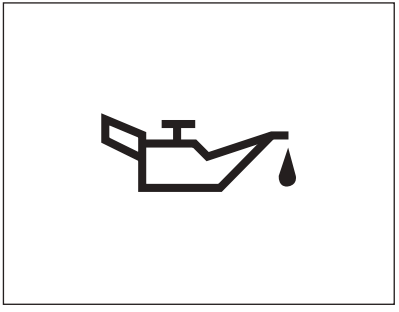
Do not continue driving with the warning light on. Failure to do so could cause an accident.

Have the brakes checked by an authorised Perodua Service Centre immediately.

CAUTION

- **If the light goes on while running, most likely the brake fluid level has dropped, resulting in poor braking. When the effectiveness of the brake has dropped, immediately park your vehicle at a safe place by depressing the brake pedal strongly. Then, contact an authorised Perodua Service Centre.**
- **When both this light and the anti-lock brake system warning light go on at the same time, the anti-lock brake system (ABS) may be malfunctioning. In addition, there is a possibility that the vehicle becomes unstable when hard braking is applied. Immediately park your car at a safe place and contact an authorised Perodua Service Centre.**
- **When an abnormal noise (squeaking noise, etc.) is always emitted during the braking period, most likely the brake pad has been worn out. Have your car checked immediately by an authorised Perodua Service Centre.**

Oil pressure warning light



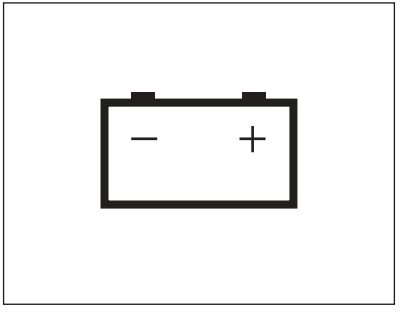
If the lubrication system malfunction while the engine is running, the warning light goes on.

CAUTION

Turn the engine off if the warning light goes on. Failure to do so may cause severe engine damage.

Have the system checked by an authorised Perodua Service Centre immediately.

Battery charge warning light



If the charging system malfunction while the engine is running, the warning light goes on. Turn off the accessories and engine.

Check the drive belt for looseness or breakage.

⚠ WARNING

Before checking or adjusting the drive belt, turn off the engine and allow it to cool.

Failure to do so may cause serious bodily injury.

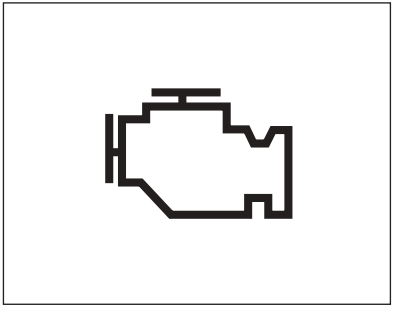
CAUTION

Do not continue driving if the drive belt is broken or loose.

It may cause engine overheating, battery discharge and finally engine is off.

Have the system checked by an authorised Perodua Service Centre immediately.

Malfunction indicator light (MIL)

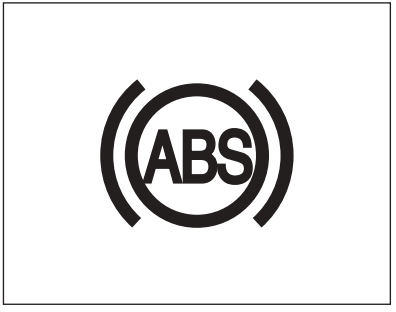


If the engine electronic control system malfunction while the engine is running, the MIL goes on or blinks.

CAUTION

If the MIL goes on, immediately have the vehicle checked by an authorised Perodua Service Centre.

ABS (Anti-lock Braking System) warning light



This light will go on when the ignition switch is turned "ON" and goes out a few seconds later.

The following conditions indicate that the ABS (Anti-lock braking system) is possibly malfunctioning.

- When the ignition switch is turned "ON", the light fails to go on or remains in an illuminated state.
- After the light has extinguished, it lights up again.
- The light illuminates while driving.

Have the system checked by an authorised Perodua Service Centre immediately.

⚠ WARNING

If the ABS warning light and the brake warning light remains illuminated and turn off, there is a possibility that the braking force would drop drastically. Immediately stop your vehicle at a safe place and contact an authorised Perodua Service Centre.

CAUTION

When the ABS warning light and the brake warning light turns on at the same time, the anti-lock brake system may be malfunctioned. In addition, there is a possibility that the vehicle becomes unstable when hard braking is applied. Immediately park your car at a safe place and contact an authorised Perodua Service Centre.

NOTE

- **Even in cases where the warning light remains illuminated and fails to go out after the engine has started or during the running period, the normal brake performance is retained. (The brake system is no longer functioning as ABS) However, have your car checked by an authorised Perodua Service Centre immediately.**
- **Although the warning light is illuminated for several seconds at the time of the engine starting, the system is functioning normally if the light goes out soon after and does not illuminate afterward while running.**
- **When the engine switch is set to "ON" position, the light turns on for several seconds for the system check and then turns off.**

Automatic transmission warning light



Automatic transmission warning light goes on if the electronic transmission control (ECAT) should malfunction, either when the engine is running or stopped.

This light will go on when the ignition switch is turned "ON" for initial check and go out a few seconds later.

⚠ WARNING

Do not continue driving when the warning light goes on. Have the system checked by an authorised Perodua Service Centre immediately.

Seat belt warning light



Driver side

If the driver side seat belt is not fastened, the warning light flashes and the buzzer sounds after the vehicle speed exceeds more than 20 km/h.



Rear side

The rear seatbelt warning light will display separately for each seat. If any of the rear side seatbelt is not fastened, the warning light will turn on according to which rear seatbelt as below :

◁ REAR ▷	All seatbelt are fastened
◁ REAR ▷	Rear left seabelt is not fastened
◁ REAR ▷	Rear center seatbelt is not fastened
◁ REAR ▷	Rear right seatbelt is not fastened

The activation of rear seat belt warning light are as follows :

Warning light turns on

Condition 1

- Ignition from OFF to ON.
- Seat belt unfasten.

Condition 2

- Ignition ON.
- Seat belt unfasten.
- Rear door movement from open to close.

Condition 3

- Ignition ON.
- Seat belt from fasten to unfasten*.

*Buzzer will sound for 32 seconds when the vehicle speed exceeds 5 km/h.

Warning light turns off

1. Seat belt is fasten.
2. After vehicle speed exceeds 5 km/h for 32 seconds.
3. Ignition OFF.

Air bag warning light



When any air bag malfunction is detected, the air bag warning light goes on, thereby warning the driver of the malfunction of the system.

This light will go on when the ignition switch is turned “ON” for initial check and go out a few second later.

CAUTION

When the following conditions appear, have the system checked for these conditions by an authorised Perodua Service Centre immediately.

- **The warning light does not illuminate immediately after the ignition switch is turned "ON".**
- **The warning light remains illuminated while the engine is running.**
- **The warning light remains illuminated even if 6 seconds have elapsed after the ignition switch was turned "ON".**
- **The warning light flashes even if 6 seconds have elapsed after the ignition switch was turned "ON".**

Door ajar warning light



This light illuminates when any of the doors (including back door) are open or incompletely closed regardless of the position of the ignition switch.

The light goes out when all doors have been fully closed.

CAUTION

Do not drive while the light is illuminated. If it is illuminated, it means that door(s) may not be fully closed and may open while driving, causing an unexpected accident.

Low fuel level warning light

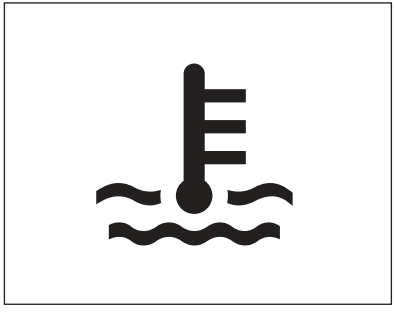


The low fuel level warning light will go on if the fuel remaining amount becomes less than 5.6 litres with the ignition switch turned "ON".

NOTE

When you are driving on a hill or turning the vehicle, the fuel moves in the fuel tank. This may turned "ON" the warning light early. In this case, fill up the fuel as soon as possible.

Water temperature warning light



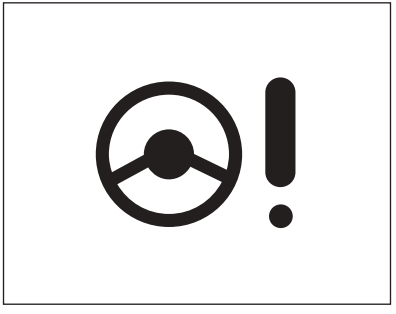
This light will go on in red colour for 3 seconds when the ignition switch is turned “ON”. Based on the actual engine cooling water temperature, this light will change to blue, remain red or go out.

This light flashes when the engine cooling water temperature rises abnormally while the engine is running. The light will go on if the engine cooling water temperature rises further.

CAUTION

Do not continue driving if the warning light flashes. (See “Engine overheating”).

Power steering warning light



In the normal functioning system, the light goes on when the ignition switch is turned “ON”, and then the light goes out when the engine is started.

This light goes on when any abnormality is encountered in the power steering with the engine running.

The indicator illuminates yellow colour and the buzzer sounds. It shows that the power steering;

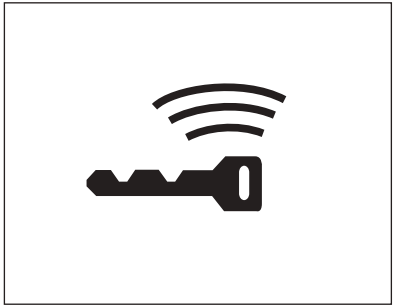
- Low battery voltage
- System overheating

The indicator illuminates red colour and the buzzer sounds. It shows that the power steering has a malfunction.

CAUTION

In cases where the light remains extinguished even when the ignition switch is turned “ON”, or in cases where the light remains illuminated during the engine running, have your vehicle checked immediately at an authorised Perodua Service Centre.

Key-free warning light



The light goes on and buzzer sounds when the ignition switch is turned “ON” and goes off a few seconds later.

It shows that

- Smart key is not in the vehicle or;
- Smart key battery is low or;
- Smart entry malfunction or;
- Steering lock remain

Always have the smart key with you and replace the battery with a new one if necessary.

Master warning light (if equipped)



The master warning light goes on when the ignition switch is turned “ON” and goes out a few seconds later.

It will turn on again under this 3 condition of Advanced Safety Assist (ASA) as follows:

1. When the Pre-Collision Braking operates.
2. When the Pedal Misoperation Control operates.
3. When any system failure is detected in ASA system.

Advanced Safety Assist (ASA) error warning light (if equipped)



The Advanced Safety Assist (ASA) error warning light will turn on when the ASA function cannot work due to system failure.

Indicator lights

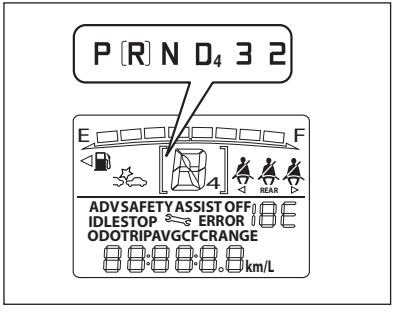
Advanced Safety Assist (ASA) OFF warning light (if equipped)



The Advanced Safety Assist (ASA) OFF warning light will turn on when it cannot work by a specific reason and the function OFF code displays.

(See list of function off code at section 10).

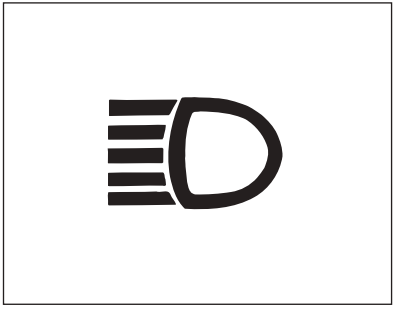
Automatic transmission shift indicator light



With the ignition switch turned “ON” an indicator light shows the current shift position of the transmission.

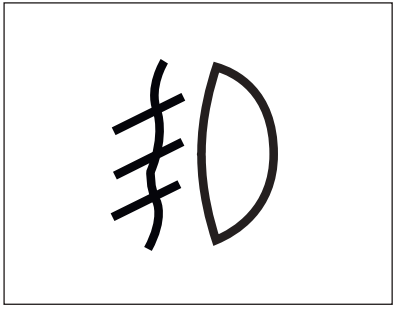
When R is selected, the frame ([ ] section) flashes.

High beam indicator light



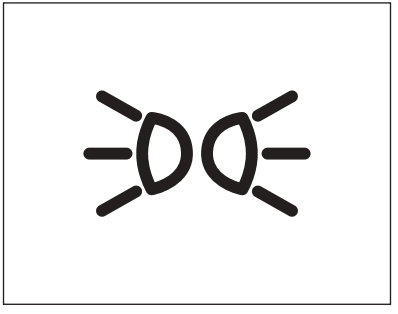
When the high beam headlights and flash lights are turned on, the indicator light goes on.

Front fog light-on indicator light (If equipped)



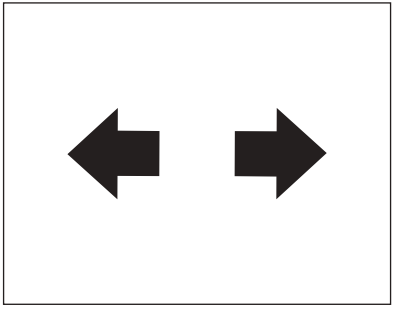
Front fog light-on indicator light goes on when front fog light is on.

Tail light-on indicator light



Tail light-on indicator light goes on when tail light is on.

Turn signal indicator light/ Hazard warning signal indicator light



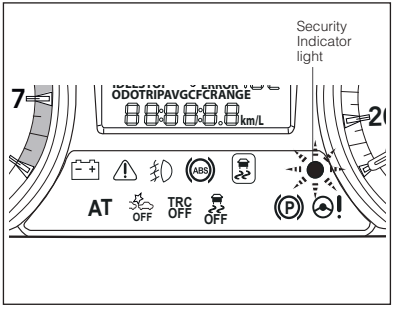
Turn signal light

These will flash in unison with the respective turn signals when the ignition switch is turned to “ON” position.

Hazard warning signal light

These will flash when the hazard lights are turned on, regardless of the ignition switch position.

Security indicator light



When the ignition switch is turn to “OFF”, the security indicator light flashes.

Eco indicator light



This light will go on when the ignition switch is turned “ON” and go out a few seconds later.

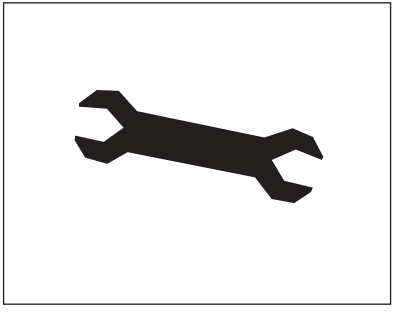
This light comes on during fuel-efficient driving. This light goes out if the vehicle speed is less than 15 km/h (without Eco Idle) or 8 km/h (with Eco Idle) or more than 110 km/h.

NOTE

This light does not come on unless the Eco indicator light display setting is set to “Eco On”.

(See “Eco indicator light display setting”)

Service information reminder indicator



This symbol will appear in display as a reminder to send your vehicle for service.

It will appear at 10,000 km interval. Contact an authorised Perodua Service Centre for service appointment.

(See “Service information reminder setting”).

VSC OFF indicator light

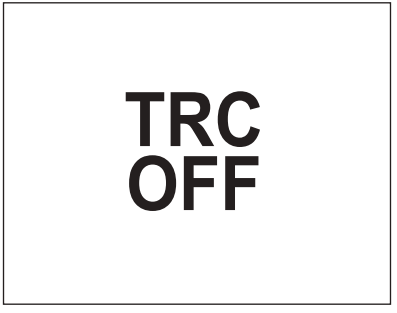


The light goes on when the ignition switch is turned "ON" and goes off a few seconds later.

When the VSC is turned off, the indicator light goes on.

To turn off VSC, push the VSC OFF button for more than 3 seconds.

TRC OFF indicator light



The light goes on when the ignition switch is turned "ON" and goes off a few seconds later.

When the TRC is turned off, the indicator light goes on.

To turn off TRC, push the VSC OFF button.

Slip indicator light



The light goes on when the ignition switch is turned "ON" and goes off a few seconds later.

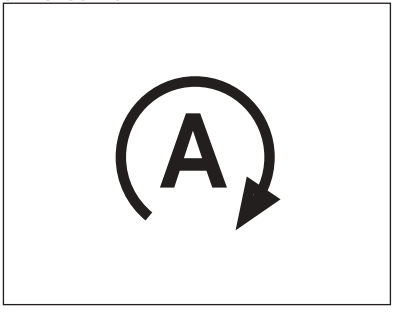
The slip indicator light will illuminate when error is detected in VSC system.

The slip indicator light will blink when VSC and TRC are in operation and this condition is normal.

CAUTION

If the light fails to illuminate or remain in a go on state, even when the ignition is turned to "ON" position, there may be a system error. Have the system checked by an authorised Perodua Service Centre immediately.

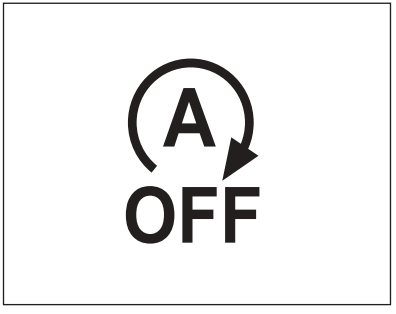
Eco Idle ready indicator light (If equipped)



This light will go on when the ignition switch is turned “ON” and goes off a few seconds later.

This light comes on when the indicator light setting is set to ON and to show that the Eco Idle function is ready. (See “Eco Idle display settting”)

Eco Idle OFF indicator light (If equipped)

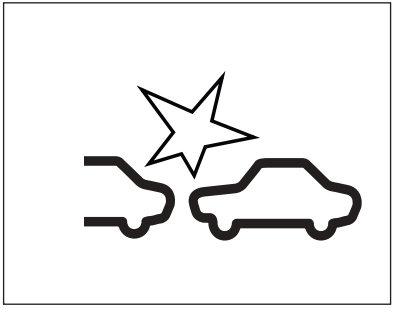


This light comes on when the indicator light setting is set to OFF and to show that the Eco Idle display function is OFF. (See “Eco Idle display settting”)

CAUTION

When the system malfunctions is detected, the indicator light goes on or blinks.

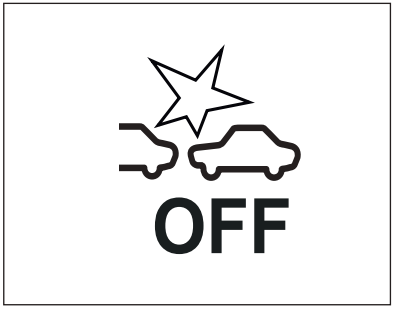
ASA operation indicator (if equipped)



The ASA operation indicator light goes on when the ignition switch is turned “ON” and goes out a few seconds later. It will blink in Advanced Safety Assist (ASA) function as follows:

1. When the Pre-Collision Warning operates.
2. When the Pre-Collision Braking operates.
3. When the Pedal Misoperation Control operates.
4. When the Front Departure Alert operates.

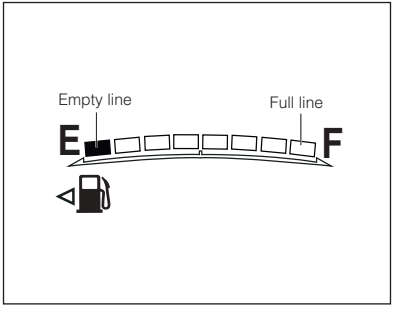
ASA OFF indicator light (if equipped)



The light goes on when the ignition is turned "ON" and goes off a few seconds later.

The ASA OFF indicator light will turn on when the ASA OFF switch is pushed or when any system failure is detected in ASA system. This indicates that the Advanced Safety Assist (ASA) function is OFF.

Fuel gauge



The fuel gauge always indicates the approximate amount of fuel in the fuel tank when the ignition switch is turned "ON".

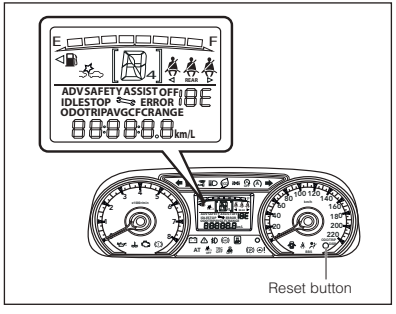
⚠ WARNING

Do not drive with the low fuel warning light "ON". It may cause engine misfire and damage to the catalytic converter. Furthermore, an accident may happen if the vehicle stalls or hesitates while driving.

CAUTION

- **We recommend to always keep the fuel level over 1/4 full (2 segments).**
- **If the low fuel warning is "ON", immediately replenish the fuel.**

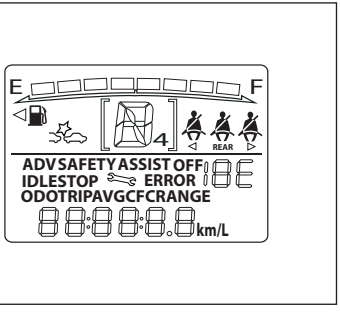
Odometer and trip meter



Odometer / trip meter selection button

Each time the reset button is pressed, the indication changes. To reset the trip meter to zero, keep pressing the reset button for more than 1.0 second.

Multi information display



Selection display

Each time reset button is pressed, the indication changes in the following sequences given below:

A. Main routine

1. Type 1
   - Odometer
   - Trip meter
   - Average fuel consumption (AVG)
   - Current fuel consumption (CFC)
   - Distance to empty (RANGE)
   - Meter Illumination control

2. Type 2 and Type 3
   - Odometer
   - Trip meter
   - Average fuel consumption (AVG)
   - Current fuel consumption (CFC)
   - Distance to empty (RANGE)
   - Eco Idle stop time
   - Eco Idle stop cumulative time
   - Meter Illumination control

B. Customize routine

At odometer, hold the reset button more than 3 seconds to enter customize routine setting mode.

After that, each time reset button is pressed, the indication changes in the following sequences given below:

1. Type 1
   - Eco indicator light display setting
   - Service info
   - Customize routine OFF ("End" will be displayed)

2. Type 2 and Type 3
   - Eco indicator light display setting
   - Eco Idle display setting
   - Service info
   - Customize routine OFF ("End" will be displayed)

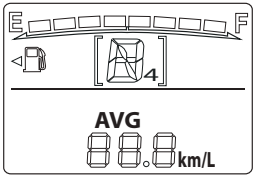
(See "Eco indicator light display setting" and "Eco Idle display setting")

CAUTION

Make sure the vehicle is completely stopped when you want to change the display setting mode.

For safety reason, customize routine setting mode cannot be entered while the vehicle is running.

Average fuel consumption (AVG)



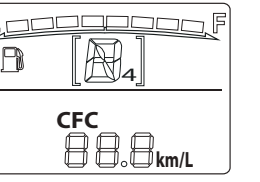
This mode will calculate the average fuel consumption depending on driving pattern.

The display value will be updated every 10 seconds and after reset, '-.-' symbol will be displayed until enough data for a valid calculation is received. Data will not retain if the battery is disconnected.

NOTE

Average fuel consumption value is calculated from the total fuel used and the distance since last value reset.

Current fuel consumption (CFC) mode

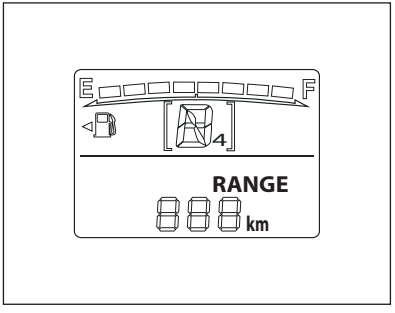


This mode will calculate and display the real-time fuel consumption during driving.

The display value will be updated every 2 seconds. At vehicle stop (0 km/L), the display will show '0.0' km/ L.

When ignition switch is turned "ON", '-.-' symbol will be displayed until enough data for a valid calculation is received.

Distance to empty (RANGE)



This mode indicates the estimation of remaining distance vehicle can run before fuel is empty.

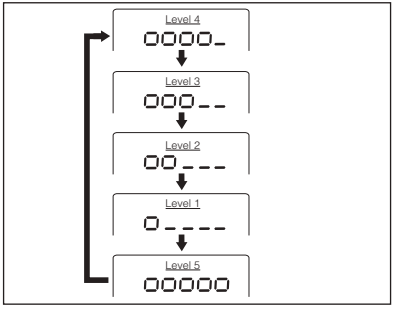
Value displayed is based on the remaining fuel volume in tank and fuel consumption figure.

If the calculated value is equal to 0 km, the displayed value will show '**---**' symbol. Data will not retain if the battery is disconnected.

Multi information display mode flow

1. Press the reset button to select the AVG, CFC or RANGE mode. (See "Selection display" for indication sequence)
2. During AVG (average fuel consumption mode) mode, pressing more than 1 seconds will reset the AVG.
3. No reset mode is available in RANGE and CFC (distance to empty mode and current fuel consumption mode).

Meter illumination control



The meter brightness can be adjusted when the tail lamp is turned "ON".

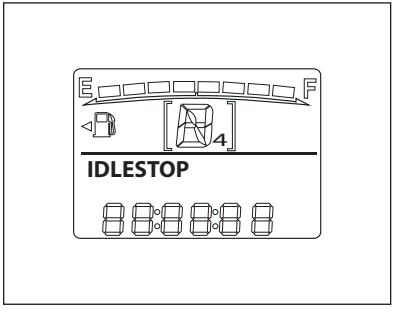
How to adjust brightness.

1. Press the reset button for more than 1 second to select the meter illumination control mode. (See "Selection display" for indication sequence)
2. The default brightness value is at level 4. Press the reset button for more than 1 second each time to switch the value to level 3, level 2, level 1 (lowest brightness or level 5 (highest brightness).

NOTE

If there is no operation for about 10 seconds, the display will revert to odometer.

Eco Idle stop time (If equipped)



This mode will show the timing of Eco Idle condition.

The counting starts from 0 seconds at each 1 trip, when the ignition switch is turned “ON” until it is turned “OFF”.

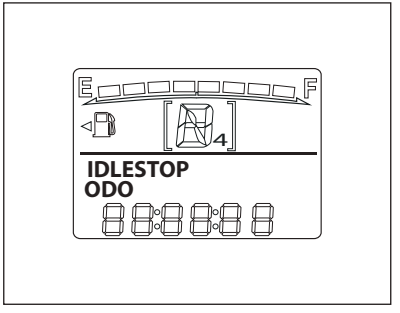
The Eco Idle stop time indicator can be switched “ON” or “OFF”.

ON : Indicator is linked with Eco Idle.

OFF : No link with Eco Idle.

(See “Eco Idle display setting”)

Eco Idle stop cumulative time (If equipped)

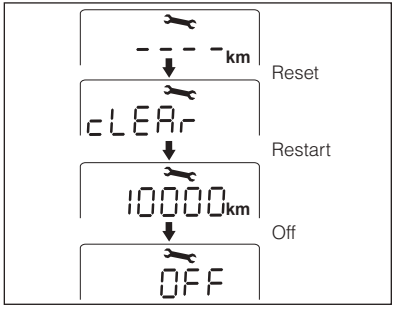


This mode will show the cumulative timing of Eco Idle condition. The total stop time will be counted continuously from previous trip. Data will not retain if the battery is disconnected.

Press the reset button to enter Eco Idle stop time setting. (See “Selection display” for indication sequence).

Pressing the reset button more than 1 second will reset the display.

Service information reminder setting



If the countdown at service information display has reached 10,000km, ‘----km’ will be displayed. mark will blink for 5 times and it will appear at every display. The same reminder condition will activate every time the ignition switch is turned “ON”.

This indicator will go out if the service information is set to OFF or reset. Data will retain if the battery is disconnected.

How to switch display

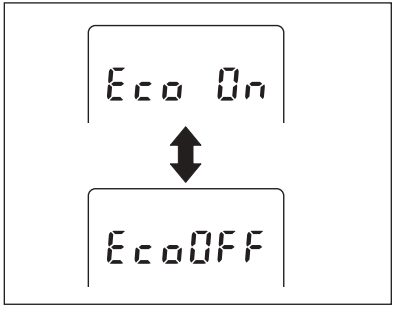
1. Push the reset button to enter the service information setting. (See “Selection display” for indication sequence)

2. Push the reset button for more than 3 seconds to reset the data. “cLEAr” will be displayed and it will blink 3 times before restart counting from ‘10,000 km’.
3. Push the reset button for more than 3 seconds to “OFF”.

NOTE

- **If there is no operation for about 10 seconds, the display will revert to Odometer.**
- **Do not reset the display between service intervals to avoid incorrect data counting on the display.**

Eco indicator light display setting



The Eco indicator can be switched on or off by switching the Eco indicator light display setting between “Eco On” and “Eco Off.”

How to switch display

1. Enter the ***customize routine*** setting mode by pressing the reset button for more than 3 seconds. (See “Selection display” for indication sequence)
2. Every time you press and hold the display selection switch for more than 1 second, “Eco On” and “Eco Off” display are switched.

Display setting	eco Eco indicator light
Eco On	The Eco indicator light comes on during fuel - efficient driving.
EcoOFF	The Eco indicator light is always extinguished.

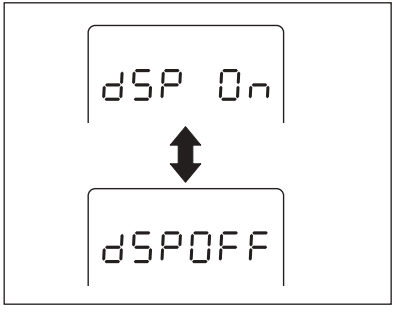
NOTE

If there is no operation for about 10 seconds, engine is OFF or vehicle speed is more than 2 km/h, the display will revert to odometer.

Speedometer

Tachometer

Eco Idle display setting



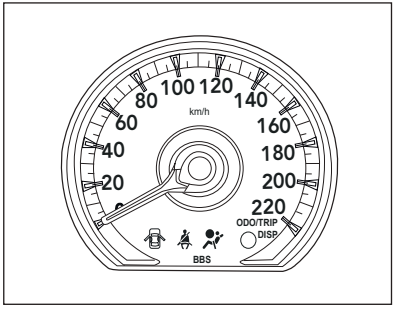
Eco Idle stop time display interlocking can be switched on and off by switching the indicator light display setting between “dsp On” and “dsp OFF”.

How to switch display

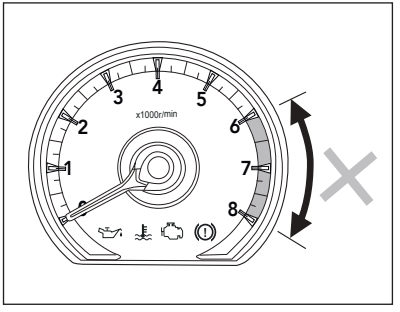
1. Enter the *customize routine* setting mode by pressing the reset button for more than 3 seconds. (See “Selection display” for indication sequence)
2. Every time you press and hold the display selection for more than 1 second, “dsp On” and “dsp OFF” are switched.

NOTE

If there is no operation for about 10 seconds, engine is OFF or vehicle speed is more than 2 km/h, the display will revert to odometer.



The pointer indicates vehicle speed.



The tachometer indicates the engine revolutions per minute.

The red zone indicates engine over-revving.

CAUTION

Do not over-rev the engine to prevent engine damage.

Digital clock

To set time

Refer to instructions to set clock in Section 7, Audio Systems.

Section 6



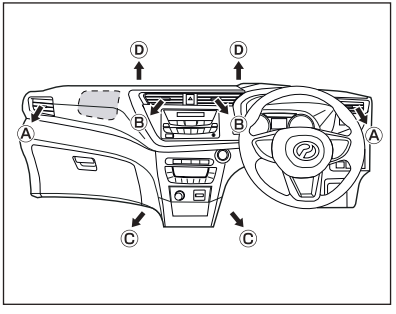
Air conditioner control systems

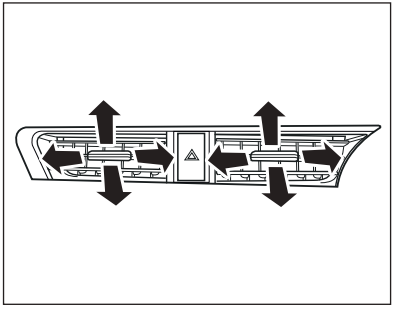
Air conditioner **6–1**
Recommended periodical maintenance guide **6–8**

Air conditioner

The air conditioner blower operates with the ignition switch turned “ON”.

Outlet ports



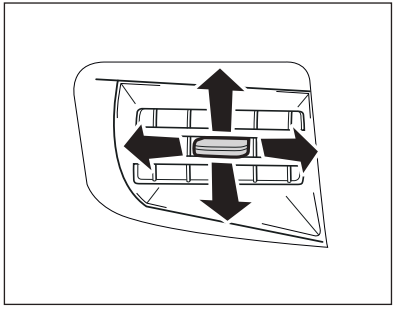


Center outlet ports

Air direction of the center outlet ports is controlled by the knob provided.

CAUTION

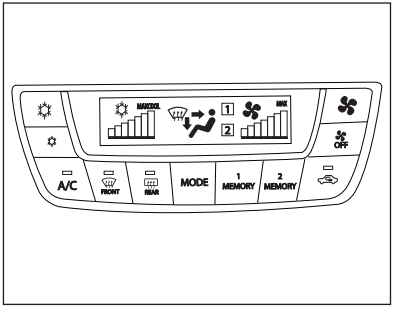
If you use car fresheners or perfumes on the air conditioner centre outlet ports, do not spill the liquid onto the panel cluster. This could cause discolouring, staining, and paint peeling of the surface. This may also cause the audio button to be stuck or loose. Proper care is required to prevent the panel cluster and audio system from damage.



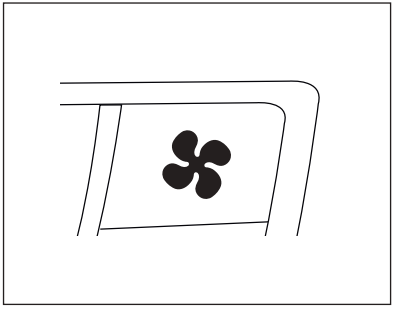
Right and left outlet ports

Use the knob to control the air direction.

Air conditioner control panel

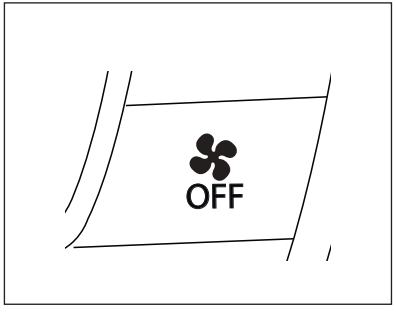


To turn on the air conditioner



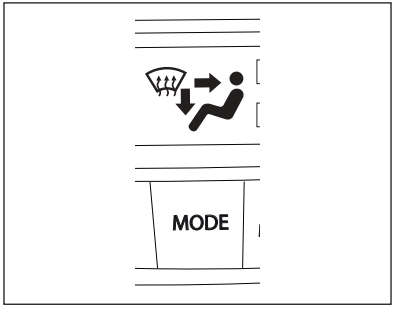
1. Engine start
2. Press
3. Press A/C

To turn off the air conditioner



1. Press A/C
2. Press OFF and turn it OFF. (See blower fan switch)

Air outlet control

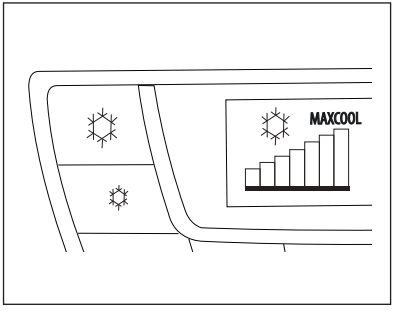


Press mode to select or change the air outlet positions.

Mode				
Air outlet	Ⓐ Ⓑ	Ⓐ Ⓑ Ⓒ	(Ⓐ) Ⓒ (Ⓓ)	(Ⓐ) Ⓒ Ⓓ

Position in parentheses ( ) denotes an air outlet where the air flow rate is very small.

Temperature control



Air temperature is adjusted by pressing the control button and can be operated in two ways as follows:

1. Press and release for each level to decrease the temperature, and to increase it.
2. Press and hold to continuously decrease the temperature, and to continuously increase it.

MAXCOOL will appear after pressing to the maximum/end.

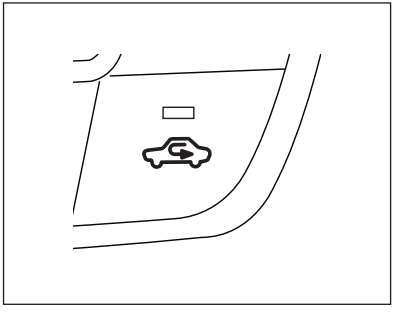
NOTE

- **Rapidly-cooled air may cause fog from outlet ports. This is not a malfunction.**
- **When the ambient temperature is near 0˚, dehumidifying function will not work.**
- **For specific model, if the engine coolant temperature rises excessively when the vehicle is driven at long time etc. with the air conditioner on, the air conditioner will turn off automatically.**
- **For specific model, when you depress the accelerator pedal fully to get quick acceleration, etc., the air conditioner compressor is turned off temporarily so that acceleration performance may be enhanced.**

⚠ WARNING

As the engine is equipped with the fast idle device, while the vehicle is idling, engine idling speed is slightly increased with the air conditioner on. Special attention must be paid in starting and stopping the vehicle.

Air intake control



Press ⟲ to have inside air recirculated. When you are selecting inside air recirculation, the indicator ⟲ lights up. Press release the button to have outside air circulated.

NOTE

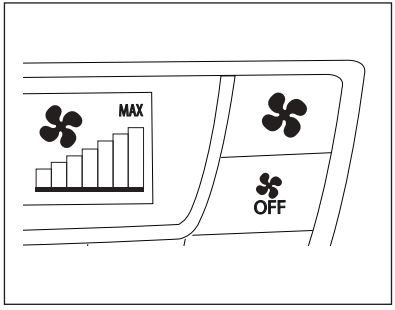
When the outside air is unpleasant, press ⟲.

It is, however, important to change the air circulation from time to time as the glass may become fogged or the inside of the vehicle may become stuffy.

CAUTION

- **Do not use recirculation for a long time. The glass may easily mist. Use outside air as a normal operation.**
- **During traffic jam, or inside tunnel, use recirculation to prevent exhaust gas entering into cabin.**
- **Do not use recirculation when using , , , glass may easily mist.**

Blower fan switch



Air flow speed is adjusted by pressing the blower fan switch and can be operated in two ways as follows:

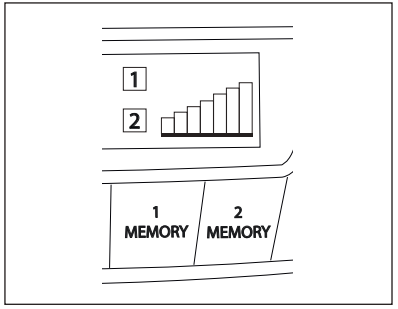
1. Press and release for each level to increase the speed, and OFF to decrease it.
2. Press and hold to continuously increase the speed, and OFF to continuously decrease it.

You can check the level of air flow speed at the LCD.

To turn OFF the blower

1. Press and release OFF for each level until no level display at the LCD.
2. Press and hold OFF to continuously decrease the speed until level 1. Then, press and hold OFF again to turn OFF the blower.

Memory setting



The memory setting feature saves your preferred settings of air conditioning. You can set up to two memories and returns the system to these setting next time you drive.

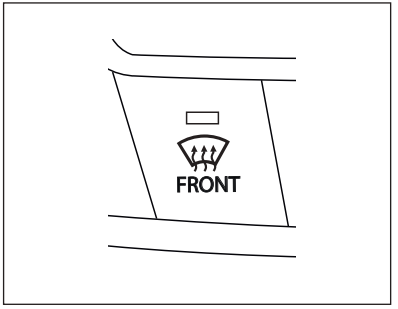
To set the memory

Set desired mode, temperature, A/C, air intake control and blower fan control. Press 1 MEMORY or 2 MEMORY button to set the settings. You can set up to two memory. To replace a memory, press and hold either memory button for 1.5 seconds or until 1 or 2 blinks to set for a new memory.

To use memory

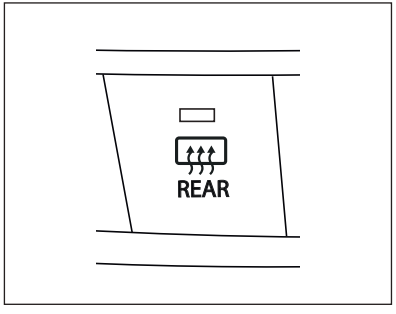
Press and release either memory button to use the settings that has been stored in 1 MEMORY or 2 MEMORY function.

Front defogger switch



Press the front defogger switch to demist the front windscreen. When selecting this switch, the indicator FRONT lights up. Then, the blower speed and A/C will turn ON. The air outlet is in position (Ⓐ), Ⓓ.

Rear defogger switch



Press the rear defogger switch to demist the rear window.

CAUTION

- **Turn the defogger switch off when the window is clear, to prevent battery discharge.**
- **Do not scratch the heater wire at any time.**

Operation tips

- Make sure that the air inlet ducts in front of the windshield are not blocked by leaves or other obstructions.
- Do not use to cool in high humidity.
  This could cause mist on windshield.
- If your vehicle has been parked for a long time in intense sunlight and cabin temperature is extremely high, turn on the air conditioner with the windows fully open.
  After the vehicle interior becomes cool, close the windows and set the temperature to your desired level.
- The windows are prone to mist on a rainy day, resulting in poor visibility.
  If this happen, operate the air conditioner in the cooling or demist mode.

⚠ WARNING

When driving for long distances, open the window or fresh air vent every one hour to admit fresh air into the car.

Recommended periodical maintenance guide

I : Inspect R : Replace
C : Clean A : Adjust
Ad : Add

MAINTENANCE SERVICE	RECOMMENDED SERVICE INTERVAL	x 1000 km	10	20	30	40	50	60	70	80	90	100
		Month(s)	6	12	18	24	30	36	42	48	54	60
Refrigerant (Air-cond Gas)	Check refrigerant amount		I	I	I	I	I	I	I	I	I	I
Piping & Joints	Check connecting portion for leakage		I	I	I	I	I	I	I	I	I	I
Compressor	Check for abnormal noise and leakage		I	I	I	I	I	I	I	I	I	I
	Check bolt tightening torque		I	I	I	I	I	I	I	I	I	I
	Add compressor oil amount		-	-	Ad	-	-	Ad	-	-	Ad	-
Magnetic Clutch	Check engagement condition & bearing for abnormal noise		I	I	I	I	I	I	I	I	I	I
	Check clutch clearance (0.25-0.5mm)		I	I	A	I	I	A	I	I	A	I
Evaporator	Check for leakage & *fins blockage		I	I	*C	I	I	*C	I	I	*C	I
Expansion Valve	Check for proper function		-	-	I	-	-	I	-	-	I	-
Condenser	Check for leakage & *fins blockage		I	I	*C	I	I	*C	I	I	*C	I
Air-Cond Belt	Check belt deflection, wear & tear		I	I	I	I	I	I	I	I	I	I
Thermostat or Thermistor	Check for proper function		I	I	I	I	I	I	I	I	I	I
Pressure Sensor	Check standard functional pressure		I	I	I	I	I	I	I	I	I	I
Idle Pulley	Check bearing for abnormal noise		I	I	I	I	I	I	I	I	I	I
Blower Motor	Check blower speed operation		I	I	I	I	I	I	I	I	I	I
Radiator Fan Motor	Check for proper function or abnormal noise		I	I	I	I	I	I	I	I	I	I
Electrical Wiring	Check for worked loose connection		I	I	I	I	I	I	I	I	I	I
	Check for safety gaps and wire harness on vehicle sharp edges		I	I	I	I	I	I	I	I	I	I
Air-Cond Control Switches	Check Air intake control, Mode, Blower, Temperature, A/C and Front defogger for proper function		I	I	I	I	I	I	I	I	I	I
Element Air Refiner (cabin filter)	Check and replace Element Air Refiner		I	I	R	I	I	R	I	I	R	I

Section 7



Audio systems

Features 7–1
General operation 7–2
Tuner operation 7–5
Playing USB 7–7
Bluetooth operation..... 7–11
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Features

Tuner
- Digital PLL Tuning
- Manual UP/DOWN Tuning
- Seek UP/DOWN Tuning
- 18FM and 6AM Preset Memory
- Auto Store (AS)

General
- LCD Multi-Mode Full Information Display
- 12Hr Format Digital Clock
- Audible Level Beep Tone
- 'Welcome' Note

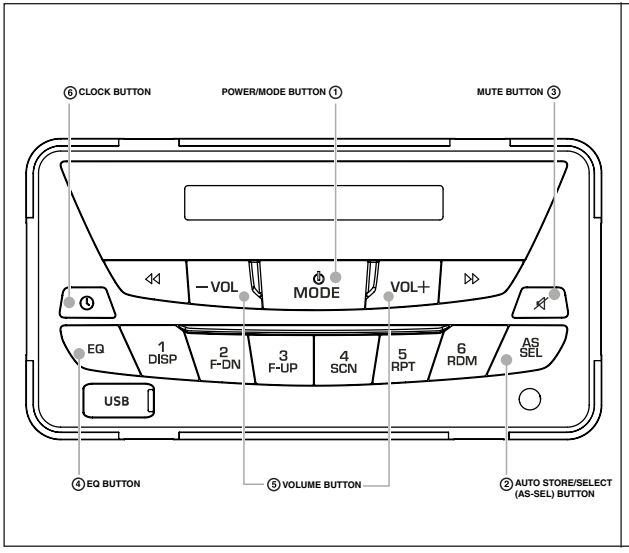
Audio control
- Electronic Volume/Bass/Mid/Treble/Fader and Balance Controls
- Power Output (20W x 4) Rms
- Mute
- Clear/Bass/Loud (Prefix Tone Controls)

USB
- Tracks UP/DOWN
- Folder UP/DOWN
- Repeat Play
- Intro Scan
- Random Play
- ID3-Tag Display

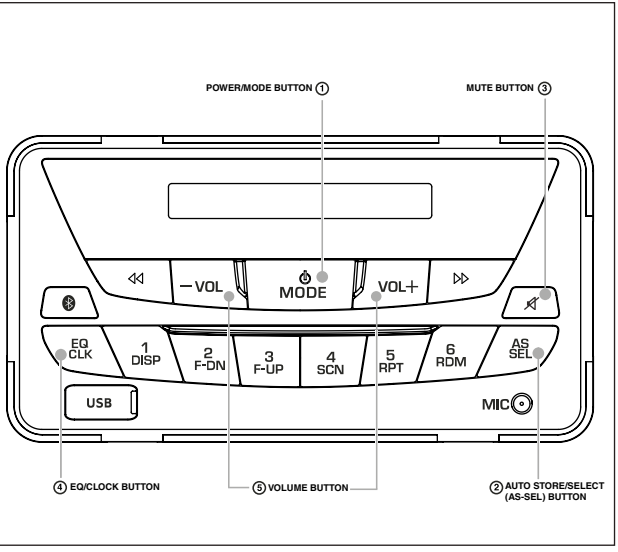
***Bluetooth**
- Full Duplex Conversation
- Handfree Profile
- Music Streaming
- Incoming Caller Identification

**** For Audio System type B only***

Type A


⑥ CLOCK BUTTON
POWER/MODE BUTTON ①
MUTE BUTTON ③
– VOL
MODE
VOL+
EQ
1 DISP
2 F-DN
3 F-UP
4 SCN
5 RPT
6 RDM
AS SEL
USB
④ EQ BUTTON
⑤ VOLUME BUTTON
② AUTO STORE/SELECT (AS-SEL) BUTTON

Type B


POWER/MODE BUTTON ①
MUTE BUTTON ③
– VOL
MODE
VOL+
EQ CLK
1 DISP
2 F-DN
3 F-UP
4 SCN
5 RPT
6 RDM
AS SEL
USB
MIC
④ EQ/CLOCK BUTTON
⑤ VOLUME BUTTON
② AUTO STORE/SELECT (AS-SEL) BUTTON

Power / MODE Button (⏻) - ①

- **System on / off**

Press ⏻ button ① to switch on the unit.
Press ⏻ button ① more than 2 seconds to switch off the power.

- **Mode Button (MODE) - ①**

Press MODE button ① to select the mode of radio, USB and *A2DP. The selection is in the following sequence:

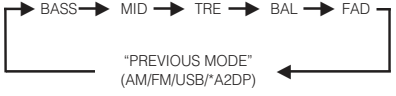


Auto store / Select Button (AS-SEL) - ②

- **Audio mode selecting**

During system is on, press AS-SEL button ② to change the audio mode through bass, mid, treble, balance and fader function. When mode has not been adjusted, display returns to normal radio.

During non EQ mode (“MANU”), press AS-SEL button ② to select audio mode in the following sequence:



During EQ mode (“CLEAR”/“BASS”/“LOUD”), press AS-SEL button ② to select audio mode in the following sequence:



Mute Button (🔇) - ③

Press **(🔇)** button ③ to mute the audio sound. Press again to restore the previous volume level.

Press **(🔇)** button ③ more than 2 seconds, and system will pause the USB memory playing.

EQ / *CLK Button (EQ) - ④

- **EQ Selecting**

Press EQ /*CLK button ④ to select “clear”, “bass”, “loud” (Prefix 3 pattern of tone) and “manual” (Non-prefix tone).

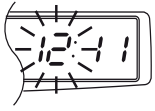


- **Selecting the time**

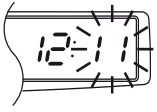
Press 🕓 button ⑥ to enter the hour adjustment mode with hour display blinked.

Press EQ/*CLK button ④ more than 2 seconds to enter the hour adjustment mode with hour display blinked.

Adjust the desired hour by pressing VOLUME button ⑤. Press the **[VOL +]** to increase the hour. Press the **[VOL –]** to decrease the hour.



Press 🕓 button ⑥ or press EQ/*CLK button ④ again to enter the minute adjustment mode. Press the **[VOL +]** to increase the minute. Press the **[VOL –]** to decrease the minute.



**** For Audio System type B only***

Volume Up Button [VOL +] - ⑤

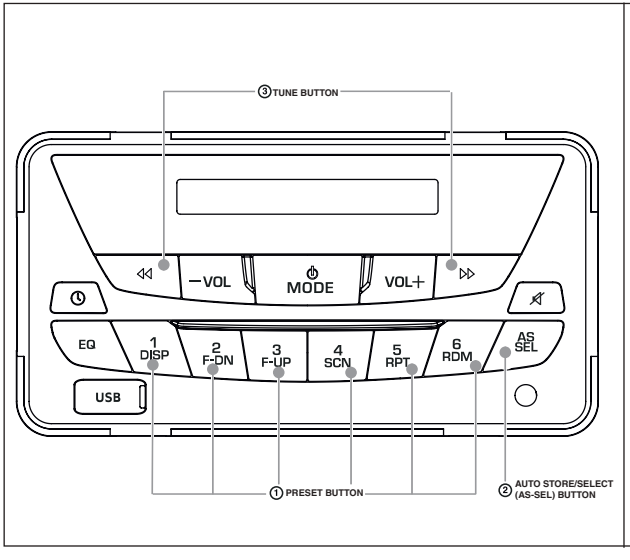
Press button **[VOL +]** to increase the Volume /Bass / Mid / Treble level. During system in Balance or Fader adjustment, press **[VOL +]** to set the right balance or set the front speaker sound.

Volume Down Button [VOL –] - ⑤

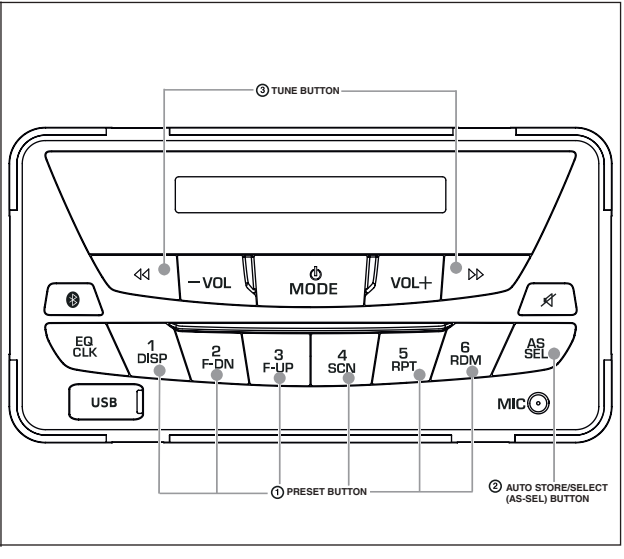
Press button **[VOL –]** to decrease the Volume /Bass / Mid / Treble level. During system in Balance or Fader adjustment, press **[VOL –]** to set the left balance or set the rear speaker sound.

Tuner operation

Type A



Type B



Preset Button (1 to 6) - ①

These buttons are used for preset station function in tuner mode. With this system, a total of 24 stations can be stored in the memory 6 each for the FM 1, FM 2, FM 3 and AM.

- **Presetting Station**

Tune in the desired station manually or automatically and press button (1 to 6) at which you want to store that station for more than 2 seconds.

- **Calling Up Station**

After your favourite stations are preset at button 1 to 6, simply press buttons 1 to 6 to call up the stations in the preset memory.

Auto Store / Select Button (AS-SEL) - ②

- **Auto Storing**

Press AS-SEL button ② more than 2 seconds to auto store 6 strongest stations in the preset memory button 1 to 6 at FM3 band.

Tune Button (◀◀ / ▶▶) - ③

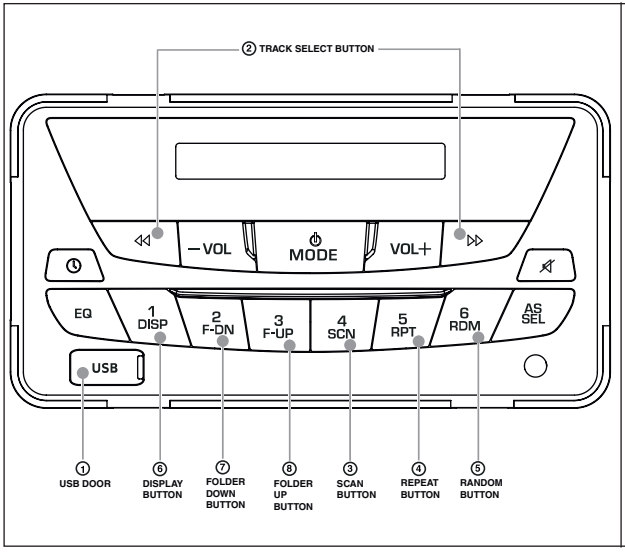
- **Manual Tuning**

Press the tune button ③ in tuner mode to tune the frequency up or down manually.

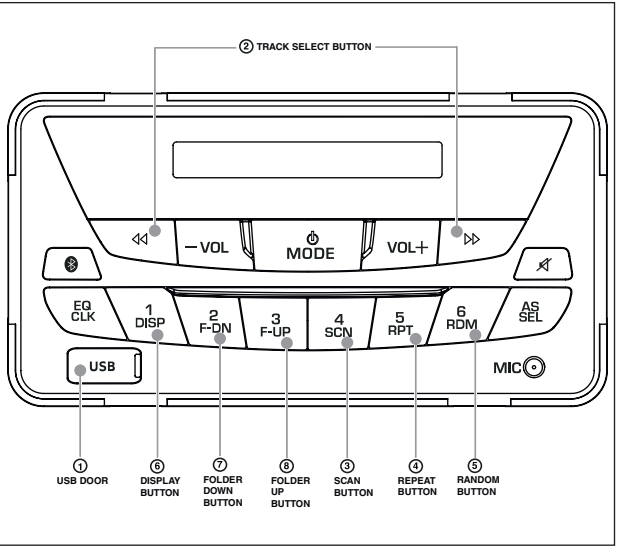
- **Auto Tuning**

Press the tune button ③ more than 2 second in tuner mode to auto tune the frequency up or down.

Type A


② TRACK SELECT BUTTON
— VOL
MODE
VOL+
EQ
1 DISP
2 F-DN
3 F-UP
4 SCN
5 RPT
6 RDM
AS SEL
USB
① USB DOOR
⑥ DISPLAY BUTTON
⑦ FOLDER DOWN BUTTON
⑧ FOLDER UP BUTTON
③ SCAN BUTTON
④ REPEAT BUTTON
⑤ RANDOM BUTTON

Type B


② TRACK SELECT BUTTON
— VOL
MODE
VOL+
EQ CLK
1 DISP
2 F-DN
3 F-UP
4 SCN
5 RPT
6 RDM
AS SEL
USB
MIC
① USB DOOR
⑥ DISPLAY BUTTON
⑦ FOLDER DOWN BUTTON
⑧ FOLDER UP BUTTON
③ SCAN BUTTON
④ REPEAT BUTTON
⑤ RANDOM BUTTON

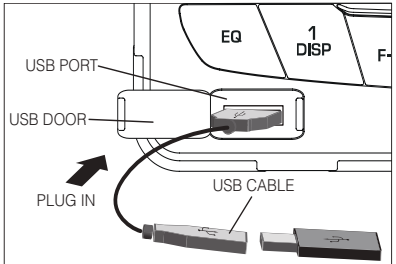


Figure 1

USB Door (⇠) - ①

- Open the USB door ① and plug in USB cable extension with USB memory into USB port (as shown in Figure 1). Press the POWER/MODE button to switch to USB mode and play MP3/WMA track.
- To detach the USB memory, straightly pull USB extension cable out from the unit. Removing the USB extension cable or USB memory will also stop play back.

Track Select Button (◀◀/ ▶▶) - ②

- Press "▶▶" button ② to forward to the next track.
- Press "◀◀" button ② to backward to the previous track.
- Press "▶▶ " button ② more than 1 second to forward the track with 10 time speed acceleration.
- Press "◀◀ " button ② more than 1 second to backward the track with 10 time speed acceleration.

Track number will appear on the display.

Scan Button (SCN) - ③

Intro Scan function allows you to scan a USB memory, by playing the first 10 seconds of each track in order. Press SCN button ③ to activate intro scan whereby the " SCN " will appear on the display. Once you hear the desired track, press again to resume its normal playback.

Repeat Button (RPT) - ④

To repeat the music you are listening to, press RPT button ④. " RPT " will appear on the display and current track will be repeated continuously. Press again to cancel the repeat mode.

Random Button (RDM) - ⑤

- **Track Random**

Press RDM button ⑤ to select song randomly from USB. Song will randomly played within selected folder. Press RDM button ⑤ to activate this function and " RDM " will appear on the LCD. Press again to deactivate this function.

- **Folder Random**

Press RDM button ⑤ for more than 2 seconds to select a song randomly in different folder from USB.

Display Button (DISP) - ⑥

This allows the unit to change the MP3/WMA display information on LCD. Press the DISP button ⑥ to select the MP3/WMA display information with the following sequence:

Track No + Play Time → File Name → Folder Name → Title Name → Artist Name → Album Name → Bit Rate → Sampling rate

Folder down button (F-DN) - ⑦

When F-DN button ⑦ is pressed, the folder will be selected by downward sequence.

Folder up button (F-UP) - ⑧

When F-UP button ⑧ is pressed, the folder will be selected by upward sequence.

Notes on playing MP3/WMA from USB memory

- This unit unable to play back certain USB devices or certain files due to their characteristics or recording conditions.
- Depending on the shape of the USB memories and connection ports, some USB memories may not be attached properly or the connection might be loose.
- If the connected USB devices is not supported, “USB ERR” appears and the unit returns to the previous mode.
- This unit can show tags (version 1.x and 2.x) for MP3 and WMA files.
- This unit can play back MP3/WMA files meeting the conditions below:
  - File: MPEG 1, 2 and 2.5 - Layer 2 and 3 (MP3); Windows Media Audio standard 4/4.1/7/8/9/9.1 (WMA).
  - Bit rates: 32 kbps - 384 kbps (MP3); 0 kbps -320 kbs (WMA).
  - Sampling Frequency (KHz): 48, 44.1, 32, 24, 22.05, 16, 12, 11.025, 8.
- This unit can play back USB File recorded in VBR (variable bit rate).
- To play good quality music from MP3/WMA, the file bit rates must be set at 128 kbps or above and the converting source should be from original CD format.
- This unit can display up to 50 characters for title name, artist name, album name, file name and folder name.
- This unit can recognize a total of 65,000 and support up to 64 GB USB memory.

USB Phone Charging

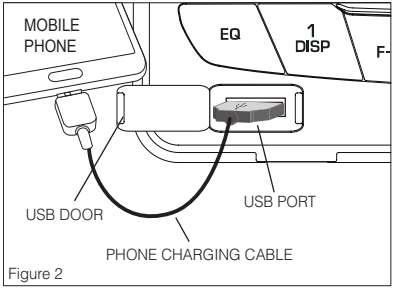


Figure 2

Open the USB door and plug in phone charging cable into USB port (as shown in Figure 2). Press POWER/MODE button to switch to USB mode. The system will charge mobile phone battery once connected.

Notes on USB phone charging

- This unit provide charging output of 5V ⎓ 1A.
- This unit may unable to charge mobile phone due to the compatibility of protecting charger interfaces inside mobile phone.

Bluetooth Operation

(Type B only)

Bluetooth handsfree

Step 1: Enter into pairing mode (discoverable and connectable mode)

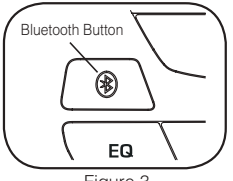


Figure 3

1. The pairing mode allows this audio system to be discoverable by your Bluetooth mobile phone. To enable pairing mode:
   a. Car audio system
      - Press the Bluetooth button in your car (figure 3) for about 5 seconds until you hear 3 continuous beeps.
   b. The audio system displays “PAIRING” and Bluetooth logo “ ᛒ ” will flashing on LCD, indicates that the system is now ready to be paired with the mobile phone.
   c. Mobile phone
      - Enable/switch on the Bluetooth feature in your mobile phone; the symbol (ᛒ) indicates that the Bluetooth is turned “On”.
      - Use mobile phone to search for new device in Bluetooth mode, mobile phone will found “BLUETOOTH CAR KIT”.
2. Audio system default name is “BLUETOOTH CAR KIT” and passkey is “0000” (enter the number zero for 4 times). User is allowed to change default name to a user preferences name in it’s mobile phone’s Bluetooth memory.
3. The audio system will connect to the Bluetooth mobile phone automatically after user key in passkey and LCD will display “CONNECTED” & “ᛒ ” will stop flashing. New Bluetooth system enter into stand by mode.
4. If connection is failed, the system LCD displays “FAILED”.
5. If the Bluetooth is disconnected the system LCD displays “DISCONT”

STEP 2: Automatic connection mode & manual connection mode

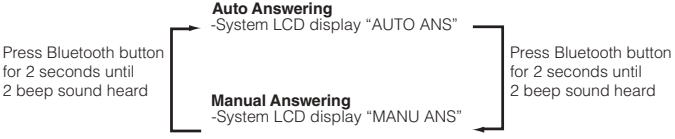
1. The audio system is entering into automatic connection mode whenever the ACC power is turned ‘on’. The auto connection mode allows automatic connection between last connected Bluetooth mobile phone with audio system.
2. To enable manual connection mode, it is required to press Bluetooth button for about 2 seconds.

Remark: The above auto & manual connection mode is effective only for the last connected Bluetooth mobile phone & the Bluetooth on mobile phone must turn ON.

Step 3: Auto answering and manual answering selection

1. The audio system allows the selection of “Auto Answering” and “Manual Answering” by just press the Bluetooth button for about 3 to 6 seconds until 2 beep sound heard.

2. The sequence of selection is shown as below:



Remark: The Auto Answering & Manual Answering selection is effective only for after the audio system is connected to the Bluetooth mobile.

Step 4: When there is an incoming call or outgoing call

1. At standby mode (Manual Answering), if there is an incoming call, the audio output will be cut-off automatically. The incoming call can only be accepted if Bluetooth button is pressed for once. The receiving conversation can be heard from front right speaker.
2. At standby mode (Auto-Answering), if there is an incoming call, the audio output will be cut-off automatically. The incoming call can be accepted automatically without pressing the Bluetooth button.
3. The volume level of telephone conversation can be adjusted by pressing the volume up [VOL +] or volume down [VOL –] button (Figure 4).

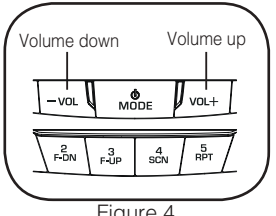


Figure 4

Step 5: Ending a call

1. User can choose to terminate the call by pressing bluetooth button for 1 second, the audio output system will resume immediately after ending a call. Consequently, the communication mode is change to Standby mode.

Step 6: Reject incoming call

1. Press the Bluetooth button twice at once to reject an incoming call.

Caller ID Display

The audio system comes with caller ID ON, when the system detect an incoming call, LCD will display “caller number”.

Bluetooth A2DP

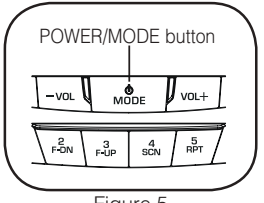


Figure 5

1. Press POWER/MODE BUTTON (Figure 5) to switch on A2DP mode with condition of Bluetooth must be paired and connected.
2. When A2DP is played with audio is transfer from mobile phone to the unit, LCD of the unit will show “BLUETOOTH MUSIC”.
3. Volume of BT Music can be adjusted by volume buttons (Figure 4).
4. To play good quality music from mobile phone, the music file bit rates shall be set at 128 kbps or above and the converting source shall be origin CD format.

Remark: This features only applicable for mobile phone with Bluetooth A2DP feature.

SUMMARY OF BLUETOOTH BUTTON FUNCTION

No.	BLUETOOTH BUTTON FUNCTION	BUTTON PRESSING TIME	BEEP SOUND
1.	- Receive / end call - Activate / deactivate auto search mode - Deactivate pairing mode	1 second	-
2.	- Reject incoming call	1 second (twice)	-
3.	- Interchange between auto-answering mode and manual answering mode	2 seconds	2 beeps
4.	- Activate pairing mode	5 seconds	3 continuous beeps

Notes on Bluetooth operation

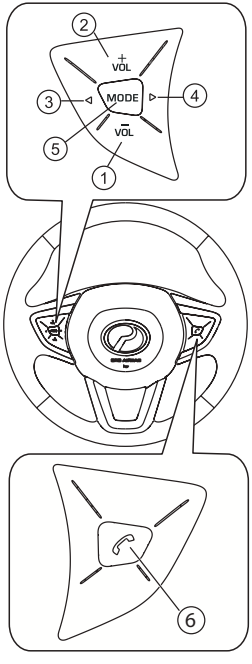
- Use the mobile phone in areas with good reception condition.
- If talking volume is low or noisy (claim from the person on the other end of the line), close the window, change the air direction, or adjust air blower's level from air conditioner to lower level.
- If the mobile phone battery is at low charge, the Bluetooth connection may occasionally be lost. To maintain good connectivity, ensure that the phone battery is adequately charged.
- This unit can store up to 8 phones pairing. If the memory is full, the first stored pair phone will be deleted.
- Echo will happen depend on mobile phone or service network.

⚠ Caution

- Telephone conversation during driving may result in consequences adverse to safety. Kindly follow the local laws and regulations.
- Pair, connect & adjust the volume level of incoming calls appropriately before start driving.
- Park your car in a safe place by using a parking brake before you make a call.
- This audio system is designed only for receiving calls with taking account of safety.

Steering switch control system
(if equipped)

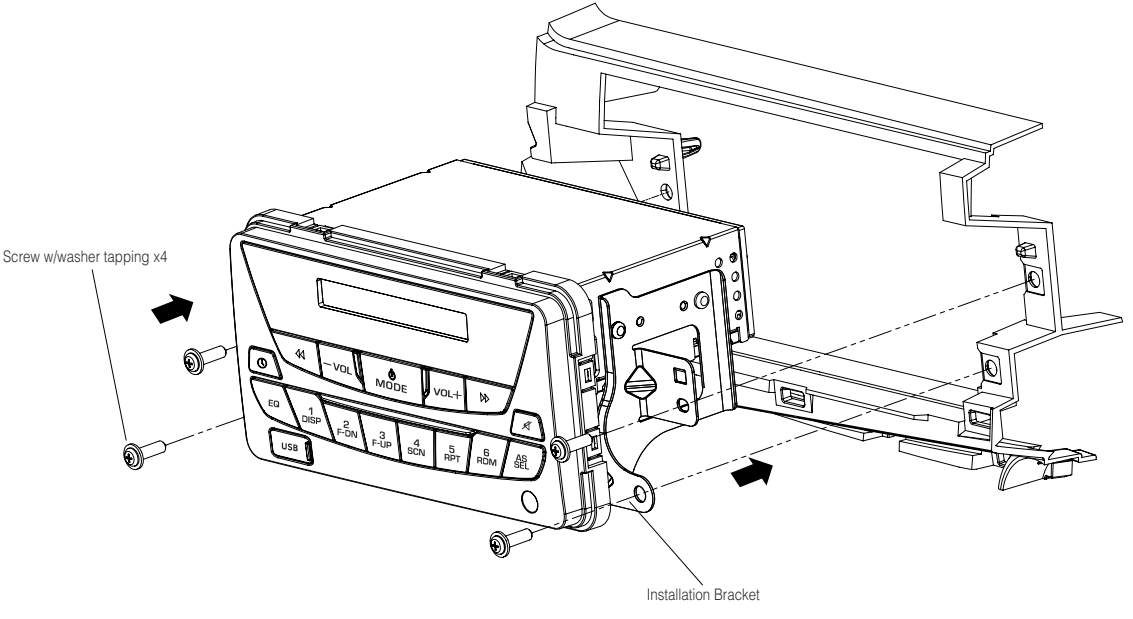
You can operate some of the functions of the audio system without taking your hands off the steering wheel.



Button	Condition / Mode	Operation	Function
Volume down button (VOL(−) - ①	-	Press button	Decrease volume level of audio
Volume up button (VOL+) - ②	-	Press button	Increase volume level of audio
Tune down button (◁) - ③	FM/AM Mode	Press button	Preset channel down.
		Press button for few seconds	Receive frequency being tuned back automatically and stop when a high intensity frequency (radio station) is being received.
	USB MP3/WMA Mode	Press button	Reverse backward to previous track.
	Bluetooth Music Mode	Press button	Reverse backward to previous track.
Tune up button (▷) - ④	FM/AM Mode	Press button	Preset channel up.
		Press button for few seconds	Receive frequency being tuned next automatically and stop when a high intensity frequency (radio station) is being received.
	USB MP3/WMA Mode	Press button	Forward to next track.
	Bluetooth Music Mode	Press button	Forward to next track.
Mode button (MODE) - ⑤	System OFF condition	Press button	System ON
	System ON condition	Press button	Mode change: FM1 → FM2 → FM3 → AM → USB → A2DP → (CYCLIC OPERATION)
		Press button for few seconds	System OFF
Phone button - ⑥	Incoming call condition	Press button	Receive call
		Press button for few seconds	Reject call
	Conversation condition	Press button	End call

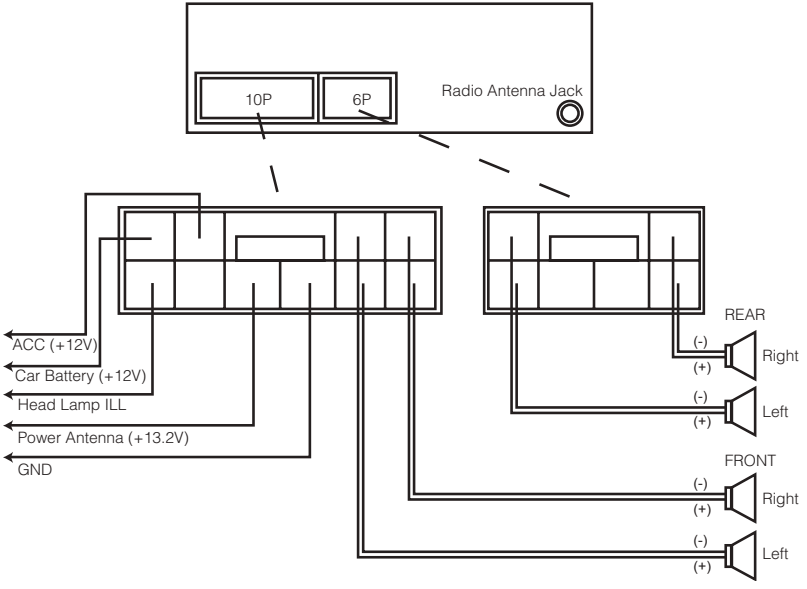
Installation

Install the radio set to the dashboard case with screw w/washer tapping (4 units).

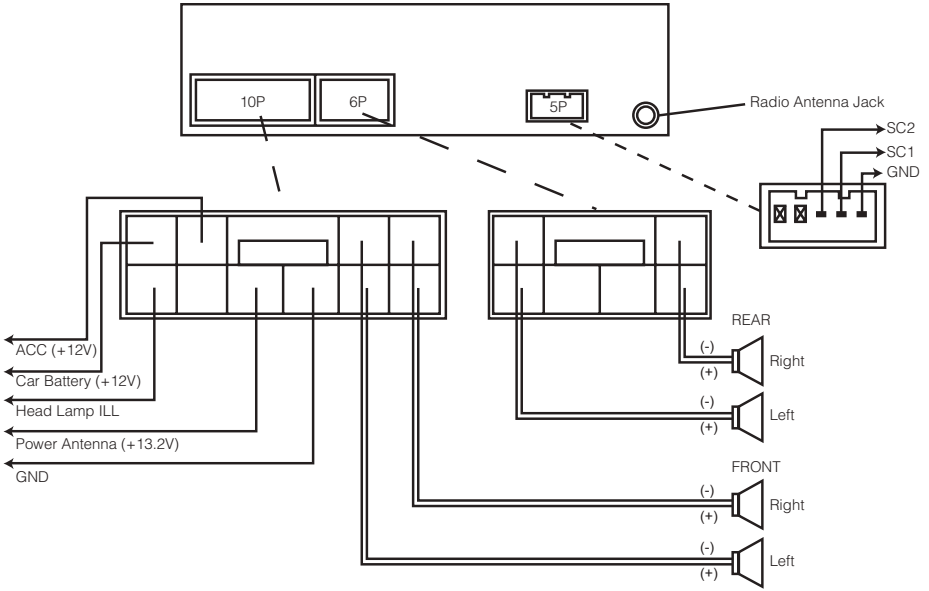


Radio wire connection

Type A



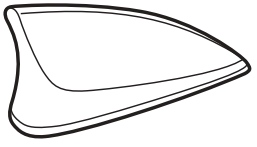
Type B


10P
6P
5P
Radio Antenna Jack
SC2
SC1
GND
ACC (+12V)
Car Battery (+12V)
Head Lamp ILL
Power Antenna (+13.2V)
GND
REAR
(-)
(+)
Right
(-)
(+)
Left
FRONT
(-)
(+)
Right
(-)
(+)
Left

Specification

Audio system		TYPE A	TYPE B
GENERAL			
Power supply voltage	:	DC 12.0V	DC 12.0V
Rate	:	14.4V	14.4V
Audio Output	:	(20W x 4) Rms	(20W x 4) Rms
Weight	:	1 Kg	1 Kg
Mute	:	Decreased to - 79dB	Decreased to - 79dB
Current consumption	:	less than 10A	less than 10A
Speaker impedence	:	4 ohms	4 ohms
Grounding system	:	Negative type	Negative type
FM TUNER			
Frequency range	:	87.5 to108 MHz	87.5 to108 MHz
Usable sensitivity	:	10 dB	10 dB
-3dB limiting sensitivity	:	10 dB	10 dB
Signal to noise ratio	:	50 dB	50 dB
Stereo separation	:	30 dB	30 dB
AM TUNER			
Frequency range	:	522-1620 kHz	522-1620 kHz
Usable sensitivity	:	28 dB	28 dB
Signal to noise ratio	:	50 dB	50 dB
USB			
Frequency characteristics	:	10 - 20,000 Hz (± 3 dB)	10 - 20,000 Hz (± 3 dB)
Signal to noise ratio	:	70 dB	70 dB
Dynamic range	:	80 dB	80 dB
POWER AMPLIFIER			
Maximum power output	:	(20 W x 4) Rms	(20 W x 4) Rms
Tone controls (Bass)	:	± 12 dB(@ 100 Hz)	± 12 dB(@ 100 Hz)
Treble	:	± 12 dB(@ 10 kHz)	± 12 dB(@ 10 kHz)
BLUETOOTH			
Standard	:		Bluetooth Ver 2.0 compliant
Frequency Band	:		2.4 GHz - 2.4834 GHz
Power of radiation Frequency	:	-	-6 dBm ~ +4 dBm (class 2)
Frequency Hoping	:		1600 hops/sec
Sensitivity	:		-70 dBm @ 0.1% BER
Audio S/N	:		More than 90 dB

Antenna



Shark fin type

If there is a problem with your antenna, please consult with an authorised Perodua Service Centre.

Section 8



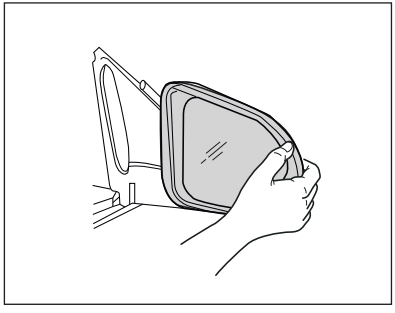
Mirrors

Side mirrors **8–1**
Inside mirror **8–3**

Side mirrors

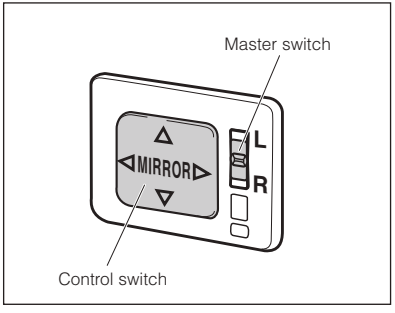
⚠ WARNING

- **Do not adjust mirrors while driving. This could cause a loss of control of the vehicle.**
- **Prior to driving, be sure to return the side mirrors to the original position. Never drive your vehicle with the side mirrors in a retracted (folded) position.**



To adjust mirrors by hand

Adjust the side mirrors by hand so that you can see part of your vehicle in the mirror closest to the vehicle.



To adjust mirrors by remote control outer mirror switch (if equipped)

The remote control mirror switch operates with the ignition set to “ACC” or “ON”.

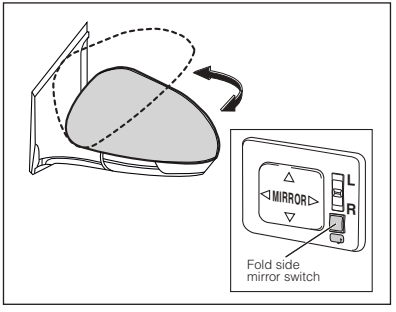
1. Set the master switch to left or right as you desire.
2. Push the control switch to adjust the mirror so that you can see part of your vehicle in the mirror closest to the vehicle.
3. Return the master switch to the neutral (OFF) position when not in use.

CAUTION

- **Adjust mirror before you start driving. Do not adjust the side mirror if the transmission lever is at Ⓡ or Ⓓ4. This could cause a loss of control of the vehicle and an accident.**

NOTE

- **The left and right switch must always be at centre position unless if you want to adjust the mirror.**
- **The mirror cannot be adjusted when the switch is at centre position.**



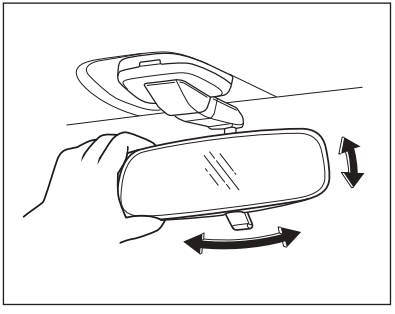
To fold side mirrors by hand

To close the side mirror, simply push it backward.

To fold side mirrors by remote control mirror switch (if equipped)

With ignition switch turned “ACC or ON”, push button at the mirror switch.

Inside mirror

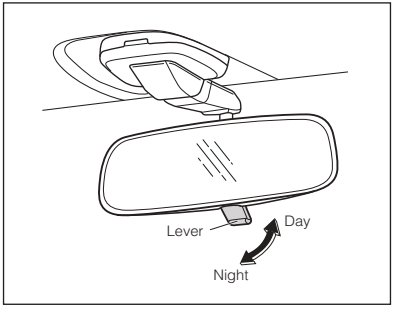


To adjust mirror

Adjust the inside mirror by hand so that you can see the rear view clearly.

⚠ WARNING

Do not adjust mirrors while driving. This could cause a loss of control of the vehicle.



To set night position (Glare proof type)

Pull the lever to reduce glare from the headlights behind you at night.

⚠ WARNING

Set the mirror in the day position when you need not reduce glare. Rear view clarity is reduced in the night position.

Section 9

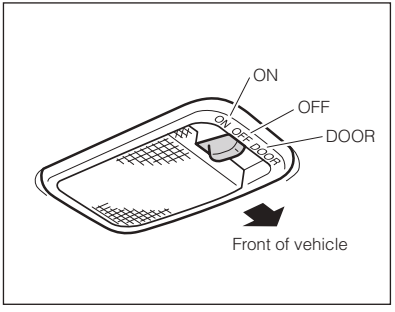


Interior equipment

Interior lights 9–1
Tilt steering 9–1
Horn 9–2
Assist grip 9–2
Sun visor 9–2
Glove box 9–3
Utility box 9–4
Bottle holder 9–4
Rear package tray 9–5
Shopping hook 9–6
Anti snatch hook 9–6
Seatback pocket 9–6
Side seat pocket 9–7

Interior lights

Room light (Also serving as open door warning light)



Set the dome light switch to “ON” to turn the light on and to “OFF” to turn it off.

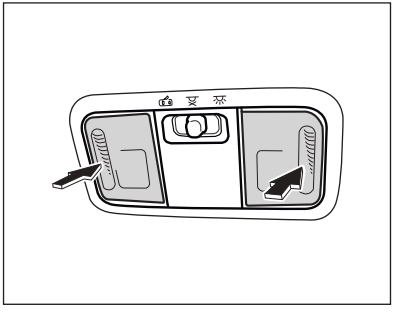
With the switch is set to “DOOR” position, the light turns on when any door is opened or is not securely closed.

If the light keeps on illuminating even after the doors have been closed, the door may be opened or may not be closed fully. Ensure that all the doors are closed.

Battery discharge-prevention function

If any doors remain open for ten minutes or more with the ignition switch sets to “OFF” or “ACC” position, the room light (while the switch is set to “DOOR” position) goes out. This is to prevent the battery from being discharged.

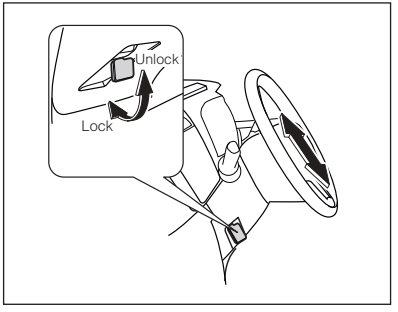
Front personal light



When the front light is pushed, the light goes on.

When the front personal light is pushed again, the light goes out.

Tilt steering

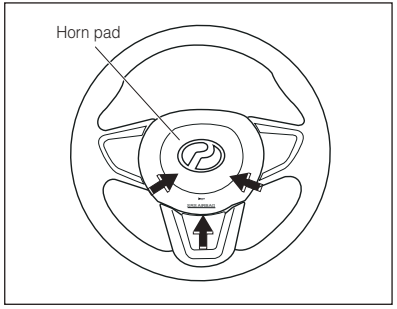


Pull up the tilt lever to unlock the steering column. Move the steering column to your desired position. Then securely pull up the tilt lever. The steering column will be locked at this position.

⚠ WARNING

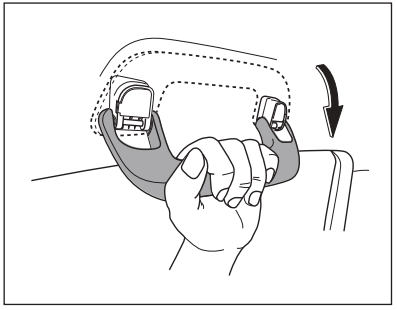
- **After adjusting, make sure the steering column is locked securely by trying to move it up and down.**
- **Do not adjust the steering wheel position while the vehicle is moving, as this can cause an accident.**

Horn



Push the horn pad on the steering to activate the horn.

Assist grip



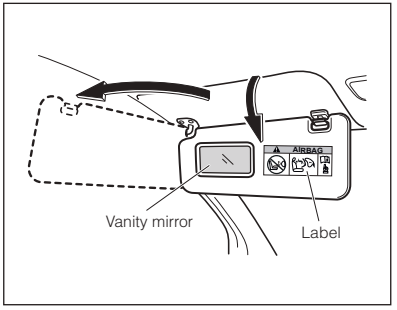
Assist grips are provided for passenger's and driver's (if equipped) convenience.

⚠ WARNING

- **Do not hang anything on the assist grip.**
  It could block the driver's vision or damage the assist grip.
- **Driver should not use the assist grip while driving.**

Sun visor

Vanity mirror

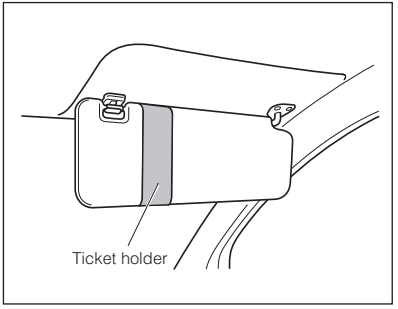


Lower the sun visor to use vanity mirror and to protect your eyes from bright sunlight. The sun visor also moves toward the door window.

⚠ WARNING

Return the sun visor to the original position when not in use. Your visibility may be hindered by the sun visor.

Ticket holder

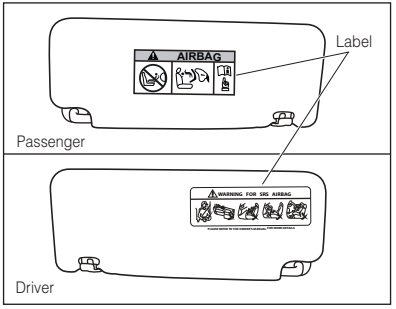


Use the ticket holder to keep any kind of tickets.

⚠ WARNING

Do not put other objects in the ticket holder. It may drop off and cause an accident.

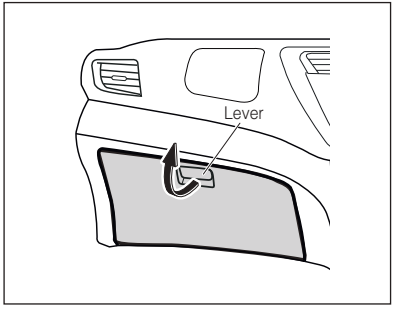
SRS airbag warning label



Observe all warnings shown on the label. See “SRS (Supplement Restraint System) air bags for driver and front passenger” and “SRS air bag” in Section 3 for detailed instructions on air bag.

CAUTION

Do not use or apply gasoline or toxic solvents on the label portion. This could damage the label.



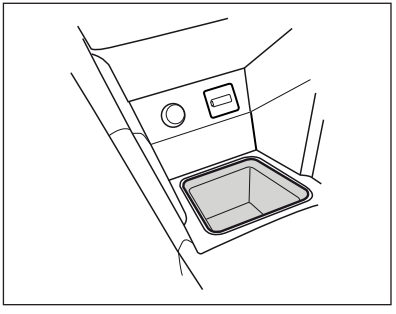
Pull the lever to open the glove box lid and push the lid to lock securely.

⚠ WARNING

Keep the glove box lid closed while driving. This could help reduce the risk of serious bodily injury in an accident or hard braking.

Utility box

Center panel



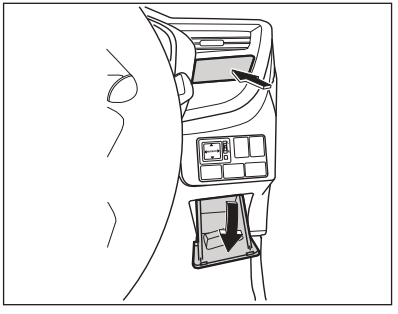
Use utility box to keep things such as tickets, name cards, etc.

⚠ WARNING

Do not keep flammable things such as cigarette lighter in the utility box to prevent fire.

Inappropriate sized or shaped objects may be thrown out of the utility box and possibly injured people in the vehicle during a sudden braking or an accident.

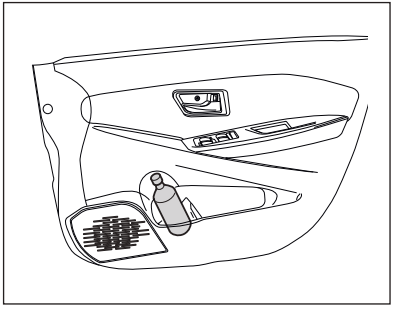
Driver's side



Two utility box are available for driver's side. Pull the lever to open the lower utility box and push the lid to lock securely.

Bottle holder

Front door

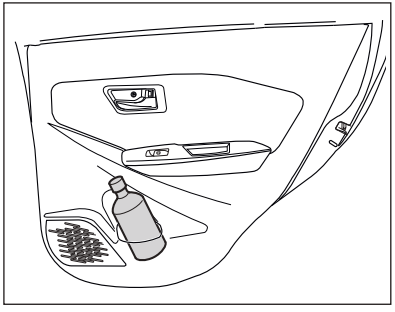


⚠ WARNING

While you are using the bottle holder, the drink may spill over due to vibration. Be careful not to spill the drinks when the door is opened/closed or hard braking is applied.

Rear package tray

Rear door



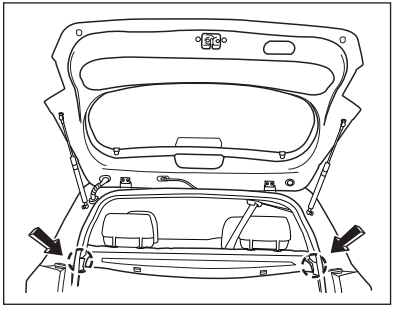
Rear



⚠ WARNING

be careful when using the bottle holder. A hot spilled liquid could cause injury and a loss of control of the vehicle.

Use only resealable bottles, cups, cans or containers in the bottle holder.



To remove package tray

1. Push up the package tray out.

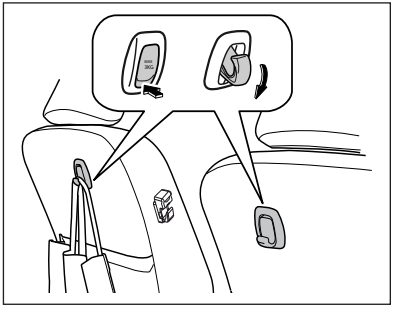
To install package tray

1. Press down the package tray to install.

⚠ WARNING

Do not place anything on the package tray. It may block driver's vision or damage the package tray.

Shopping hook



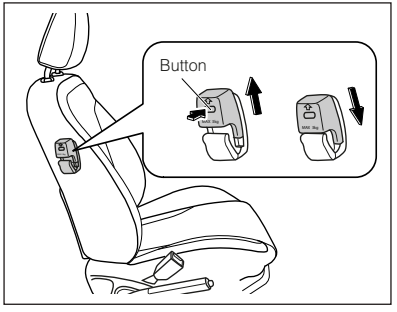
Shopping hooks are provided to keep shopping bags upright and prevent items from falling over and spilling**.**

CAUTION

Do not hang item that is heavier than 3.0 kg. It could damage the shopping hook.

Close the hook when not in use.

Anti snatch hook

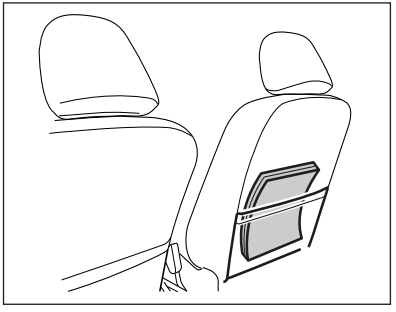


This hook is located at the right side of the front passenger seat and provide a safe place to hang things such as handbags. It can keep handbags away from reach and can withhold pull strength of 3.0 kg.

⚠ WARNING

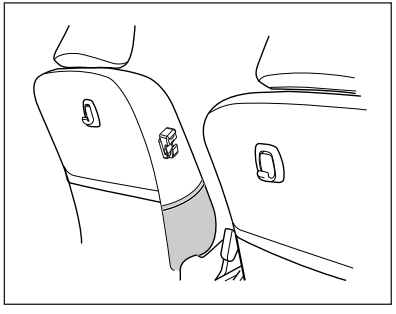
Do not leave handbag or any valuable things in your vehicle. This can prevent your vehicle from being broken into.

Seatback pocket



Use this pocket to keep things such as magazines and maps.

Side seat pocket



Use this pocket to keep small things.

Section 10

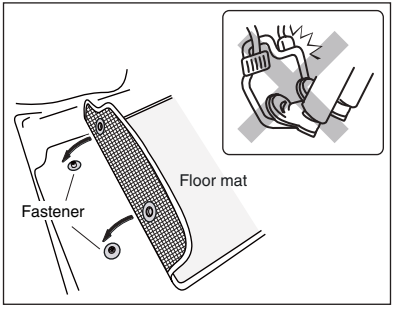


Driving tips

Before starting engine 10–1
Starting engine 10–2
Manual transmission shifting instructions 10–3
Shifting points (Manual transmission) 10–4
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Normal driving tips 10–10
Economical driving tips 10–10
Brake system 10–10
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Parking tips 10–13
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VSC (Vehicle stability control) • TRC (Traction control) 10–21
Hill-Start Assist 10–23
ESS (Emergency Stop Signal) 10–25
ASA (Advanced safety assist) 10–26
Electronic toll collection system 10–45

1. Perform the pre-starting check.
   See Section 13.
2. Check the safety around the vehicle before entering it.
3. Make sure that the parking brake is applied.
4. Adjust seat position, seatback angle, and headrest height.
5. Adjust the inside mirror and outside mirrors.
6. Fasten seat belts.
7. Turn off unnecessary lights and accessories.
8. Check fuel gauge if fuel is enough to drive.

Floor mat



Before driving, make sure that the floor mat is installed securely in correct position.

⚠ WARNING

When using a floor mat, arrange it properly to ensure it will not interfere with the free movement of the brake pedal or acceleration pedal. Do not stack more than one floor mat.

Secure the floor mat in place, using the special fasteners. (If equipped)

Failure to observe this warning may cause the brake pedal or accelerator pedal to get stuck on the floor mat, leading to accidents.

Starting engine

CAUTION

- **Do not crank the starter continuously for more than 10 seconds.**
- **Do not race a cold engine to prevent engine from damage.**
- **Keep moderate speed until the engine warms up thoroughly.**
- **Make sure that you are seated in the driver seat before starting the engine. Do not start the engine from the outside of the vehicle. Your car may unexpectedly move while turning the ignition switch.**
- **Do not accelerate the vehicle when the engine coolant temperature is low.**

Starting procedure

The electronic fuel injection system automatically controls the proper air-fuel mixture for starting.

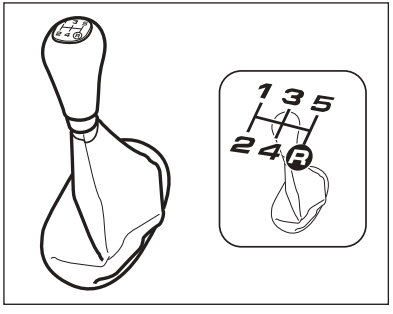
1. Depress the brake pedal fully.
2. Depress the clutch pedal fully and hold it in that position until the engine starts (manual transmission).
3. Shift the transmission lever to neutral (manual transmission) or to Ⓟ or Ⓝ range (automatic transmission).
4. Turn the ignition switch to “ON”. Ensure the warning lights go on.
5. With your foot off the accelerator pedal, depress the brake pedal, turn the ignition switch to “START” and release the ignition switch.
6. Check that warning lights except parking brake warning light or brake warning light go out.
7. Do not race a cold engine. Warm up the engine for a few minutes before driving.

Precautions for automatic transmission-equipped vehicle

For the automatic transmission-equipped vehicle, special care should be exercised to the following points.

- Apply the parking brake and shift the transmission lever to the Ⓟ range before starting the engine.
- The engine can also be started in the Ⓝ range, but it is advisable to start the engine in the Ⓟ range.
- For safety reasons, the shifting mechanism is constructed to ensure that the engine cannot be started with the transmission lever shifted to the Ⓡ,Ⓓ$_4$, ③ or ② range.
- If the engine is stalled while the vehicle is moving, restart it with the transmission in the Ⓝ range.
- The engine cannot be started by pushing or towing the vehicle.
- Shift the transmission only when the engine is idling. The vehicle may move suddenly if the transmission is shifted to theⓇ, Ⓓ$_4$,③ or ② range during high engine speed.
- Shift the transmission from the Ⓟ or Ⓝ range to other ranges with the brake pedal firmly depressed; otherwise the vehicle may move suddenly.

Manual transmission shifting instructions



The shift pattern is shown above.

Depress the clutch pedal fully when shifting. If the gear will not shift easily, release and depress the clutch pedal and try again.

The transmission is designed to ensure that the shift lever cannot be shifted from the 5th gear to the reverse gear directly. To shift from the 5th gear to the reverse gear, first return the shift lever to neutral, and then to the reverse gear after the vehicle has completely stopped.

CAUTION

Shift into the reverse gear after the vehicle has been stopped completely; otherwise, the transmission may be damaged.

When you drive on steep hills, downshift for engine braking depending on road conditions or vehicle speed.

⚠ WARNING

Be careful when downshifting on slippery, or wet roads. Failure to do so could cause wheel lock or skid, and a loss of control or an accident.

Shifting points (Manual transmission)

Recommended shifting speeds

Upshift or downshift at the following speed for better fuel economy and longer engine life.

Note that the shifting speed varies depending upon the weather and road conditions, etc.

km/h

Gear	Speed	
	1NR-VE	2NR-VE
1st-2nd 2nd-1st	20	20
2nd-3rd 3rd-2nd	40	40
3rd-4th 4th-3rd	55	55
4th-5th 5th-4th	80	80

Maximum allowable speeds

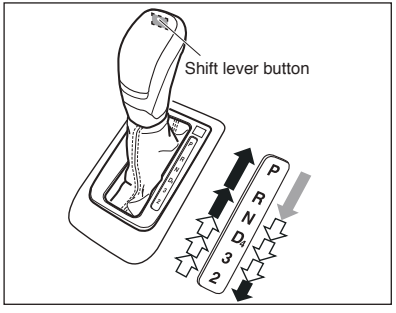
CAUTION

If your vehicle exceeds the maximum allowable speeds given on the table below, do not downshift. If this caution is neglected, the engine could be damaged.

km/h

Gear	Speed	
	1NR-VE	2NR-VE
1st	45	45
2nd	80	80
3rd	120	120
4th	170	170
5th	-	-

Automatic transmission shifting instructions



➡ : Move the shift lever with the brake pedal depressed and the shift lever button pushed.

➡ : Move the shift lever with the shift lever button depressed.

⇨ : Move the shift lever without pressing the shift lever button.

NOTE

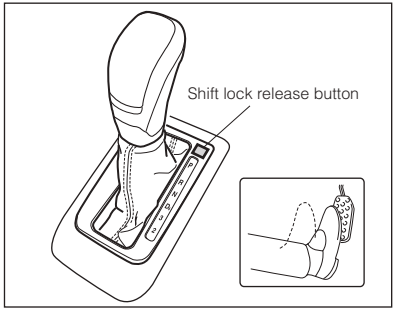
- **You cannot move the shift lever from the Ⓟ range to other ranges, unless you are depressing the brake pedal.**
- **When the ignition switch is set to the "OFF" position, you cannot move the shift lever from the Ⓟ range to other ranges, even if you depress the brake pedal.**
- **There are cases where you cannot move the shift lever if you depress the brake pedal with the shift lever button pushed first. In this case, return the shift lever button to its original position. Then depress the brake pedal first and redo the operation.**

The following shows the function of each range.

P	For parking the vehicle, starting the engine and removing the ignition key
R	For reversing the vehicle
N	Neutral The engine can be started in this range. It is, however, advisable to start the engine in the Ⓟ range for assured safety purpose
D_4	For normal driving Gear shifting is carried out automatically between the 1st gear and the 4th gear according to the vehicle speed
3	For engine braking or rapid acceleration. Gear shifting is carried out automatically between the 1st gear and 3rd gear according to the vehicle speed
2	For effective engine braking The transmission will not upshift from the 2nd gear

NOTE

- **The engine can be started only in Ⓟ or Ⓝ.**
- **For ➡ operation, the shift lever cannot be moved without depressing the shift lever button to prevent wrong manipulations. Check the indicator to see the present position of the shift lever.**
- **On the electronically-controlled automatic transmission vehicles, when the temperature of the transmission fluid is low immediately after the start of running, an automatic upshift to the 3rd or 4th gear may not take place. When the temperature of the transmission fluid has risen, this automatic upshift will take place.**



Shift lock (automatic transmission)

This vehicle is equipped with shift lock system to prevent wrong operation of shift lever.

When the shift lever is in the Ⓟ range, the shift lever cannot be moved unless the ignition switch is in the "ON" or "ACC" position and the brake pedal is depressed.

Also, when the shift lever is not in the Ⓟ range, the ignition key cannot be turned from "ON" or "ACC" to "OFF".

Shift lock release button

In case if the battery runs out or weak, use this release button to cancel the shift lock mechanism manually.

Unlocking the shift lock system

Depress the brake pedal while pressing the shift lock release button and at the same time, operate the shift lever.

NOTE

Make sure to depress the brake pedal when operating the shift lever.

Moving off

While depressing the brake pedal firmly, place the shift lever to the desired position in Ⓓ4 (or ③ or ②) for forward driving or in Ⓡ for backward driving.

After releasing the parking brake completely, move the vehicle by releasing the brake pedal slowly.

⚠ WARNING

- **Never operate the shift lever while depressing the accelerator pedal. The vehicle may move suddenly.**
- **When engine revolution speed is high (such as right after starting the engine, during warming-up or when the air conditioner switch is on), depress the brake pedal firmly, otherwise the vehicle may move.**
- **When performing the ⇨ operation, move the shift lever without pressing the shift lever button in order to avoid wrong operation. If the shift lever button is always pressed during the operation, the shift lever may be inadvertently placed in Ⓟ, Ⓡ or ② range, resulting in an unexpected accident.**
- **Do not place the shift lever in the Ⓟ range before the vehicle comes to a complete stop. Also, do not place the shift lever in the Ⓝ range when driving; in the Ⓡ range when moving forward; or in the Ⓓ4, ③ and ② ranges when moving backward. Failure to observe this warning may damage the transmission or could cause loss of control, leading to an accident.**

Driving

- Use Ⓓ4 for normal driving.
- Manual operation from ② to ③ or Ⓓ4 can also be carried out.
- When rapid acceleration is required, depress the accelerator pedal fully.
  Even if the shift lever is in Ⓓ4, the transmission will downshift automatically to the 3rd gear or the 2nd gear depending on vehicle speed.
- If the engine stalls while driving, restart it with the transmission in Ⓝ. It is, however, advisable to start the engine in Ⓟ normally.
- When you drive on steep hills, downshift for engine braking depending on road conditions or vehicle speed.

⚠ WARNING

- **When performing the ⇨ operation, move the shift lever without pressing the shift lever button in order to avoid wrong operation. If the shift lever button is always pressed during the operation, the shift lever may be inadvertently placed in Ⓟ, Ⓡ or ② range, resulting in an unexpected accident.**
- **Do not place the shift lever in the Ⓟ range before the vehicle comes to a complete stop. Also, do not place the shift lever in the Ⓡ range when driving; in the Ⓡ range when moving forward; or in the D_4, ③ and ② ranges when moving backward. Failure to observe this warning may damage the transmission or could cause loss of control, leading to an accident.**
- **Be careful when downshifting on slippery or wet road. Failure to do so could cause wheel lock or skid, and a loss of control or an accident.**

CAUTION

- **When driving up a slope area, kick down may function and the engine revolution may increase.**
- **When driving up a slope area, press the accelerator slowly to maintain the speed. Avoid pressing the accelerator pedal rapidly. Kick down mode may cause the engine revolution suddenly increased.**
- **When driving on slippery road or curve, avoid pressing the accelerator pedal rapidly. Kick down may cause the engine revolution to increase and your car can easily slip and fail to pass through the curve securely.**
- **Follow the maximum speed for every shift gear.**
- **Do not rest your feet on the brake pedal as it may cause the brake system to overheat and reduce friction of the brake system.**

Maximum allowable speeds

CAUTION

If your vehicle exceeds the maximum allowable speeds given on the following table, do not down shift. If this caution is neglected, the engine could be damaged.

km/h

Range	Speed	
	1NR-VE	2NR-VE
2	89	89
3	147	147
D_4	-	-

Brief stopping

Depress the brake pedal firmly with the shift lever in the same range or in Ⓝ.

If you stop for a long time, apply the parking brake with the shift lever in Ⓝ.

⚠ WARNING

If the brake pedal is not firmly depressed and the shift lever is in the ②, ③, Ⓓ4 or Ⓡ range, the vehicle may tend to move.

To prevent sudden vehicle movement:

- **Apply the parking brake on an uphill grade.**
- **Keep brake pedal depressed when shifting from Ⓝ to other ranges.**

Parking or stopping

After the vehicle has completely stopped, apply the parking brake and shift the transmission lever to Ⓟ while depressing the brake pedal.

⚠ WARNING

- **Shift the transmission lever completely in Ⓟ to help prevent unintended or accidental vehicle movement.**
- **Do not race the vehicle unnecessarily.**

Make sure that the shift lever is in Ⓟ when turning the engine off, otherwise the ignition switch cannot be turned to “OFF”.

Reverse

To reverse the car

Make sure that your car has completely stopped while pressing the brake pedal and move the shift lever to Ⓡ.

CAUTION

- **Be careful with your driving posture while reversing your car. Make sure with that posture you still manage to control the brake.**
- **After reverse, make sure that you turn back the lever to Ⓝ or Ⓟ.**
- **Make sure that your car has completely stopped before shifting the lever from Ⓓ4 to Ⓡ and from Ⓡ to Ⓓ4. Press the brake pedal firmly. Failure to follow this instruction may damage the transmission system.**

Normal driving tips

⚠ WARNING

Slow down when driving in crosswind or on rough road.

CAUTION

- **Do not rest your foot on the clutch pedal while driving, or do not hold your vehicle with the clutch while stopping on an upgrade. This could cause clutch overheating.**
- **Do not drive with the shift lever in neutral. This could cause transmission overheating.**
- **Do not rest your hand on the shift lever knob while driving. The transmission could accidentally be shifted into another range. Also, this could cause transmission damage.**
- **Do not race the engine when shifting. This could cause engine overheating.**
- **Do not drive through water if the water depth is higher than the bottom of the wheel rims. Drive slowly when driving through water.**

Economical driving tips

- Accelerate your vehicle gently. Avoid unnecessary sudden acceleration or braking. Keep the same speed as long as possible.
- Avoid unnecessary high speed driving.
- It is advisable to drive by using the top gear when driving at high speed. This will help reduce engine noise level as well as fuel consumption.
- Take ample time as much as possible to help the vehicle move appropriately since moving the vehicle from a stop requires more fuel.
- Drive sensibly and maintain your vehicle properly (refer to Section 13). This will keep originally-designed performance of your vehicle as well as save fuel.
- Do not overload.
- Do not keep engine idling unnecessarily.
- Turn the air conditioner off when it is not required.

Brake system

Tandem master cylinder brake system

Your Perodua is equipped with a tandem master cylinder brake system. Each brake system functions independently.

If either of the brake system fails, the other system still works. However, the brake system requires increased force and the stopping distance will be increased. Furthermore, the brake warning light should go on.

⚠ WARNING

Do not continue driving with the malfunctioning brake system.

Have the system checked immediately.

Brake booster

The brake booster utilizes engine manifold vacuum to assist braking force.

⚠ WARNING

If the engine is stopped while driving, braking will require more force than usual and stopping distance will increase.

In this case, shift the gear to neutral and get the vehicle to the side of the road safely. Put the hazard lights on once you have stopped and get an authorised Perodua Service Centre or tow truck service for assistance.

General precautions for braking

⚠ WARNING

- **Do not depress the brake pedal immediately after the tyre is punctured. This could cause a loss of control of the vehicle.**
- **Make sure that the floor mat does not interfere with the free movement of the pedal.**
- **Braking effectiveness will be reduced with moisture or salt. Lightly depress the brake pedal several times to remove moisture or salt.**
- **Do not rest your foot on the brake pedal while driving. This could cause brake overheating.**
- **Do not depress the brake pedal continuously when descending a steep grade. Downshift to get engine braking.**

ABS (Anti-lock Braking System)

The ABS (Anti-lock Braking System) is a system which prevents the wheels from being locked during hard braking or braking on a slippery road surface, thereby enhancing the vehicle stability and controllability.

There will be instances where the brake pedal vibrates or emits operating sounds when the brake pedal is being depressed. This is a symptom that the ABS is functioning properly.

Further, you may hear a sound emitted from the engine compartment for several seconds when the vehicle reaches a certain speed after the vehicle moved off.

This is not an abnormal symptom. The sound is emitted from the ABS system when it is conducting its initial, self- diagnosis.

EBD (Electronic Brake force Distribution)

The EBD (Electronic Brake force Distribution) is a function whereby an optimum braking force is distributed according to the running condition and loaded condition of the vehicle. Thus, the effectiveness of braking under a loaded state will be assured at all times.

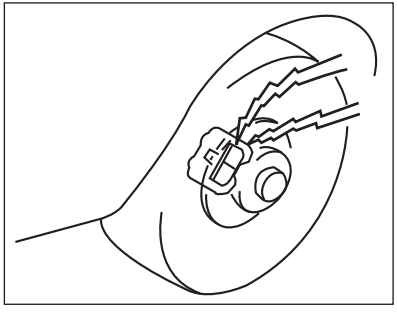
CAUTION

- **Your vehicle, even if equipped with the ABS, still requires a sufficient stopping distance. Always keep a safe distance from the vehicle running ahead of your vehicle.**
- **Never drive your vehicle at an excessively high speed, even if equipped with the ABS always drive safely. Always be careful and pay attention to the road conditions while driving.**
- **Compared with those without ABS, the braking distance of a vehicle equipped with ABS may be extended on rough roads or gravel roads. Under such road conditions, drive at a reduced speed.**
- **If the ABS encounters with a malfunction, the warning light goes on. Even under this state, the normal braking performance is retained, although the ABS is no longer functioning.**

  When this light illuminates, have the vehicle checked immediately by an authorised Perodua Service Centre.
- **After the engine has started or while the vehicle is running, if the anti-lock brake system warning light and brake warning light remain illuminated and will not go out, the rear tyres alone may lock during hard braking, thus making the vehicle unstable.**
- **In this case, avoid hard braking and have the vehicle checked immediately by an authorised Perodua Service Centre.**

NOTE

- **The ABS system will not operate at vehicle speed 10 km/h (6 mph) or less. The system will function as a normal braking system.**
- **Be sure to keep depressing the brake pedal strongly at the time of hard braking. If you release the brake pedal, the ABS system will not provide its intended effects.**
- **Never perform pumping braking*. If you perform the pumping braking, the braking distance will become longer.**
- ***"Pumping braking" refers to a braking method of depressing and releasing the brake pedal several times.**



The brake pad wear limit indicators on the front disc brakes give a warning noise when the brake pads are worn.

⚠ WARNING

Do not continue using the worn brake pads. This could reduce braking effectiveness and cause an accident.

Have the brake pads and rotor checked or replaced immediately.

Parking tips

1. Make sure that your vehicle has completely stopped.
2. Depress the clutch pedal and shift the transmission lever to neutral (manual transmission).
3. Press the brake pedal and shift the lever to Ⓟ (automatic transmission).
4. Apply parking brake.
5. Turn the ignition switch to “OFF”.

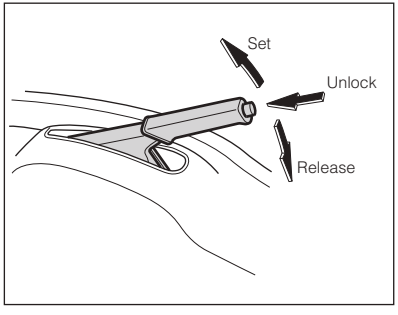
CAUTION

- **Do not forget to apply parking brake.**
- **Do not leave your vehicle while the engine is running.**
- **When leaving your vehicle, make sure that you set the ignition switch to “OFF.**
- **For automatic transmission:**
  - **While parking, make sure that the transmission lever is at Ⓟ because at this range, all tyres are locked.**
  - **Do not shift the lever to Ⓟ until your vehicle is completely stopped to avoid the transmission system from being damaged.**

⚠ WARNING

- **When parking or stopping your vehicle, make sure that there is no combustible objects such as dry grass and oil around and underneath your vehicle. The exhaust pipe may reach an extremely high temperature, and it is possible that nearby combustible objects may be ignited.**
- **When you park the vehicle, engage the parking brake fully except when the mechanism could be frozen. Place the manual transmission lever in 1st on the uphill grade or reverse on the downhill grade, or the automatic transmission lever in Ⓟ.**

Parking brake



Pull the lever up to set the parking brake. To release the parking brake, raise the lever slightly and push the button with your thumb. Then, lower the lever completely.

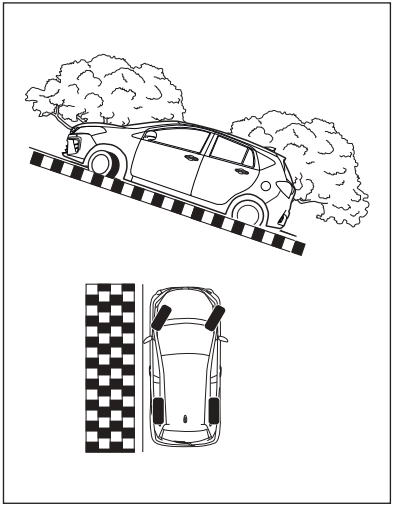
CAUTION

When you drive the vehicle, make sure that the parking brake has been completely released and the brake warning light is off. A partially applied parking brake could cause brake overheating, resulting in prematurely worn pads or linings.

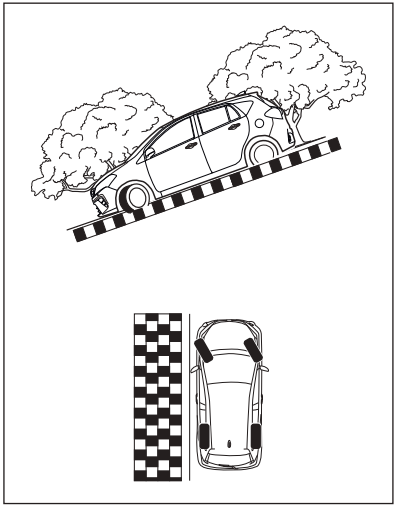
Parking on slope

Turn the front wheels as shown when parking on a slope. Apply the parking brake, and place the transmission in Ⓟ (automatic transmission) or in 1st gear (manual transmission). If necessary, chock the wheels.

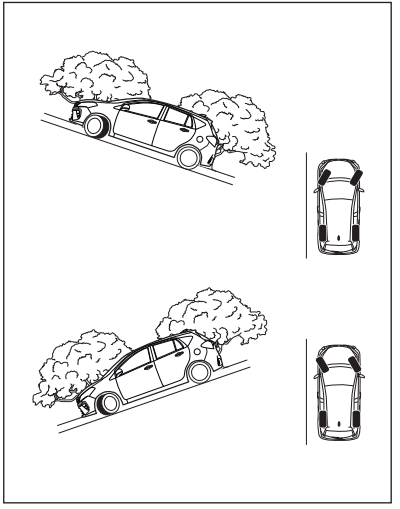
On upgrade with curb



On downgrade with curb



On either grade without curb



Parking brake warning buzzer

The buzzer sounds when the vehicle speed exceeds 5 km/h under condition of the parking brake is applied.

Make sure to release the parking brake to avoid any damage to your vehicle.

Power steering

This vehicle is equipped with electric driven power steering (EPS). The power steering will not assist the steering efforts, unless the engine is running.

Therefore, the steering operation requires increased force with the engine off.

CAUTION

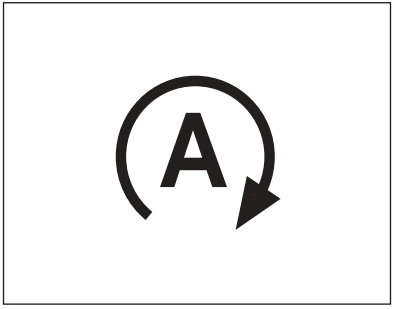
If you notice any malfunction, have the system checked by an authorised Perodua Service Centre.

Eco Idle system
(If equipped)

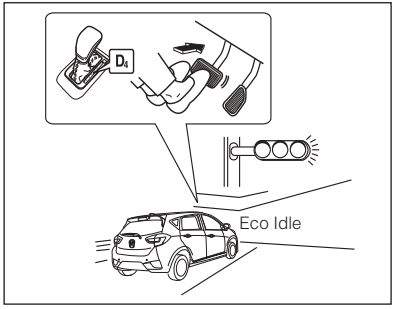
Eco Idle is a system for automatically shutting down the engine when the vehicle is static and restarting it when the vehicle returns to motion.

For the purpose of improving fuel consumption, reducing exhaust gas and minimizing idling noise, the system will automatically stop the engine (Eco Idle) and restart it when your vehicle is at a traffic light, in a traffic jam, etc.

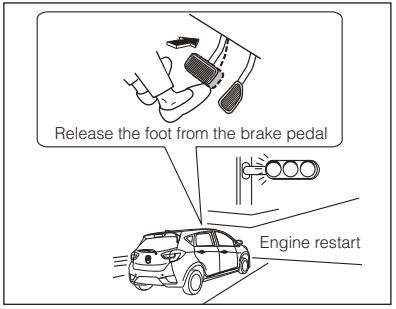
Steps for Eco Idle and engine restart



1. When conditions for Eco Idle are fulfilled during driving, the Eco Idle indicator turns on in green colour. (Standby state)
   (See “Condition for standby”)



2. While the shift lever is in Ⓓ4 range, depress the brake pedal and stop your vehicle for Eco Idle.
   The indicator remains on in green during Eco Idle.
   (See “Condition for Eco Idle”)



3. The engine restarts when foot is released from the brake pedal.
   The Eco Idle indicator turns off.
   (See “Condition for engine restart”)

4. After driving for a while, the Eco Idle indicator turns on in green again after conditions for Eco Idle are fulfilled.

Precaution for Eco Idle

⚠ WARNING

- **Do not get out of the vehicle during Eco Idle. This could cause unexpected accidents.**
- **If you unfasten the driver's seatbelt or open the driver's door, the engine restarts even the brake pedal is depressed. Do not panic but continue depressing the brake pedal.**
- **The warning buzzer continues to sound for 5 seconds, or until the seat belt is fastened and the door is closed to the original state.**

CAUTION

- **During Eco Idle, the engine restarts if the accelerator pedal is depressed while depressing the brake pedal. Be careful when starting your vehicle.**
- **Before leaving your vehicle or before parking your vehicle for a long time, make sure to apply the parking brake and operate the engine switch to stop the engine.**

For normal operation of Eco Idle

- **Eco Idle may not operate normally under the following conditions. Have the vehicle checked by an authorised Perodua Service Centre.**
  - **Seat belt warning light flashes, even though driver's seat belt is fastened.**
  - **Seat belt warning light does not flash, even though driver's seat belt is not fastened.**
  - **Door ajar warning light turns on or interior light turns on even though the driver's door is closed or the interior light switch is in "DOOR" position.**
  - **Door ajar warning light does not turn on even though the driver's door is opened or the interior light does not turn on when the interior light switch is in "DOOR" position.**

NOTE

Operation during Eco Idle

- **Even if the shift level is moved from Ⓓ4 range to the Ⓝ range during Eco Idle, Eco Idle continues.**

  Note that if shift level is moved to the Ⓝ range before moving it further to other ranges, the engine restarts.
- **When you want to prepare for vehicle start during Eco Idle (e.g. right or left turn), you can restart the engine in advance by the following operations:**
  - **Quickly apply additional force to the brake pedal.**
  - **Operate the steering wheel.**
  - **Press the Eco Idle OFF switch.**

Air conditioner operation during Eco Idle

- **During Eco Idle, cooling and dehumidifying functions of the air conditioner are stopped. Only ventilation function is available.**

  To return to normal operation, restart the engine by the following steps:
  - **Quickly apply additional force to the brake pedal.**
  - **Press the Eco Idle OFF switch.**

Operating condition for Eco Idle system

Conditions for standby

When all of the followings conditions are satisfied, the Eco Idle indicator turns on in green and Eco Idle becomes possible.

- Eco Idle OFF switch is not pressed
  (While the operation of Eco Idle is stopped, Eco Idle OFF indicator turns on in orange)
- The engine has been adequately warmed up.
- The transmission fluid has been adequately warmed up.
- The engine cooling temperature is not too high.
- The battery has sufficient charge.
- Engine has started for more than 5 seconds and vehicle has been driven for a while at approximately 10 km/h or higher.
- The shift lever is in the Ⓓ4 range.
- The hood is closed.
- The driver's door is closed.
- The driver's seat belt is fastened.
- The systems are operating normally (Eco Idle, ABS, VSC, EPS, air conditioner, EFI, EAT).
- The cabin temperature is comfortable.

NOTE

In the following cases, it may take time before the standby state can be reached:

- **The battery has been discharged because the vehicle was not used for a long time.**
- **The negative terminal of the battery has been removed for battery replacement.**
- **At an initial stage of cooling.**

Conditions for Eco Idle

When the standby conditions and the following conditions are satisfied, Eco Idle is activated with the Eco Idle indicator is turned on in green.

- The vehicle is stopped.
- The brake pedal is depressed.
- The accelerator pedal is not depressed.
- The steering wheel is not operating.
- ABS or VSC is not activated.

NOTE

In the following cases, Eco Idle may not be activated:

- **The negative pressure of the brake booster has declined.**
- **The force applied to the brake pedal is too weak.**
- **Vehicle has stopped on a steep slope.**

Conditions for engine restart

The engine restarts when any of the following operations is performed during Eco Idle.

- Release foot from the brake pedal.
- Quickly apply additional force to the brake pedal.
- Depress the accelerator pedal.
- Operate the steering wheel.
- Move the shift lever into Ⓟ or Ⓡ range.
- Move the shift lever into Ⓝ range, and then move to another range.
- Press the Eco Idle OFF switch and stop the system operation.
- Open the driver's door.
- Unfasten the driver's seat belt.

Auto restart

For safety reasons, Eco Idle ECU sometimes starts the engine automatically.

NOTE

Engine restart

Under the following conditions, the engine restarts during Eco Idle and the creep phenomenon* occurs. Continue depressing the brake pedal fully.

- **Any of the conditions that prevent the Eco Idle from being operated (the Eco Idle indicator flashes in green and then turns off) :**
  - **i. The negative pressure of the brake booster has declined.**
  - **ii. The stopped vehicle starts moving on a slope.**
  - **iii. The discharge capacity of the battery is too large.**
  - **iv. An abnormality has occurred in the system(s), with the warning light on or flashing (ABS, VSC, EPS, EFI, EAT, etc).**
  - **v. During cooling, air flow temperature at the air conditioner air outlet has risen.**
  - **vi. Approximately 3 minutes has passed since Eco Idle.**
  - **vii. An abnormality has occurred in the Eco Idle system or the engine part (starter) or battery requires replacement.**

    (Eco Idle OFF indicator flashes in orange)

*A phenomenon where the vehicle starts moving slowly without depressing the accelerator pedal, when power is conveyed because the shift lever is not in Ⓟ or Ⓝ range while the engine is running

Cases where the Eco Idle time get shorter

- Outside temperature is high and Eco Idle has been activated frequently while the air conditioner is used.
- The power consumption of the electrical component assembly, etc is too large.

Cases where the engine will not restart

- The hood has been opened during Eco Idle.

  To ensure safety, the engine will not restart even if you have released your foot from the brake pedal.

  The warning buzzer will sound and Eco Idle indicator flashes.

Operation of electrical parts during engine restart

- When the audio volume is high or power consumption during Eco Idle is too large, power supply to the following systems may be turned off temporarily during engine restart.
  i. Audio system
  ii. GPS or navigation system
- When the engine restarts after Eco Idle, the power supply voltage of the accessory socket declines, causing the connected electric appliance to get temporarily powered off, depending on its type.

Eco Idle system designated battery

A vehicle equipped with Eco Idle has a built-in high-performance designated battery. For battery replacement, replace it with a genuine Perodua battery dedicated to this model.

CAUTION

- **If a battery other than the dedicated one is used, the battery may get degraded faster and Eco Idle system may not operate normally.**
- **Do not take power supply to the electric component assembly directly from the battery terminal. Eco Idle system will stop operating normally.**

NOTE

- **Periodic charging of the battery enables a longer lifetime. For details, consult with an authorised Perodua Service Centre.**

VSC (Vehicle stability control) • TRC (Traction control)

VSC

VSC is a system that automatically maintains the stability of the vehicle by controlling the brakes in order to restrict swerving or skidding during sudden steering wheel movements or on a slippery road.

- If you press the VSC OFF switch more than 3 seconds, VSC (including TRC) will not operate and the VSC OFF and TRC OFF indicator lights will illuminate.
- The condition of the tyres has a large influence on the system. Make sure that all tyres are in good condition.

⚠ WARNING

- **Do not put so much confidence in the VSC. Even when VSC is operating, there is a limit to the amount of traction and stability control. Dangerous driving may cause an unexpected accident.**
- **Always drive carefully and if the slip indicator flashes, drive with extra care.**

CAUTION

All four tyres should be of the same size, manufacturer, brand, and tread pattern, as well as free of wear. Installing tyres not designated for your vehicle may cause VSC to function incorrectly.

NOTE

- **VSC can be operated when the vehicle speed exceeds about 15 km/h.**
- **Even if you have deactivated the system, VSC (including TRC), will return to the operability state every time you start the engine.**
- **When starting the engine or immediately after the vehicle has started, you may hear a clicking or thumping sound. This is the sound of system operation check and not a malfunction.**

(See “VSC OFF switch” in Section 4)
(See “Slip indicator light, VSC OFF indicator and TRC OFF indicator” in Section 5)

TRC

TRC functions

TRC is a system that ensures the stability and driving force of the vehicle by controlling the wheel spin of the driving wheel when excessive throttle is applied during taking off or accelerating on slippery road.

If the wheels start to slip, the computer will detect it based on information from the wheel speed sensors, and apply braking as necessary. From this, it controls the excessive driving force and prevents slipping.

- If you press the VSC OFF switch, TRC will not operate and TRC OFF indicator lights will illuminate.
- TRC will not operate when the TRC OFF indicator light is illuminated.
- If the TRC activates, you may notice the vehicle vibrate which is caused by brake control and not a malfunction.
- When stuck in mud, you may not be able to free your vehicle if TRC is in operation. In this case, the VSC OFF switch can be used to disable TRC.

TRC mechanism

The computer compares the tyre slip signals from sensors connected to all 4 wheels. If the signal from one of the driving wheels is more than the other wheels, the computer will interpret that the vehicle is slipping. A brake may be applied to reduce the driving force to the slipping tyre in order to control the slip.

TRC and tyre connection

- TRC relies on the signal from the sensors connected to all wheels as a reference for operation. If a different kind of tyre is used for even one of the 4 wheels, the signal output may be changed causing the computer to detect a slip.
- The condition of the tyres has a large influence on the system. Make sure that all tyres are in good condition.

⚠ WARNING

- **Do not put so much confidence in the TRC. Even when TRC is operating, there is a limit to the amount of traction and stability control. Dangerous driving may cause an unexpected accident.**
- **Always drive carefully and if the slip indicator flashes, drive with extra care.**

CAUTION

All four tyres should be of the same size, manufacturer, brand, and tread pattern, as well as free of wear. Installing tyres not designated for your vehicle may cause TRC to function incorrectly.

NOTE

- **Usually, when you turn the ignition switch to "ON", TRC will be in a ready state.**
- **When starting the engine or immediately after the vehicle has started, you may hear a clicking or thumping sound. This is the sound of system operation check and not a malfunction.**

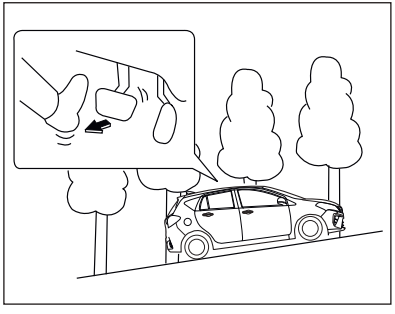
(See "VSC OFF switch" in Section 4)
(See "Slip indicator light", VSC OFF indicator and TRC OFF indicator" in Section 5)

Hill-Start Assist

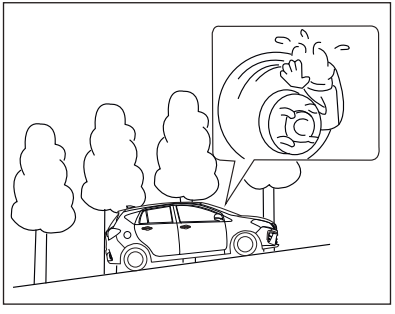
(If equipped)

Hill-Start Assist helps to prevent the vehicle from rolling back when starting up again from a stopped position on an incline. As the driver release the brake pedal slowly, vehicle retains the brake force for about 2 seconds before accelerates to continue driving.

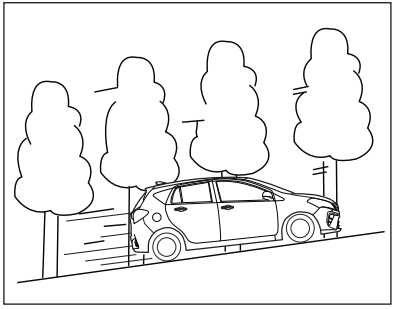
Steps for Hill-Start Assist



1. Release the brake pedal slowly.



2. Vehicle retains brake force for 2 seconds.



3. Accelerate to continue driving.

⚠ WARNING

- **The Hill-Start Assist system is not aimed at stopping your vehicle on a slope. Even when the system is operating normally, the vehicle may start moving if you loosen the brake pedal while stopping on a slope. Keep the brake pedal fully depressed while your vehicle is stopped on a slope.**
- **Do not place too much confidence on the Hill-Start Assist system. Otherwise, the vehicle may start moving suddenly and an unexpected accident may result. Always pay attention to surrounding conditions and appropriately operating the shift lever, brake pedal, accelerator pedal and parking brake.**
- **Once you release your foot from the brake pedal, quickly accelerate your vehicle. It is dangerous if the vehicle moves backward by the force of inertia on a slope, etc.**
- **When the vehicle is loaded with a heavy luggage, or on a sharp uphill, the vehicle may move backward even if the Hill-Start Assist system is operating. (Start your vehicle while applying the parking brake.)**

NOTE

The following conditions may be caused by the Hill-Start Assist system operation, but this does not mean an abnormality.

- **The depressing feeling of the brake pedal changes.**
- **The brake pedal is vibrated.**
- **Sound is generated from the brake**

ESS (Emergency Stop Signal)

ESS (Emergency Stop Signal) is a system to reduce the possibility of rear-end collision by lashes the hazard warning signal light when sudden brake is applied, to warn the vehicles that follow.

ESS operates under this condition:

- Hazard warning signal light is OFF.
- Vehicle speed is about more than 60 km/h.
- The system detect any “hard” or “sudden braking” or ABS is activated.

ESS will deactivate when:

- The hazard warning signal light is turn on manually.
- The brake pedal is released.
- Sudden deceleration has stopped.
- The ABS is deactivated.

⚠ WARNING

- **ESS is a system to reduce the possibility of rear-end collision and does not mean a complete prevention of such accidents.**
- **Driver is obliged for a safe driving by pay attention to the surrounding and to avoid unnecessary sudden braking.**
- **ESS may not be operated when the ABS warning light or the VSC & TRC warning light is on.**

ASA (Advanced Safety Assist)
(If equipped)

ASA helps driver with the following functions, and supports safe and comfortable driving.

Pre-Collision Warning

Alerts the driver when there is a risk of collision with a front obstacles (Vehicle/Pedestrian) through recognition from the stereo camera.

Pre-Collision Braking

This function mainly recognize vehicle as the front obstacle and it is support to avoid or mitigate crashing into a preceding vehicle by the emergency brake after the Pre-Collision Warning operates.

Pedal Misoperation Control

When driver depress the accelerator pedal more quickly and more strongly than necessary and the vehicle detected obstacles, then sudden acceleration is controlled.

Front Departure Alert

Warning sound when your vehicle keep stopping although the preceding vehicle has already moved forward.

⚠ WARNING

Obligation of safe driving

- **Driver is obliged to carry out normal safety operations. Driver shall always strive for safety driving for example, pay attention to the distance to the preceding vehicle, the circumstances, the driving environment and stepping on the brake pedal as necessary.**
- **Never depend on ASA for safety while driving. Excessive trust in the system leads to an unexpected accident, which can lead to serious injury or in the worst case, death.**
- **ASA is designed to minimize traffic accidents in the event where driver is unable to make an appropriate judgement. When the Pre-Collision Warning is activated, driver should confirm the front and its surrounding and should perform appropriate action such as stepping on the brake pedal at driver's discretion.**
- **ASA is not a system to support inattentive driving such as not paying proper attention to the road, or to provide assistance when driving with poor visibility under rough weather condition.**
- **Do not consider ASA as a system capable of mitigating collisions under any situations.**
- **There is a limit to the recognition performance and control performance of the ASA. Refer to the warnings of each functions and use them correctly. If used incorrectly, control may not operate properly and possibly resulting in an unexpected accident.**

Limit of performance

ASA system will not operate properly under the following condition. Therefore, be sure to turn off the ASA function. (See “ASA OFF switch” in section 4)

1. When the air pressure of the tyre is not appropriate
2. When wearing the spare tyre or the tyre chain.
3. When wearing the worn tyres and when the difference in the amount of wear of the tyre is large.
4. When wearing tyres other than specified size.
5. When using a tyre puncture emergency repair set.
6. When remodelling the suspension (Including Perodua genuine products)
7. When attach anything to the vehicle that obstructs the view of the stereo camera.
8. When the object cannot be irradiated correctly due to contamination of the headlamp and it is difficult to recognize it.
9. When the optical axis of the headlamp is deviated.
10. When remodelling lamps such as headlamps and fog lamps.
11. When the vehicle is extremely inclined due to loading of baggage etc.
12. When the own vehicle is being towed.
13. When loading on a carrier car.
14. When using a chassis dynamometer, free roller, etc.
15. When lifting the vehicle, engine is on and rotating the tyres.
16. When passing through while touching the banner, flag, hanging branch, vinyl curtain, grassy or bushes, etc.
17. When sports running on a circuit or the like.
18. When getting out of the road or escaping from the mud.
19. When running on a flooded road.
20. When the driving of the vehicle is unstable due to an accident or failure.
21. When the brake warning light in the meter is on.

NOTE

- **When the ignition switch is turned “ON” ASA will be in a ready state.**
- **Even if you have deactivated (turn off) the system, ASA will return to the operation state every time you start the engine.**

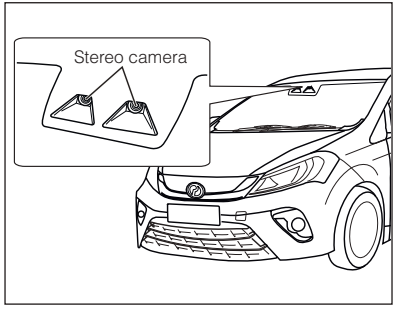
Condition of function OFF

Under the following circumstances, the recognition performance of ASA may deteriorate depending on the situation, or the suspension (function OFF) state may be set. Once the situation is improved, the function will be activated again.

1. During bad weather (torrential rain, thick fog, etc.).
2. When the temperature of the stereo camera becomes extremely high.
3. Immediately after starting the engine.
4. When receiving strong light (such as backlight of the sun, or the headlight of an on oncoming car, etc.) from the front.
5. When there are no street lights, darkness and there are no buildings or vehicles around.
6. When the stereo camera is covered with dirt, frost, etc.
7. When the vehicle is extremely inclined due to loading of loads and the like.
8. When the splash is occurred by the forward vehicle, etc.
9. When visibility is not sufficient such as exhaust gas, water vapour, sand, smoke, dust, etc.

Conditions that degrade the recognition performance are vary depending on the function. For details, check the description of each function.

Stereo camera



ASA system configuration is functioned by monitoring the area in front of the vehicle by using a stereo camera.

⚠ WARNING

- **The camera has similar characteristics to human eyes. Therefore in the situation where it is difficult for the driver to see the front, the camera also makes it difficult to recognize the front vehicles, the obstacles etc.**
- **Recognition of forward vehicles and obstacles by the stereo camera is limited within the field of view. It also takes a few seconds from the entry of the object into the field of view until it is subject to control/ warning.**
- **The stereo camera has a dirt detection function but it is not perfect. If dirt is detected, all functions are automatically stopped.**
- **Please observe the following. Failure to follow these guidelines may cause the stereo camera to not operate properly and may lead to an unexpected accident, serious injury or worst case, death.**
- **Always keep the windshield clean.**
- **If dirt, oil film, water droplets etc adhere to the outside of the windshield, please remove it.**
- **Please remove fogs when the windshield becomes foggy.**
- **Do not use any other than the glass coating agent specified by Perodua on the windshield. Even when using the glass coating agent on the windshield, if water droplets adhere to the front of stereo camera, wipe it with wiper.**
- **Do not attach sticker (including transparent ones) at the windshield of the front of stereo camera. When it must be installed, do not overlap with the front of stereo camera.**
- **Replace the wiper blade or rubber when the wiper cannot wipe correctly on the water droplet at the front of stereo camera.**
- **Do not paste film on the windshield.**
- **If scratches or cracks occur on the windshield, please replace it without leaving as it is. Especially if the windscreen on the front of stereo camera has scratches, cracks or have partial modifications, the system may not operate correctly.**

- Do not change to windshield other than Perodua's genuine products.
- Do not put liquid on the stereo camera.
- Do not contaminate or scratch the lens of the stereo camera.
- Do not apply strong shock to the stereo camera.
- Do not change the mounting position or orientation of the stereo camera or remove it.
- Do not disassemble the stereo camera.
- Do not install electronic equipment or equipment that transmit strong radio waves in the vicinity of the stereo camera.
- Do not modify the peripheral parts such as room mirror or ceiling.
- Do not place objects on top of the instrument panel. The system may not operate correctly as it is reflected on the windshield.

- If gloss is imparted to the upper part of the instrument panel with a chemical agent or the like, reflection to the windshield may cause the recognition of stereo camera unstable and the system may not operate properly.
- Do not attach accessories to the front hood that may block the field of vision of the stereo camera.
- Do not obstruct the view of stereo camera when loading full-length baggage (surfboard, canoe, etc.) on the roof.
- Do not use a room mirror (such as wide type mirror) or sun visor other than Perodua's genuine products.

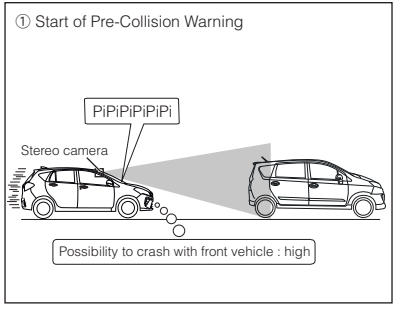
Pre-Collision Warning

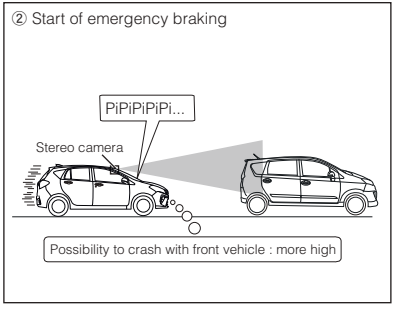
This function alerts the driver when there is a risk of collision in front by recognizing the front obstacle (Vehicle/Pedestrian) with a stereo camera. This function operates when both the own vehicle speed and the speed difference between the preceding vehicle or pedestrian are about 4 ~ 30 km/h, and the shift position is other than [P] and [R].

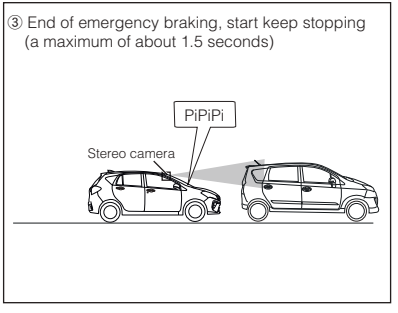
Pre-Collision Braking

After the Pre-Collision Warning operates and the risk of crashing into a preceding vehicle has further increase, the system will apply the emergency brake. This function operates when both the own vehicle speed and the speed difference between the preceding vehicle are about 4 ~ 30 km/h, and the shift position is other than [P] and [R]. Collision can be avoided if the speed difference between own vehicle and preceding vehicle is about below 20 km/h. Damage can be reduced if the speed difference is about 20 ~ 30 km/h.

Pre-Collision Warning will detect vehicle and pedestrian while the Pre-Collision Braking works mainly for vehicle and they are constituted by the following control:







Pre-Collision Warning

This function will recognize front obstacles (vehicle/pedestrian) with a stereo camera. If the system determines that the possibility of collision with the obstacles (vehicle/pedestrian) ahead is high, the buzzer will sound and the ASA operation indicator light blinks to alert the driver for urges the collision avoidance operation.

Depending on the situation, there is a possibility that it is also works for motorcycles, walls, guardrails, etc.

Emergency braking

After the Pre-Collision Warning operates, when the distance to the front obstacle (vehicle) is decreasing and the stereo camera judges that the possibility of collision has further increased, the system implements emergency braking and suppression of engine output to avoid collision or mitigate damage. When the possibility of collision increases, it shift from primary braking (weak braking force) to the secondary brake (strong braking force). During emergency braking function operation, the buzzer will sound, the ASA operation indicator light blinks and master warning light goes on.

Keep stopping

After the vehicle stops due to the emergency braking, the brake force is held for a maximum of about 1.5 seconds. During keep stopping control, the buzzer will sound and the ASA operation indicator light blinks.

Mechanism for Pre-Collision Warning & Pre-Collision Braking

Mechanism	①	②		③
	Pre-Collision Warning	Emergency braking		Keep stopping
		Primary braking	Secondary braking	
The possibility of collision	High	More high	Very high	-
Strength of emergency braking	Without braking	Weak braking	Strong braking	
Buzzer sound	PiPiPiPiPiPi	PiPiPiPiPi...		PiPiPi... *1
ASA operation indicator	Blinking			Blinking *1
Master warning light	Lights off	Lighting		Lights off

*1 Finish by driver's operation

NOTE

- **During emergency braking and keep stopping, the stop lights and high-mounted stop light will turn on.**
- **Sound may be heard during emergency braking. It is due to brake control and not abnormal.**
- **When stepping on the brake pedal during emergency braking, the pedal feeling may be felt stiff sometimes. It is due to brake control and not abnormal.**
- **After the keep stopping is released with the lapse of time about 1.5 seconds, the vehicle slowly starts moving due to creep phenomenon. If the driver wants to continue the vehicle stop state, depress the brake pedal steadily.**
- **Depending on the situation, the emergency braking may work from the primary braking or secondary braking.**
- **The Pre-Collision Braking cannot operate more than 3 times in 1 trip. Restart the engine (turn off, and turn on again) to return to normal operation.**

Precaution for Pre-Collision Warning & Pre-Collision Braking

⚠ **WARNING**

- **Do not use Pre-Collision Braking absolutely in place of usual braking operation.**
- **The Pre-Collision Braking does not avoid collision or mitigate the damage of collision in every situation. Depending on function/ situation, unsafe driving leads to unexpected accidents and can lead to serious injury or in the worst case, death.**
- **The Pre-Collision Braking function is activated when it is determined that a collision cannot be avoided. Although it is set to apply strong braking just before a collision, the performance demonstrated will not always the same. Since its effect varies depending on various conditions, driver shall always strive for safety driving without overconfidence in the system.**
- **For safety reasons, do not perform Pre-Collision Braking operation test by yourself. There are things that cannot be stopped or not operated, which may lead to unexpected accidents.**
- **The Pre-Collision Braking operates on the vehicle recognized by the stereo camera. However there is a possibility that it is also works for pedestrians, motorcycles, utility poles, walls, etc. although the system does not aim at avoiding collision on them.**
- **The Pre-Collision Braking is continued even if the accelerator pedal is operated when Pre-Collision Braking function is activated. However if you step on the accelerator pedal fully, it releases the Pre-Collision Braking.**
- **The Pre-Collision Warning or Pre-Collision Braking may not operate depending on the operating condition such as when the driver steps on the brake pedal due to it is determined as a driver's avoidance operation.**
- **Ensure all occupants to wear a seat belt. Failure to wear a seat belt properly is dangerous as it may lead to an unexpected accident when Pre-Collision Braking operates.**

Inactivity situation

The stereo camera recognize pedestrian for Pre-Collision Warning function. The pedestrian recognition is done from the size, shape and movement of the object. It recognizes when the contours of the head and shoulders are clear. Following cases may result into Pre-Collision Warning and Pre-Collision Braking may not operate and may not stop completely.

1. Vehicle speed difference from the preceding vehicle or pedestrian, distance between vehicles, state of approach and deviation in lateral direction. (such as not being in the front of own vehicle)
2. State of the vehicle (loading capacity, crew and others)
3. The state of the road surface (gradient, slipperiness, shape, unevenness, etc.)
4. When the visibility in the front is bad (torrential rain, thick fog, dust, etc.)
5. When judging that the driver has taken avoidance operation from the driver's operating state (accelerator, brake, steering wheel, etc.)
6. Immediately after starting the engine.
7. When the outside temperature is low or the brake is cold just after the start of running.
8. When the brakes are getting worse due to overheating of the brakes downhill.

9. When the brakes are getting wet and the effectiveness of the brakes is getting worse such as after water running or after washing the vehicle.
10. Sudden interruption such as vehicles or motorcycles jump in.
11. When there is an oncoming vehicle approach current vehicle.
12. When the stereo camera is difficult to recognize especially in these conditions:

- When the stereo camera is covered with cloud, dirt, frost, raindrops, dirt, seals etc.
- When using glass coating agent other than Perodua designation.
- When sticking film on windshield.
- When stable recognition cannot be performed by reflection on the windshield.
- When front windshield is not fully wiped off during use or after use of front washer.
- When there are scratches, cracks, etc. occur on windshield.
- When a thing that hinders the view of stereo camera is attached to the vehicle body.
- When the view of stereo camera is obstructed by loading a long full-length baggage (surfboard, canoes, etc.) on the roof.
- When the wiper blades other than Perodua genuine products are installed (including the short length type)
- When the recognition of the objects are incomplete by blocking the view of stereo camera for example raindrops, water drops of window washer liquid, wiper blades etc.
- When the stereo camera is blocked with hands or paper.
- When a shock is applied to the stereo camera causing deviation or distortion.
- When there is a bad weather (torrential rain, thick fog, etc.) and the front visibility is bad.
- When approaching the preceding vehicle or pedestrian in a dark place such as night time, tunnel, indoor parking lot etc.
- When the brightness changes due to entrances and exits of the tunnel, trees, building shadows etc.
- When receiving a strong light (such as back light of the sun, or the headlamp of an oncoming vehicle, etc.) from the front.
- When strong light is reflected on the vehicle, pedestrian or road surface.
- When there is curves, undulating roads or slopes.
- When there is a puddle or water film on the road surface.
- When the roads are with bumps and ruffles such as gravel roads and unpaved roads.
- When passing through banners, flags, hanging branches or grassy plants.
- When the distance to a vehicle or pedestrian is extremely short.
- When a vehicle or pedestrian has suddenly interrupted or jumped out in front of the own vehicle.
- When approaching the preceding vehicle or pedestrian while performing rapid acceleration or steering wheel operation.
- When the preceding vehicle or pedestrian is not in front of the own vehicle.
- When only a part of the preceding vehicle is within the recognition area of the stereo camera.
- When approaching the preceding vehicle with a small speed difference.
- When there is a splashing water, exhaust gas, water vapor, sand, smokes, dust, etc. by a preceding vehicle or an oncoming vehicle.
- When own vehicle changes the lane and approaches just behind the preceding vehicle.

- When the preceding vehicle suddenly steered, accelerate or deceleration.
- When the preceding vehicle has special shapes such as carrier cars, side car, etc.
- When the last side of the preceding vehicle is small (such as trailer), low or irregularity shapes.
- When the glass on the rear side of the preceding vehicle is large and the scenery ahead of the preceding vehicle can be seen.
- When the preceding vehicle is trailer, and its loading platform is empty.
- When the preceding vehicle cargo is protruding from the rear end.
- When the preceding vehicle is diagonally or sideways.
- When the preceding vehicle is low in height.
- When there is a wall or the like in front of the preceding stopped vehicle.
- When the preceding vehicle is tilted such as loading a heavy load.
- When part of the pedestrians (head, limbs, etc.) are hidden in luggage, umbrella, hat, etc.
- When the pedestrian is mixed with the background and the stereo camera cannot recognize it as a pedestrian.
- When the pedestrian is stooping, crouching, lying, waving his hand, running etc.
- When the pedestrian height is tall or short.
- When the pedestrian carries a big baggage or pushes a bicycle, hand truck, etc.
- When the pedestrian is wearing a long skirt and the feet cannot be seen.
- When multiple pedestrian are gathered and the stereo camera cannot recognize it as a pedestrian.
- When there is an obstacles outside the headlamp irradiation area.
- When the color of the obstacle is similar to surroundings.
- When the contrast between obstacle and background is small (e.g black vehicle in dark forest, white clothed pedestrian in front of white walls etc.)

Unnecessary operation

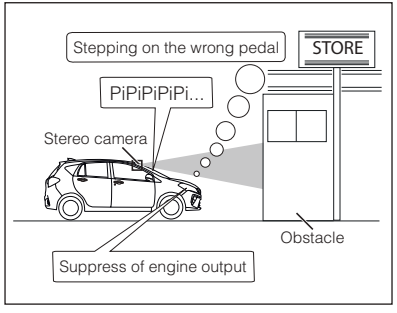
In the following cases, Pre-Collision Warning and Pre-Collision Braking may operate unexpectedly. Therefore, be sure to turn off the ASA function. (See “ASA OFF switch” in section 4)

1. When own vehicle is towed.
2. When loading on a carrier car.
3. When using a chassis dynamometer, free roller etc.
4. When lifting the vehicle, engine on and rotating the tries.
5. When passing through while touching the banner, flag, hanging branch, vinyl curtain, grass or bushes.
6. When sports running on a circuit or the like.
7. When getting out of the road or escaping from mud.
8. When running on a flooded road.
9. When the driving of the vehicle is unstable due to an accident or failure.
10. When the brake warning lamp in the meter is on.

In the following cases, Pre-Collision Warning and Pre-Collision Braking may operate even if there is no possibility of collision.

1. When traveling on a narrow road with walls and obstacles on both sides such as narrow bridge, small tunnel, a country road, toll gate or a narrow guard rail.
2. When traveling and approaching the front wall or front vehicle at the end and stopping.
3. When running a place where the gradient of the road suddenly changes.
4. When passing through a lump of water vapor, fog or smoke.
5. When passing through a vinyl curtain, flag and etc.
6. When front vision is bad caused by exhaust gas, water vapor, sand, smoke, dirt, splashed water, etc.
7. When passing the side of the stopped vehicle with a slight gap, or the oncoming vehicle approaches the own vehicle.
8. When using a vehicle elevator or a mechanical parking lot.
9. When there is a large paint etc on the road surface.
10. When there are roadside objects such as guardrails, signboards, groves or the like at the intersections and the entrances of the curves.
11. When there is an oncoming car to pass by the curve.
12. When the bar in the parking or toll gate are not fully raised.
13. When traveling downhill and there are manhole, rail of train, speed bump, etc, on the road surface.
14. When traveling uphill and there is a branch of a signboard or tree at the above.
15. When the obstacles in front are moving parallel at the same time interval.
16. When the scenery or light is reflected in a puddle, a wet road or a preceding vehicle, etc.
17. When lights enter the stereo camera from the outside.
18. When the optical axis of the stereo camera is not normal.
19. When objects cross or move, e.g crossing of walkers, lane change of multiple vehicles etc.
20. When the vertical fringe patterns are continuous such as brick walls, tile walls, fences and clothes.
21. When multiple preceding vehicles appear to overlap.
22. When the preceding vehicle has special shapes or the last side of the preceding vehicle has irregularity shapes such as dump truck.
23. When pedestrian crossing stopped before reaching the front of own vehicle.
24. When there is a flag swaying in the wind, tree branches, shaking of clothes, etc.
25. When the lighting state of the lamp such as brake, turn signal, hazard, etc. of the preceding vehicle changes.
26. When get on and off the bumps or steps, and there are shadows of signs or seams of the road surface in front of own vehicle.
27. When items of similar size as pedestrian or pedestrians are lined up beside the path.

Pedal Misoperation Control



When the vehicle detects obstacles such as vehicle, wall or building within about 4 meter in front, and the driver steps at the accelerator pedal more quickly and more strongly than necessary, the stereo camera judges as the driver's pedal misoperation. Then the engine output is controlled with the warning to avoid sudden acceleration.

The suppression control of the engine output operates for about 8 seconds at the longest while stepping on the accelerator pedal. If the depression of accelerator pedal is strong but not quick at under 4 km/h, only the warning is operated without engine output control to alert the driver for urges the collision avoidance operation.

When all of the following conditions are satisfied, the control becomes operate.

- Engine ON.
- Brake pedal is not stepping on.
- Own vehicle speed is about 0~10 km/h.
- Turn signal is OFF.
- VSC OFF and TRC OFF indicators are both lights off.
- Shift position is in forward range (D4, 3, 2).

⚠ WARNING

- **Do not rely on the Pedal Misoperation Control as it does not avoid collision. When starting the vehicle, check the position of shift lever, pedal and its surrounding situation. Excessive trust in the function leads to an unexpected accidents, which can lead to serious injury or in the worst case leading to death.**
- **The Pedal Misoperation Control does not keep stop state.**
- **The Pedal Misoperation Control does not suppress the start acceleration in all circumstances.**
- **The Pedal Misoperation Control operates only when front obstacles is recognized. In the state where obstacles such as cliffs cannot be recognized, the function does not operate.**
- **Do not deliberately step excessively on the accelerator pedal near the obstacles. Relying on the function to adjust the accelerator may leads to a collision accident.**

- **In the unlikely event, when the vehicle is trapped inside the railroad crossing, Pedal Misoperation Control operates if the stereo camera recognizes the crossbar as an obstacle. When pushing out the crossbar to escape, continue stepping on the accelerator pedal without panic or turn off the ASA system. (See "ASA OFF switch" in section 4)**
- **When the driver is operating the steering wheel, the system may judge it as a driver's avoidance operation depending on the operation state and this function does not work in some cases.**
- **Pedal Misoperation Control does not operate when TRC or VSC&TRC is turned OFF.**
- **The operation will cancel when keep stepping on the accelerator pedal for more than about 8 seconds during engine output suppression. If you step on the accelerator pedal fully and quickly more than 3 times, Pedal Misoperation Control will not operate.**

Inactivity situation

Following cases may result into the Pedal Misoperation Control may not operate.

1. Vehicle speed difference from the preceding vehicle, distance between vehicles, state of approach and deviation in lateral direction. (such as not being in the front of own vehicle)
2. State of the vehicle (loading capacity, crew and others)
3. The state of the road surface (gradient, slipperiness, shape, unevenness,etc)
4. When judging that the driver has taken avoidance operation from the driver's operating state (accelerator, brake, steering wheel, etc.)
5. Vehicle maintenance status (brake, wear of tires, air pressure tires, spare tire, etc.)
6. Sudden interruption such as when vehicles or motorcycles jump in.
7. Immediately after starting the engine.
8. When the stereo camera is difficult to recognize especially in these conditions:

- When there is a bad weather (torrential rain, thick fog, etc.) and the front visibility is bad.
- When receiving a strong light (such as back light of the sun, or the headlamp of an oncoming vehicle, etc.) from the front.
- When the front of stereo camera is covered with cloud, dirt, frost, raindrops, dirt, seals etc.
- When the temperature of the stereo camera become extremely high.
- When approaching an obstacle in the case of dim light evening, dawn morning or dark night.
- When approaching an obstacle in a dark place such as indoor parking lot.
- When there is an obstacles outside the headlamp irradiation area.
- When the recognition of the objects are incomplete by blocking the view of stereo camera for example raindrops, water drops of window washer liquid, wiper blades, etc.
- When the view of stereo camera is obstructed by loading a long full-length baggage (surfboard, canoes, etc.) on the roof.
- When the vehicles is extremely inclined due to loading of baggage etc.

- When there is splashing water by a preceding vehicle or an oncoming vehicle.
- When the visibility in the front is not enough cause by exhaust gas, water vapor, sand, smoke, dust, etc.
- When the road is with bumps and ruffles such as gravel roads and unpaved roads.
- When the obstacle is a thin bar such as a road sign or a pole.
- When there is an obstacle at a position very close to the own vehicle and off the center of the own vehicle.
- When the own vehicle changes course and approaches just behind the obstacle.
  When the own vehicle is in a sharp curve, or a sudden uphill/downhill.
- When the surface of the object is small or when the distance is short.
- When the obstacle is outside the recognition area of stereo camera.
- When the size of the obstacle is low (low wall, guard rail, vehicle, curb, etc.).
- When the obstacle is small (small animal, infant, etc.).
- When the obstacle is difficult to be recognized by the stereo camera such as fence, uniform pattern wall (e.g bricks, tiles, vertical fringe) wall with no pattern, etc.
- When the obstacle is glass or mirror, etc.
- Sudden interruption such as vehicles or motorcycles jump in.

Unnecessary operation

In the following cases, the Pedal Misoperation Control may operate unexpectedly. Therefore, be sure to turn off the ASA function. (See “ASA OFF switch” in section 4)

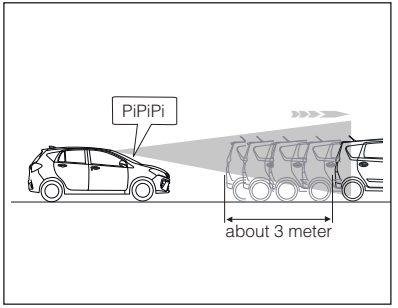
1. When the own vehicle is towed.
2. When loading on a carrier car.
3. When using a chassis dynamometer, free roller etc.
4. When lifting the vehicle, engine on and rotating the tyres.
5. When passing through while touching the banner, flag, hanging branch, vinyl curtain, grass or bushes.
6. When sports running on a circuit or the like.
7. When getting out of the road or escaping from mud.
8. When running on a flooded road.
9. When the driving of the vehicle is unstable due to an accident or failure.

In the following cases, the Pedal Misoperation Control may operate even if there is no possibility of collision.

1. When traveling and approaching the front wall or front vehicle at the end and stopping.
2. When running a place where the gradient of the road suddenly changes.
3. When passing through a lump of water vapor, fog or smoke.
4. When passing through a vinyl curtain, flag and etc.
5. When front vision is bad caused by exhaust gas, water vapor, sand, smoke, dirt, splashed water, etc.
6. When passing the side of the stopped vehicle with a slight gap, or the oncoming vehicle approaches the own vehicle.
7. When using a vehicle elevator or a mechanical parking lot.
8. When there is a large paint etc. on the road surface.
9. When there are roadside objects such as guardrails, signboards, groves or the like at the intersections and the entrances of the curves.
10. When there is an oncoming car to pass by the curve.

11. When there is an obstacle at a curve or an intersection.
12. When joining from parallel parking to main line.
13. When the bar in the parking or toll gate are not fully raised.

Front Departure Alert



This function works when the vehicle is keep stopping although the preceding vehicle has already moved forward more than 3 meter. The buzzer will sound and indicator blinks to alert the driver.

When all of the following conditions are satisfied, the function becomes operate.

- Shift position is other than Ⓟ, Ⓡ
- Brake pedal is stepping on (Exclude when shift position is Ⓝ).
- Distance between the stopped preceding vehicle and own vehicle is within about 10 meter.
- Over several seconds have passed since both vehicles stopped.

⚠ WARNING

This function does not inform the driver when to move forward the vehicle safely and notify the departure of preceding vehicle in every situation. Do not rely on this function fully, and always check whether it is safe enough to drive.

Inactivity/unnecessary operation

The following cases are when the Front Departure Alert may work or may not work :

1. When a bike or the like came in between the stopped preceding vehicle.
2. When a pedestrian or the like passes between a stopped preceding vehicle.
3. When the stereo camera cannot recognize the preceding vehicle due to weather, road shape, etc.
4. When the stereo camera loses sight of the preceding vehicle.
5. When the lateral position with the preceding vehicle is misaligned. (lap ratio)
6. When the preceding vehicle is moving before own vehicle is stop.
7. When the distance to the preceding vehicle is extremely short.
8. When the preceding vehicle suddenly starts or makes a sudden turn.
9. When the preceding vehicle is a vehicle of special shape (including a carrier car, a side car, etc.).
10. When the last side of the preceding vehicle is small (such as a trailer), low or irregularity shapes.
11. When the glass on the rear side of the preceding vehicle is large and the scenery ahead of the preceding vehicle can be seen.
12. When the preceding vehicle is a trailer which the loading platform is empty.
13. When the preceding vehicle cargo is protruding from the rear end.
14. When the preceding vehicle is low in height.
15. When the preceding vehicle is stopped at diagonally or sideways.
16. When stopping in a state where the steering wheel is largely operated.
17. When traveling on rough roads such as uneven roads and off roads.

Function OFF display and system failure

1. In a case that ASA function cannot work by a specific reason, “ADV SAFETY ASSIST OFF” warning light and the function OFF code will turn on at the multi information display at meter combination.
2. In a case that ASA function cannot work by a system failure, master warning light, ASA OFF indicator light and “ADV SAFETY ASSIST ERROR” warning light will turn on at the multi information display at meter combination.
3. When stereo camera is detecting function OFF or system failure, all function of ASA are not operated.
4. If function OFF or system failure occurs when the function of ASA is in operation, the function is cancelled.

List of function OFF codes for ASA

Function OFF code	Reason	Restoration
11E	Stereo camera is unable to detect objects ahead due to poor visibility	When the reason condition is resolved, the code is cleared
12E	Stereo camera is unable to operate in proper condition (i.e due to high internal temperature)	
	Secondary brake was activated three times after engine started	When turning off the engine switch once, the code is cleared
14E	ASA is in initial learning process	When driving for awhile, the code is cleared

Function OFF code 11E will not be displayed when shift position is in Ⓡ

CAUTION

If the function OFF code is still displayed even after action has been taken to rectify it, there may be a system error. Have the system checked by an authorised Perodua Service Centre immediately.

List of meter display and buzzer for ASA

Condition		Indicator	Multi information display	Buzzer
When ASA is turned off by the ASA OFF switch		OFF Lighting	-	PiPi
When system failure		⚠ OFF Lighting	When the stereo camera fails, “ADV SAFETY ASSIST ERROR” is displayed.	-
When function OFF		-	“ADV SAFETY ASSIST OFF” and the function OFF code are displayed.	-
Pre-Collision Warning		-	Blinking	PiPiPiPiPiPi
Pre-Collision Braking	Primary braking	⚠ Lighting		PiPiPiPiPi...
	Secondary braking			PiPiPiPiPi...
	Keep stopping	-		PiPiPi...
Pedal Misoperation Control	Warning	-		PiPiPiPiPiPi
	Control	⚠ Lighting		PiPiPiPiPi...
Front Departure Alert		-		PiPiPi

Vehicle data recording

Advanced Safety Assist (ASA) is equipped with a computer which record data concerning the vehicle control and operations. The record data are mainly as follows.

- Operation status of accelerator pedal.
- Operation status of brake pedal.
- Operation status of steering wheel and shift lever.
- Vehicle information such as vehicle speed.
- Operation status of each ASA function.
- Distance between to an obstacle such as preceding vehicle, relative speed, etc.
- Image data of the stereo camera (only when operating the secondary brake).

Furthermore, the computer does not record conversations, sounds or pictures in the vehicle.

Data usage

Perodua may use the data recorded in these computers to diagnose malfunctions, conduct research and development, and improve quality. Perodua will not disclose the recorded data to a third party except :

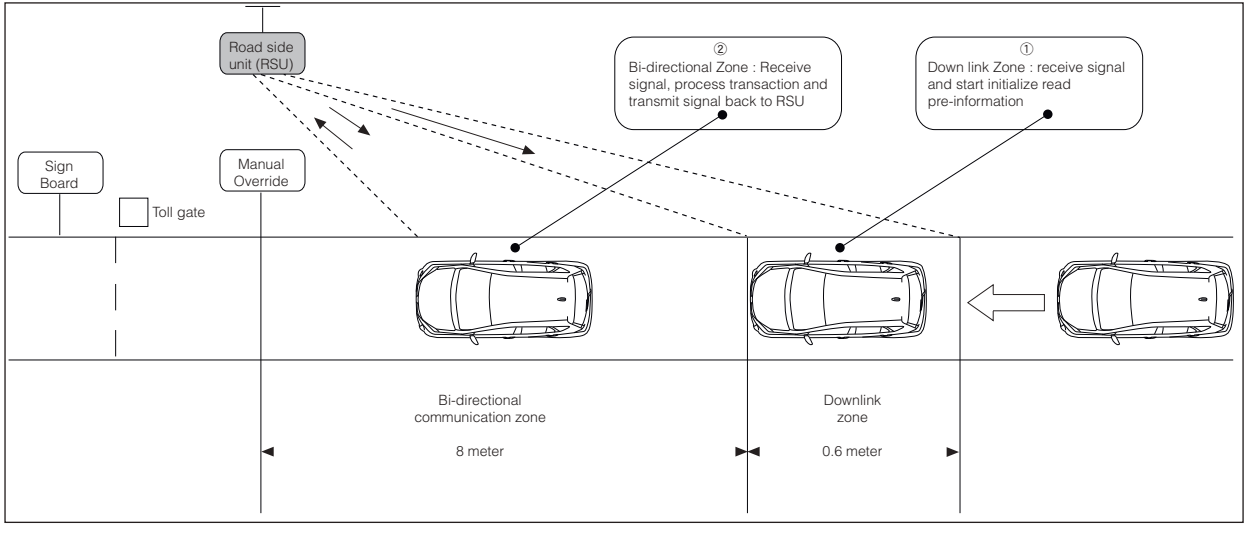
- With the consent of the vehicle owner or with the consent of the lessee if the vehicle is leased.
- In response to an official request by police, a court of law or a government agency.
- For use by Perodua in a lawsuit.
- For research purposes where the data is not tied to a specific vehicle or vehicle owner.

The recorded image data can be erased using a special device. It is possible to stop the function of recording the image data. For details, contact an authorised Perodua service centre.

Electronic toll collection system
(if equipped)

The electronic toll collection system is designed to enhance convenience for drivers by enabling cashless toll collection thus mitigating congestion at expressway toll gates. It uses an integrated electronic toll collection device which is located in a safe, hidden location and does not require to replace a battery. User however need to have a prepaid card to be inserted in the electronic toll collection device. Tolls are automatically collected via wireless communication between an antenna installed on the toll gate and the electronic toll collection device. It enables simple and speedy payment by allowing drivers to pass through toll gates without stopping to pay.

Electronic toll collection system operating method

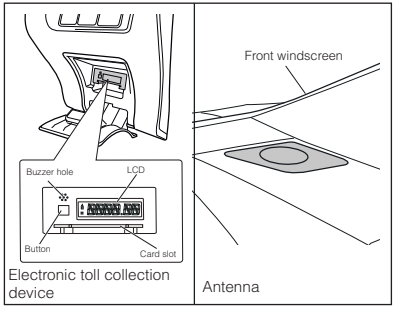


Kindly observe the following before using the electronic toll collection device.

⚠ **WARNING**

- **The driver is responsible for the electronic toll collection device. Do not operate the device while driving as it may lead to unexpected accident. If you need to operate the device, please stop the vehicle.**
- **Please ensure the prepaid card is inserted correctly into the device and confirm that it is in a working condition.**
- **Pay attention to the balance in the prepaid card as it will determine the opening/closing of the toll gate.**
- **The electronic toll collection device authenticates the prepaid card and it takes several seconds to do it. If you insert the prepaid card in front of the toll gate, error may appear and the toll gate may not open.**
- **When passing through a toll lane, keep the distance in between vehicles and ensure the toll gate has opened before passing through.**
- **The toll gate installed in the toll lane will operate when there is a communication between the electronic toll collection device and its antenna with a road side unit (RSU). If the communication is not performed manually, the toll gate may not be opened. Be careful and observe the situation before passing through the toll lane.**

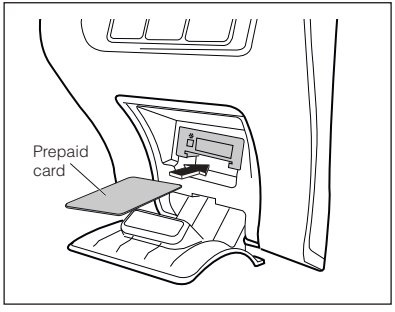
About the electronic toll collection device



The electronic toll collection device is equipped at an instrument panel and located at the lower right corner and the antenna is located at the top right corner.

CAUTION

- **Do not use multiple electronic toll collection device in one vehicle. The device may not function properly and toll gate may not be opened.**
- **Do not place any object at the electronic toll collection antenna as it may cause an interference to communicate with the road side unit (RSU) and the toll gate may not be opened.**
- **If there is a dirt on the front windscreen, remove it to avoid any interference to the antenna.**
- **Do not use any other than the glass tinted agent specified by Perodua on the windshield, and do not use glass tinted with metal content.**
- **Do not place any foreign object into the toll collection device.**
- **Do not touch the electronic toll collection device with wet hands or allow water (liquid, etc.) to enter it as it may break down or damage.**
- **If there is dirt at the electronic toll collection device, wipe it off with a soft and dry cloth. Do not use wax, thinner or alcohol as it may deteriorate the material.**



Using the electronic toll collection device

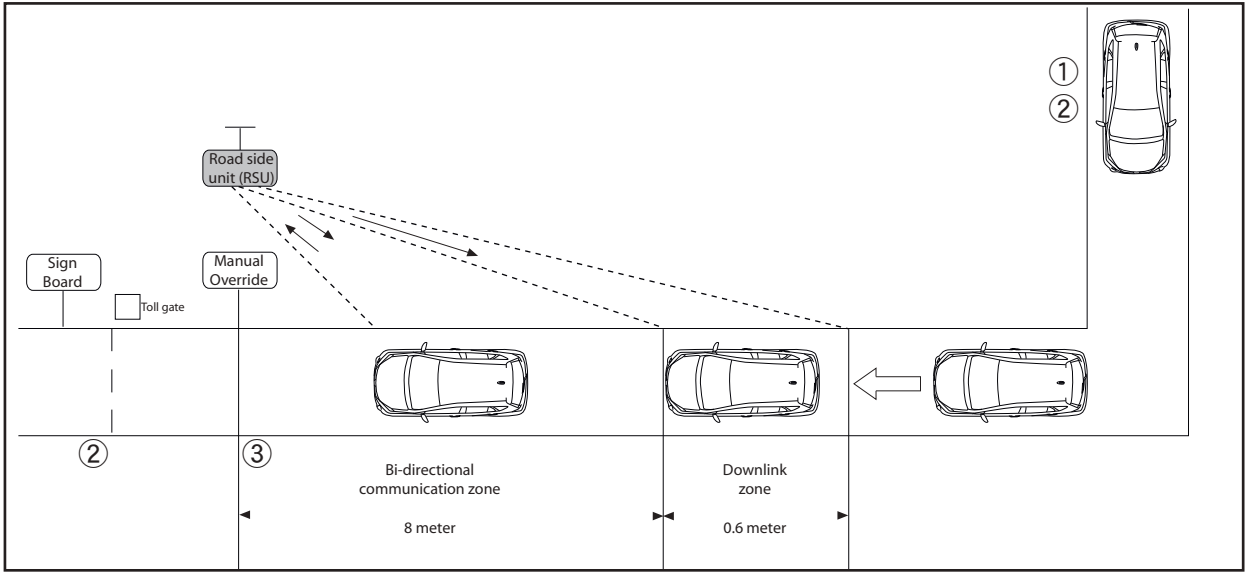
Insert the prepaid card properly into the card slot.

In a case where the prepaid card is not inserted after the ignition is on, a buzzer will sound and LCD background light will turn on and [card] will appear for about 2 seconds to alert the driver.

Checking the balance of the prepaid card

You can check the balance of the prepaid card by pressing the button. LCD background light will turn on and display the balance value for 4 seconds. The value range are 0.00 – 9999.99

Electronic toll collection system condition and buzzer operation



Buzzer will sound when the vehicle are at a dedicated location with these condition.

Location	Condition	Buzzer sound type
①	No card (after ignition ON)	2 Short high beep sound 5 times
②	Prepaid card value less than RM10 1. After ignition ON 2. After transaction	2 Long high sound
③	Transaction OK	2 Times beep high sound

CAUTION

- **Do not pull out the prepaid card when passing through the toll gate as it may cause interference to the data/system.**
- **Please decelerate your vehicle when approaching the toll gate and follow the recommended speed.**
- **Follow the guidance/message display at signboard when passing through the toll gate.**
- **If the toll gate does not open, follow the instructions of the toll booth attendant.**

⚠ WARNING

If you notice any malfunction, have the system checked immediately by an authorised Perodua Service Centre.

Section 11



In case of an emergency

If engine won't start 11–1
Jump-starting 11–2
Engine overheating 11–4
Tools 11–5
Flat tyre 11–7
Towing 11–13
Warning sounds 11–17

If engine won't start

In case the starter won't crank

If the sound level of the horn is low, or if the headlights are dimmed, first check the battery. See Section 14.

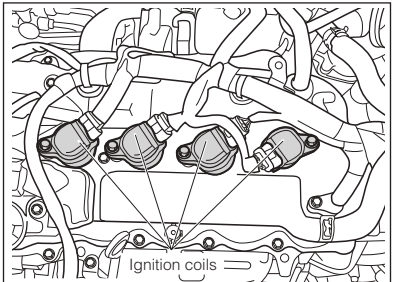
If the battery is discharged, jump-start it.

If the cause is still not clear, have the system checked by an authorised Perodua Service Centre.

⚠ WARNING

Do not push or pull-start the vehicle. This could damage the vehicle or cause an accident.

In case the starter cranks



NR-VE Engine

1. Check the fuel gauge. If the low fuel level warning light flashes, the fuel tank may be empty. Refill the fuel tank.
2. In case there is fuel in the fuel tank, make sure to check the spark plugs and ignition coils are connected securely and if ignition coils and wire harness connectors are connected property.

CAUTION

If the engine still won't start, or if the malfunction indicator light (MIL) flashes or goes on, the engine needs adjustment or repair. Call an authorised Perodua Service Centre immediately. Continuous driving under this state may cause serious damage to the catalyst, etc.

Jump-starting

⚠ **WARNING**

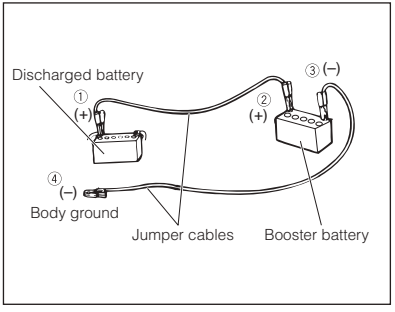
Observe the following instructions to prevent serious bodily injury and damage to your vehicle.

- **If you are not versed in the jump starting procedure, ask an authorised Perodua Service Centre.**
- **Refer to "Instructions on Do-it yourself maintenance service" before jump starting.**
- **Batteries contain sulfuric acid which is poisonous and corrosive. Wear protective safety glasses and be careful not to splash battery fluid on yourself, clothes or vehicle. If battery fluid is splashed on your skin or in your eye, remove your contaminated clothes and wash the part at least 15 minutes. Immediately see a doctor. Continue applying water with a sponge or cloth on the way to a medical facility.**
- **If you have swallowed battery fluid, drink as much water or milk as possible and immediately see a doctor.**
- **Keep any fire away from the battery. Otherwise the battery may explode.**
- **Do not charge a frozen battery. Thaw battery fluid before jump-starting; otherwise the gas in the battery fluid may explode.**
- **Do not jump-start the vehicle with a battery with low fluid level.**
- **Keep children away from a battery.**
- **Jump-start the vehicle in a well ventilated place.**

In addition, follow the instructions of the jumper cable manufacturer.

CAUTION

- **Use a 12-volt booster battery. Application of higher voltage may cause serious damage to the electrical equipment such as relays and radio. Do not jump-start the vehicle unless you are sure of the booster battery voltage.**
- **The capacity (AH rating) of the booster battery must not be lower than that of the discharged battery.**
- **Wash splashed battery fluid away from paint finish immediately.**



1. If the booster battery is installed on another vehicle, keep vehicles apart.

   Turn off all unnecessary lights and accessories on the vehicles. Place the transmission lever in neutral (manual transmission) or in Ⓟ or Ⓝ (automatic transmission).

   Fully apply the parking brake.
2. Remove all the vent caps from the booster and discharged battery (If equipped).
3. Start the engine on the vehicle with a booster battery and let it run for a few minutes at about 2,000 rpm.
4. Make sure that the ignition on the vehicle with discharged battery is in “OFF”.
5. Connect the jumper cables in the exact order shown in the illustration.

   Connect the cable from the negative terminal of the booster battery to a solid unpainted metallic point away from the battery.

   Do not lean over the battery when connecting.

   Make sure the connection is secure.

⚠ WARNING

To prevent short circuit;

- **Make sure insulation of jumper cables is in good condition.**
- **Do not connect the cable from the negative terminal of the booster battery to or near a moving part, or to the negative terminal of the discharged battery.**
- **Do not allow the jumper cables or clamps to touch anything except the correct battery terminals or the ground.**
- **Do not allow the jumper cable clamps to touch each other while connecting clamps.**

6. Crank the engine of the vehicle with the discharged battery. After the engine has started, run it at 2,000 rpm for several minutes.
7. Carefully disconnect the cables in the exact reversed order; the negative cable first and then the positive cable.
8. Check the battery electrolyte level. Add distilled water up to the “UPPER” mark.
9. Secure the vent caps to the original positions (If equipped).

   If the engine will not start despite of a few attempts or you are unsure of the cause of battery discharging, have your vehicle checked by an authorised Perodua Service Centre.

Engine overheating

If the engine overheats, the engine emits pinging noises and engine performance drops noticeably as well as the engine coolant temperature gauge indicates overheating.

In this case, observe the following WARNINGS and follow the procedure described.

⚠ WARNING

To help reduce the risk of burn or serious bodily injury;

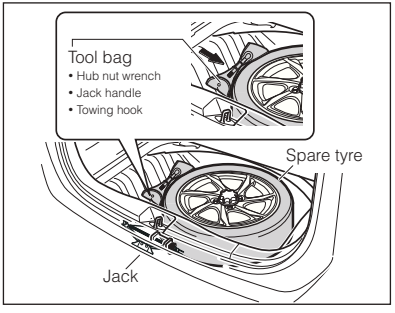
- **Allow the engine to cool before checking any component in the engine compartment.**
- **Do not attempt to remove the radiator cap when the engine and radiator are still hot. As the radiator cap is of the pressurized type, hot coolant will splash out.**
- **Do not open the hood if steam is coming out.**
- **Never touch or come close to the radiator fan blades when the engine is running.**

1. Park the vehicle on a safe place and turn the air conditioner off.
2. If steam is coming out from the hood, stop the engine. Keep the hood closed until no steam comes out from the hood. When no steam comes out any more, open the hood so that the inside can be ventilated.
3. Visually inspect the engine compartment. If the engine compartment exhibits any of the following, stop the engine immediately and contact an authorised Perodua Service Centre or repairer or, another duly qualified and equipped professional.
   - If the cooling fan does not rotate:
   - If vapor or hot water leaks from hoses, etc.:
   - If the radiator reserve tank has no water:
   - If the v-belt is snapped:
4. Stop the engine when the water temperature warning light illuminate.
5. After the engine has cooled completely, check the components.
6. Check the cooling water for the proper amount, the fan belt for looseness, the radiator core (heat radiating section) for visible contamination or adhesion of dirt.
7. Add coolant if the coolant level is insufficient. (See Section 14)
8. Have the vehicle checked by an authorised Perodua Service Centre as soon as possible.

   The engine is more prone to overheat in hot weather. The following should be checked regularly:

- Water leakage in the cooling system
- Water level of the radiator and reserve tank
- Radiator fin clogging
- Drive belt tension

If the engine overheats frequently, have the cooling system checked by an authorised Perodua Service Centre.

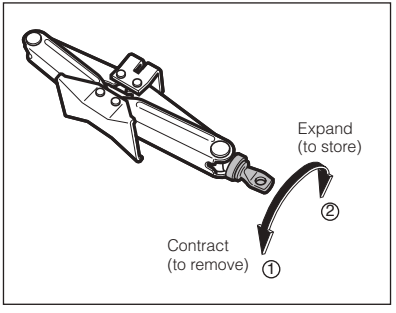


1. Open the back door and raise the deck board.
2. Learn the storage location of tool bag and jack.

NOTE

Secure the tool bag and jack as shown in the illustration.

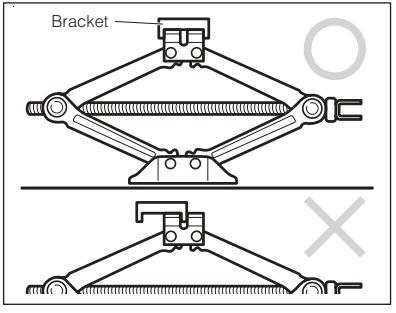
Jack



The jack can be installed / removed by turning the worm shaft as shown in the illustration above, using the jack handle provided in the tool bag.

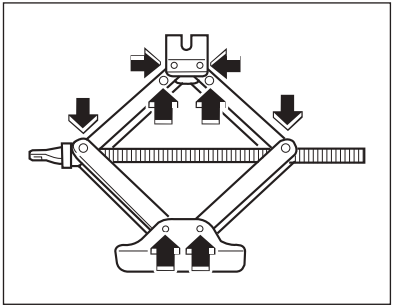
Removal

Remove the jack from the jack bracket by turning in the direction ① in the illustration above.



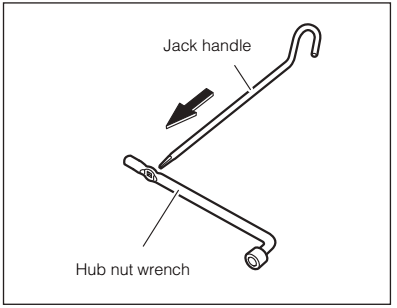
Installation

1. Place the jack, as shown in the illustration above. Make sure the jack is fixed to the hooks.
2. Turn in the direction ② in the illustration above, until the jack arm sections are brought into contact with the jack bracket.
3. Secure the jack to the bracket firmly by making another 1/2 turn in the direction ② in the illustration above, using the jack handle.



Maintenance instructions

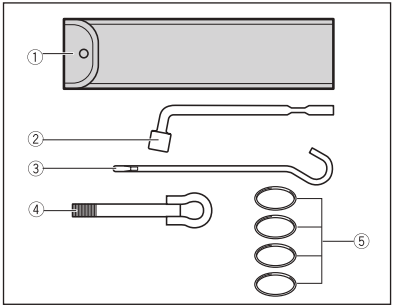
- Apply chassis grease to all the sliding parts and screw threads.
- Ensure that there is no distortion or crack on the jack.
  If there is, replace it with a new one.



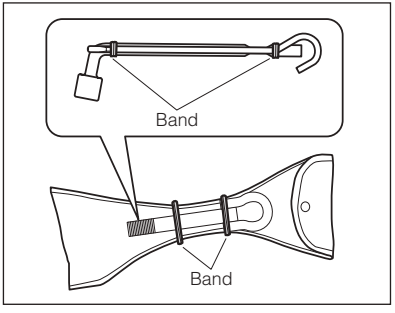
Jack handle

Assemble the jack handle as shown in the illustration to turn the worm shaft.

Tool bag



① Tool bag
② Hub nut wrench
③ Jack handle
④ Towing hook
⑤ Band



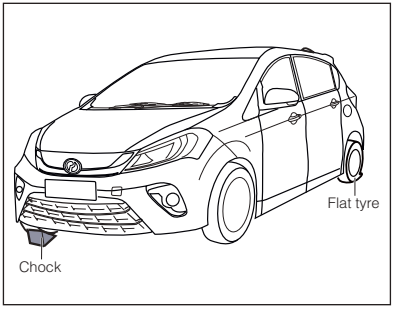
Stowing the tools

1. Stow the tools in the tool bag as shown in the illustration.
2. Fasten the jack handle and hub nut wrench together with two bands and put them into the tool bag.
3. Set the towing hook on the tool bag and fasten with two bands at intervals.

⚠ WARNING

- **If your vehicle has a flat tyre, pull off the road.**

  Avoid changing a flat tyre on a slope.
- **When changing a flat tyre on a road, park the vehicle in a place that will not obstruct traffic, turn on the hazard warning signal lights and put up a safety triangle if available.**
- **Move all passengers out of the vehicle to a safe place and unload any heavy luggage from the vehicle.**
- **Make sure the parking brake is applied, and the manual transmission is in 1st or in reverse, or the automatic transmission in Ⓟ.**
- **In the event of a flat tyre or tyre burst while driving at high speeds, hold the steering tightly. Gently apply the brakes to slow down. Sudden braking may cause a loss of steering control and can be dangerous.**



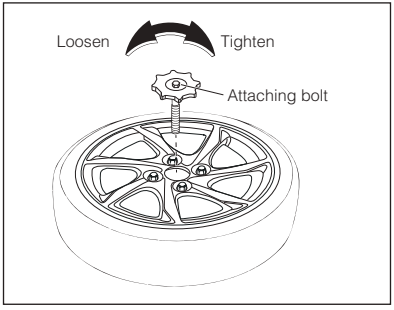
Chock the tyre, located diagonally opposite to the flat tyre, at the opposite end. This is the most effective location for a chock.

For improved safety, chock front and back of the tyre, if possible.

CAUTION

The chock is not equipped in the vehicle. Always prepare for the chock. You can use stones of sufficient size to chock the tyre.

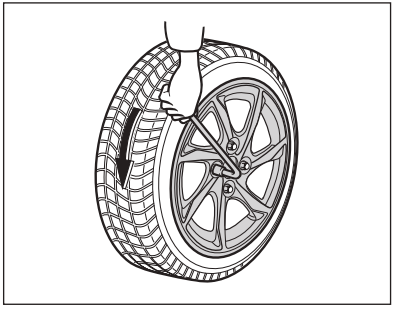
Spare tyre



Loosen / tighten the attaching bolt to remove / secure the spare tyre.

Place the spare tyre as shown in the illustration to store.

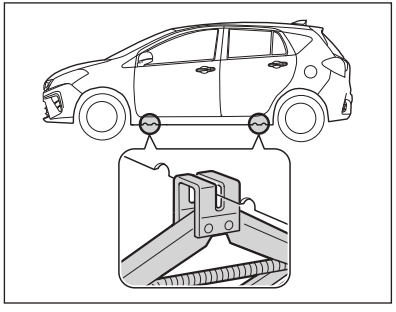
To remove / install the tyre



1. Slacken the wheel hub nuts with the wheel hub nut wrench.
   Do not remove the hub nuts.

⚠ WARNING

Be careful not to get injured by slipping the hub nut wrench.

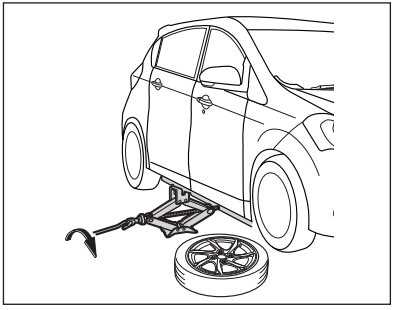


2. Four jack setting points are provided: two on each side as shown in the illustration. Set the jack at the jack setting point that is nearest to the flat tyre.

⚠ WARNING

To prevent accidental slip of the jack and serious bodily injury;

- **The jack should be used on level firm ground whenever possible. Place a flat and wide board underneath the jack, if necessary, to stabilize the jack.**
- **It is recommended that the wheels of the vehicle be chocked, and that no person should remain in the vehicle that is being jacked.**
- **No person should get their body under a vehicle that is supported only by a jack; use vehicle support stands.**
- **Never place any portion of your body under the jacked up vehicle.**
- **Use the jack provided with your vehicle only for the purpose of changing wheels.**
- **Do not raise other vehicles or loads at any time with it.**
- **Set the jack at the specified point.**
- **Do not rock or push a vehicle that is jacked up.**
- **Do not run the engine when the vehicle is jacked up.**
- **Take heavy luggage out from the vehicle as much as possible.**



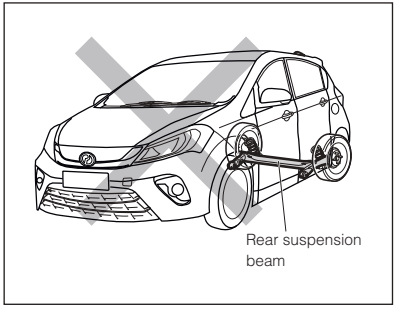
3. Insert the jack handle into the worm shaft of the jack and turn it clockwise to raise the vehicle.

   Jack up the vehicle gently until the tyre clears the ground surface only enough to remove and install the tyre.

⚠ WARNING

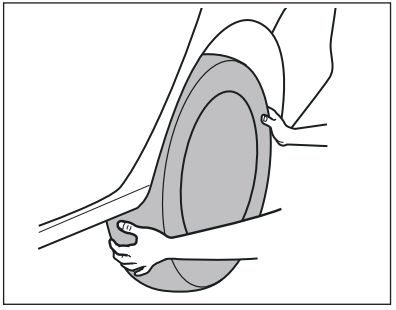
Place the spare tyre under the vehicle body at a point near the tyre to be changed.

This is a precautionary measure that may be helpful to avoid danger in the event that the jack is detached.



CAUTION

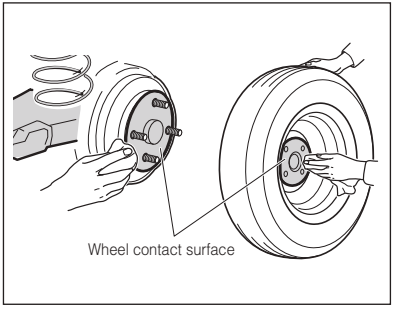
Never apply a jack to the rear suspension beam.



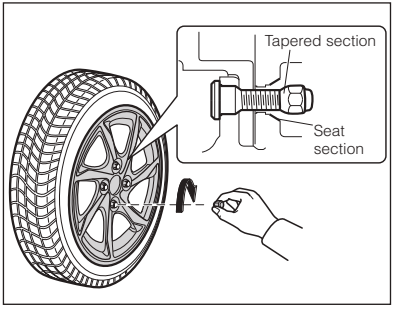
4. Remove the wheel hub nuts and replace the flat tyre with a spare tyre or new tyre.

⚠ WARNING

- **Lay the removed flat tyre so that it may not fall down accidentally.**
- **We recommend wearing gloves. The flat tyre may still be hot.**



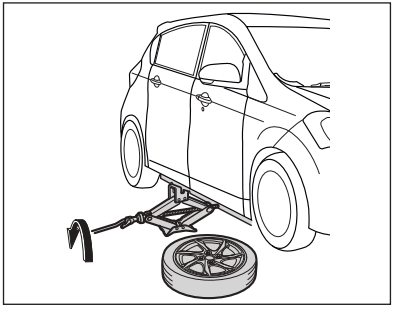
- **Remove any corrosion and objects on the brake drum and disk, and the wheel hub nut surface with a rag before putting on the spare tyre. Installation of wheels without secure metal-to-metal contact at the mounting surface may cause vehicle vibration and the wheel hub nuts to loosen while driving.**



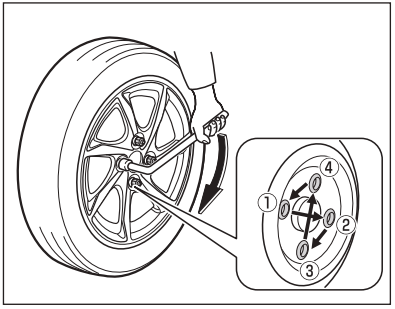
5. Reinstall all wheel hub nuts and tighten them until the wheel is no longer loose. Make sure the taper portion of the hub nuts are securely installed in the holes. Do not tighten them firmly yet.

CAUTION

- **Do not oil the hub nuts. They may loosen while the vehicle is moving.**
- **The bolts and nuts may be damaged if they are overly tightened.**



6. Insert the jack handle into the worm shaft of the jack and turn it counterclockwise to lower the vehicle.



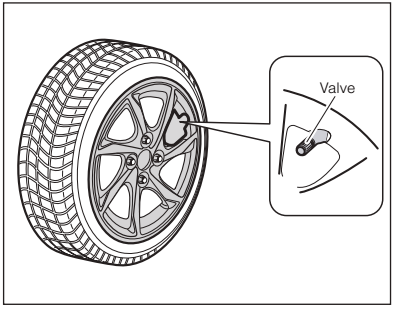
7. Tighten the wheel hub nuts securely in the diagonal order across the wheel.
   Tightening torque: 88.3 - 117.7 N.m
   (65.1 - 86.8 ft-lb, 9.0 - 12.0 kgf-m)

CAUTION

Do not tighten the hub nuts with other tools or by foot.

It may damage the thread.

After driving 1,000 km (600 miles), check and confirm that the wheel hub nuts are tight.



8. Check the air pressure of the replaced tyre and adjust it as specified.
   Tighten the air valve cap.
9. Store all tools, jack, jack handle, and flat tyre securely.

⚠ WARNING

If you notice any vibration or abnormal noise after changing a wheel, have them checked by an authorised Perodua Service Centre immediately.

Caution about aluminium wheel

- Aluminium wheels can be scratched or damaged easily. Handle them carefully to maintain their appearance, performance and safety.
- After driving the first 1,000 km, ensure that the wheel nuts are tight.
- If you have rotated, repaired or changed the tyres, ensure that the wheel nuts are still tight after driving 1,000 km.
- Use only the Perodua wheel nuts designed for your aluminium wheels.
- When installing balance weight on aluminium wheels, use only a plastic or rubber hammer.
- Periodically check the aluminium wheels for damage. If any damage is found, replace the damaged aluminium wheel immediately.

We recommend that your vehicle be towed by an authorised Perodua tow truck service.

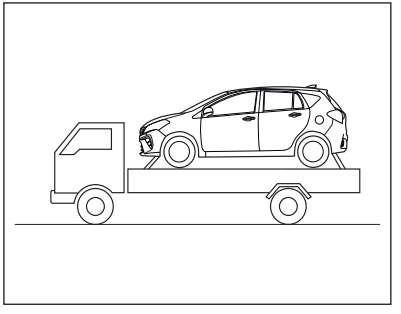
If the wheels or axles are damaged, use a towing dolly.

CAUTION

Never perform towing, using sling type equipment.

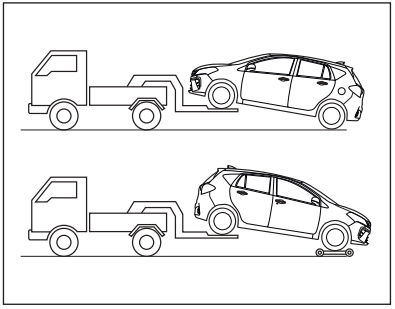
This may severely damage the body.

Flat bed type



We recommend this as the most desirable method.

Wheel lift type



⚠ WARNING

For safety reasons, do not allow anyone to be in the vehicle being towed.

To tow with rear wheels on ground:

Release the parking brake.

To tow vehicle with front wheels on ground:

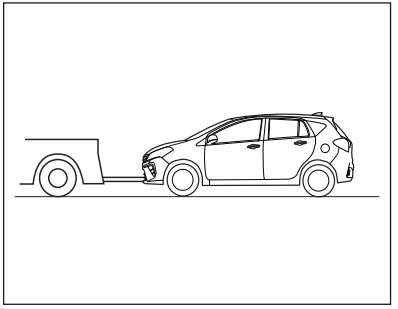
Use a towing dolly.

If a towing dolly is not available, shift the transmission lever to neutral and set the ignition to “ACC” (for manual transmission vehicle).

CAUTION

For an automatic transmission vehicle, be sure to always use a towing dolly.

Emergency towing



CAUTION

- **Do not tow an automatic transmission vehicle in this manner.**
- **Do not tow the vehicle in this manner unless the wheels, axles, drive train, steering, or brakes are in good condition.**

Attach a sturdy rope, towing strap or cable to the towing hook.

A driver must ride in the vehicle being towed and control it.

Release the parking brake and shift the transmission lever to neutral.

Set the ignition to “ACC”.

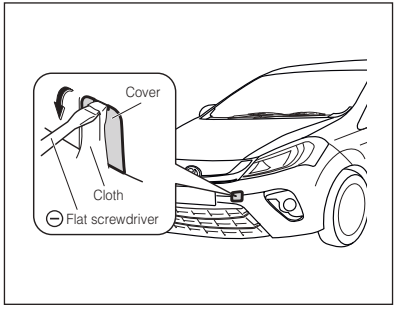
⚠ WARNING

- **When the engine is not running, the brake booster does not operate. Therefore, braking will require more force than usual.**
- **For safety reasons, do not use a towing hook unless your vehicle is towed on hard-surfaced roads.**
- **The ignition switch of the vehicle being towed should not be set to "OFF". The towed vehicle could lose turning ability and cause an accident.**

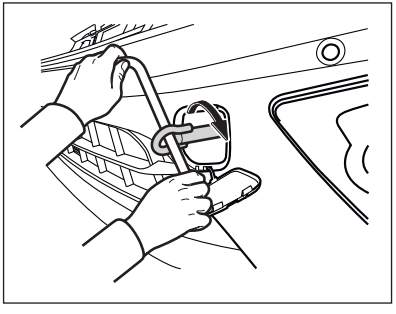
CAUTION

- **Always pull the hook straight-ahead to prevent it from being damaged. Do not pull it from the side or in a vertical direction. Also, do not pull it sharply.**
- **If you attach a rope or a cable to the axle or any other place, it may damage the components.**
- **Check that the hook is installed securely.**

Towing hook



1. Wrap a cloth or anything similar around a flat screwdriver and insert it into the groove of the cover. Then, remove the cover.



2. Insert the towing hook by turning it clockwise as shown in the arrow headed direction until the towing hook is tighten securely.

Instructions on towing

A driver must ride in the vehicle being towed and control it.

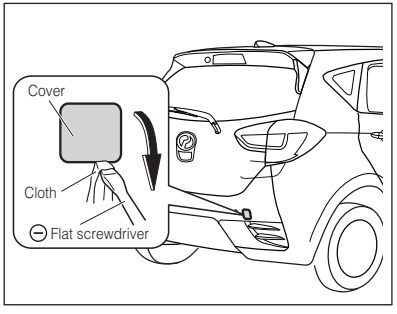
⚠ WARNING

- **When the engine is not running, the brake booster does not operate. Therefore, braking will require more force than usual.**
- **For safety reasons, do not use a towing hook unless your vehicle is towed on hard-surfaced roads.**
- **The ignition switch of the vehicle being towed should not be turned to "OFF". The towed vehicle could lose turning ability and cause an accident.**

To tow vehicle

1. Release the parking brake and shift the transmission to neutral.
2. Turn the ignition switch to "ACC" with the engine off, or to "ON" with the engine running.

Other vehicle towing



The rear tow hook for towing the other vehicle is provided at the left of the vehicles.

1. Wrap a cloth or the like around a flat screwdriver and insert it into the groove of the cover. Then, remove the cover.
2. Insert the towing hook by turning it in the arrowheaded direction. Then, secure the towing hook by means of the wheel nut wrench.

⚠ WARNING

Do not exceed the maximum towing speed regulated by the local regulation.

CAUTION

- **It is prohibited to tow a vehicle heavier than its own weight. If this is carried out, it may deteriorate the driving system, or damage the towing hook or the vehicle body.**
- **Do not use this hook as a transportation hook. Failure to observe this caution may cause damage to the vehicle body.**

  This towing hook is designed for towing other vehicles only.
- **Always pull the hook straight-ahead to prevent it from being damaged. Do not pull it from the side or in a vertical direction. Also, do not pull it sharply.**

Warning sounds

The warning sounds indicate abnormal conditions or current conditions in the various systems.

When you hear the following sounds, be sure to take necessary measures by referring to the related sections mentioned below.

The buzzer sounds continuously

(See Section 3, Seat belt warning buzzer).

(See Section 2, Warning buzzer).

(See Section 5, Brake warning buzzer).

(See Section 5, Power steering warning buzzer).

(See Section 10, Parking brake warning buzzer).

A squeaky noise is emitted during braking.

(See Section 10, Brake pad wear limit indicator)

Section 12



Appearance care

Exterior cleaning **12–1**
Interior cleaning **12–2**
Rust prevention **12–3**

Exterior cleaning

Washing

1. Park the vehicle away from direct sunlight and in a well-ventilated area.
   Turn the engine off.
2. While evenly applying water, gently wash the surface with a car washing brush. Use car wash solution or neutral detergent, if required.
3. Apply pressurized water to under-body.
4. Rinse the surface thoroughly so that no solution will remain.
5. Wipe off water with a sponge or chamois.
6. Dry the brake system.

⚠ WARNING

- **Keep children away from washing solution.**
- **When washing the underbody and suspensions of a vehicle, be sure to wear a pair of rubber gloves and a long-sleeved shirt. Be careful not to get injured such as cuts.**

CAUTION

- **Be careful not to apply water to the electrical systems in the engine compartment. This could cause short circuit.**
- **Follow the instructions on washing solution.**
  Gasoline or strong toxic solvents are not recommended to protect paint finish.
- **Do not apply hot water on the vehicle. This could damage the paint finish. Also, do not wipe off dirt or dust if the body surface is dry.**

When using an automatic car wash machine

CAUTION

- **Set the air intake control lever or switch on the air conditioner control panel to "recirculation". Otherwise, water will enter inside the vehicle and may cause a malfunction.**
- **Close the side mirror. Wash the vehicle from the front. Make sure to extend the mirrors before driving.**
- **Brush may occasionally scratch the vehicle and cause loss of paint gloss or early deterioration.**

When using a high-pressure car wash machine

CAUTION

- **Water may go inside the vehicle if the nozzle is pointed at an open/close part such as a door window and around the door. Do not bring the nozzle too close to these areas.**

Interior cleaning

Waxing

Wax your vehicle on a regular basis to preserve the paint finish.

Wash and dry the vehicle before waxing.

If the paint finish is hot, move the vehicle into shade and allow the surface to cool before waxing.

CAUTION

To protect paint finish;

- **Do not rub the surface hard or rub with hard cloth.**
- **Do not use steel wool or abrasive cleanser.**
- **Follow the instructions of the wax manufacturer.**

Clean the interior with a vacuum cleaner.

To clean leather, plastic, and cloth materials, (such as air conditioning control panel, audio panel, instrument panel, console panel, switches, etc) use a soft cloth dampened with a solution of mild soap and lukewarm water.

After cleaning, completely remove the remaining soap with a soft cloth dampened with water.

CAUTION

Gasoline or strong toxic solvents are not recommended.
It may damage the materials.

CAUTION

- **Do not use organic substances (solvents, kerosene, alchohol, gasoline, etc.) or alkaline or acidic solutions. These chemicals can cause discoloring, staining or peeling of the surface.**
- **If you use cleaners or polishing agents, make sure their ingredients, do not include the substances mentioned above.**
- **If you use a liquid car freshener, do not spill the liquid onto the vehicle's interior surfaces. It may contain the ingredients mentioned above. Immediately clean any spill using the method mentioned above.**
- **When letting the cleaned part dry, avoid direct rays of sun. Let it dry at a well ventilated, shaded, dust-free place. Otherwise, the materials may deteriorate quickly.**

We at Perodua have been producing high-quality vehicles with advanced rust preventive design and construction.

Nevertheless, this constitutes merely part of a total rust prevention program. To maintain good rust preventive quality for a long period of time, it is important for you to understand what to do on your part.

⚠ WARNING

Do not coat the exhaust system components with additional rust preventive materials. This could overheat and cause a fire.

Cause of rust formation

The followings are usual causes of rust:

- Salt on roads and salty air
- Dirt and water
- Chips, nicks, scratches, and dents that expose bare metal
- Chemical substances and industrial pollutant

Rust preventive measures

Keep your Perodua clean;

If you live in an area where rust formation is prone to occur, such as where salt is sprinkled on roads, near seacoast, or where industrial pollutants spread, be especially careful of rust formation.

We recommend washing the underside of your vehicle at least once a month.

Clean the fenders and other parts hidden from you.

Wash away mud thoroughly as wet mud could promote rust formation.

When cleaning the under-side of the doors, rocker panels, frame members, and so forth, make sure the water drain holes are not clogged.

Keep your garage dry;

Moisture is harmful for your vehicle, especially over 0 °C. Therefore, do not park your vehicle in a poorly-ventilated area with high humidity.

Do not wash your vehicle in a garage or keep your vehicle in a wet condition.

Keep paint finish and trim in good conditions;

Any scratch or chip on the paint finish must be touched up as soon as possible. Have the bare steel repaired at a qualified body repair shop or an authorised Perodua Service Centre.

Pay attention to interior;

Check, at regular intervals, that under-side of the mats and carpets are dry.

Do not wash the interior.

Furthermore, carry chemicals, cleansers, fertilizers, salt, etc., in a proper container.

If it has spilt or leaked, clean and dry the area immediately.

Section 13



Vehicle maintenance service

Maintenance requirements **13–1**
Maintenance schedule **13–3**

Maintenance requirements (General precaution)

1. The scheduled maintenance service is important to ensure trouble-free, safe and economical driving. Failure to perform the scheduled maintenance may cause an accident or serious damage.
2. If periodical maintenance is conducted, Perodua car owners may reduce the chance of accidents or car problems. Furthermore, it becomes possible to detect malfunction at an earlier stage which may lead to serious damages. Consequently, potential vehicle damage can be prevented or the degree of the damage can be minimized.
3. Therefore, all Perodua car owners should be concerned to service their Perodua vehicles according to the periodical maintenance service in order to be protected from accidents or unexpected problems.
4. To prevent malfunctions in advance, however, conducting the periodical maintenance service only is insufficient. It is essential that owners themselves perform maintenance, such as the pre-starting check described in the owner's manual, so that the vehicle exhibits no abnormal change or phenomenon. Owners should obtain information from service advisor about the necessity of maintenance performed by themselves.
5. However, malfunction may occur on those vehicles which are always checked by their owners. For instance, if a part which is instructed to be replaced periodically is used beyond its replacement interval and if the part is expired, there are cases where malfunction occurs suddenly despite the fact that no malfunction had taken place previously. To prevent such malfunction in advance, be sure to replace the parts recommended periodically at the specified replacement intervals.
6. This section describe those items in the schedule maintenance service recommended by Perodua and their intervals. Be sure to observe the maintenance schedule.
7. We at Perodua offer you a new-vehicle check when your new vehicle has been operated for 1,000 km since the registration date. Feel free to bring your new vehicle to an authorised Perodua Service Centre for this free but very important inspection service.

Pre-starting check

For safe and comfortable driving, perform the pre-starting check.

- Engine oil quality and level
- Engine coolant level
- Brake fluid level
- Washer fluid level
- Drive belt
- Battery electrolyte level
- Tyre air pressure and wear
- Fluid leakage
- Lights operation
- Steering wheel
- Brakes
- Accelerator pedal

While driving slowly:

- Speedometer and water temperature warning light
- Turning effort of steering wheel
- Brake function
- Other abnormal operations
- Whether the vehicle is pulling to one side while driving straight on a level road or when the brakes are applied.

Carefully monitor your Perodua

Monitor your Perodua for changes in performance, sounds, and visual tip-offs that indicate requirement of maintenance service.

Some important clues are as follows:

- Engine mis-firing, hesitating, or pinging
- Appreciable loss of power
- Unusual engine noises
- Any leakage of fluid or oil
  (Water drainage from the air conditioner is normal.)
- Change in exhaust sound
- Flat-looking tyre, excessive squeak when cornering or braking, or uneven tyre wear
- Vehicle pulled to one side when driving straight on a level road
- Loss of brake effectiveness, “spongy” feeling of brake and clutch pedal, pedal almost touching the floor, vehicle pulled to one side when braking
- Water temperature warning light flashes

If you notice any of these conditions, have the vehicle checked by an authorised Perodua Service Centre.

Maintenance records

Keep a copy of the invoice for any maintenance service performed on your Perodua.

It proves that all required maintenance had been performed for warranty coverage.

Do-it-yourself maintenance service

If you have some mechanical knowledge and automotive tools, you can service some of the maintenance items by yourself.

Do-it-yourself maintenance service procedures are given in Section 14.

Note that do-it-yourself maintenance service can affect your warranty coverage. See the Service & Warranty Booklet for the details of warranty statements.

Scheduled maintenance service

1. The scheduled maintenance items listed in this section are required to be serviced at regular intervals.
2. This maintenance schedule recommends the minimum required maintenance that you should perform to ensure trouble-free operation and to optimize the performance, reliability and safety of your vehicle. Follow the maintenance schedule provided.
3. In addition to standard maintenance items, additional services may be required on vehicles that are driven under certain conditions. Check with an authorised Perodua Service Centre for details.
4. The type and frequency of maintenance your Perodua requires depends on how you drive, as well as the environmental conditions in which you drive. If you drive under the severe driving condition, more frequent maintenance services are required. In this case, consult an authorised Perodua Service Centre.
5. Note that all the maintenance services are at owner’s expense.

Schedule for NORMAL driving

Follow the mileage and/or the period of the vehicle that has been driven, whichever comes first without any notice from an authorised Perodua Service Centre. Continue maintenance service after 100,000 km, following the schedule.

NOTE: PERODUA may change the contents without prior notification.

● ....Replace ○ ....Inspect (repair/replace if needed)

Section	Item	What to do / Inspection interval	x 1000 km	1	10	20	30	40	50	60	70	80	90	100
			Month(s)	1	6	12	18	24	30	36	42	48	54	60
Engine	Air cleaner element	Cleaning Check • Damage Change			○	○	○	●	○	○	○	●	○	○
	Engine oil	Change (Refer to "Engine oil viscosity chart" at Section 17)		○	●	●	●	●	●	●	●	●	●	●
	Drain plug gasket	Change			●	●	●	●	●	●	●	●	●	●
	Engine oil filter	Change			●	●	●	●	●	●	●	●	●	●
	Cooling system (Fan motor)	Check • Wear						○				○		
	Fuel line & connections (Including fuel hoses)	Check • Crack • Tightness • Leakage • Damage						○				○		
	Coolant	Change		First replace at 160,000 km, then replace every 80,000 km										

● ....Replace ○ ....Inspect (repair/replace if needed)

Section	Item		What to do / Inspection interval	x 1000 km	1	10	20	30	40	50	60	70	80	90	100
				Month(s)	1	6	12	18	24	30	36	42	48	54	60
Engine	Drive belt (Alternator, water pump, air conditioner)		Check • Tension • Crack • Damage		○		○		○		○		○		○
	Spark Plug	1NR & 2NR (iridium)	Clean & check • Condition • Gap • Damage			○	○	○	○	○	○	○	○	○	●
	Battery	34B19L	Check • Crack • Tightness • Leakage (water level)		○	○	○	○	○	○	○	○	○	○	○
		M42													
Fuel & Emission control	Charcoal canister		Check • Function • Damage						○				○		
	Fuel tank cap & fuel line connection		Check • Leakage						○				○		
	Fuel filter		Change		Every 6 years										
	Evaporative emission hoses		Change		Every 8 years										
	Exhaust pipe & muffler mounting		Check • Tightness • Damage				○		○		○		○		○

● ....Replace ○ ....Inspect (repair/replace if needed)

Section	Item	What to do / Inspection interval	x 1000 km	1	10	20	30	40	50	60	70	80	90	100
			Month(s)	1	6	12	18	24	30	36	42	48	54	60
Power transmitting system	Clutch	Check • Free travel • Reserve travel • Damage		○	○	○	○	○	○	○	○	○	○	○
	Manual transmission API GL-4	Check & Change • Oil						●				●		
	Drain plug gasket (MT)	Change						●				●		
	Automatic transmission ATF D3-SP	Check & Change • Fluid						●				●		
	Drain plug gasket (AT)	Change						●				●		
	Automatic transmission fluid warmer hose	Check • Crack, scratch, cut, twist and swelling				○				○				○
	Drive shaft boots	Check • Damage			○	○	○	○	○	○	○	○	○	○
Suspension system	Suspension arm (Front) Control arm (Rear) Dust boots Spring Stabilizer	Check • Tightness • Rattle • Damage				○		○		○		○		○
Steering system	Steering linkage Gear box Dust boots	Check • Free play (steering wheel) • Tightness • Rattle • Damage				○		○		○		○		○
	Wheel alignment	Check • Toe-in						○				○		

● ....Replace ○ ....Inspect (repair/replace if needed)

Section	Item	What to do / Inspection interval	x 1000 km	1	10	20	30	40	50	60	70	80	90	100
			Month(s)	1	6	12	18	24	30	36	42	48	54	60
Brake system	Brake pedal & parking brake	Check • Free play (brake pedal) • Reserve travel (brake pedal) • Working travel (parking brake) • Tightness • Rattle • Damage		○	○	○	○	○	○	○	○	○	○	○
	Disc & disc pad	Check • Wear • Damage				○		○		○		○		○
	Brake hose, tube and P & B valve	Check • Leakage (fluid level, connection) • Loose clamp • Damage				○		○		○		○		○
	Brake fluid	Change		○	○	○	○	●	○	○	○	●	○	○
	Brake drum & lining	Check • Wear • Damage				○		○		○		○		○
	Master & wheel cylinder	Check • Leakage					○			○			○	
Chassis & body	Wheel hub nut, other bolts & nuts	Check • Tightness					○			○			○	
	Tyres & inflation pressure	Check • Pressure • Wear		○	○	○	○	○	○	○	○	○	○	○
	Lights, horns, wiper & washers	Check • Condition (bulb, sound) • Wear • Damage		○	○	○	○	○	○	○	○	○	○	○

Schedule for SEVERE driving

NOTE: PERODUA may change the contents without prior notification.

● ….Replace ○ ….Inspect (repair/replace if needed)

Section	Item	What to do / Inspection interval	x 1000 km	1	10	20	30	40	50	60	70	80	90	100
			Month(s)	1	6	12	18	24	30	36	42	48	54	60
Engine	Air cleaner element	Check & clean • Damage Change		Check and clean : Every 5,000 km Change : Every 20,000 km										
	Engine oil & oil filter	Change (Refer to "Engine oil viscosity chart" at Section 17)		●	Every 5,000 km (every 3 months)									
Steering system	Steering linkage Gear box Dust boots	Check • Free play (steering wheel) • Tightness • Rattle • Damage			○	○	○	○	○	○	○	○	○	○
Brake system	Disc & disc pad	Check • Wear • Damage			○	○	○	○	○	○	○	○	○	○
	Brake drum & lining	Check • Wear • Damage			○	○	○	○	○	○	○	○	○	○

Severe driving conditions

1: Driving on rough roads, submerged roads or hilly areas 2: Driving in a dusty area or in an area which is likely to be exposed to salty air

3: Engine idling for a long time 4: Use as a taxi or as a rental car 5: Towing of a trailer 6: Frequent application of brakes 7:Repeat short trips

8: 50% or more operation time in heavy traffic in hot temperature of 32°C or higher

Section 14

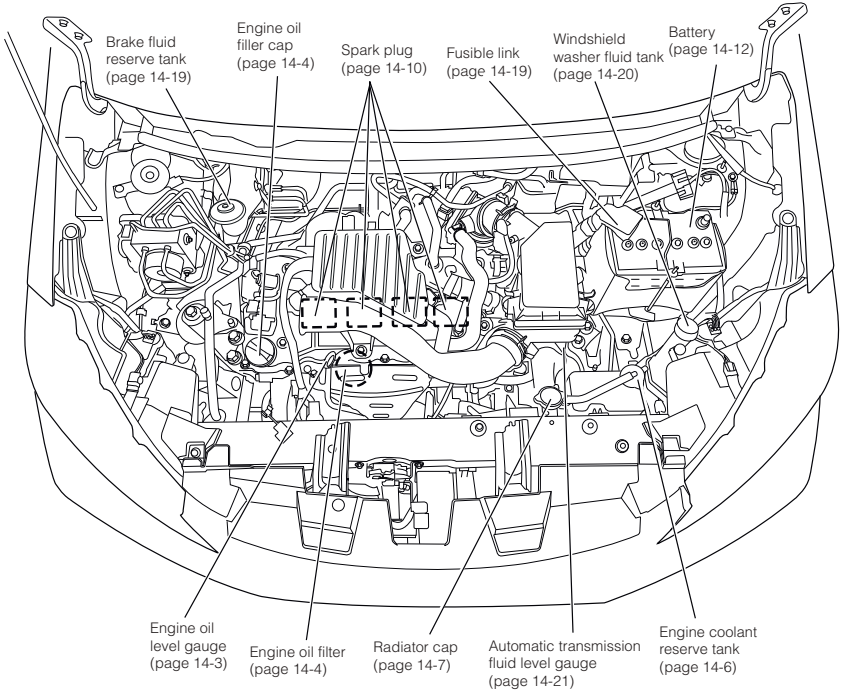


Do-it-yourself maintenance service

Engine compartment 14-1
Instruction on do-it-yourself maintenance service 14-2
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Drive belt check 14-8
Air filter cleaning and replacement 14-8
Spark plug check and replacement 14-10
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Brake pedal 14-23
Parking brake reserve travel check 14-24
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Engine compartment

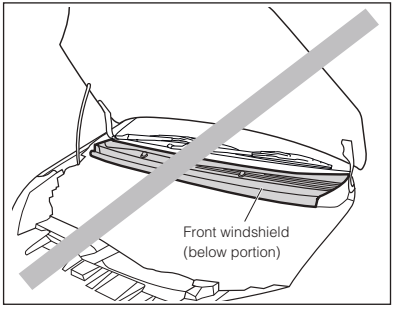
Type NR-VE engine



Instructions on do-it yourself maintenance service

⚠ **WARNING**

- **If you are not well versed in servicing procedures given, do not attempt to check or adjust the components.**
- **Do not allow smoking, sparks or flames near flammable objects, such as fuel or battery, to prevent a fire.**
- **To help reduce the risk of serious bodily injury, remove any necklace, bracelet, ring, and so forth. Secure long hair behind your head. Also, keep hands, tools, clothes, and other objects away from the moving parts when the engine is running.**
- **To help reduce the risk of burn injury, allow the engine to cool before servicing any component in the engine compartment, except when required.**
- **No person should get their body under a vehicle that is supported only by a jack; use vehicle support stands, etc.**
- **Service your vehicle in a well-ventilated place.**
- **Keep children away from any fluid or oil.**
- **Check that any tool or cloth is not left when closing the hood. They may damage the components or even cause a fire while driving.**
- **Under no circumstances should the wiring be modified. Failure to follow this caution may cause malfunctioning components or even a fire.**
- **Use well-maintained tools to prevent bodily injury and damage to the components.**

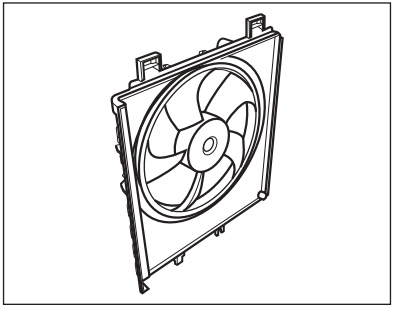


CAUTION

- **When checking the engine components, do not place things around the lower section of the windshield. If you place something, it may drop inside the engine, causing a malfunction.**
- **Disconnect the cable from the negative terminal of the battery before working on the electrical systems. Also, be careful not to short the terminals with a tool or other metal objects. It could cause battery damage.**

Engine oil

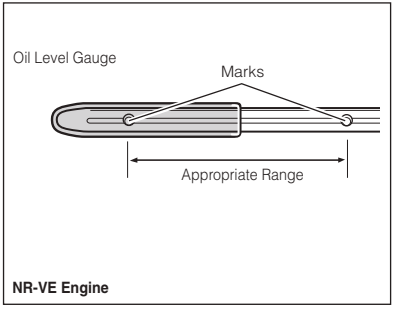
Electric engine cooling fan



⚠ WARNING

- **Turn the ignition switch to "OFF" when you work near the radiator and condenser fans, or radiator grill.**
- **Do not touch or come close to the fan blades if you service your vehicle with the ignition turned "ON". The radiator fan switch is activated automatically when the coolant temperature reaches a certain level. Furthermore, the radiator fan will automatically start to rotate with the air conditioner on.**

Engine oil level check



NR-VE Engine

1. Park the vehicle on a level surface.
2. Warm up the engine to operating temperature and stop it.
3. After a few minutes, slowly pull the dipstick out and wipe the oil clean.
4. Reinsert the dipstick as far as it will go.
5. Pull out the dipstick again and check the oil level if it is between two marks.
6. If the engine oil level is too low, add the engine oil. For recommended engine oil, see Section 17.

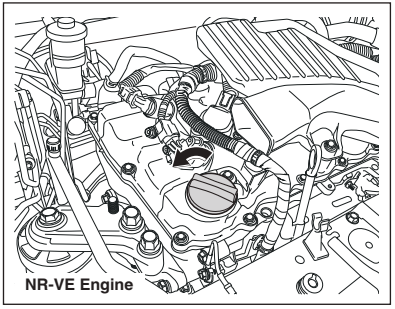
⚠ WARNING

Clean any spilt oil. It may cause a fire if it is left on a hot component.

NOTE

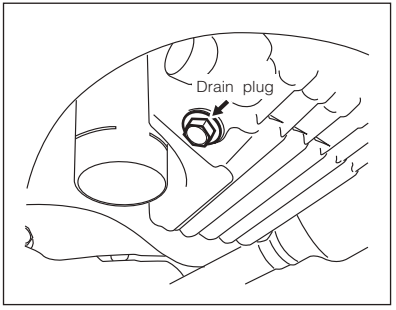
Check the engine oil level according to maintenance schedule periodically. In addition, always check the engine oil level before driving for long distance.

Engine oil change

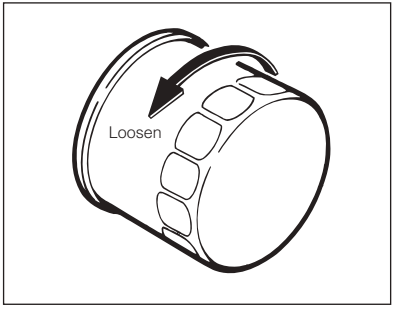


1. Park the vehicle on a level surface.
2. Remove the oil filler cap.

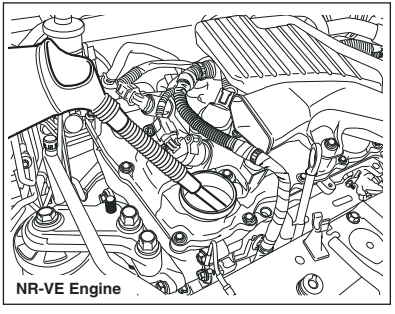
⚠ WARNING
Be careful not to burn yourself with hot engine oil or hot engine components.



3. Place a container under the drain plug for draining engine oil.
4. Remove the drain plug and gasket with a wrench, and allow the oil to drain completely.
   Wear protective glasses, if necessary.



5. Loosen the oil filter with an oil filter wrench and remove it by hand.
6. Apply a little new engine oil on the rubber gasket of the new oil filter.
7. Tighten oil filter 3/4 turn after gasket contacts mounting base.
   Tightening torque: 10.0 ± 2.0 N.m
   (102 ± 20 kgf.cm)
8. Reinstall the drain plug and new gasket.
   Tighten the drain plug.
   Tightening torque: 29.5 ± 5.9 N.m
   (301 ± 60 kgf.cm)



NR-VE Engine

CAUTION

Do not overtighten the oil filter and drain plug. It could cause oil leakage.

9. Slowly pour engine oil.
   For recommended engine oil and its capacity, see Section 17.
10. Install the oil filler cap by hand.
11. Wait for a few minutes and check the engine oil level.
12. Run the engine and check if engine oil is leaking from the oil filter or drain plug.
    Any leak indicates improper installation of the oil filter or drain plug.
13. Turn the engine off and wait for a few minutes. Check the engine oil level again and add oil, if necessary.

⚠ WARNING

- **Clean any spilt oil. It may cause a fire if it is left on a hot component.**
- **When checking or changing the oil, be very careful not to allow the oil to spill on the alternator etc. If oil does spill on the alternator etc, immediately wipe it off. Any spilt oil is very dangerous, because it can lead to fire in the vehicle.**
- **Wash your hands thoroughly.**
- **Prolonged contact with used engine oil could cause skin cancer.**
- **Never drain the used oil to the ground, sewer, etc. Be sure to dispose the used oil at a place with adequate facilities. It is recommended to change the oil by an authorised Perodua Service Centre.**
- **Securely install the oil filler cap. If not, oil consumption may increase and engine oil may be splashed on the components, which may cause a fire.**

Oil filter change

CAUTION

Use only Perodua genuine oil filter for your Perodua.

When it needs to be replaced, be sure to replace it at the authorised Perodua Service Centre.

⚠ WARNING

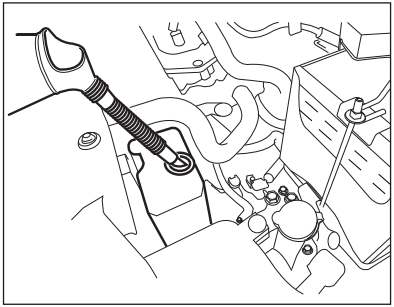
Be careful not to burn yourself when removing the radiator cap or drain plug.

CAUTION

- **Follow the coolant manufacturer's instructions.**
- **To prevent aluminum corrosion, be sure to use a high-quality corrosion protection type (ethylene glycol base) long-life coolant.**
- **As for the coolant concentration, keep it at ratio of 40% coolant and 60% soft water or demineralized water (reverse osmosis or distilled water).**

If coolant level decreases noticeably, have the cooling system checked by an authorised Perodua Service Centre.

Engine coolant level check



Check the coolant level in the reserve tank when the engine is cold.

Check if the level is between the "F (full)" and "L (low)" lines.

If the coolant level becomes low due to natural evaporation, add soft water only. If a substantial amount of coolant is lost, add long-life coolant.

If the reserve tank become empty, fill the radiator as well as the reserve tank with coolant.

Wipe the spilt coolant away and install the reserve tank and radiator caps securely.

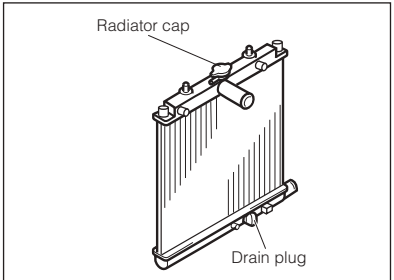
Engine coolant change

It is necessary to change the coolant at regular intervals.

For coolant capacity, see Section 17.

⚠ WARNING

- **Do not open the radiator cap or the drain plug when the engine is still hot.**
- **Do not touch the cooling fan. The fan might rotate and it is dangerous.**



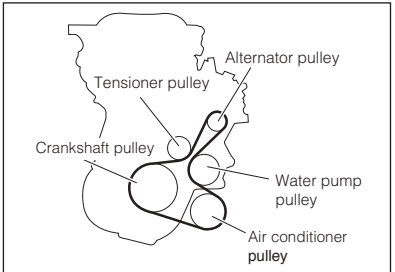
NR-VE Engine

To change coolant

1. Remove the radiator cap.
2. Place a container under the drain plug for draining coolant.
3. Remove the radiator drain plug and gasket. Allow the coolant to drain completely.
4. Drain the coolant from the reserve tank.
5. Install the radiator drain plug and gasket.
6. Pour water into the radiator until it is full and close the radiator cap.
7. Run the engine at idling speed for a while and stop it.
8. Drain the water completely.
9. Repeat step 6 to 8 a few times.
10. Install the radiator drain plug and new gasket, tighten it securely.
11. Slowly pour proper amount of coolant (ethylene glycol based anti-freeze solution) into the radiator and reserve tank. Pour proper amount of clean soft water into the radiator until it is full.

    Pour the clean soft water into the reserve tank to the “F (full)” line.
12. Close the radiator and reserve tank caps securely.
13. Run the engine for several minutes and stop it. Allow the engine to cool.
14. Carefully remove the radiator cap and check the coolant level. If necessary, add clean soft water to the radiator.
15. Install the radiator cap tightly.
16. Warm up the engine to normal operating temperature. Check if any coolant is leaking from the drain plug. Any leak indicates improper installation of the radiator drain plug.
17. After driving for a short while, check the coolant level. If the coolant has decreased, add coolant with a proper mixing ratio to the “F (full)” line in the reserve tank.

Drive belt check



NR-VE Engine

⚠ WARNING

Be careful not to burn yourself with hot engine components and radiator.

Turn the engine off and inspect the drive belt for cracks, excessive wear or oiliness.

Have any damaged belt replaced by an authorised Perodua Service Centre.

Push the ➡ and measure the deflection.

Air filter cleaning and replacement

You can clean the air filter with compressed air.

Apply compressed air only from the clean side of the air filter.

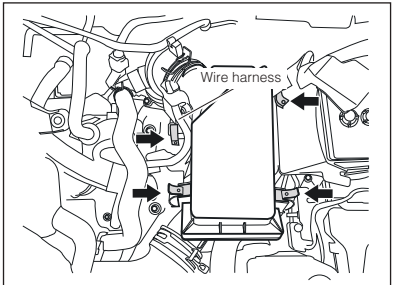
Replace the air filter, if necessary.

If the vehicle has been driven mainly in dusty areas, clean the air filter at intervals of 5,000 km.

Wipe the air filter case and seat with a soft cloth to remove dirt or dust.

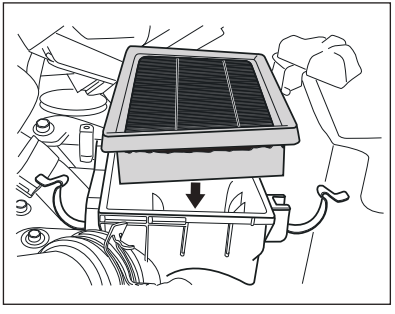
CAUTION

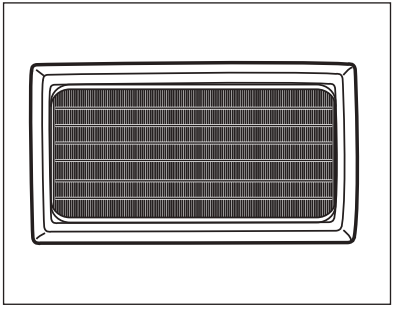
- **Do not drive with the air cleaner element removed. Failure to observe this will cause excessive engine wear.**
- **Make sure the air filter is not exposed to oil. It may reduce the effectiveness of the element.**



NR-VE Engine

1. Detach the wire harness.
2. Unlock the 4 clips.
3. Lift the upper case.
4. Remove the air filter.

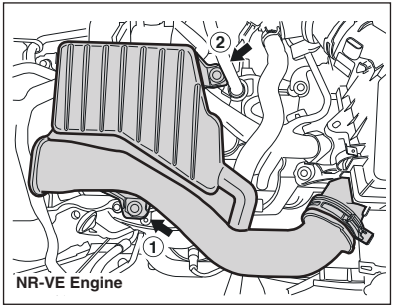




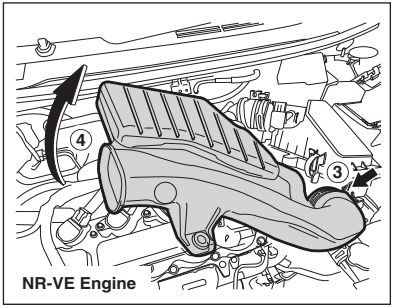
To store

1. Fit the air filter to the rubber cover.
2. Install the upper case.
3. Latch the clips.

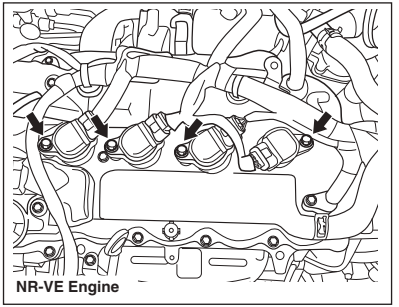
Spark plug check and replacement



1. Unscrew bolt ① and ② shown in the illustration.



2. Lift up the air cleaner cover as shown in the illustration above.
3. Loosen the clip ③ and pull the air cleaner cover in direction ④ from the air cleaner case.



4. Remove the attaching bolt of the ignition coil.
5. Pull out the ignition coil.

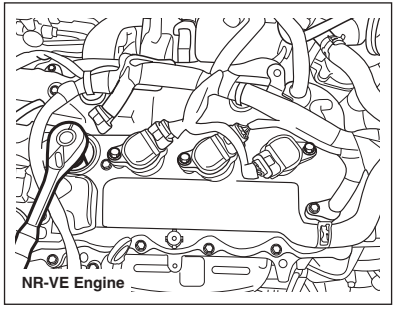
NOTE

Be very careful not to pull out the wire during the removal.

If there is a possibility the wire will be stretched, disconnect the connector of the ignition coil.

⚠ WARNING

Be careful not to burn yourself as the engine compartment and spark plug may be hot.


NR-VE Engine

6. Unscrew and remove the spark plug with a spark plug wrench.

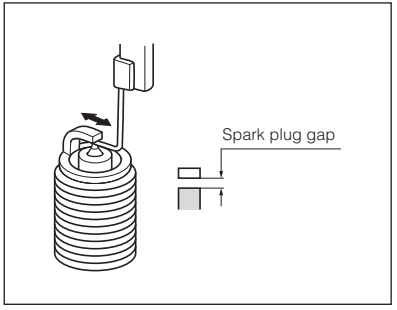
CAUTION

Insert the spark plug wrench straight into the spark plug. If it is used in a tilted state, the spark plug may be broken.

7. Check the insulator tip of the spark plug to see if it is light brown without any fouling. If it is not, have the spark plug cleaned by an authorised Perodua Service Centre.

CAUTION

Do not allow dirt or anything to fall into the spark plug holes. It may cause engine damage.



8. Check the gap of the new spark plugs with a spark plug gap gauge.
   For recommended spark plugs, see Section 17.

CAUTION

- **Do not adjust the spark plug gap of the used spark plug. Otherwise it may cause engine damage.**
- **Never use spark plugs other than those specified.**

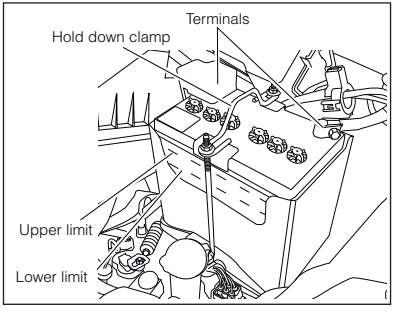
9. Install the spark plug securely.
   Tightening torque: 20.0 ± 4.0 N.m (204 ± 41 kgf.cm)

CAUTION

Do not overtighten the plug. Otherwise it may cause engine damage.

10. Install the ignition coil.
    Tightening torque: 10.0 ± 3.0 N.m (102 ± 31 kgf.cm)
11. Reconnect the spark plug wire in correct order.

Battery condition check and cleaning



Check for cracks, corroded or loose connections or loose hold-down clamps.

If the terminals of the battery are dirty, clean them with baking soda water and apply new grease on them.

If the terminals are loose, tighten them securely.

Check the electrolyte level if it is between the upper and lower limits. If the electrolyte level is too low, remove the vent cap from each cell. Add distilled water to each cell up to upper limit.

⚠ WARNING

- **When you service the battery, be very careful not to short the terminals of the battery with tools or other metal objects. If the battery terminals are shorted, it will cause the battery to overheat, and can cause damage or explosion.**
- **Tighten the vent caps securely after adding distilled water. Otherwise, the battery electrolyte may be splashed out and damage your vehicle, or even cause serious bodily injury.**
- **Battery contains sulfuric acid which is poisonous and corrosive. Wear protective safety glasses and be careful not to splash battery fluid on yourself, clothes, and vehicle. If battery fluid is splashed on your skin or in your eye, remove your contaminated clothes and wash the part at least 15 minutes.**
- **Keep fire away from the battery. It could cause battery explode.**
- **Keep children away from the battery.**
- **If you have swallowed battery fluid, drink as much water or milk as possible and immediately see a doctor.**

CAUTION

Wash splashed battery fluid away from paint finish immediately.

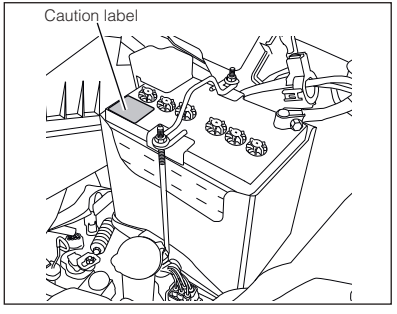
NOTE

To prevent the battery from running out, observe the following precautions:

- **Do not turn on the light or use the audio system for long periods when the engine is not running.**
- **Even when the engine is running, rev up the engine occasionally if the vehicle gets stuck in a traffic jam and does not move for long periods.**

Low levels of battery fluid lowers the charging capacity of the battery and may result in a shorter service life. Check the battery fluid level occasionally and fill it up when necessary.

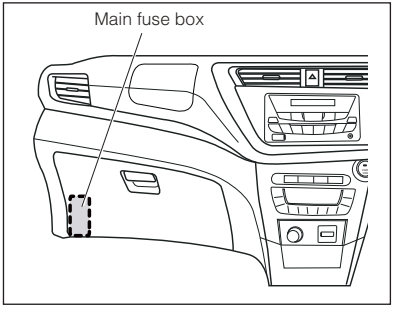
Precautions for battery

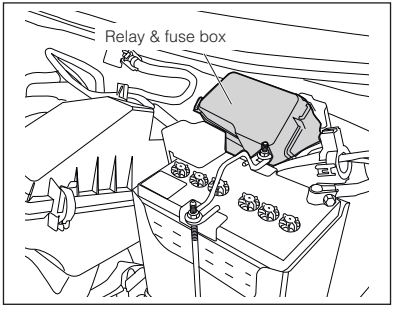


	Keep away from fire and naked flames, and refrain from smoking. Avoid creating sparks.
	Wear suitable eye protection.
	Keep children away from batteries.
	Risk of acid burns Battery acid is caustic. It must not come into contact with the skin, eyes or clothing. Immediately rinse acid splashes thoroughly with clean water. If necessary, consult a doctor.
	Follow all operating instructions.
	Risk of explosion.

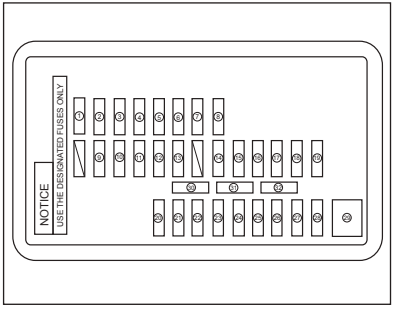
Fuse

Fuse location





Main fuse block



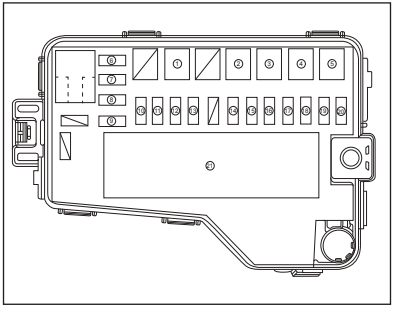
When replacing the fuse, use the specified fuse shown in the label attached on the cover of the fuse box.

① (DEF2) - Defogger 2...5A
② (FR FOG LH) - Front fog light...7.5A
③ (FR FOG RH) - Front fog light...7.5A
④ (RR WIP) - Rear wiper...10A
⑤ WASHER - Windshield washer...15A
⑥ (D/L) - Door lock...15A
⑦ H-LP LO RH - Head lamp low...15A
⑧ (ECU-B)...10A
⑨ (DOOR-DL)...15A
⑩ (POWER B)...20A
⑪ (A/C)...7.5A
⑫ ECU IG1 - ECU Ignition 1...7.5A
⑬ (IG1) - Ignition 1...5A
⑭ AM 1...5A

⑮ (SOCKET)...15A
⑯ BACK UP2...5A
⑰ FR WIP - Front Wiper...25A
⑱ H-LP LO LH - Head lamp low...15A
⑲ (STR LOCK) - Steering lock...20A
⑳ AM 2...7.5A
㉑ ACC - Accessories...5A
㉒ H-LP HI RH - Head lamp high...10A
㉓ DOME - Dome Lamp...5A
㉔ H-LP HI LH - Head lamp high...10A
㉕ STOP - Stop lamp...10A
㉖ TAIL - Tail Lamp...10A
㉗ HORN...10A
㉘ (DEF) - Defogger...15A
㉙ (POWER) - Power Window...30A
㉚ Spare...15A
㉛ Spare...10A
㉜ Spare...5A

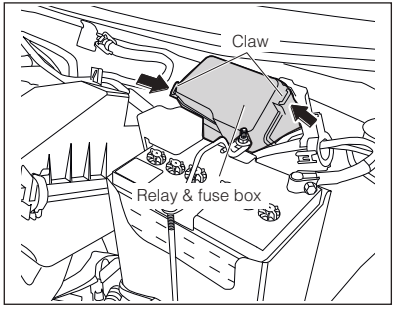
* ( ) If equipped

Relay & fuse box



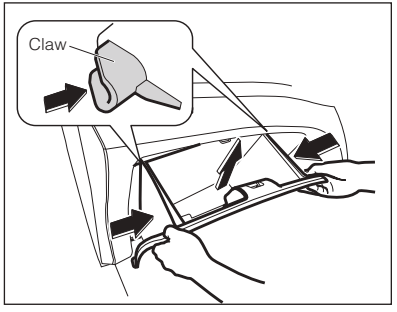
① AM 2...30A
② EPS - Electronic Power Steering
1NR-VE Engine...50A
2NR-VE Engine...50A
③ RAD - Radiator Fan...30A
④ (ABS)...40A
⑤ HTR - Air Cond...40A
⑥ EG - Engine...10A
⑦ ECU IG2 - ECU Ignition 2...5A
⑧ (ST) - Starter...7.5A
⑨ IG/BACK...5A
⑩ MGC - Magnetic clutch...10A
⑪ (ETCS)...10A
⑫ HAZ - Hazard...10A
⑬ RR USB - Rear usb...5A
⑭ (ABS 2)...30A
⑮ EFI - Electronic fuel injection...15A
⑯ (RR SOCKET) Rear socket... 15A
⑰ IG MAIN - Ignition main... 25A
⑱ (LUG_LP) - Luggage lamp... 5A
⑲ BACK UP...15A
⑳ FUEL PUMP...10A
㉑ Integration relay

Fuse check and replacement



To remove the cover of the relay & fuse box

1. Set the ignition switch to the "OFF" position.
2. Remove the cover of the relay & fuse box by pressing the claw.

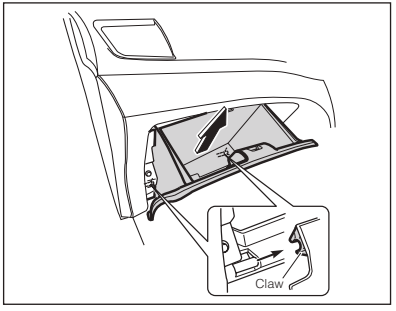


To remove glove box

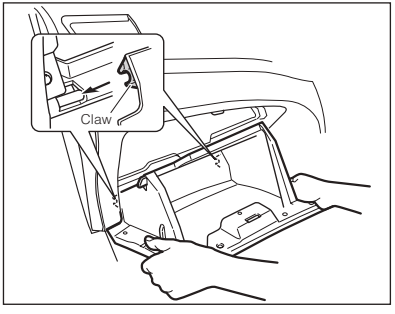
1. Set the ignition switch to the "OFF" position. Open the glove box.
2. Push inward and lift the glove box in the arrow-headed direction and unlock the claw.

NOTE

Locate the cause and rectify the problem before installing a new fuse. If you cannot, have the system checked by an authorised Perodua Service Centre.

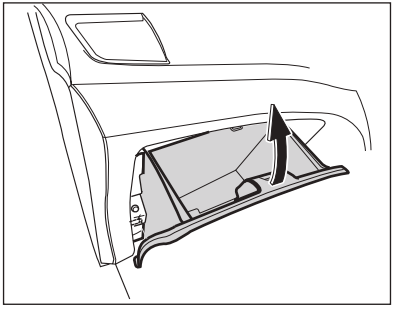


3. Remove the glove box in such a way that the box may not be caught by the claw.



To install glove box

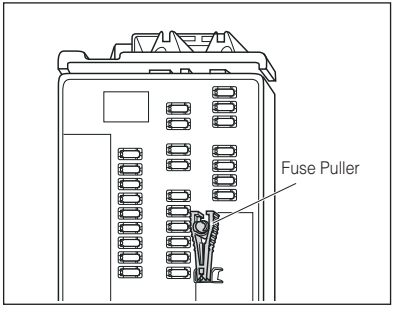
1. Install the lower claw by keeping the glove box horizontally.



2. Push the glove box in the arrow headed direction.

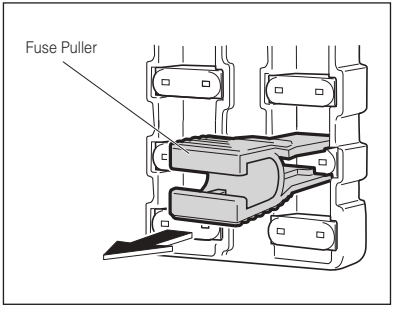
NOTE

When installing the glove box, ensure that the claw is completely engaged. Then, close the box. If the lower claw is not completely engaged, the box will not open.

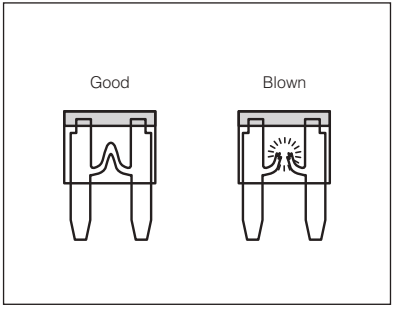


To remove fuse

1. Remove the fuse puller from the main fuse box.



2. With the fuse puller, pinch the fuse and remove it.



3. Check the removed fuse. If the fuse has been blown out, replace it with a spare fuse. If the fuse has not been blown out, most likely there is another cause. Have your vehicle checked by an authorised Perodua Service Centre.

If repairing process is delayed, disconnect the cable from the negative terminal of the battery as a precautionary measure.

CAUTION

- **Do not use fuse other than the specified capacities. The wiring might overheat and cause damaged. This could cause a fire and it is dangerous.**
- **If a newly replaced fuse quickly blows out, have the vehicle checked by an authorised Perodua Service Centre.**

NOTE

If the cable is disconnected from the negative terminal, any data concerning EFI and electronically-controlled automatic transmission system that have been memorized through the diagnosis functions will be lost.

The preset data of the clock and radio, will be lost too.

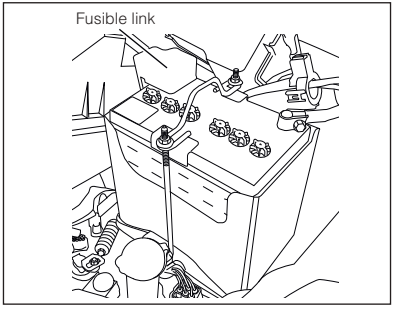
⚠ WARNING

To prevent a fire due to excessive current flow;

- **Never install anything in place of a fuse even temporarily.**
- **Make sure to use only fuses with the specified capacities. Never especially use a fuse with its amperage rating higher than specified.**

We recommend you to keep a set of spare fuses for emergency.

Fusible link check



If excessive amount of current should run from the positive terminal of the battery to the headlight circuit or the ignition switch circuit, the fusible link will blow to prevent a fire.

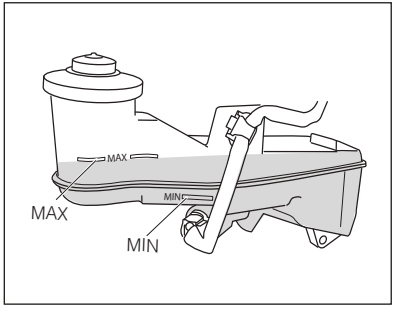
Immediately call an authorised Perodua Service Centre to repair the system.

⚠ WARNING

Never install anything in place of a fusible link even temporarily.

It may cause extensive damage to the vehicle and a fire.

Brake fluid level check



Check the brake fluid reserve tank if the brake fluid level is between the “MAX” and “MIN” lines.

If the brake fluid level is too low, slowly add clean brake fluid to the “MAX” line.

For recommended brake fluid, see Section 17.

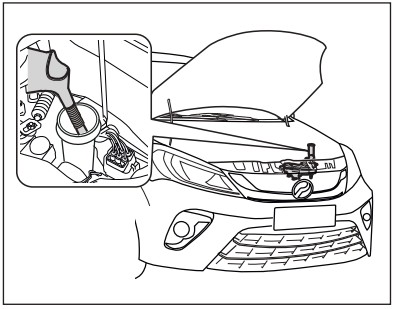
CAUTION

Wipe away spilt fluid thoroughly to prevent paint damage.

⚠ WARNING

- **Brake fluid is harmful to your eyes. If it has been splashed in your eye, wash it away thoroughly.**
- **For proper brake performances;**
  - **Be sure to use specified brake fluid.**
  - **Follow the brake fluid manufacturer’s instructions.**
  - **Do not mix different types of brake fluid.**
  - **Do not use brake fluid that has been exposed to air for more than 1 year. It may have absorbed excessive moisture.**
  - **Do not allow dirt, sand, or dust into brake fluid.**
  - **If brake fluid decreases noticeably, have the brake system checked by an authorised Perodua Service Centre.**

Windshield washer fluid level check



Make sure that the washer fluid level is sufficient.

Add fluid if the level is too low.

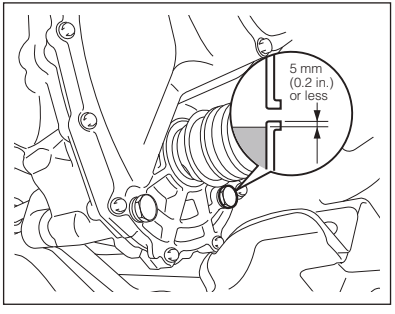
⚠ WARNING

- **Always use clean washer fluid. Dirty fluid can cause clogging of the washer system or can block your vision.**
- **Do not add washer fluid when the engine is hot or running. Washer fluid spilled on the engine may cause a fire.**

CAUTION

- **Follow the manufacturer's instructions for proper mixing ratio of washer fluid.**
- **Do not pour soap water or other fluids instead of washer fluid. This may cause paint stain or clogging.**

Manual transmission oil level check



⚠ WARNING

To reduce the risk of personal injury, do not check the oil level unless the ignition switch has been turned completely "OFF" and the engine has cooled sufficiently.

Park the vehicle on a level surface and apply the parking brake. Turn the ignition switch to "OFF".

Remove the filler plug and check the transmission oil level with your finger.

If the transmission oil level is less than 5 mm (0.2 in.) below the bottom edge of the hole, the oil level is satisfactory.

If the oil level is satisfactory, reinstall the filler plug with new gasket interposed and tighten it securely.

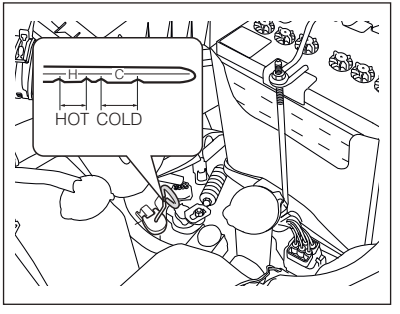
Tightening torque: 39.2 ± 9.8 N.m
(400 ± 99 kgf.cm)

When the oil level is low, add the specified oil until it starts to flow out the filler hole.

For recommended manual transmission oil, see section 17. Reinstall the filler plug with new gasket interposed and tighten it securely.

Tightening torque: 39.2 ± 9.8 N.m
(400 ± 99 kgf.cm)

Automatic transmission fluid level check



Check the fluid level when the transmission fluid temperature is 70 - 90°C.

If the vehicle has been driven for about 15 minutes at a speed of 60 km/h or for about 30 minutes at a speed of 40 km/h, the fluid temperature becomes about 70 - 90°C.

1. Park the vehicle on a level surface and apply the parking brake.
2. Run the engine at idling speed and firmly depress the brake pedal. Move the shift lever from Ⓟ to ② smoothly and return to Ⓟ.
3. Pull the dipstick out and wipe it clean. Insert it into the original position.

4. Pull the dipstick out and check the fluid level to see if it is within the “HOT” range.
5. If the oil level is too low, add the specified fluid through the oil filler tube slowly. Do not overfill.

   For recommended automatic transmission fluid, see Section 17.
6. Securely insert the dipstick.
7. Wipe off any spilt fluid.

CAUTION

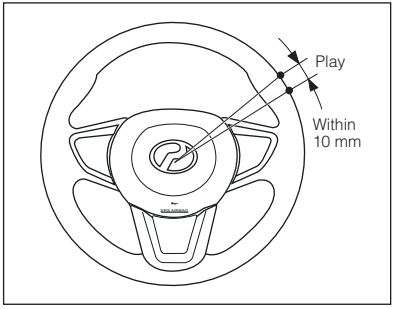
- **If the fluid is dirty, have the fluid changed by an authorised Perodua Service Centre.**
- **If the fluid level is too low, or if fluid decreases noticeably, have the system checked by an authorised Perodua Service Centre.**

⚠ WARNING

- **Be careful not to burn yourself as the fluid may be hot.**
- **Never touch or come close to the moving parts while the engine is running, to help reduce the risk of serious bodily injury.**

NOTE

- **The level at a time when the fluid is cold (20 - 30°C) should be used only as a reference value. Check the fluid level again at normal operating temperature (70 - 90°C) for correct level.**
- **If the level differs between the front and rear sides of the level gauge, use the side having the lower level.**



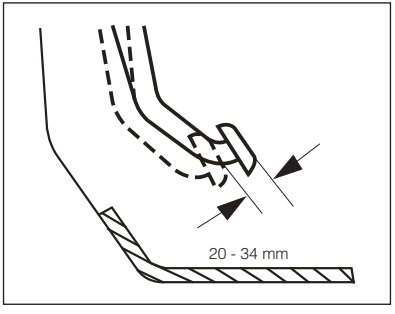
Move the steering wheel lightly from straight-ahead position to right and left until you feel resistance, and measure the free play.

Check to see that the free play is within the specification.

⚠ WARNING

If the free play is not within the specification, have the system checked immediately by an authorised Perodua Service Centre.

Clutch pedal free play check



Depress the clutch pedal by hand lightly until you feel resistance, and measure the free play.

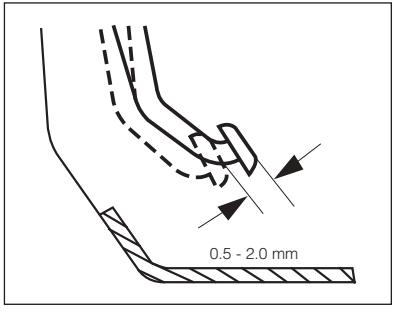
Check to see that the free play is within the specification.

⚠ WARNING

If the free play is not within the specification, have the system checked immediately by an authorised Perodua Service Centre.

Brake pedal

Brake pedal free play check



Turn the engine off and depress the brake pedal more than five times to release vacuum in the brake booster.

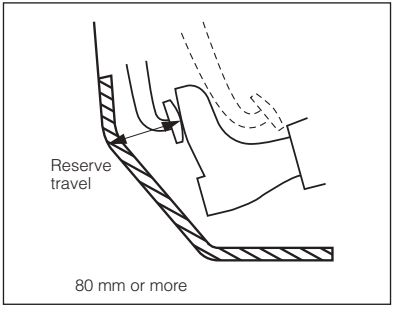
Measure the play of the pedal by pulling the brake pedal toward your side.

Check to see that the free play is within the specification.

⚠ WARNING

If the free play is not within the specification, have the system checked immediately by an authorised Perodua Service Centre.

Brake pedal reserve travel check

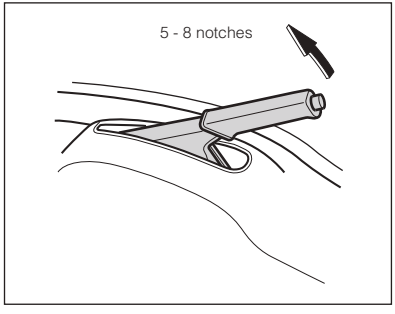


1. Park the vehicle on a level surface.
2. Shift the manual transmission lever in neutral, or the automatic transmission lever in Ⓟ.
3. Release the parking brake.
4. With the engine running, depress the brake pedal several times.
5. Depress the brake pedal with a force of 294 N (30 kgf), and measure the distance between the top of the brake pedal and the bulkhead.
6. Check to see that the reserve travel is within the specification.
7. Check also to see that the reserve travel remains the same.

Parking brake reserve travel check

⚠ WARNING

If the reserve travel is not within the specification, have the system checked immediately by an authorised Perodua Service Centre.



1. Park the vehicle on a level surface.
2. Shift the manual transmission lever in neutral, or the automatic transmission lever in Ⓟ.
3. Firmly depress the brake pedal.
4. Fully release the parking brake.
5. Pull the parking brake lever up slowly, and count the notches with a force of 196 N (44 lb, 20 kgf).
6. Check that the number of notch is within the specification (5 - 8 notches).

⚠ WARNING

If the number of notches is not within the specification, have the system checked immediately by an authorised Perodua Service Centre.

Brake booster operation check

1. Park the vehicle on a level surface.
2. Shift the manual transmission lever in neutral, or the automatic transmission lever in Ⓟ.
3. Stop the engine and depress the brake pedal several times until the travel distance does not change.
4. Start the engine with the brake pedal depressed. The brake pedal should move down slightly.
5. Stop the engine with the brake pedal depressed. Hold the pedal for about 30 seconds. The pedal should not move.
6. Start the engine and stop it after about a minute. Firmly depress the brake pedal several times. The pedal travel distance should decrease with each application.

⚠ WARNING

If you notice any malfunction, have the system checked immediately by an authorised Perodua Service Centre.

Wiper blade replacement

⚠ WARNING

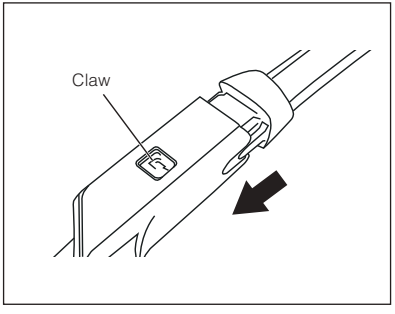
Make sure the ignition switch is in "OFF", before replacing the wiper blades.

CAUTION

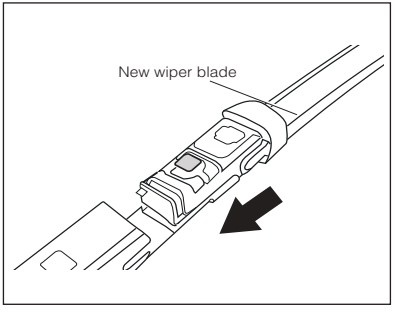
Be careful not to scratch the glass with the wiper frame.

Fix the blade with suitable length.

Front

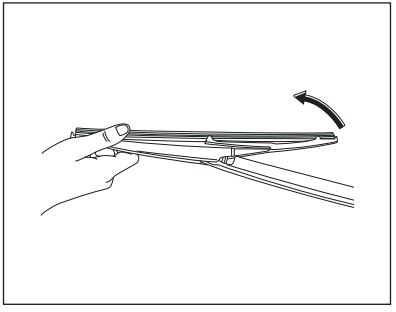


1. Raise the wiper arm from the windshield.
2. Press the claw and unlock the wiper blade to separate it from the arm.

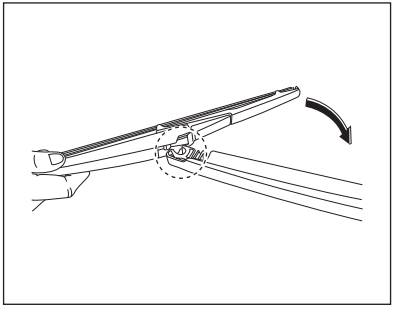


3. Install the new wiper blade by mounting it into the same end where the old wiper was pulled out.
4. Make sure the claw snaps into place to secure it.

Rear



1. Raise the wiper arm from the windshield.
2. Pull the wiper blade in direction as shown in the illustration to disengage it from the arm.



3. Install the new wiper blade and make sure it locks in place.

CAUTION

- **To prevent damage to the wiper arm, raise the driver‘s side first, then the passenger‘s side. Conversely, when setting down the wiper arms, set the passenger’s side down first.**
- **Do not open the hood when the wiper arms are raised. This could damage the hood and the wiper arms.**
- **Be careful not to allow the wiper arm to fall against the windshield. It could crack the windshield. Protect your windshield with a folded towel if necessary.**

Use the bulb as specified.
(See Section 17)

⚠ WARNING

To prevent injury;

- **Turn the engine off before replacement.**
- **Keep children away from a bulb.**
- **Allow the bulb to cool before replacement.**

CAUTION

Do not drop a bulb or scratch the surface.

After replacement, turn the light switch on to see that the light will be illuminated.

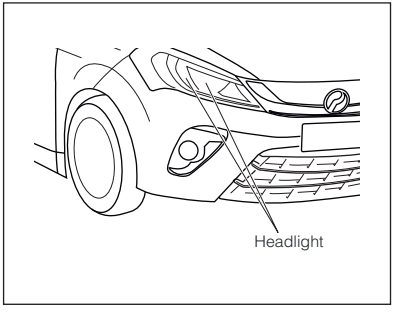
If a bulb requires frequent replacement, have the system checked by an authorised Perodua Service Centre.

We recommend keeping a set of spare bulbs. Bulbs are available at an authorised Perodua Service Centre.

NOTE

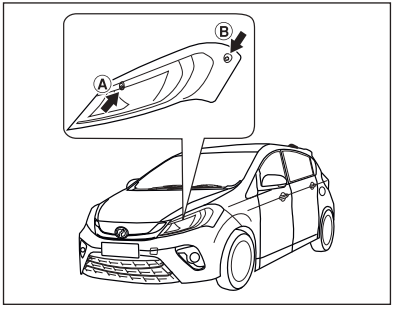
The inside of the lens of exterior lights such as headlights may temporarily fog up when the lens becomes wet in the rain or in a car wash. This is not a problem because the fogging in caused by the temperature difference between the outside and inside of the lens, just like the windshield fogs up in the rain. However, if there is a large drop of water on the inside of the lens, or if there is pool of water inside the light, contact an authorised Perodua Service Centre.

Headlights



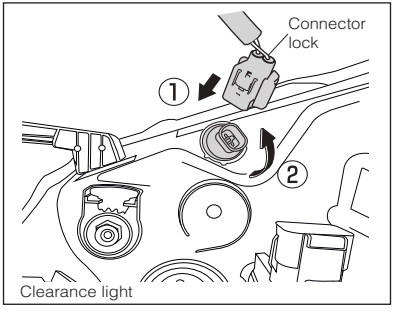
Headlights are using LED type. If any of the LEDs burn out, contact an authorised Perodua Service Centre.

Clearance lights / front turn signal lights



NOTE

The clearance lights Ⓐ and front turn signal light Ⓑ can be removed from the engine compartment side.

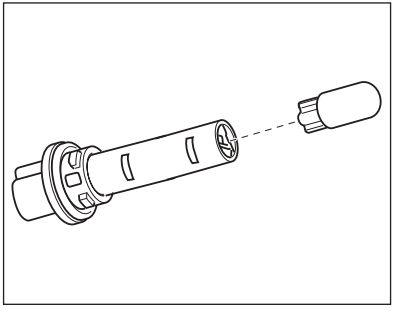


To remove bulb

1. Disconnect the wire connector by pushing and pulling it.
2. Remove the bulb with socket by turning it counterclockwise about 45 degrees.

CAUTION

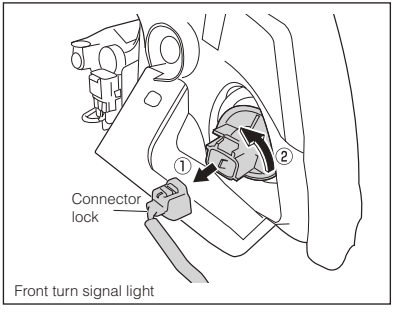
Be careful not to pinch the wire connector when you reinstall.



3. Remove the bulb from socket by pulling it.

To install bulb

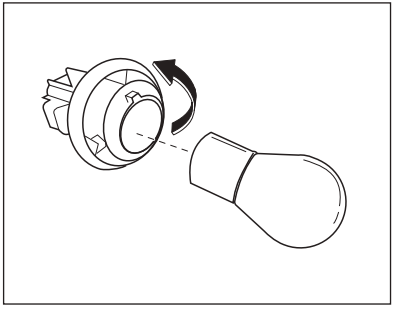
Reverse the bulb removal procedure to reinstall.



Front turn signal light

To remove bulb

1. Disconnect the wire connector by pushing and pulling it.
2. Remove the bulb socket by turning it counterclockwise about 45 degrees.

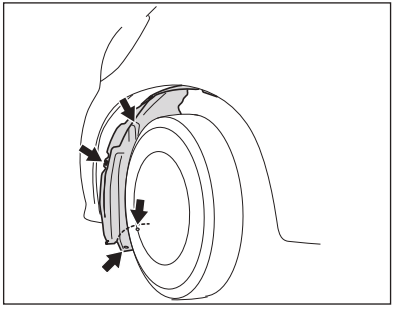


3. Remove the bulb by pushing the bulb into the socket and turn counterclockwise.

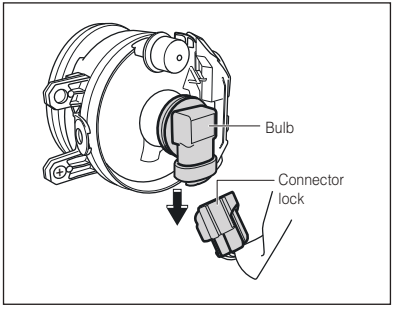
To install bulb

Reverse the bulb removal procedure to reinstall.

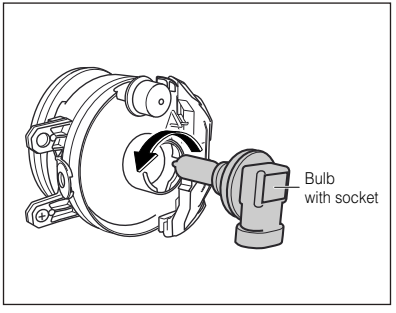
Front fog lights



1. Operate the steering wheel inward (rightward when replacing the left side; leftward when replacing the right side).
2. Detach the 4 clips retaining the front fender liner.



3. Disconnect the wire connector by pushing and pulling it.

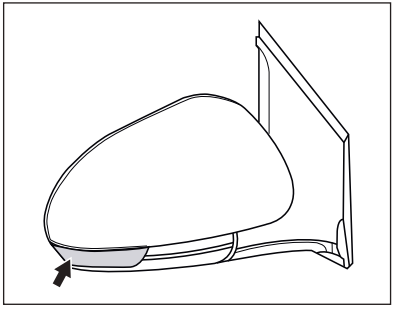


4. Remove the bulb with socket by turning it counterclockwise about 45 degrees. Change the bulb with socket.
5. Reverse the removal procedure to reinstall.

CAUTION

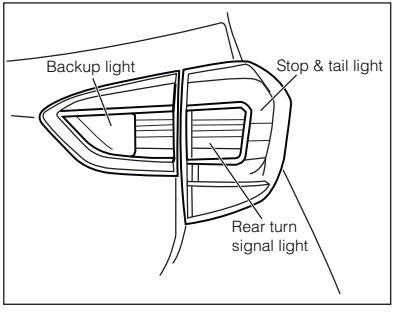
Never touch the glass portion of the bulb. The oil on your finger will damage it. Be careful not to pinch the wire connector when you reinstall.

Side turn signal lights (mirror)

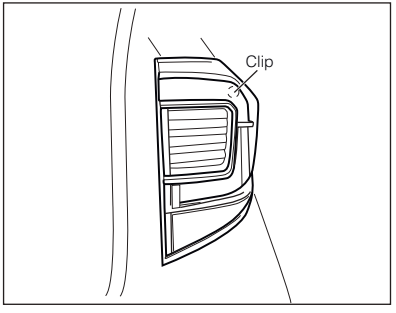


The side turn signal light (mirror) is using a LED type. If any of the LEDs burn out, contact an authorised Perodua Service Centre.

Rear combination lights



The rear combination lights are consist of stop & tail light, rear turn signal light and backup light.

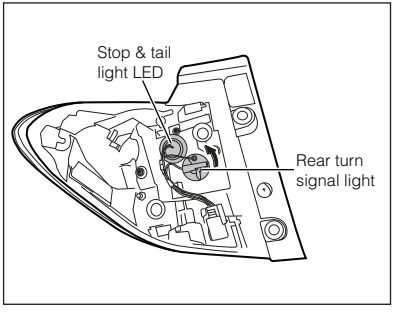


(Rear turn signal light / stop & tail light / backup light)

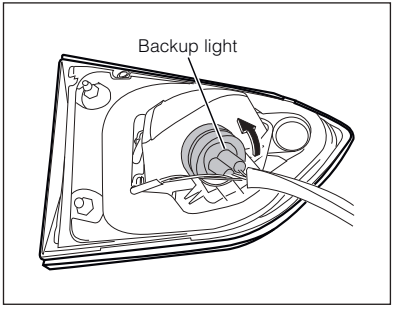
1. Open the back door.
2. Remove the 2 bolts.
3. Detach the lamp assembly from the side clip.

CAUTION

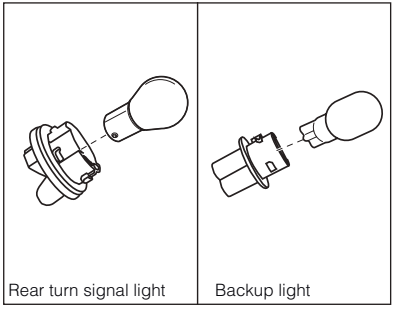
Be careful not to pinch the wire connector when you reinstall



4. Remove the rear turn signal light socket by turning it counterclockwise about 45 degrees.



5. Remove the back door trim board.
6. Remove the back up light socket by turning it counterclockwise about 45 degree.



7. Change the bulb and reverse the removal procedure to reinstall.
8. If the stop and tail light (LED) are malfunction, contact an authorised Perodua Service Centre.

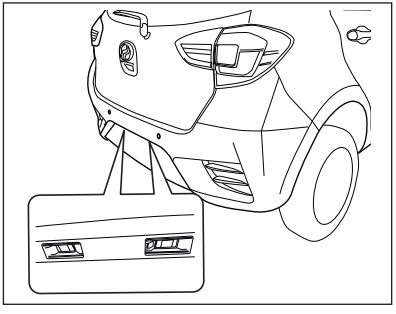
NOTE

When installing the light assembly, be sure to align the projection of the light assembly with the body hole.

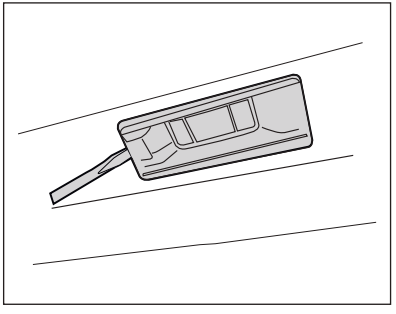
To install bulb

Reverse the bulb removal procedure to reinstall.

Licence plate lights

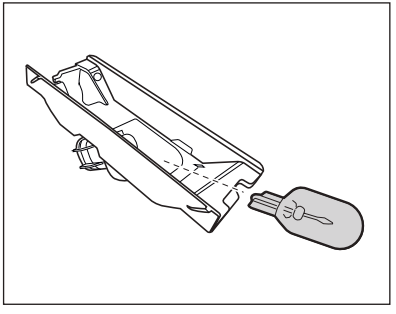


The licence plate light is located at the bottom side of rear bumper.



To remove bulb

1. Remove the light by using a suitable tool and disconnect the connector.

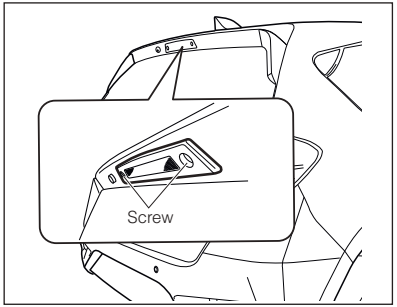


2. Remove the lense of the light and pull bulb to remove.

To install bulb

1. Reverse the bulb removal procedure to reinstall.

High-mounted stop light

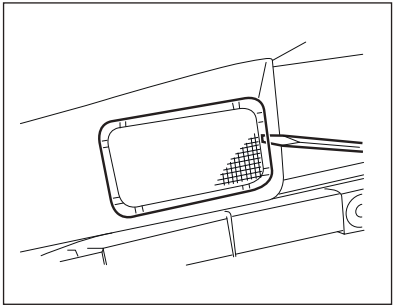


1. Remove the 2 screws detach the LED light.
2. Disconnect the wire connector and change the LED light.

NOTE

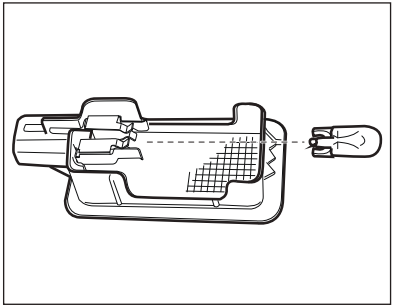
The high-mounted stop light is using a LED type. If any of the LEDs burn out, contact an authorised Perodua Service Centre.

Luggage lights



To remove bulb

1. Remove the cover by using a suitable tool.

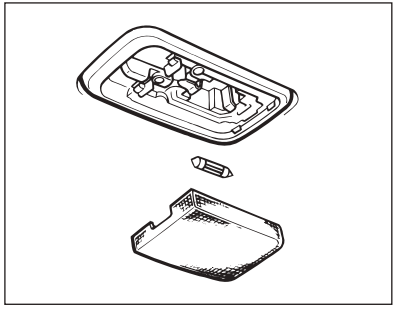


2. Pull the bulb to remove.

To install bulb

Reverse the bulb removal procedure to reinstall.

Room lights



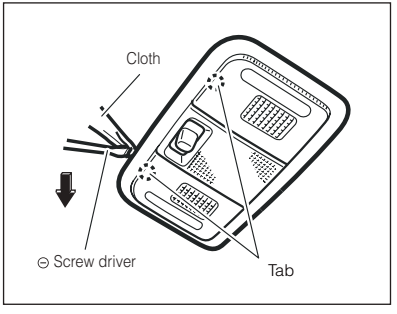
To remove bulb

1. Lightly pry the lens to detach it.
2. Pull out the bulb straight.

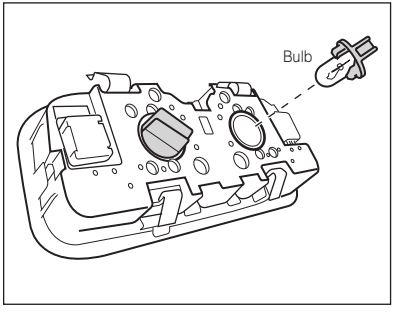
To install bulb

Reverse the bulb removal procedure.

Front personal light



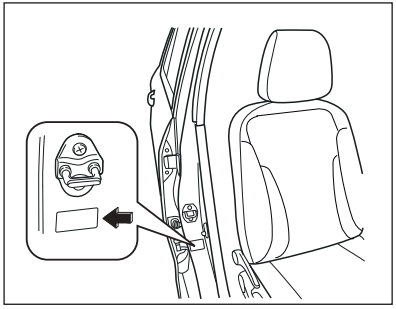
1. Remove the front personal light assembly by pushing it in the arrow headed direction.



2. Remove the bulb socket by turning it counterclockwise about 45 degrees.
3. Remove the bulb from the socket by pulling it.
4. Change the bulb.

Tyres

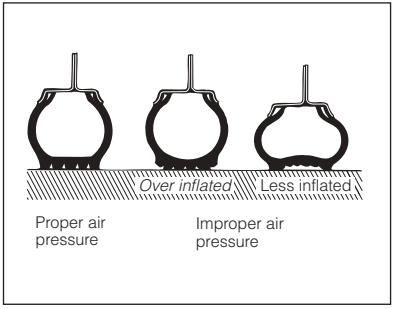
Tyre air pressure



Check the tyre air pressure in cold condition using a pressure gauge. For tyre air pressure, see Section 17 or the tyre label attached on the place shown in the illustration.

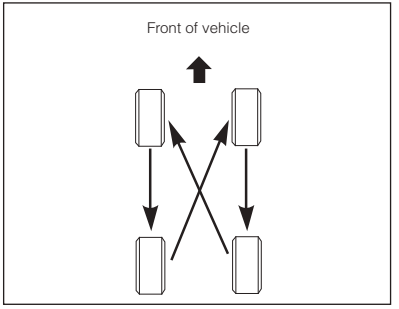
⚠ WARNING

Keep the tyre air pressure specified. Improper tyre air pressure will reduce tyre life, increase fuel consumption and cause a loss of control of the vehicle.



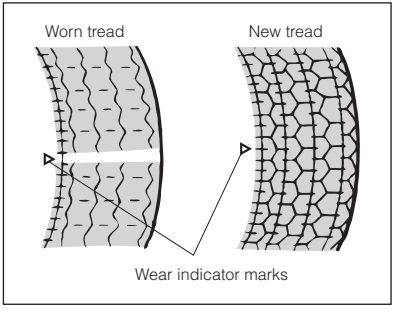
If the tyre requires frequent air pressure inflation, have the wheel system checked by an authorised Perodua Service Centre.

Tyre rotation



Tyres wear out in different ways if they are used in the same position for a long period. To prevent this problem, rotate the tyres in the order shown above. Adjust the tyre air pressure after rotation.
Tyre rotation interval: every 10,000 km

Tyre wear check



If the wear indicator on the tyre surface is visible, replace the tyre as soon as possible.

Instructions on tyres

- When you replace the tyres, select those tyres of the same size and construction as the original factory-installed tyres and those having the same or a larger load capacity.
- Use only the disc wheels as specified.
- Drive at a moderate speed for the first 160 km as a new tyre does not have maximum traction.
- Replace the air valve stem whenever replacing a tubeless tyre.
- Always have a tyre valve dust cap on a tyre.
- Ensure that there is no nail, stone or any foreign objects stuck in the tyre.
- Have uneven wear or damage on a tyre checked by an authorised Perodua Service Centre.

⚠ WARNING

- **Do not mix different types, sizes and manufacturers of tyres on your vehicle. You could lose the control of your vehicle.**
- **Drive slowly on a curb, a pot hole, or other obstacles, if you have to, to prevent a loss of control of the vehicle.**
- **Do not drive your vehicle with a damaged tyre. It may deflate suddenly. Also, avoid using a damaged wheel rim.**
- **As for those tyres having the specified rotational direction, be sure to follow instructions by the tyre manufacturer concerned.**

CAUTION

Be careful not to damage the tyres by scratching or oiling etc.

Section 15



Alarm/central locking

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Panic button 15–3
Car finder 15–3
Important 15–4
Replacement of battery in the smart key 15–5

Introduction

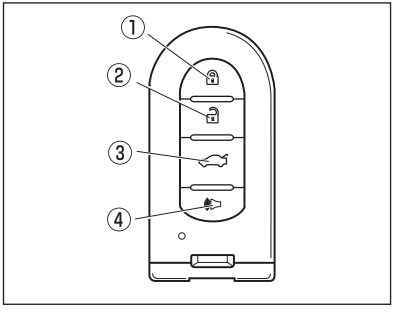
Perodua alarm system is controlled by a highly portable and durable smart key.

The transponder chip in smart key sends a security coded radio signal to activate the car alarm and central lock system. This system helps to detect the car door(s) at “LOCK” or “UNLOCK” position within a distance around 10 meters (provided no obstruction, interference and battery in smart key is in normal working condition). Correct function of the mode selected is indicated by the blinking lights of the vehicle.

⚠ WARNING

Do not modify, remove or disassemble the system. If any unauthorised changes or modifications are made, proper operation of the system cannot be guaranteed.

Smart key

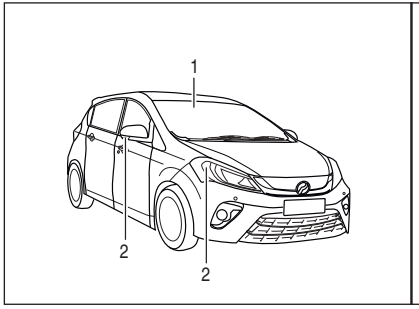


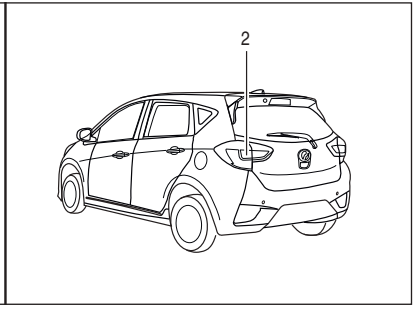
Button ① - Lock
Button ② - Unlock
Button ③ - Back door
Button ④ - Panic button

Car alarm/central lock

1. To activate the alarm system, all doors, and back door must be closed.
2. To stop the alarm, “LOCK” or “UNLOCK” button of the smart key transmitter is pressed or ignition switch is turned from “OFF” to “ON” position.

Operation procedures





1. **Room light**
2. **Hazard light**

Steps:

1. To activate the alarm system, all doors and back door must be closed.
2. Press the button ① of the smart key transmitter once or press request switch to lock all doors. The alarm system is "ON" and all doors are "LOCK". The hazard lights will flash once and buzzer will sound once.
3. If any of the doors, are opened by a key or any other methods, the hazard lights will flash and room light lights immediately (room light is set to "DOOR" position). Then the horn will sound.
4. To de-activate the system, press the button ② or press request switch to unlock driver's door. The alarm system is "OFF" and driver's door is "UNLOCK". The hazard lights will flash twice and buzzer will sound twice.

Panic button

Perodua alarm system offers you additional security by incorporating a panic button system. This panic button can be activated within a distance around 10 metres (provided no obstruction, interference and battery of the smart key transmitter is in normal working condition) to deter/discourage thieves, robbers or trouble makers near your vehicle.

Operation procedures

Steps:

1. Press and hold the button ④ for more than 1 second.
2. Horn will activate immediately.
3. Alarm system is still “ON” and all doors are “LOCKED”.
4. To de-activate, press button ①, ② or ④.
5. If the panic button is not de-activated as in step 4, the horn will continue to sound for approximately 45 seconds and then will be rearmed automatically.

Car finder

This system can help you locate your vehicle in a large car park. You may also use it to ensure that the doors are locked.

Operation procedures

Steps:

1. Press and hold the button ④ for more than 1 second.
2. Horn will activate and all doors remain locked.
3. Press button ①, ② or ④ again after locating your vehicle, the horn will stop, but the doors remain locked.

Important

To ensure that this system is in good working conditions, always check the followings:

1. **Smart key**

   If the battery of the smart key is weak, it will affect the system as follows:

   a) The control distance of the smart key becomes nearer or the smart key is unable to activate or de-activate the alarm/central lock system.

   NOTE: If the above symptoms are detected, the battery must be replaced.

2. **Excessive RF interference/harmonic interference**

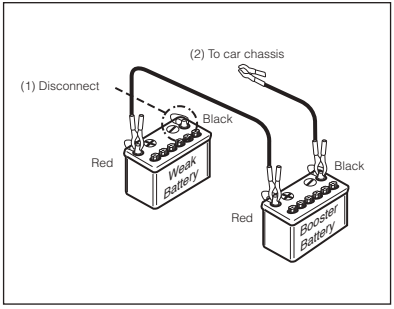
   Even if the battery of the smart key is in good working condition, the control distance may becomes nearer due to the excessive RF interference/harmonic interference (e.g. mobile telephone is in use beside the vehicle; installation of audio devices like car speaker is too close to system control unit)

3. **Avoid dropping or exposing the smart key to water**

   a) In the event where the smart key is dropped, you may not be able to activate/de-activate the system. If this happens, open the smart key case and check the contact points of the battery holder.

   b) In the event the smart key is exposed to water, dry it before using.

   c) If the smart key still cannot be operated after (a) and (b) above, consult an authorised Perodua Service Centre.

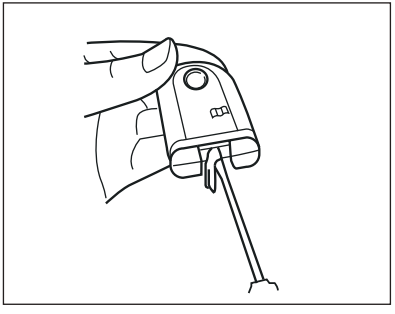


4. **Car battery weak-jump start**

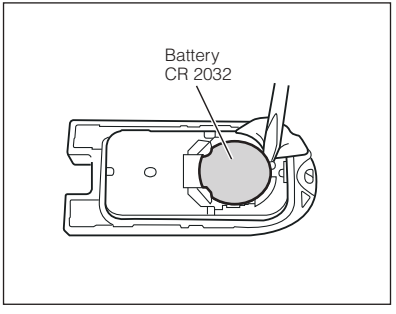
   Avoid "Jump Start" from battery to battery as this will cause the Alarm System to be damaged. However, if the jump start cannot be avoided, the below procedure must be followed;

   Disconnect the -ve lead (1) from the weak battery and connect jumper cable (2) onto chassis as shown.

Replacement of battery in the smart key



1. Pry open the smart key cover using suitable flat screwdriver.



2. Replace the battery with a new one.

NOTE

- **Wrap the tip of the screwdriver with a cloth to prevent scratches.**
- **Be sure to use the correct battery. Wrong battery can cause the smart key to malfunction.**
- **If the smart key is not working correctly even after you have change the battery. Contact an authorised Perodua Service Centre.**

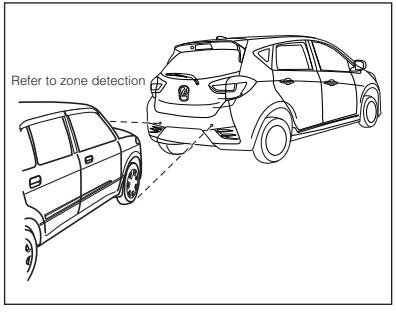
Section 16



Reverse/front corner sensor

Reverse sensor **16–1**
Front corner sensor **16–1**

Reverse sensor



This reverse sensor is designed to guide drivers reversing and reverse parking. It should not be considered as a safety device.

The device will start to operate 0.8 second after the driver engaged the reverse gear (with engine started).

When the device start generating, an intermittent beep sound, the distance between your vehicle rear bumper and the nearest obstacle behind your vehicle is approximately:

Zone detection

a) 1.4 meter to 1.0 meter → buzzer sounds : OFF 210 ms ON 70 ms.

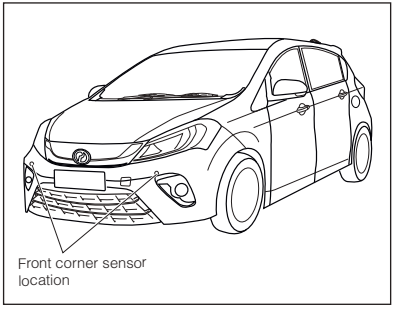
b) 1.0 meter to 0.5 meter → buzzer sounds : OFF 70 ms ON 70 ms.

c) 0.5 meter or less → Continuous sound

You should reduce vehicle speed and beware of those obstacles behind. When the beep sound change from intermittent to continuous, the distance between your vehicle rear bumper and the nearest object behind your vehicle is less than 0.5 meter. You should immediately stop your vehicle.

Front corner sensor

(if equipped)



This front corner sensor will assist the driver to park the vehicle during front straight parking or side parking into tight space. The device lets you know the approximate distance between the vehicle and obstacles while parking.

The front corner sensor works only when the ignition switch is turned ON, front corner sensor switch is turned ON and the vehicle speed is less than 10 km/h.

When the device nearing an obstacle, you will hear a beeper sounds as shown below:

Distance detection

a) 0.6 meter to 0.3 meter → buzzer sounds : OFF 250 ms ON 120 ms.

b) 0.3 meter to 0.1 meter → continuous sounds.

When the detection distance is less than 0.3 meter, the beep sounds continuously. You should immediately stop your vehicle.

All obstacles may not always be sensed. It is the responsibility of the driver to always check the areas near the vehicle and make sure it is safe to park.

NOTE

The sensor will automatically "cut-off" when the speed exceeds 10 km/h.



1. **The sensor is strictly to aid the driver. It is not a substitute for driver's responsibility when operating the vehicle.**
2. **Check your sensor for any dirt or mud. This device should be cleaned in order to function properly.**

Push the front corner sensor switch to activate the system.

(See "Front corner sensor switch" in Section 4)

CAUTION

- **System for detection area is based on vehicle condition and covered area of the vehicle. There is a possibility for this system to fail to detect the above condition.**
- **There is a possibility that the sensor will function abnormally if it is subjected to a hard impact.**
- **Object that are located too close to the center of the bottom of the bumper or close to a tyre cover may also be hard to detect by the sensor.**
- **Presence of dirt or mud around the sensor will cause the sensor to function abnormally and leads to the failure of detecting objects.**
- **If the object is thin or flat, there is a possibility that the object can be detected at first time, but not the second time.**
- **According to the condition such as holes, bumpy road, sands on the road, hills, slope road and bushes area, this system has a tolerance in functioning.**

Section 17

Specifications

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Vehicle specifications

Overall length			mm	3,895
Overall width			mm	1,735
Overall height			mm	1,515
Wheel base			mm	2,500
Track mm	1NR VE	Front	14" tyre	1,485
		Rear	14" tyre	1,475
	2NR VE	Front	15" tyre	1,475
		Rear	15" tyre	1,465

Engine specifications

Engine ID		1NR-VE	2NR-VE
Engine type		Gasoline, 4-cycle DOHC	
Number of cylinders & arrangement		4-cylinder in line	4-cylinder in line
Bore x stroke	mm	72.5 x 80.5	72.5 x 90.6
Displacement	cc	1329	1496
Max. output	kw/rpm	70 / 6,000	76 / 6,000
Max. torque	Nm/rpm	121 / 4,000	136 / 4,200

Fuel

Fuel to be used	Fuel tank capacity ℓ
Unleaded gasoline having RON 95 or higher	36

Coolant

Type: Ethylene glycol based anti-freeze solution

Capacity:

Engine ID	1NR-VE		2NR-VE	
Reserve tank LOW / FULL	0.2 / 0.9 ℓ		0.2 / 0.9 ℓ	
Total capacity	3.0 ℓ (MT)	3.1 ℓ (AT)	3.0 ℓ (MT)	3.1 ℓ (AT)

For coolant level check and change, see Section 14.

Battery

Types of battery	1NR-VE (Without IDS)	1NR-VE (With IDS)	2NR-VE
	34B19L	M42	M42

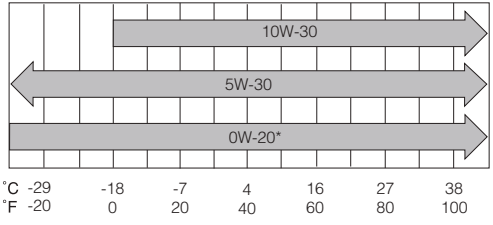
Item \ Engine type		1NR-VE		2NR-VE
Firing order		1–3–4–2		1–3–4–2
Ignition timing °BTDC/rpm		10 ± 2 /idling *1		10 ± 2 /idling *1
Engine idling speed (in neutral) rpm		MT	AT	AT
		600 ± 50	700 ± 50	700 ± 50
Valve clearance mm	Intake [Cold]	Automatic adjustment		Automatic adjustment
	Exhaust [Cold]	Automatic adjustment		Automatic adjustment
Spark plug	Manufacturer	DENSO		DENSO
	Type	SC16HR11		SC16HR11
	Gap mm	$1.1\ ^{+0}_{-10}$		$1.1\ ^{+0}_{-10}$
Drive belt deflection with a force of 100N (10.2kgf) mm	New belt	Automatic adjustment		Automatic adjustment
	At inspection	Automatic adjustment		Automatic adjustment

*1 With check connector short-circuited

Lubricant recommendation

Engine	Grade	Viscosity	Capacity ℓ	
Engine oil	API SN or higher	See next chart	1NR-VE	With oil filter: 3.5 Without oil filter: 3.3
			2NR-VE	With oil filter: 3.5 Without oil filter: 3.3
Manual transmission oil	API GL-4	SAE 80W	Up to filler plug: 1.25 5 mm below filler plug: 1.1	
Automatic transmission fluid	ATF D3-SP	—	Total amount: 5.6 Replaceable amount: up to 2.9	

Engine oil viscosity chart



Temperature range anticipated before next oil change

*SAE 0W-20 is the best choice for good fuel economy.

Brake fluid

FMVSS116 DOT 3

Tyre specifications

Standard tyre

Engine ID	Tyre size	Air pressure kPa (kgf/cm^2, psi)		Rim size
		Front	Rear	
1NR-VE	175/65R14	250 (2.5, 36)		14 X 5J
2NR-VE	185/55R15	220 (2.2, 31)		15 X 6J

Bulb specifications

Light		Wattage
Head lights (LED type)	Low/High	-
Clearance lights		5
Front turn signal lights		21
Side turn signal lights (Mirror, LED type)		-
Rear turn signal lights		21
Stop / Tail lights (LED type)		-
Back-up lights		16
Front fog lights*		55
License plate lights		5
Room light		5
High-mounted stop light (LED type)		-

* If equipped

Note : If any of the LEDs burn out, contact your authorised Perodua Service Centre.

Weights

Gross vehicle weight	kg	1,425



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The following Wireless Communication products in this vehicle is certified (Type Approved) by SIRIM under Communication and Multimedia Act 1998



Keyless entry systems/immobilizer (smartkey transmitter), Immobilizer equipment (body ECU)



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