PERODUA

# Owner's Manual



ALZA

*Versatile As You*

# 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 authorized Perodua Service Centre. We are ready to provide qualified service and assistance.

**PERODUA SALES SDN. BHD.**

©2018 PERODUA SALES SDN. BHD.
All rights reserved. This material may not be produced or copied, in whole or in part, without the written permission of Perodua Sales Sdn Bhd.

# DISCLAIMER

The information in this manual is subject to change without notice. No part of this manual may be reproduced or transmitted in any form or by any means electronic or mechanical including photocopying, recording or information storage and retrieval systems for any purpose other than personal use without our written permission.

While every effort has been made to ensure that the information and contents in the manual are complete, accurate, up-to-date, reliable and non-misleading, we cannot be held responsible for mistakes, inaccurancies, or errors found in the manual. Nor is any liability assumed for damages resulting from the reliance and use of information contained herein. This manual is provided without any representation or warranties, express or implied.

**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, there is a danger of resulting in life-threatening injuries or serious injuries.**

**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 make changes at any time without prior notice.
- This manual is applicable for all models 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 |
|---|---|
| M502 | Type 3SZ-VE engine (1,500 cc) mounted vehicle |

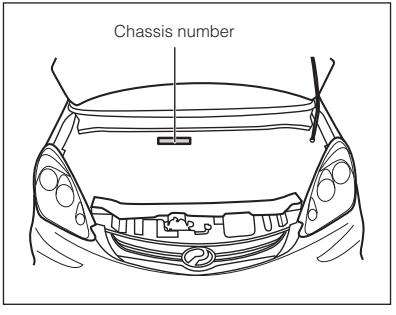
| Engine | Description |
|---|---|
| 3SZ-VE | 1,500 cc EFI*1+DVVT*2 engine |

*1 Electronic Fuel Injection
*2 Dynamic Variable Valve Timing

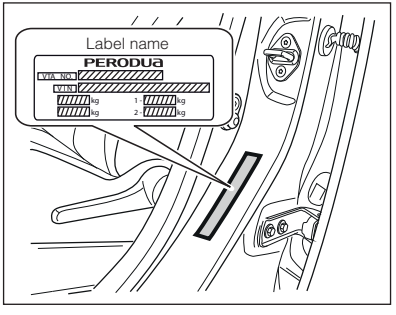
## Your responsibility for maintenance

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

## Vehicle identification

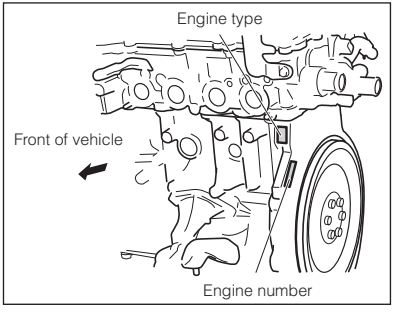



The vehicle identification number is stamped on the location as shown in the illustration.




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

## Engine identification




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

## Table of contents


1 Special precautions for your vehicle

2 Doors and locks

3 Seats and seat belts

4 Instruments and controls

5 Meters and gauges

6 Air conditioner control systems

7 Audio systems

8 Mirrors

9 Interior equipment

10 Driving tips

11 In case of an emergency

12 Appearance care

13 Vehicle maintenance service

14 Do-it-yourself maintenance service

15 Alarm/central locking

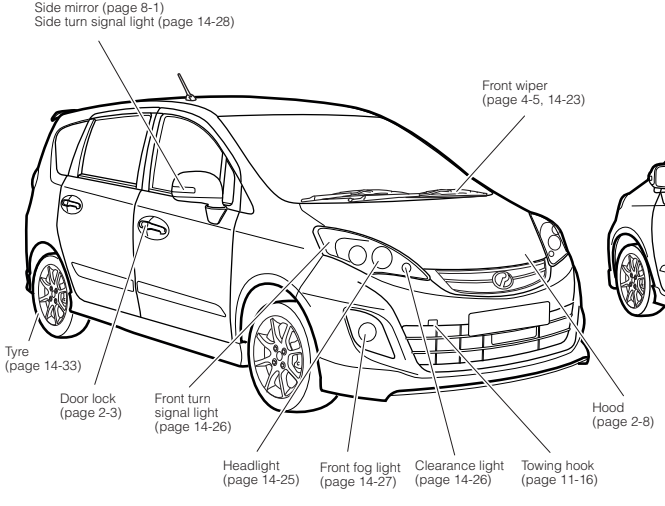
16 Reverse/front corner sensor

17 Specifications

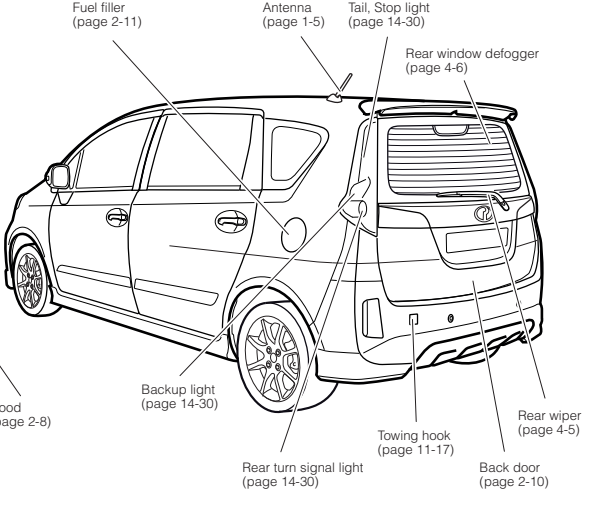
18 Index

## Exterior view

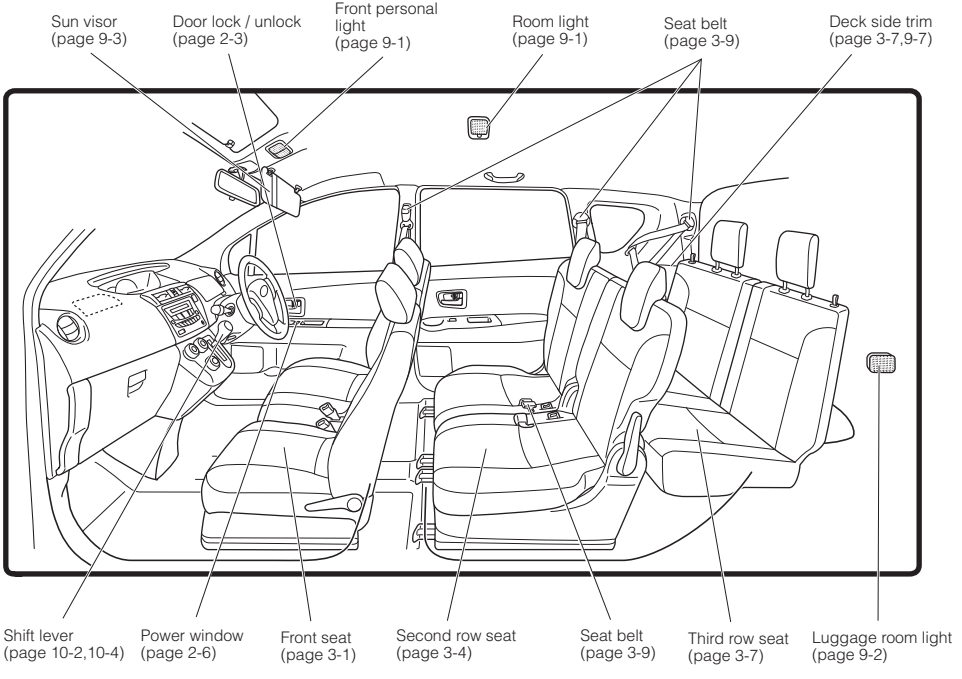
### Front view



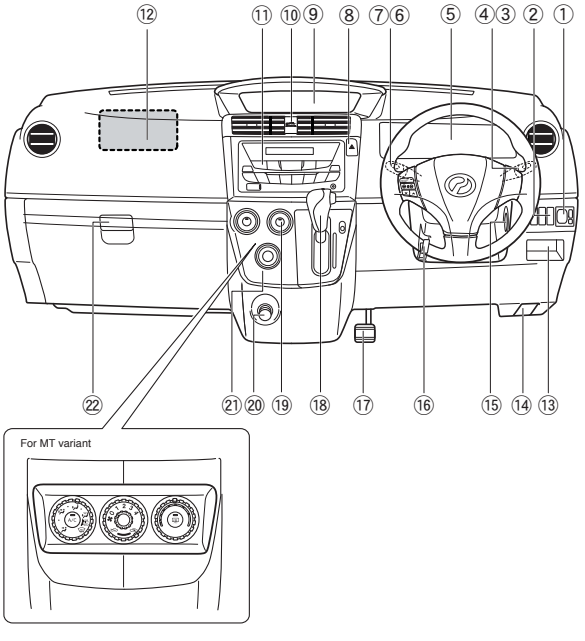

### Rear view



## Interior view



## Instrument panel overview




① Remote control mirror switch (page 8-1)
② Coin holder (page 9-6)
③ Multi-control switch (page 4-3)
④ Fog light switch (page 4-4)
⑤ Driver upper box (page 9-5)
⑥ Windshield wiper and washer switch (page 4-5)
⑦ Rear wiper and washer switch (page 4-5)
⑧ Hazard warning signal switch (page 4-6)
⑨ Combination meter panel (page 5-1)
⑩ Extension IP (page 6-2)
⑪ Radio control panel (page 7-2, 7-5, 7-7, 7-11)
⑫ SRS air bags for front passenger (page 3-29)
⑬ Utility box (page 9-5)
⑭ Hood lock handle (page 2-8)
⑮ Ignition switch (page 4-1)
⑯ Tilt steering lever (page 9-2)
⑰ Foot parking brake (page 10-12)
⑱ Shift lever (page 10-4)
⑲ Rear window defogger switch (page 4-6)
⑳ Power socket (page 4-7)
㉑ Air conditioner control panel (page 6-1)
㉒ Glove box (page 9-4)

Section 1



# Special precautions for your vehicle


Engine exhaust gas ..... 1–1
Catalytic converter ..... 1–2
For your safety ..... 1–3
Bring your children and key 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
Break-in period ..... 1–5
Antenna ..... 1–5



## Engine exhaust gas

**⚠ WARNING**

**Do not inhale exhaust gases.**

**They contain carbon monoxide, a poisonous gas that is colorless and odorless. 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.

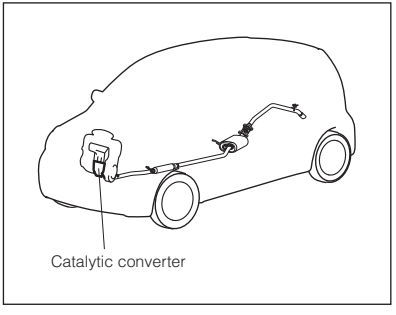
Make sure that foreign objects do not accumulate around the tail pipe to prevent exhaust gases from accumulating under the vehicle body.

**⚠ 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.**

**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 hardly starts, stalls frequently, or pings or knocks during acceleration, have your vehicle checked as soon as possible by an authorized Perodua Service Centre.



## For your safety

We at Perodua want you to enjoy your new vehicle with all its capabilities. We also want you to use common sense as safety and common sense driving go hand in hand.

Part of common sense driving is learning about the capabilities and limitations of a vehicle, and realizing that vehicles designed for different purposes may handle differently.

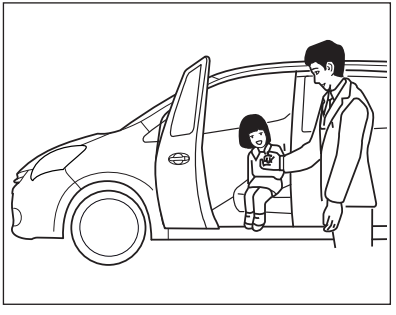
Read and understand all WARNINGS, CAUTIONS and NOTES in this manual.

**⚠ WARNING**

- **Avoid sharp turns, abrupt maneuvers or any unsafe actions. Failure to do so could result in a loss of control, an accident, roll over of the vehicle and serious bodily injury.**
- **Do not attempt off-road use.**
- **We recommend all the passengers to 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 90 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.

## 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 authorized 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, A.B.S. (Anti-lock Braking System) and SRS air bags of your vehicle, resulting in improper operation.

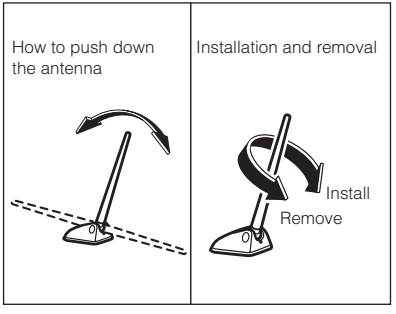
## Break-in period

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.

## Antenna




Remove and install the antenna as shown in the figure above. The antenna cannot be adjusted horizontally.

**CAUTION**

- **Remove the antenna in the following cases;**
  - **When washing the vehicle with an automatic car washer;**
  - **If antenna touches the parking garage ceiling;**
  - **When attaching the body cover;**
- **Install the antenna to the original position before driving.**
- **Push the antenna downward when you do not listen to the radio.**

Section 2



# Doors and locks

**Engine immobilizer system** ..... **2–1**
**Keys (with engine immobilizer system)** ..... **2–1**
**Door locks** ..... **2–3**
**Child safety knobs** ..... **2–6**
**Power windows** ..... **2–6**
**Hood** ..... **2–8**
**Back door** ..... **2–10**
**Fuel filler** ..... **2–11**

## Engine immobilizer system

The engine immobilizer system is a theft-preventive system. When the key is inserted into the ignition switch, the transponder chip located at the key grip sends an electric signal to the vehicle. Then, this electric signal is collated 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.

## Keys (with engine immobilizer system)

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

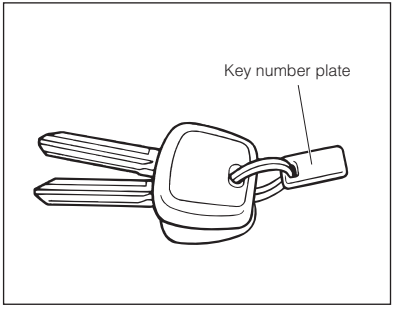
**⚠ WARNING**

**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 inputted into the immobilizer system. That is why you must bring your key for producing the new key.**
2. **If you lose all the keys, immediately consult with an authorized Perodua Service Centre.**




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

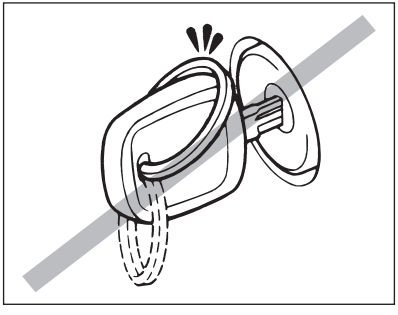
**NOTE**

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

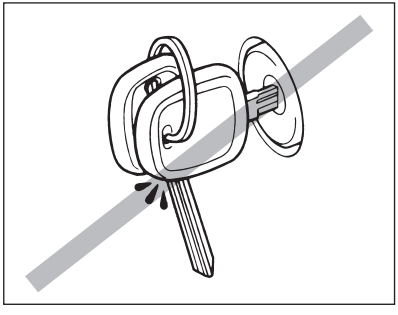
**CAUTION**

**The keys incorporate in their key heads a transponder chip that is indispensable to this engine immobilizer system. Hence, be sure to observe the following points in your handling the keys.**

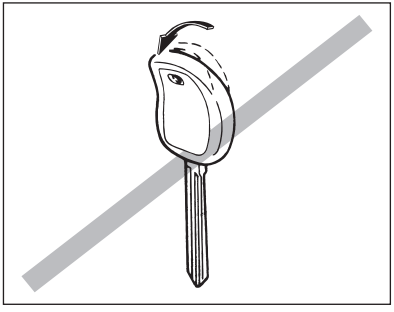
1. **Do not cover the key grip with an object (e.g. aluminum gloves) that shuts off electromagnetic waves.**
2. **Be very careful not to apply any impact to the key.**
3. **Do not expose the key to high temperature for a long time. For example, do not leave the key at the dashboard exposed to direct 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. **Do not operate the ignition switch with the ring hooked over the key grip, as shown in the figure above.**



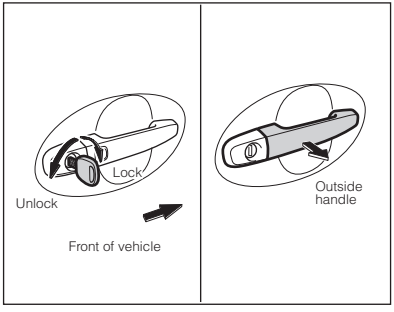
7. **Do not operate the ignition switch with another key contacted, as shown in the figure above.**



**8. Never bend the key grip, as shown in the figure above.**

**⚠ WARNING**

- **Ensure the safety around the vehicle before opening any door.**
- **Be sure, before driving, 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.**

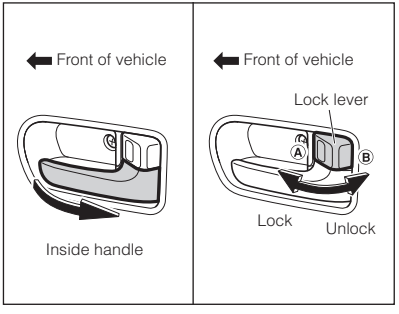



**To lock / unlock doors with key**

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 automatically be locked or unlocked.




**To lock / unlock doors with lock button**

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

Pull the inside handle toward you to open the door.

You can also lock the door by closing the door with the front side of lock lever pushed and the outside door handle pulled.

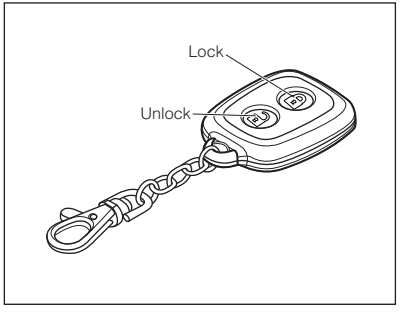
You need not pull the outside handle to lock the rear door.

When you lock or unlock the driver side door, the other door(s) will also automatically be locked or unlocked.

**NOTE**

**Be careful not to leave the key inside the vehicle.**

**Keyless entry / transmitter**




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

When the “LOCK or UNLOCK” button of the transmitter is pressed, all doors including the back door will be locked and unlocked.

The transmitter is of a key-holder type. Therefore, you can attach it to the ignition key.

**CAUTION**

1. **There are cases where the 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 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 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 transmitter.**
- **Never leave the transmitter under direct sunlight or high temperature.**
- **Do not allow water to get to the transmitter.**

**To lock doors with transmitter:**

After confirming that all doors are closed, press the “LOCK” button of the transmitter. Then, all doors will be locked.

You can confirm that the locking has been made by observing that the hazard light flashes once and the buzzer sounds once.

**To unlock doors with transmitter:**

Driver door unlock (1st press):

Press the “Unlock” button of the transmitter once. Then the driver door will be unlocked. You can confirm that the driver door has been unlocked by observing that the hazard light flashes twice, the buzzer sounds twice and the room light goes on for 15 seconds.

All doors unlock (2nd press):

Press the “Unlock” button once again (within 5 seconds after the 1st press of the “Unlock” button). Then all doors will be unlocked. You can confirm that all doors have been unlocked by observing that the hazard light flashes twice, the buzzer sounds twice and the room light goes on for 15 seconds.

**CAUTION**

- **When you leave your car, be sure to confirm that the locking has been made securely by pulling the door handle by your hand.**
- **When the key is still inserted into the ignition key cylinder, the transmitter cannot be operated so that you may be reminded that the key is still in the ignition key cylinder.**
- **In cases where no door is opened within 30 seconds after the unlocking has been made by means of the transmitter, all doors will be automatically locked again.**
- **This function, however, will not be performed when the key is inserted in the key cylinder.**

**Security alarm control**

Set/unset the alarm by the transmitter. The alarm starts when any of the doors or hood is opened without keyless unlock.

Alarm:

Horn sounds (after 5 seconds once door is opened, or immediately sounds once hood is opened), hazard light blinks and room lamp turns on immediately for 30 seconds. Horn will be off after 25 seconds.

**To deactivate alarm**

- Press the "UNLOCK" button of the transmitter (be sure that all doors are closed) or
- Insert the ignition key and set to "ON" position.

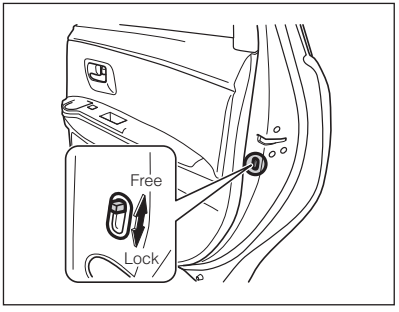
**Replacement of battery**

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 transmitter battery may be shorter.)

When the operation becomes unstable or the operation becomes no longer possible, most likely the battery has been consumed. Please consult an authorized Perodua Service Centre.

## Child safety knobs




The child safety knobs 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 outside.

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

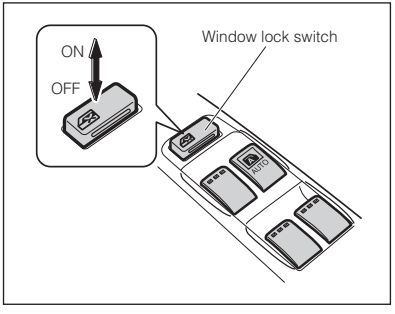
## Power windows

**⚠ 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 "LOCK" and remove the key when you leave the vehicle.**
- **Never leave small children unattended in the vehicle, especially when the ignition key is still inserted. Small children could operate the power window switches, resulting in them getting caught in a window.**
  **Unattended children could be involved in serious accidents.**

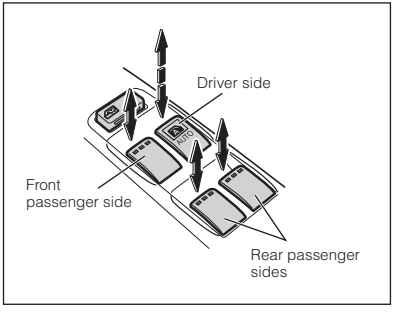
### Window lock switch




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

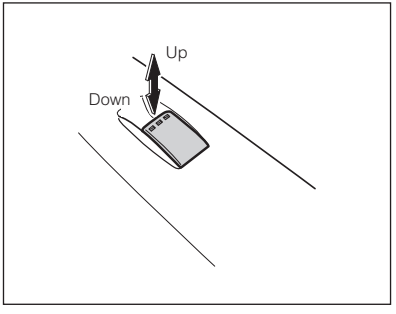



Pull up the switch to raise the window. Push it down to lower the window. The window will move as long as the switch is being operated.

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

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

### Window switch

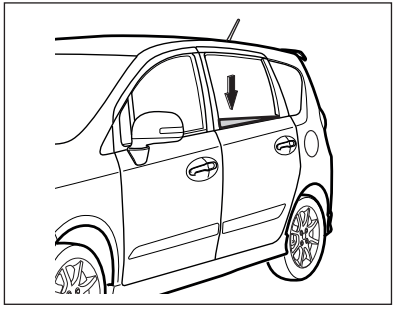



**Front passenger / rear passenger sides**

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

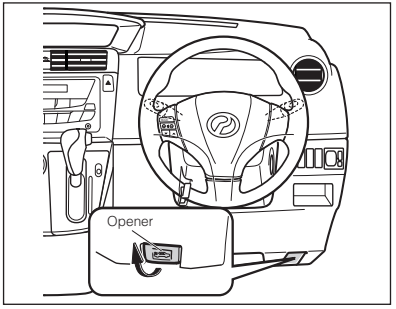
The window will move as long as switch is being operated.

## Hood



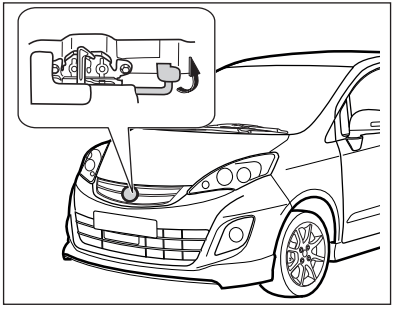
**CAUTION**

**The rear passenger side window cannot be lowered fully.**




**To open hood**

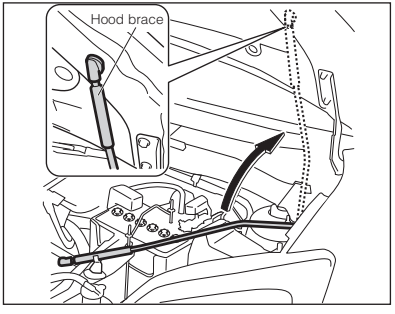
1. Pull the hood lock handle under the driver side instrument panel toward you.



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.**

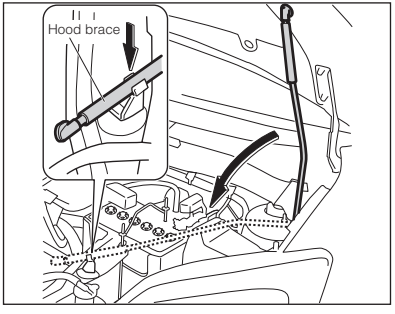



**To support hood**

Insert the hood brace into the slot on the hood.

**⚠ WARNING**

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



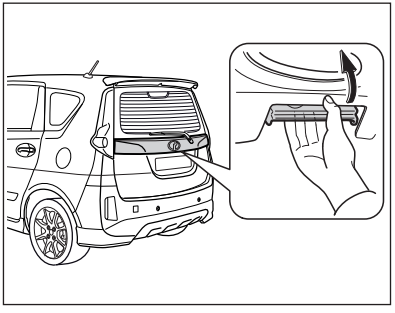

**To close hood**

1. Set the hood brace in the original position, while holding the hood by your one hand.
2. Lower the hood and push it down gently.

**⚠ WARNING**

- **Make sure the hood is securely closed and latched before driving. Otherwise, the hood could accidentally open fully and the driver's vision will be blocked.**
- **While driving, should you notice that the hood is not securely locked, immediately pull your vehicle safely to the side of the road, stop the vehicle and latch the hood securely.**

## Back door



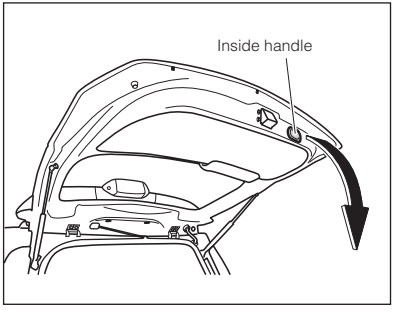
**To open door**

1. When you unlock the driver side door, the back door will also automatically be unlocked.
2. Raise the back door by hand. When the back door is opened fully, it is held in a raised position.

**⚠ WARNING**

**Never open the back door with rear wiper raised.**

**The wiper blade may injure you.**




**Back door inside handle**

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

**To close door**

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

Lightly push the back door using the back door inner-panel.

**NOTE:**

**Be careful not to lock your key in the vehicle.**

**⚠ WARNING**

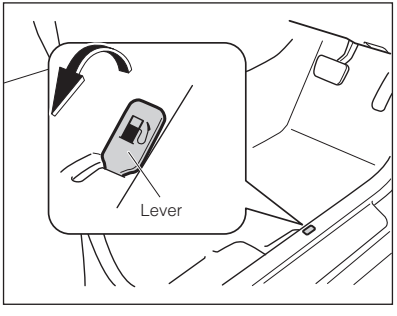
**Keep the door closed at all times while driving. Poisonous exhaust gas will enter the vehicle and lead to death.**

## Fuel filler

⚠ **WARNING**

- **To prevent a fire when refueling, 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 release**




**Opening/closing of fuel lid:**

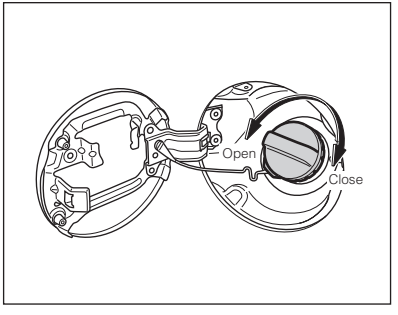
To open:

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

To close:

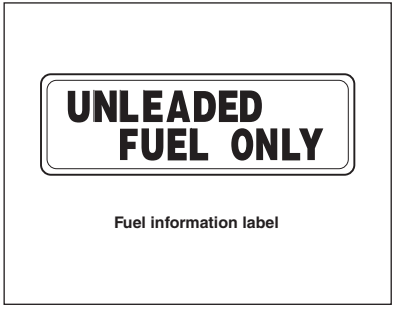
Close the fuel lid, from the outside.

**Fuel tank cap**




⚠ **WARNING**

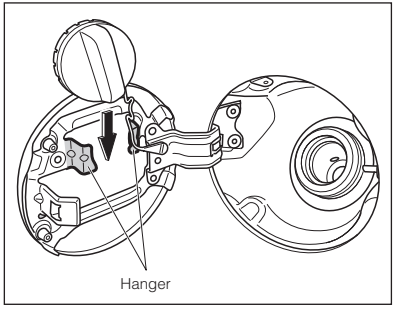
- **Open the cap slowly to release pressure gradually.**
  **This could prevent damage to the paint finish and your skin by spilt fuel.**
- **Make sure the cap is securely closed until you hear a clicking sounds to prevent fuel spillage.**
- **Use only Perodua genuine fuel tank cap. Failure to do so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




Fuel information label

**CAUTION**

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




**To open cap**

1. Turn the fuel tank cap counterclockwise to open.
2. Store the removed cap on the back of the fuel lid.

**To close cap**

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

**⚠ WARNING**

**When there are possibilities that fuel leakage has occurred or you smell fuel odour, contact an authorized Perodua Service Centre.**

Section 3



# Seats and seat belts


Seats ..... 3–1
Front seats ..... 3–1
Rear seats (Second row seats) ..... 3–4
Rear seats (Third row seats) ..... 3–7
Extended luggage area ..... 3–8
Instructions on seat belts ..... 3–9
3-point emergency lock retractor type seat belts (ELR) ..... 3–11
2-point seat belt ..... 3–12
Seat belt warning light and buzzer ..... 3–14
Front seat belt pretensioner ..... 3–14
Child Restraint System ..... 3–16
SRS (Supplement Restraint System) air bags for driver and front passenger ..... 3–29
SRS air bag ..... 3–32

## Seats

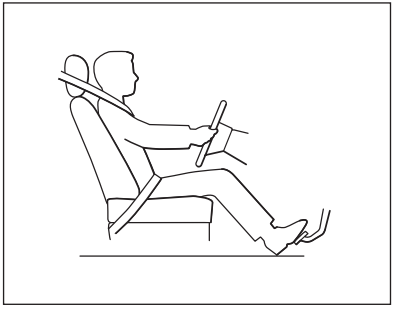
During running, make sure that all occupants are seated properly in the seats, wearing the seat belts properly.

**⚠ 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, never drive your car.**

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

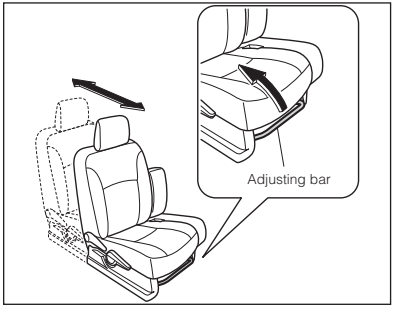
### Correct driving posture



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

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

## Front seats




### To adjust seat position

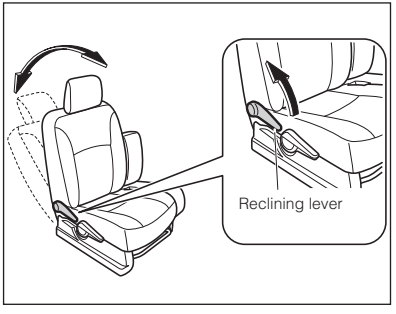
Raise the seat adjusting bar and slide the seat to your desired position,while applying a slight body pressure.

Then, release the lever.

⚠ **WARNING**

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

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




**To adjust seatback angle**

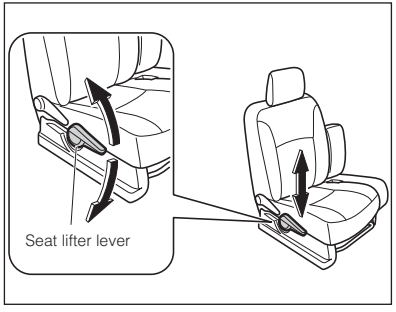
Lean slightly forward and pull the reclining lever upward. Slowly tilt the seatback to the desired angle.

Then release the lever.

**WARNING**

- **After adjusting, make sure the seatback is locked securely in position by exerting body pressure. This could prevent accidental movement of the seatback, which could cause a loss of control of the vehicle.**
- **Never attempt to adjust the driver seatback while driving. This could cause a loss of 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.

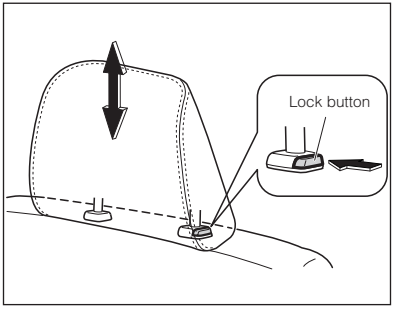
Every time you lower the lever, the seat cushion will be lowered.

**⚠ WARNING**

**Never attempt to adjust the seat height while driving.**

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

**Headrests**




**To adjust height**

Pull the headrest straight up to raise.

Push the headrest down while pushing the lock button in to lower.

Adjust the center of the headrest so that it will be closest to the center of your ears.

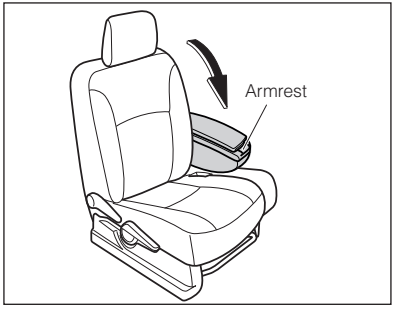
**To remove**

Remove the headrest by pulling it up straight while pushing the lock button.

**⚠ WARNING**

- **After adjusting, make sure the headrest is securely locked. This could prevent accidental movement of the headrest, which could cause a loss of control of the vehicle.**
- **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 a loss of 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.**

### Armrest
**(If equipped)**




Fold the armrest down to use it.

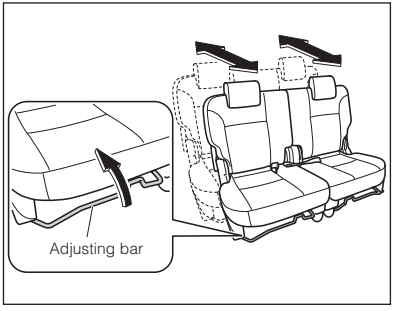
**NOTE**

**The armrest will move together with the seat when you adjust the driver seat position or seat back angle.**

**⚠ WARNING**

**The armrest area is NOT designed for seating.**

## Rear seats
**(Second row seats)**




**To adjust seat position**

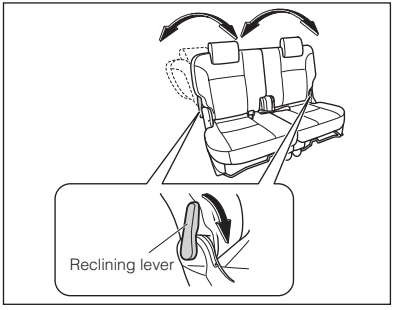
Raise the seat adjusting bar and slide the seat to your desired position, while applying slight body pressure. Then release the lever.

**NOTE**

**The left seat and the right seat can be adjusted separately.**

**⚠ WARNING**

- **Make sure the seat is locked securely in position by trying to slide it forward and backward.**
- **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.**




**To adjust seatback angle**

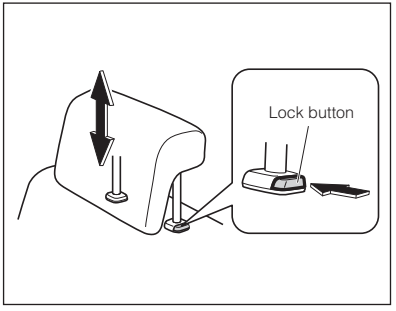
Push the reclining lever forward. Adjust the seatback position by slowly tilting it.

Then release the lever.

**⚠ WARNING**

**After adjusting, make sure the seatback is locked securely in position by exerting body pressure. This could prevent accidental movement of the seatback.**

## Headrests




**To adjust height**

Pull the headrest straight up to raise. Push the headrest down while pushing the lock button in to lower.

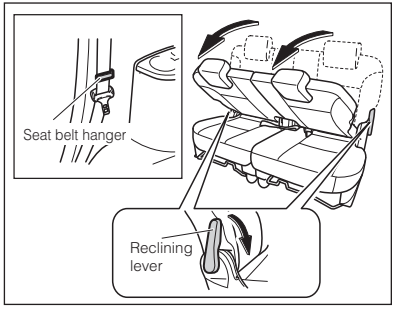
**To remove**

Remove the headrest by pulling it up straight while pushing the lock button.

**⚠ WARNING**

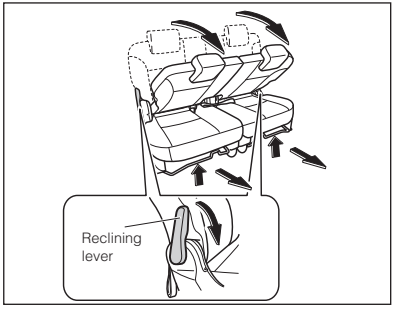
- **After adjusting, make sure the headrest is securely locked. This could prevent accidental movement of the headrest, which could cause serious injury.**
- **Do not drive the vehicle with the headrest removed or improperly adjusted. Headrest will provide significant protection against whiplash injury.**
- **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 a loss of 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.**

**To fold seatback**



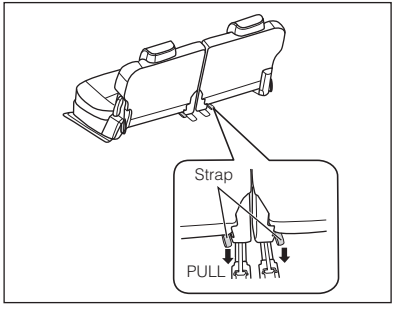

1. Adjust the position of the front seat so that the seatback of the second row seat may not touch the front seat.
2. Before folding the rear seatback, insert the seat belt webbing into the seat belt hanger so that it will not be pinched by the seat.
3. Push the reclining lever front forward. Slowly tilt the seatback. Release the lever.

**Getting into third row seats**




1. Push the reclining lever front forward. Slowly tilt the seatback. Then release the lever.
2. Raise the adjusting bar to push the seat forward.

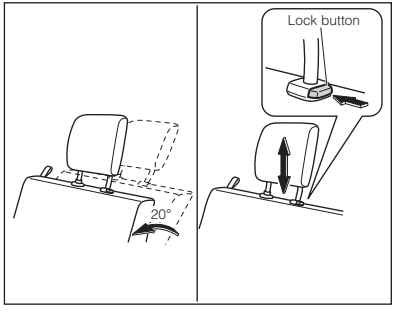
**Getting-off from third row seats**




Pull the strap to move the second row seat forward.

## Rear seats
### (Third row seats)

#### Headrests



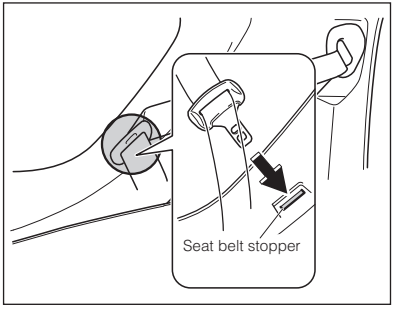

**To remove**

1. Fold the seatback angle about 20°.
2. Remove the headrest by pulling it up straight while pushing the lock button.

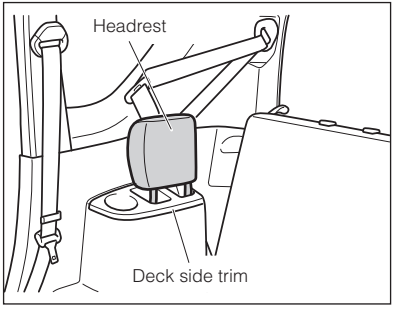
**To install**

Fix the headrest at the position when a clicking sound is heard.

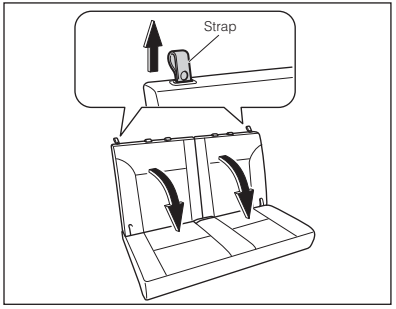
#### To fold seatback




1. Insert the seat belt tongue plate into the seat belt stopper to avoid pinching by the seat.




2. Remove the headrest and put it into the deck-side trim.

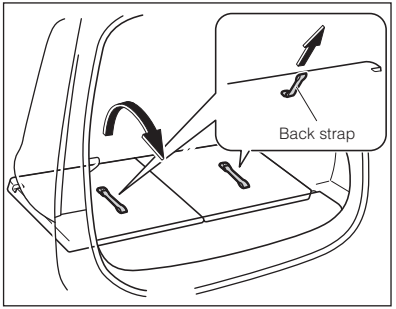



3. Pull the strap up to unlock the seatback.
4. Push down the seatback to fold it to flat condition.

**NOTE**

**The left and right seatback can be folded separately.**

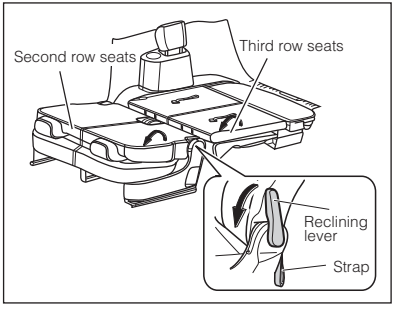
**To return seatback**




Pull up the back strap while pulling the seat back to its position.

**⚠ WARNING**

**Make sure the seatback is fixed and locked securely in position. This could prevent accidental movement of the seatback.**




Second row seats and third row seats can be fully folded (flat) to give an extended luggage area.

To fold the second row seats to flat, ensure the headrests are at the lowest position, before pushing the reclining level front forward to recline the seatback.

Then, pull the strap downwards and slowly push down the seatback to flat condition.

⚠ **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 locked securely with seat belts fully visible.**

**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 other parts, thus impairing the effectiveness of the seat belt.**

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 water. The belt should be replaced if webbing becomes frayed, contaminated or damaged.**
- **It is essential to replace the entire assembly after it has been worn in a severe impact even if damage to the assembly is not obvious.**
- **Belts should not be worn with straps twisted.**
- **Each belt assembly must only be used by one occupant; it is dangerous to put a belt around a child being carried on the occupant's lap.**
- **No modifications or additions should be made by the user which will either prevent the seat belt adjusting devices from operating to remove slack, or prevent the seat belt assembly from being adjusted to remove slack.**
- **Do not allow anyone to use the shoulder belt if it crosses above the chest or near the neck or face.**
- **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, jewelery, 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 authorized Perodua Service Centre, even if damage is not obvious.**

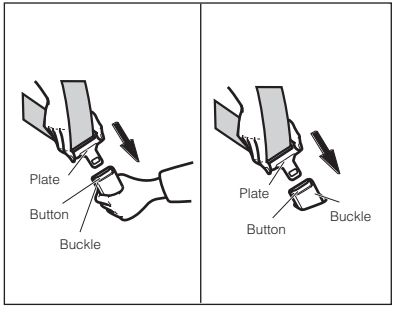
**CAUTION**

- **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 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 type seat belts (ELR)



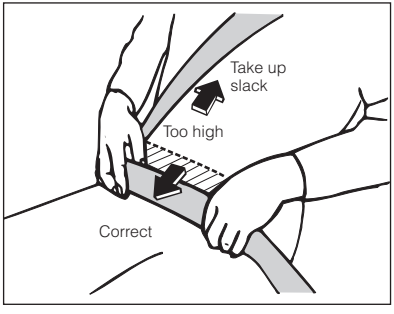

**To fasten belt**

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

**NOTE**

**Should the seat belt lock when pulled, try releasing the seat belt and gently pulling it again. Should this fail, pull the seat belt with force to 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.**

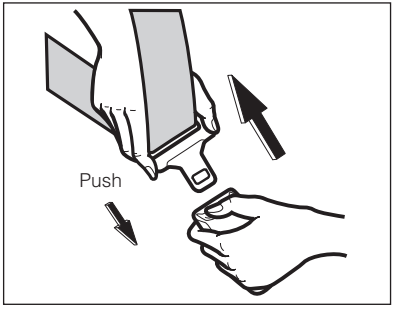



**To adjust belt**

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, 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.).



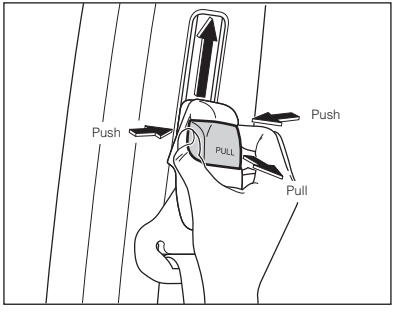

**To unfasten belt**

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.

**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.

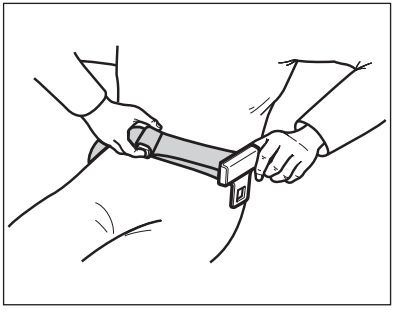
Raise the position, until you hear a clicking sound.

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.**

## 2-point seat belt

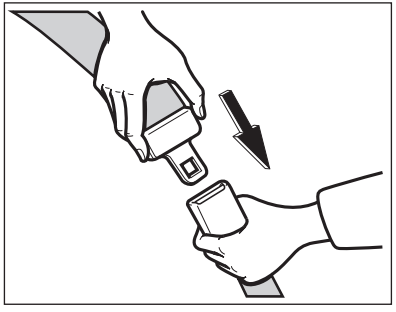


**To fasten belt**

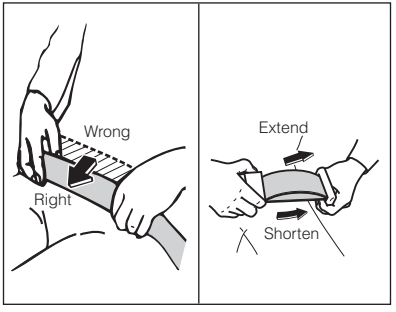
1. Adjust the length of the seat belt.

**⚠ WARNING**

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



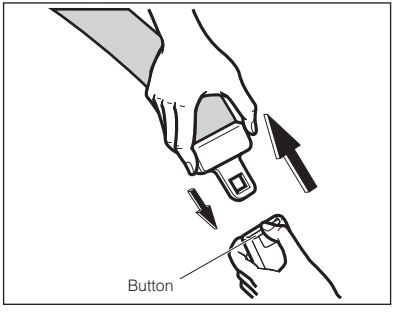
2. Insert the tongue plate into the buckle until it clicks.




**To adjust belt position**

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

Hold the tongue plate at a right angle to the belt and pull the belt to extend or shorten.




**To unfasten belt**

Push the buckle release button.

Insert the tongue plate into the buckle when the seat belt is not in use.

**CAUTION**

**To prevent seat belt damage, make sure that the belt webbings are not pinched by the door lock or seatback.**

**NOTE**

**When using the 2-point seat belt, keep the rear seats erected. If either right side or left side rear seat is stowed, the 2-point seat belt cannot be used, therefore the seat cannot be used.**

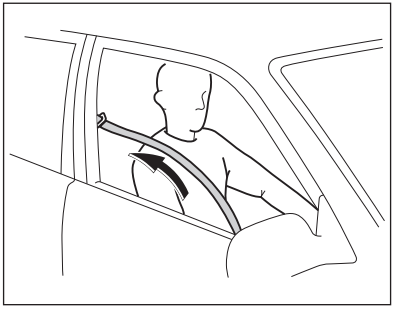
## Seat belt warning light and buzzer

**(Driver side)**



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

## Front seat belt pretensioner



The pretensioner mechanism is actuated when subjected to a strong impact from the front. The pretensioner 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 pretensioner is actuated, operating sound and odor will be emitted.

The pretensioner mechanism is actuated when 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 was actuated, be sure to have the seat belt pretensioner replaced with a new one by an authorized Perodua Service Centre.**

**⚠ WARNING**

- **Do not modify or replace the seat belt retractor, other seat belt-related parts and the suspension system.**

  **Such modification will reduce the effectiveness of the seat belt pretensioner.**
- **Consult with an authorized 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 are selling your vehicle, be sure to inform a person to whom you are selling of 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 forces applied to the chests 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 to 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 to 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.

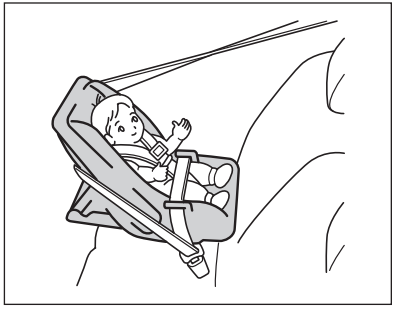
Select the child restraint system which is suitable for each seating position. Refer to the next table, "Child restraint system suitability for various seating positions".

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.

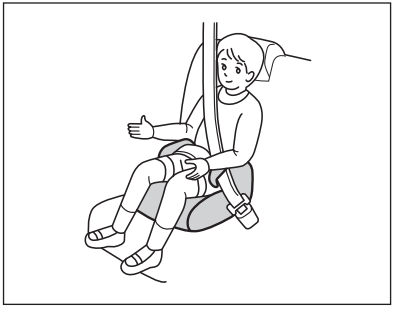
**Types of child restraint seat**



(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**

Provided information in the table shows your child restraint system suitability for various seating positions.

**1. Conventional CRS**

| Mass group | Seating position | | | |
|---|---|---|---|---|
| | Front passenger | 2nd outboard | 2nd center | 3rd seat |
| 0 : up to 10 kg (0 - 9 months) | X | U | X | X |
| 0+ : up to 13 kg (0 - 2 years) | X | U | X | X |
| I : 9 to 18 kg (9 months - 4 years) | X | U | X | X |
| II & III : 15 to 36 kg (4-12 years) | X | U | X | 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;

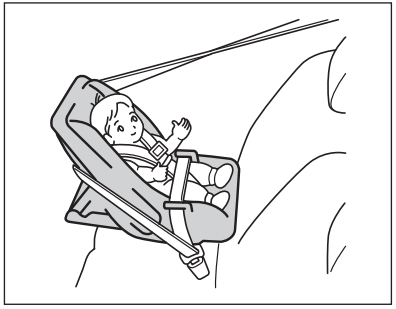
IUF = Suitable for ISO FIX forward child restraints systems of universal category approved for use in the mass group.

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

**⚠ WARNING**

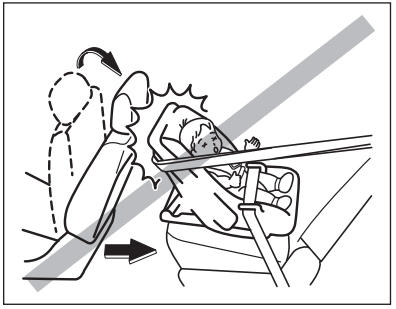
**The use of any child restraint system which is not suitable for this vehicle would not properly secure the infant or child. Therefore, they could be killed or seriously injured.**

**Installation with seat belt**



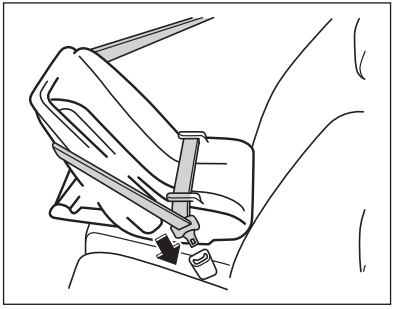
**(1) Baby seat installation**

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 to 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.**

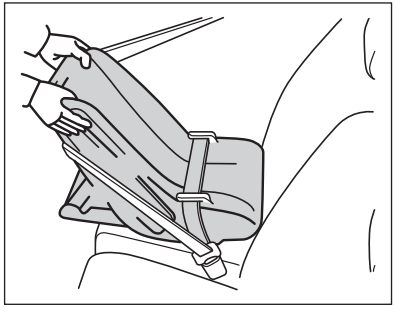


1. Arrange the lap and shoulder belt through or around the baby seat following the instructions provided by its manufacturer and insert the tab into the buckle taking care not to twist the belt. Keep the lap portion of the belt tight.

**⚠ WARNING**

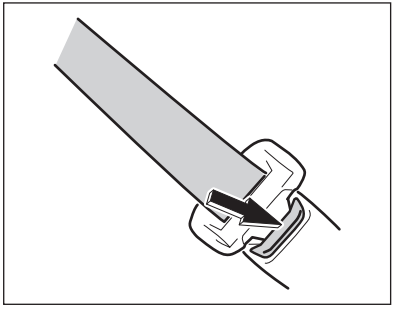
- **After inserting the tab, make sure the tab and buckle are locked and the lap and shoulder portions of the belt are not twisted.**

- **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 authorized Perodua Service Centre, immediately. Do not use the child restraint system until the seat belt is fixed.**

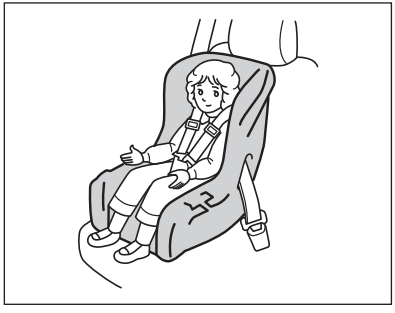


**⚠ WARNING**

**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.**

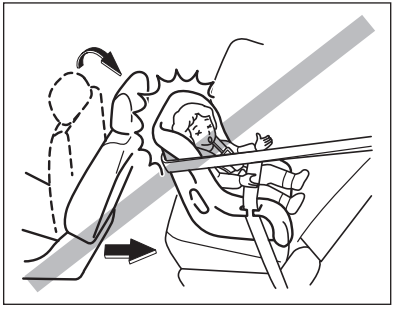


2. To remove the baby seat, press the buckle-release button and allow the belt to retract completely. The belt will move freely again and be ready to work for an adult or bigger child passenger.



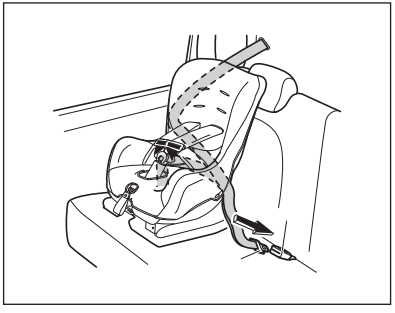
**(2) Child seat installation**

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 to 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.**

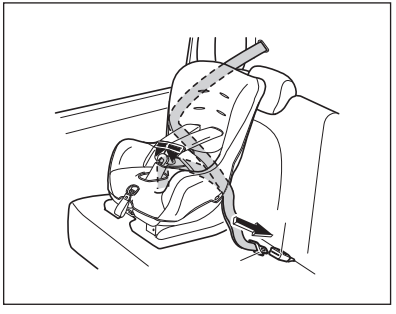


1. Arrange the lap and shoulder belt through or around the child seat following the instructions provided by its manufacturer and insert the tab into the buckle taking care not to twist the belt. Keep the lap portion of the belt tight.

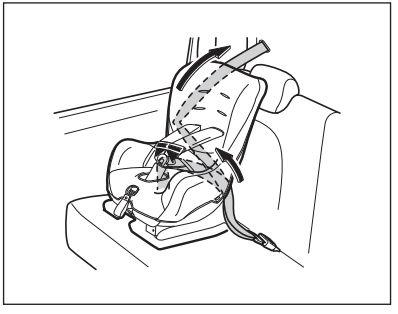
⚠ **WARNING**

- **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.**

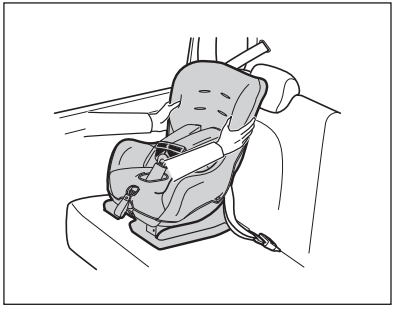
- **Do not insert coins, clips, etc. in the buckle as this may prevent you from properly latching the tab and buckle.**
- **If the seat does not arrange properly, it cannot protect your child from injury. Contact an authorized Perodua Service Centre. Do not use the child restraint system until the seat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



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

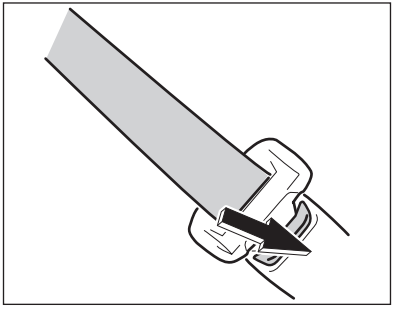


3. While pressing the child seat firmly against the seat cushion and seatback, let the shoulder belt retract as far as it will go to hold the child seat.

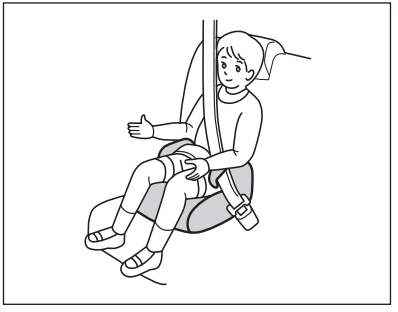


⚠ **WARNING**

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

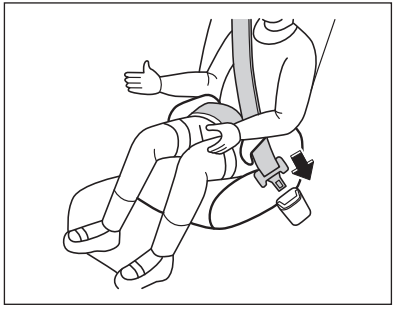


4. To remove the child seat, press the buckle-release button and allow the belt to retract completely. The belt will move freely again and be ready to work for an adult or bigger child passenger.

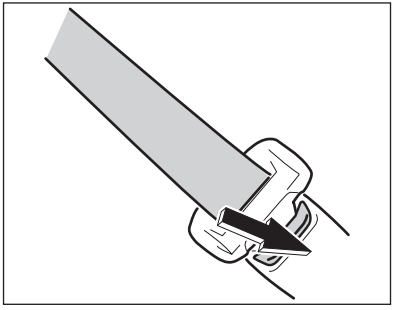


**(3) Junior seat installation**

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 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".

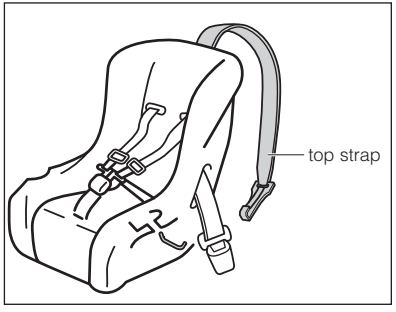


3. To remove the junior seat, press the buckle-release button and allow the belt to retract.

**⚠ WARNING**

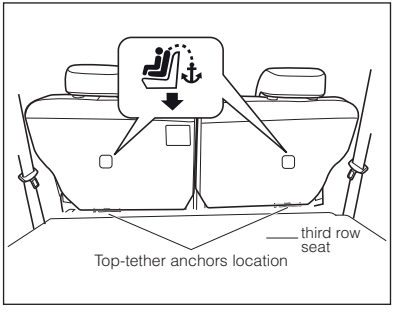
- **Always make sure the shoulder belt is positioned across the centre of child's shoulder. The belt should be kept away from child's neck, but not fall off child's shoulder. Failure to do so could reduce the performance of protection in an accident and cause serious injury or even to death in the event 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 authorized 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.

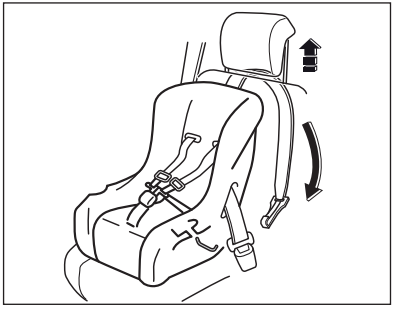
Follow the procedure below for a child restraint system that requires the use of a top strap.




Use the top-tether anchors behind the second row seatback to attach the top strap.

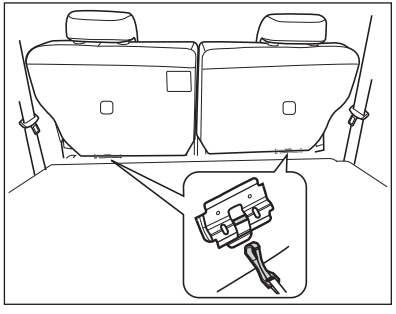
Top-tether anchors are installed for each rear seating position.

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



**To use the top-tether anchors**

1. Adjust the seat headrest to the most upward position.
2. Securely fasten the child restraint system with the seat belt.
3. Route the top strap through the legs of the headrest and 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**

**Second row seats**

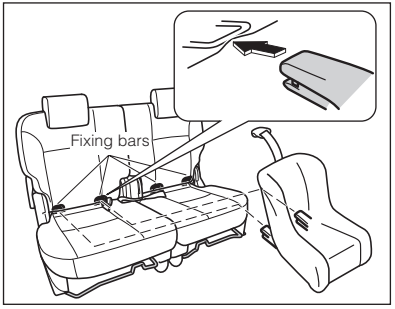
This vehicle is equipped with ISO FIX compliant child restraint system fixing bars and top-tether anchors that allow you to install compatible child restraint systems.

For these ISO FIX compliant child restraint system fixing bars 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 fixing bar and top-tether anchors supported child restraint system). For more information, please consult your authorized 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**

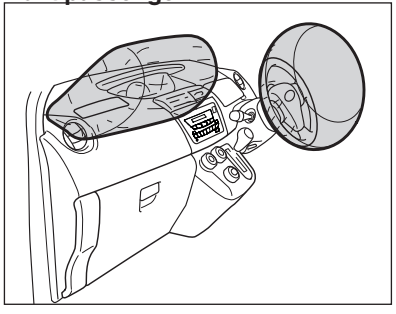
1. Confirm the location of the ISO FIX compliant child restraint system fixing bars or top-tether anchors.
2. Adjust the second row seats to the rearmost position.
3. Connect the fixtures of the appropriate child restraint system to the ISO FIX complaint child restraint system fixing bars or top-tether 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**

- **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 fixing bars 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.**

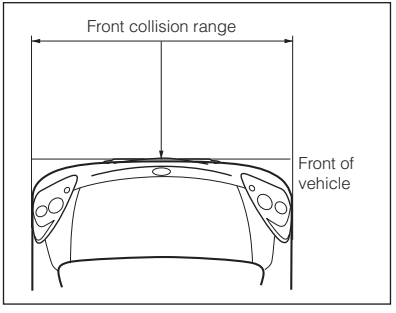
## SRS (Supplemental Restraint System) air bags for driver and front passenger



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.

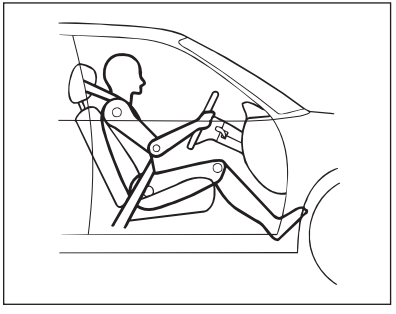
The passenger air bag is activated even with no passenger in the front seat in the event of severe frontal impact.



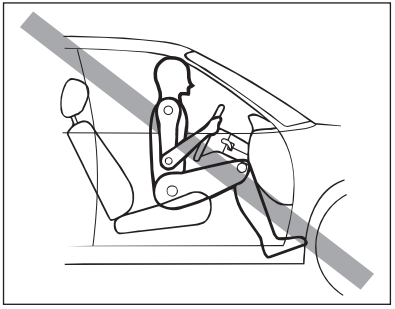

**⚠ WARNING**

**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.**

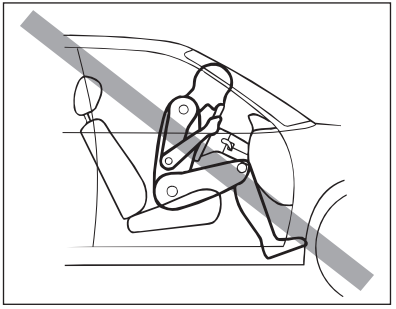
1. **Be sure to adjust the seat cushion and seatback to an optimum position.**



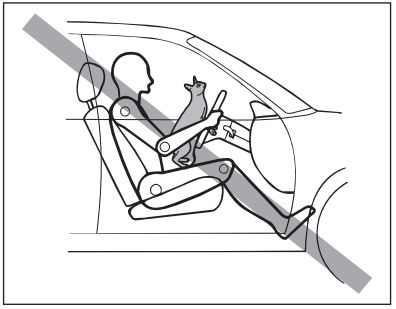
2. **Be sure to be seated properly and deeply so that the distance between the steering wheel and your body as well as the distance between the instrument panel and the front passenger is not too small.**
3. **Be sure to wear the seat belt securely.**



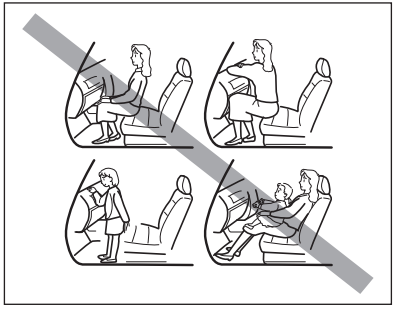
4. Do not sit toward the end of seat.



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.

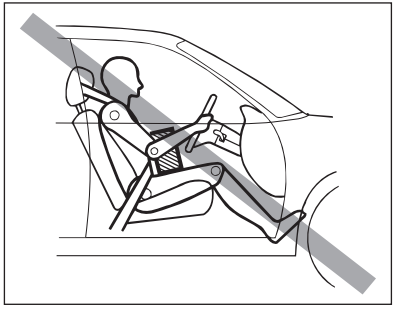
The reasons are:

- 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 can not protect you from impacts once the air bags have deflated.
- The effectiveness of SRS air bags will 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 only in severe frontal collisions.

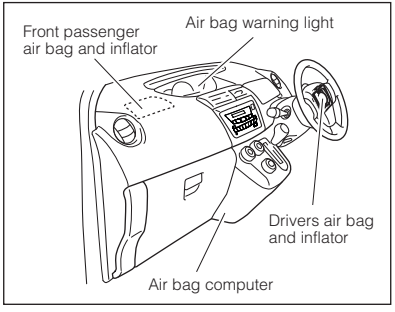
Therefore, there are the possibilities that the SRS air bags may not operate when low-level impacts are applied to the sensor in the control unit, for example, in the following cases given below:

- 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 head-on collides with other vehicle or objects while the ignition switch is turned "LOCK" 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**

**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**

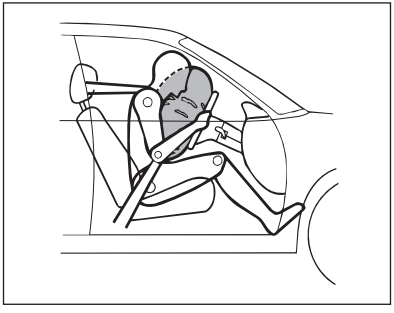
- The air bag for the driver is incorporated in the steering wheel.
- The air bag for the front passenger is incorporated in the upper section of the instrument panel.
- The air bag computer is incorporated in the lower section of the centre console.
- The air bag warning light is to warn you of a malfunction.

- 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 condensers are 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**



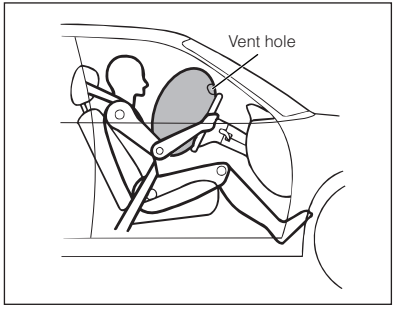
If your vehicle encounters a severe frontal collision, the SRS air bags will instantly inflate to help protect your face, head and chest.

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 abrasions, burned or bruised due to the operation of the air bag.**
- **If you get abrasions 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 normally 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**

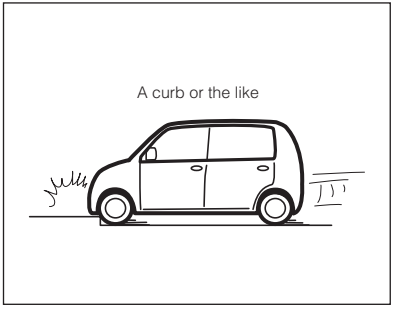
- **Wash your hands with water after you have tucked the deflated SRS air bag.**

  **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 scalded seriously by touching the section.**

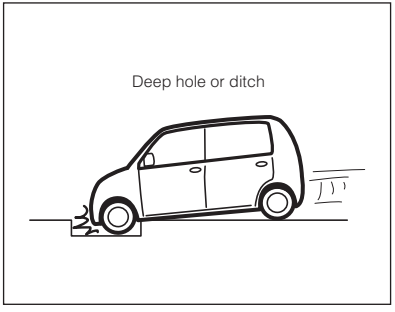
**Cases where the air bags are actuated**

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

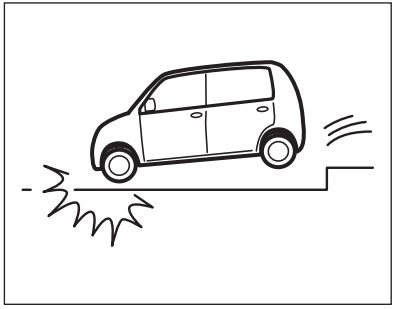
In an exceptional case, the SRS air bags may be actuated when a strong impact is applied to the underneath of the vehicle from the road, etc. while running.




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



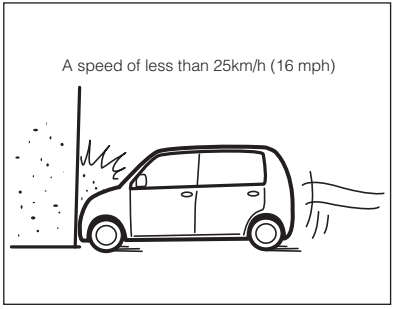

- When the vehicle falls into a deep hole or ditch;



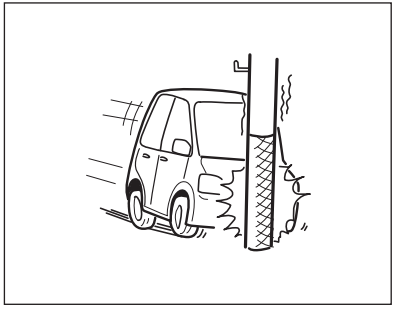
- When the vehicle jumps and hits the ground;

**Cases where the air bags are not actuated**

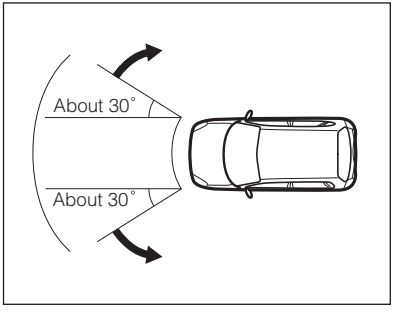
The SRS air bags may not be actuated under the cases set forth below, including the case where the impact from the front is weak or where the impact has been fully absorbed by the vehicle body, no matter whether the vehicle is severely damaged or not.



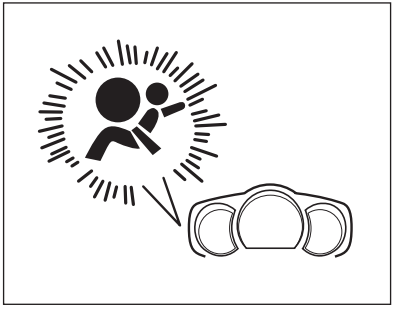

- When your vehicle encounters a frontal collision with a concrete wall with a speed of less than 25 km/h (16 mph);



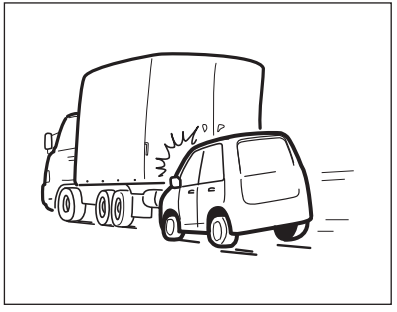
- When your vehicle collides with an electric pole, tree, etc;



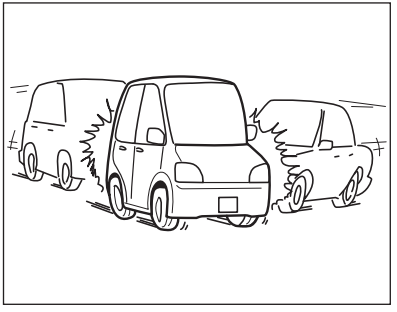

- When the vehicle hits a concrete wall or guard rail at an angle of about 30° or more from the front direction;



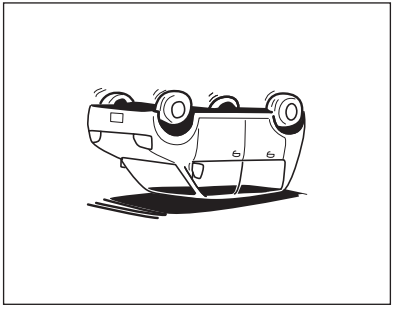
- When the SRS air bag warning light is on;



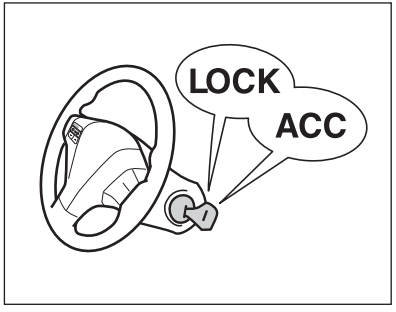
- When your vehicle dives into below the rear cargo bed of a large-sized truck;



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

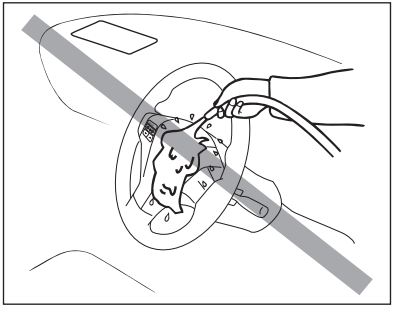


- When your vehicle turns sideways or turns over;




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

**Important safety warning**

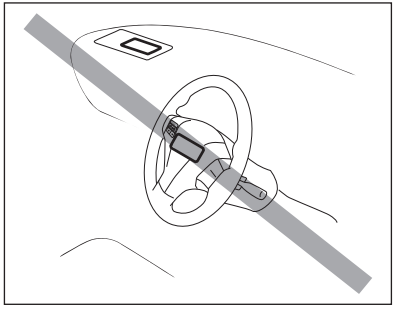


1. Never wash the vehicle interior with water or detergent.

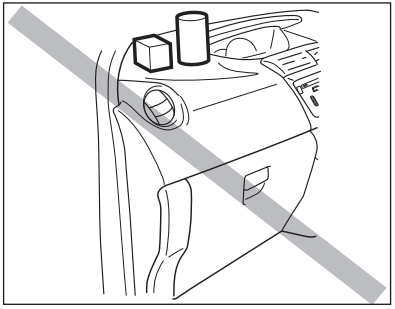
   The gas generator of this SRS air bags contains a poisonous substance or a flame-prone substance.

   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 authorized Perodua Service Centre immediately.



2. The SRS air bags will not operate properly, if you damage the SRS air bags cover.
   Therefore, be very carefully not to open or damage the air bag cover.
3. Never affix 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 affix 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 it in your mind that your vehicle is equipped with air bags.
    When you are selling your vehicle, be sure to inform a person to whom you are selling of the equipment of 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 authorized Perodua Service Centre in the following cases.

- Once the SRS air bags has been inflated:
  The SRS air bags 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 authorized Perodua Service Centre before the following operations are carried out;**

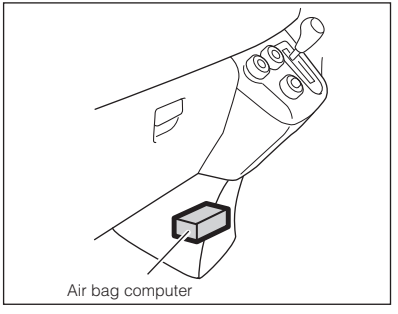
- **When removal of the horn pad is required;**
- **When removal of the steering wheel is required;**
- **When removal of the instrument panel is required;**
- **When a radio unit is installed;**
- **When your vehicle is scrapped;**
- **When the SRS air bag is scrapped;**

- 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 authorized Perodua Service Centre.

- 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.
- Never attempt to remove the steering wheel pad assembly by yourself.

**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. Care must be exercised not to apply water, juice or the like to the air bag computer.
3. Never strongly tap or kick the air bag computer or its adjacent places.

4. **Be sure to consult an authorized 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.**

Section 4

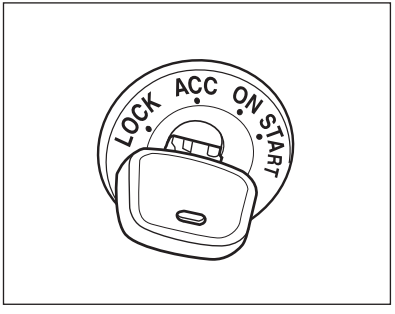


# Instruments and controls




Ignition switch ..... 4–1
Key reminder buzzer ..... 4–2
Multi-control switch ..... 4–3
Fog light switch ..... 4–4
Light-on-warning buzzer ..... 4–4
Wiper and washer switches ..... 4–5
Hazard warning signal switch ..... 4–6
Rear window defogger switch ..... 4–6
Front corner sensor switch ..... 4–7
Power socket ..... 4–7

## Ignition switch



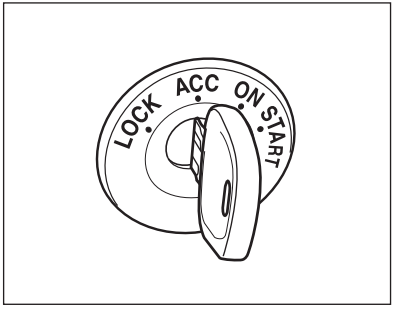

LOCK

The key can be pulled out or inserted in this position. If the key will not turn from this position, try again while gently turning the steering wheel alternately to right and left.

⚠ **WARNING**

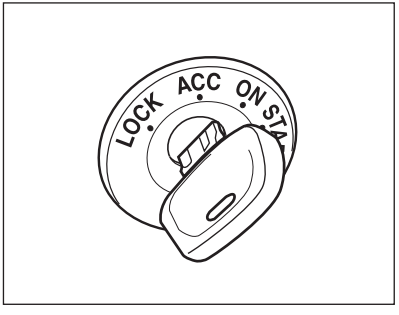
- **Do not turn the key to "LOCK" while the vehicle is in motion.**
  **It will easily and unintentionally be removed and will result in steering lock and an accident.**

- **Do not leave the key in an unattended vehicle or in a vehicle occupied only by children. The vehicle or electrical equipment may operate suddenly if the key is turned from "LOCK" accidentally.**




ACC

Accessories such as radio are operated with the engine off in this position.

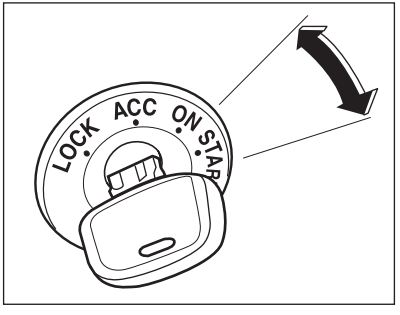



ON

The engine runs in this position.

**CAUTION**

**Never leave the ignition switch in this position while the engine is off. Failure to observe this caution will cause the battery to be totally discharged.**




START

The engine starts in this position. Release the key after the engine has started. It will automatically return to “ON”.

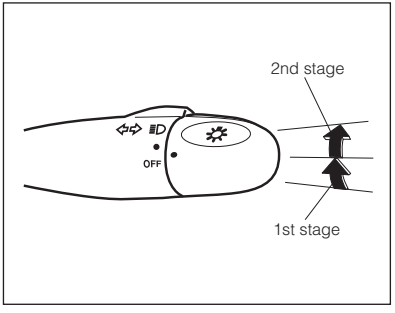
For starting tips, see Section 10.

## Key reminder buzzer

This buzzer is set off when you open any of the doors with the ignition set to “ACC” or “LOCK”, warning you to remove the ignition key.

## Multi-control switch

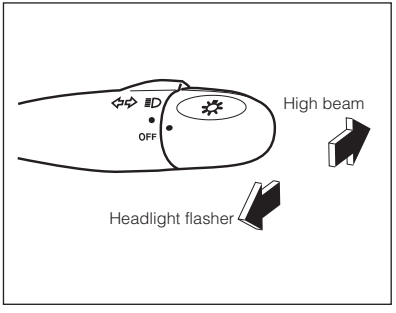
### Head light control




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

### Switch positions

| Position / Light | ● 1st stage | ≡D 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

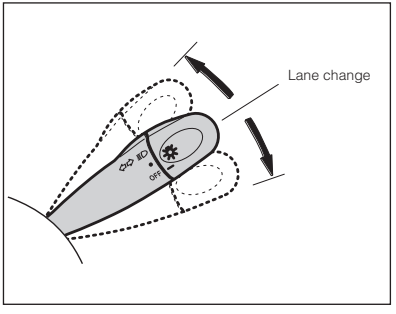
Pull the lever lightly and release.

The headlight flasher works with the headlight on or off.

**CAUTION**

- **When driving through a town or when there is an oncoming vehicle, high beams may annoy or endenger 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”.

Move the multi-control lever up or down to signal a turn.

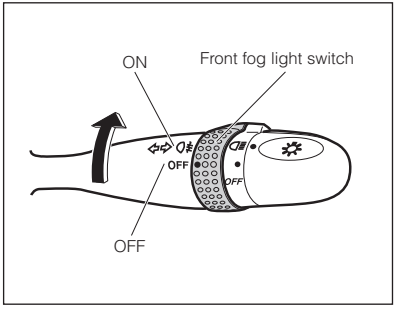
The indicator lights on the instrument panel will begin flashing.

You can also signal a lane change by moving the lever slightly and holding it there.

**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




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.**

## Light-on-warning buzzer

When you open any of the doors with the ignition set to “ACC” or “LOCK”, and lights turned on, the buzzer will sound to tell you that lights are still on.

## Wiper and washer switches

**⚠ WARNING**

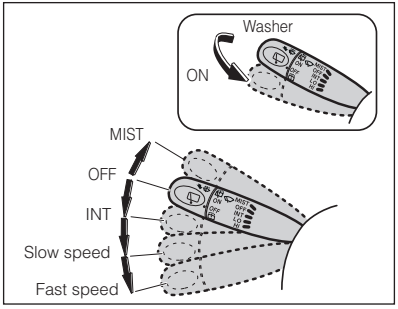
**Worn or dirty wiper blades could reduce your visibility.**

**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.**

### Windshield wiper and washer switch




The wipers and the washer operate with the ignition turned "ON".

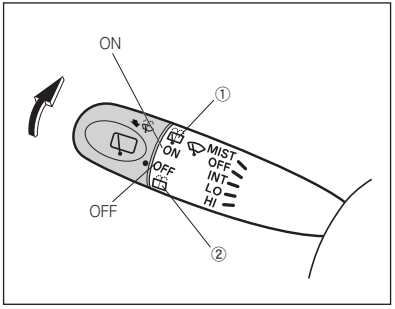
Push the wiper switch lever down to turn the wiper on.The wiper operates intermittently when the wiper switch is set to the "INT" position.

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.

### Rear wiper and washer switch



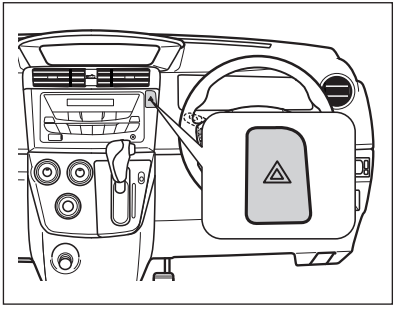

The rear wiper and washer operate with the ignition turned "ON".

When the knob is turned to the "ON" position, the rear wiper operates.

To inject washer fluid while the rear wiper is operating, turn the knob from the "ON" position to the ① position at the upper side.

Moreover, washer fluid will be injected when the knob is turned from the "OFF" position to the ② position at the lower side.

## 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.

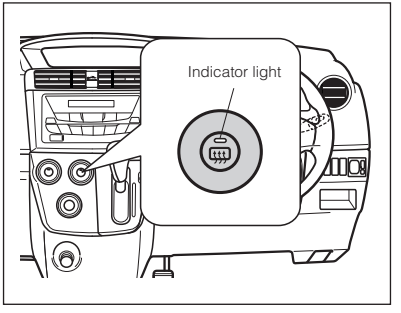
The turn signal switch will not operate when this switch is on.

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.**

## Rear window defogger switch




The rear window defogger operates with the ignition turned “ON”.

Push the defogger switch to demist the rear window.

While the defogger is on, the indicator light glows.

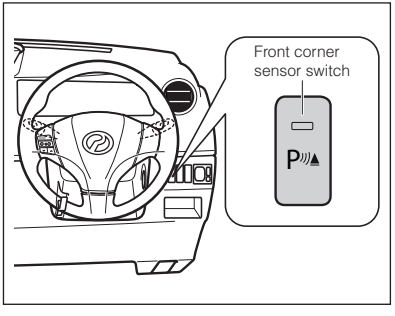
The defogger is not designed to dry rain.

Turn on the multi-control switch. Then, the mark gets illuminated.

**CAUTION**

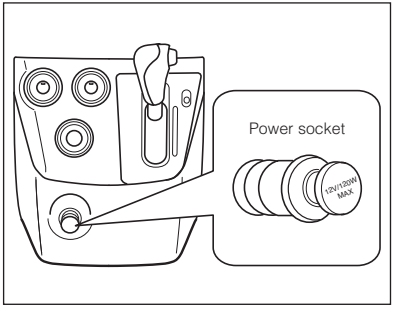
- **Turn the defogger switch off when the window is clear, to prevent battery discharge.**
- **Do not scratch the heater wire at any time.**

## 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 disappear.

## Power socket




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

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

Section 5

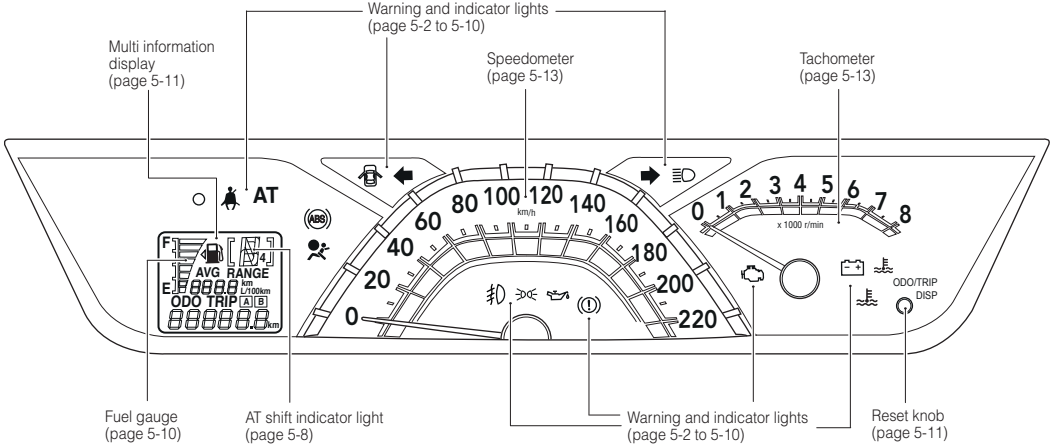


# Meters and gauges




Combination meter panel overview ..... 5–1
Warning lights ..... 5–2
Indicator lights ..... 5–8
Fuel gauge ..... 5–10
Odometer and trip meter ..... 5–11
Multi information display ..... 5–11
Illumination control ..... 5–12
Speedometer ..... 5–13
Tachometer ..... 5–13

## Combination meter panel overview



## 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 A.B.S. (Anti-lock Braking System) warning light will go out a few seconds later.

   The air bag warning light will go out 6 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 authorized Perodua Service Centre as soon as possible.

**Brake warning light**



The brake warning light goes on when the parking brake is applied or if the brake fluid level drops to near the "MIN" line of the brake fluid reserve tank, while the engine is running.

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 E.B.D. (Electronic Brake-force Distribution)**

When the E.B.D. control is malfunctioning.

Under the normal condition, when the engine switch is turned "ON" and the parking brake is applied, the brake warning light goes on. When the parking brake is released after having started the engine, the brake warning light goes out.

**⚠ WARNING**

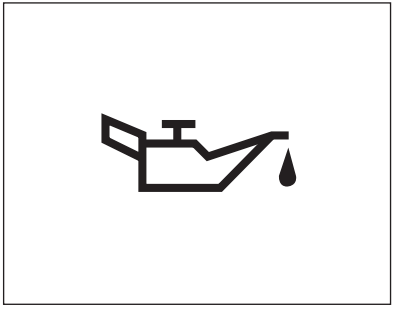
**Do not continue driving with the warning light on. Failure to do so could cause an accident.**

**Have the brakes checked by an authorized Perodua Service Centre immediately.**

**CAUTION**

- **If this light fails to go out even when the parking brake has been released, or 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 car at a safe place by depressing the brake pedal strongly. Then, contact an authorized 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 (A.B.S.) may be malfunctioning. In addition, there is the possibility that the vehicle becomes unstable when hard braking is applied. Immediately park your car at a safe place and contact an authorized 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. Immediately have your car checked by an authorized Perodua Service Centre.**

**Oil pressure warning light**



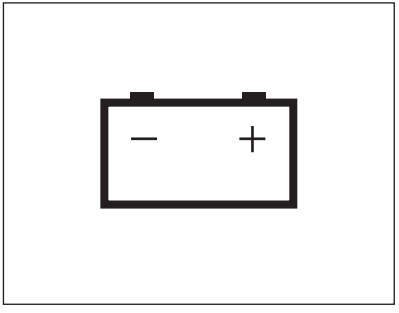
If the lubrication system should malfunction while the engine is running, the warning light goes on.

**CAUTION**

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

**Have the system checked by an authorized Perodua Service Centre immediately.**

**Battery charge warning light**



If the charging system should 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, shut off the engine and allow it to cool.**

**Failure to do so could cause serious bodily injury.**

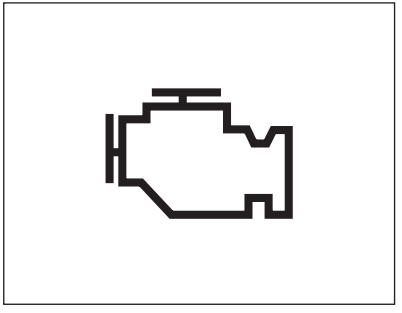
**CAUTION**

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

**It may cause engine overheating.**

**Have the system checked by an authorized Perodua Service Centre immediately.**

**Malfunction indicator light (MIL)**

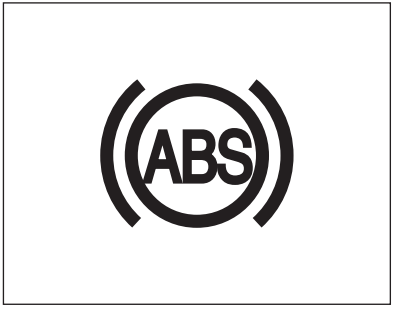


If the engine electronic control system should malfunction while the engine is running, the MIL goes on or blinks.

**CAUTION**

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

**A.B.S. (Anti-lock Braking System) warning light**




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

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

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

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

**⚠ WARNING**

**If both the A.B.S. warning light and brake warning light should remain illuminated and fail to go out, there is the possibility that the braking forces would drop drastically. Immediately stop your vehicle at a safe place and contact an authorized Perodua Service Centre.**

**CAUTION**

**When both A.B.S. warning light and the brake warning light go on at the same time, the anti-lock brake system may be malfunctioning. In addition, there is the possibility that the vehicle becomes unstable when hard braking is applied. Immediately park your car at a safe place and contact an authorized 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 A.B.S.) However, immediately have your car checked by an authorized Perodua Service Centre.**
- **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 and does not illuminate afterward while running.**
- **When the engine switch is set to the "ON" position, the light goes on for several seconds for the system check and then goes out.**

**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 with the warning light goes on. Have the system checked by an authorized 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 20km/h.

**Air bag warning light**



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

When the system is normal, the air bag warning light goes on for 6 seconds after the ignition switch is turned “ON”, and then the light goes out.

**CAUTION**

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

- **The warning light does not illuminate immediately after the ignition switch is turned "ON".**
- **The warning light goes on 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 backdoor) 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**



This light flashes if the fuel remaining amount becomes about 7.5 liters or less with the ignition switch turned "ON". If the low fuel warning light flashes, immediately replenish the fuel.

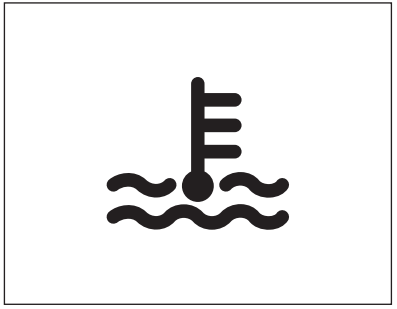
**NOTE**

**When you are driving on a hill or turning the vehicle, the fuel moves in the fuel tank. This may flash the warning light early.**

**In this case, replenish the fuel as soon as possible.**

## Indicator lights

### Water temperature warning light (HOT)



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

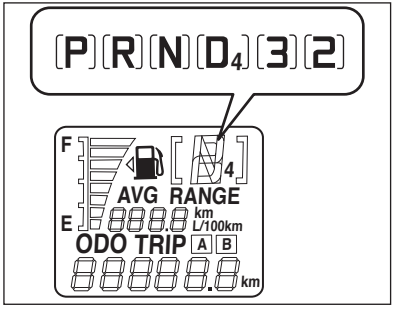
This light flashes when the engine cooling water temperature rises abnormally while the engine is running.

**CAUTION**

**Do not continue driving if the warning light flashes.**

**(See “Engine overheating” in Section 11)**

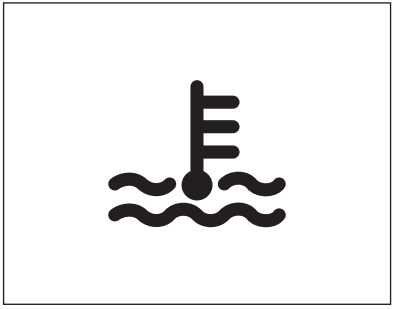
### Automatic transmission shift indicator light




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

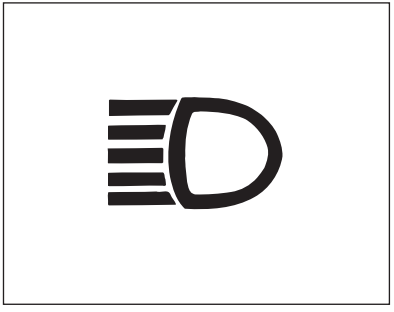
When R is selected, the frame ([ ] section) flashes.

### Water temperature indicator light (COLD)



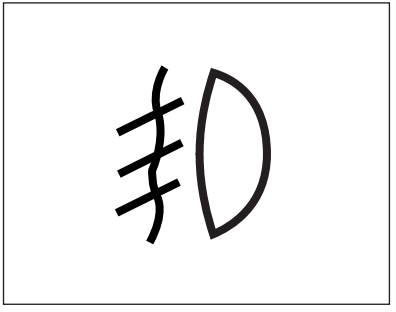
Blue light goes on when the engine cooling water temperature is low with ignition switch set to the “ON” position.

**High beam indicator light**



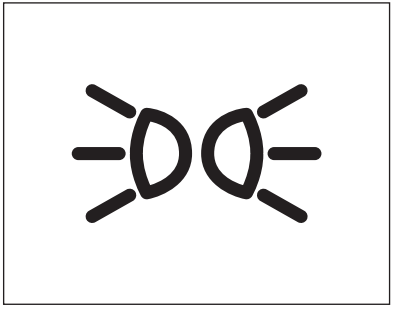
When the high beam headlights and flash lights are turned on, the indicator light goes on.

**Front fog light-on indicator light**



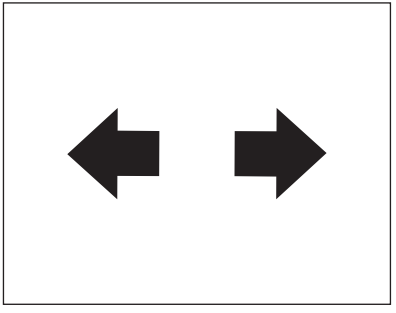
Front fog light-on indicator light goes on when front fog light is on.

**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



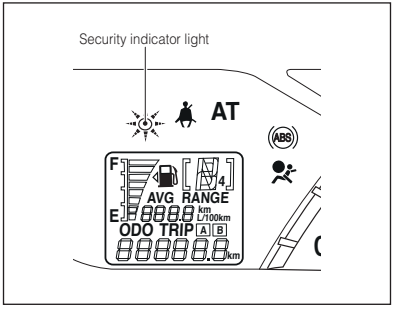
### Turn signal light

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.

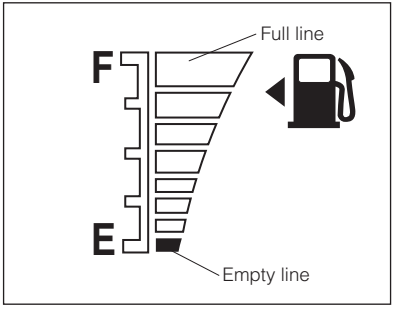
## Security indicator light




When the key is pulled out from the ignition switch, the security indicator light flashes.

Also, when the key is set from the “ON” position to the “ACC” or “LOCK” position of the ignition switch and 30 seconds elapse under this condition, the security indicator light flashes.

## Fuel gauge




The fuel gauge always indicates the approximate amount of fuel in the fuel tank.

**⚠ WARNING**

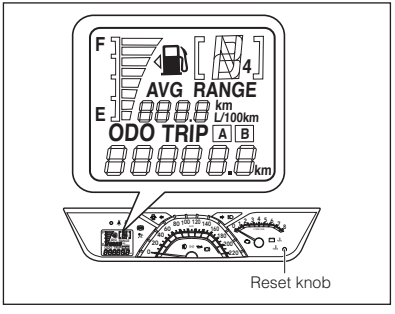
**Do not drive with the low fuel warning light flashes. It may cause engine misfire and damage to the catalytic converter.**

**Furthermore, an accident may happen if the vehicle stalls or hesitates while driving.**

**CAUTION**

**We recommend to make it a habit to always keep the fuel level over 1/4 full.**

## Odometer and trip meter

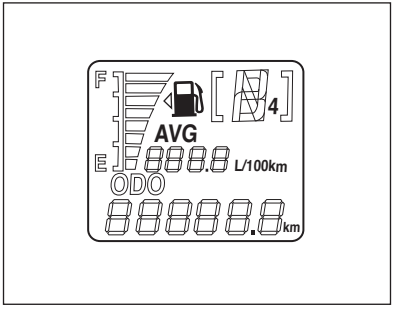



**Odometer / trip meter selection switch**

Each time this switch is pushed, the indication changes. The trip meter comes in two kinds: A and B. To reset the trip meter to zero, keep pressing the reset knob for about more than 1 second.

## Multi information display

**Average fuel consumption (AVG)**



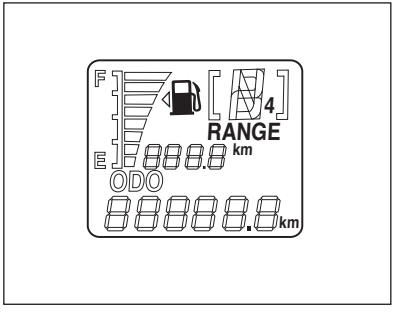

This mode will calculate the average fuel consumption depending on driving pattern.

The display value will be updated every second and after reset, '-.-' symbol will be displayed for 500 meters to allow enough data for a valid calculation.

**NOTE**

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

**Distance to empty (RANGE)**




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

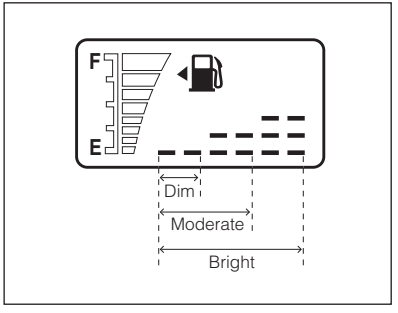
Value displayed is based on the remaining fuel volume in tank and fuel consumption figure.

If the displayed value less than 50 km, the displayed value will show '-.-' symbol.

## Illumination control

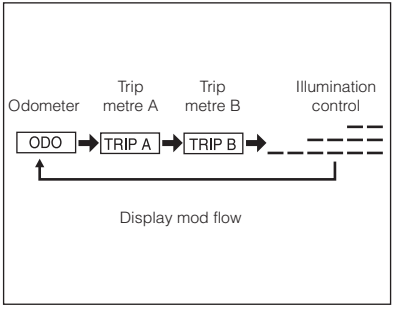
**Multi information display mode flow**

1. Press and hold the reset knob more than 2 seconds to activate the multi information mode. AVG/RANGE icon will blink. (If less than 2 seconds, only TRIP A/B is activated).
2. Press the reset knob once again to select between the AVG or RANGE mode.
3. If no use of reset knob within 6 seconds, AVG or RANGE selected symbol will stop blinking and exit from multi information mode.
4. During AVG (average fuel consumption mode) is blinking, pressing more than 1 seconds will reset the AVG.
5. No reset allowed in RANGE (distance to empty mode).




Combination meter dimming mode can be adjust only with the tail lamp switch is ON. Push reset knob every 1 second to change dimming mode. Please refer display mode flow.

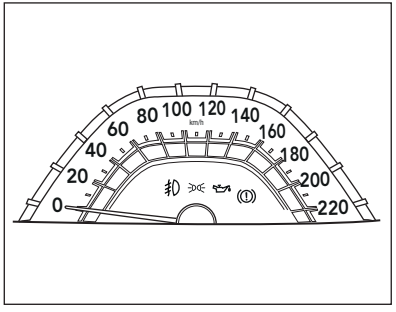
**Display mode flow**




**NOTE**

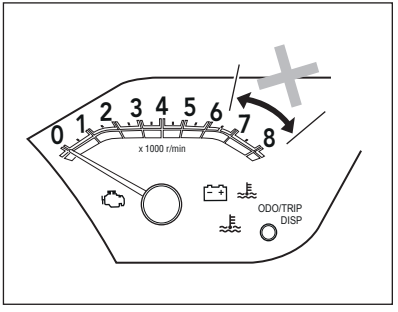
**If the reset knob is not used for 10 seconds, the display will switch to odometer.**

## Speedometer




The pointer indicates vehicle speed.

## Tachometer




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.**



Section 6

# Air conditioner control systems

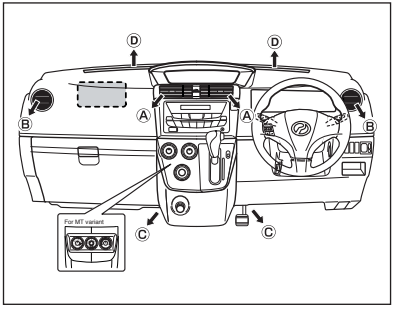


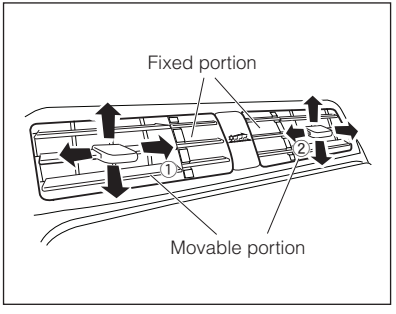
**Air conditioner** ..... **6–1**
**Recommended periodical maintenance guide** ..... **6–8**

# Air conditioner

The air conditioner operates with the ignition switch turned "ON".

**Outlet ports**



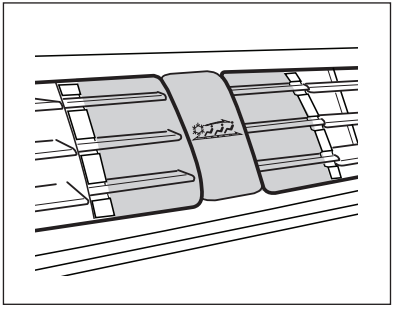




**Center outlet ports**

The central outlet ports is designed with a movable and fixed portion at each side. Air direction from the moveable portion can be controlled by the knob provided and the fins are movable. Air direction from the fixed portion is dedicated for the 3rd row seater where the fins are fixed and cannot be moved. For maximum cooling to the 3rd row seater, adjust the knob at movable portion to up/down and set the horizontal fins aligned with the fixed portion. Adjust the knob to the left /right until maximum towards the center (①, ②).

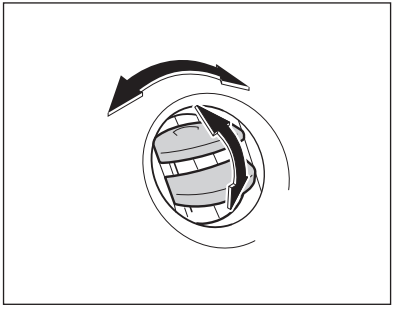
**CAUTION**

**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 discoloring, staining, and paint peeling of the surface. This may also cause the audio button stuck or loose. Proper care is required to prevent the panel cluster and audio system from damage.**



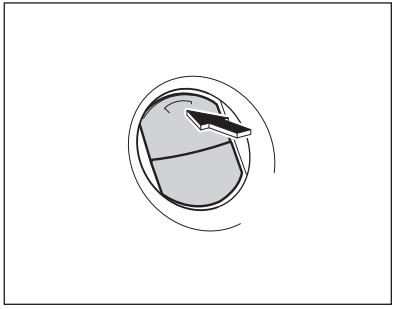
**Extension IP**

Extension IP is located between the center outlet ports as an indicator that the air direction from the fixed portion is dedicated for the 3rd row seater.



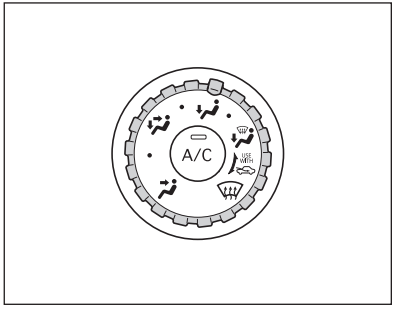
**Right and left outlet ports**

Adjustment can be made by moving the cover. If the cover is moved to the lowest position, the outlet is closed.



To open the outlet, push the recessed portion.

**Air outlet control dial**




This control dial changes the air outlet positions.

| Dial position | | | | | |
|---|---|---|---|---|---|
| Air outlet | Ⓐ Ⓑ | Ⓐ Ⓒ | Ⓒ (Ⓓ) | Ⓒ (Ⓓ) | Ⓓ |

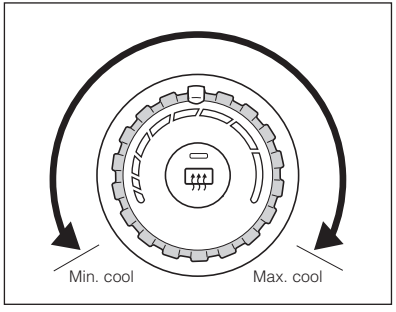
Position in parentheses ( ) denotes an air outlet where the air flow rate is small.




**NOTE**

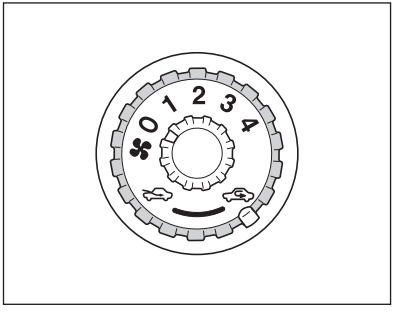
- **This mark refers to the positions and which are to be used when the glass is clouded. These positions are for introducing the outdoor air. The cloud may not disappear easily if the indoor air circulation is selected.**
- **Use the air intake control lever to switch to the outdoor air introduction.**

**Temperature control dial**




Air temperature is adjusted with this dial.

**Air intake control dial**




Inside air is recirculated.
Outside air is introduced.

**NOTE**

**When the outside air is unpleasant, move the dial to .**

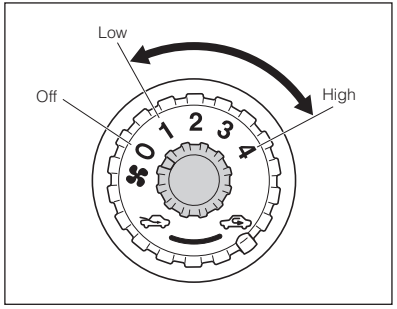
**It is, however, important to shift the dial to from time to time as the glass may become fogged or the inside of the vehicle may become stuffy.**

**Set the dial to in normal use.**

**CAUTION**

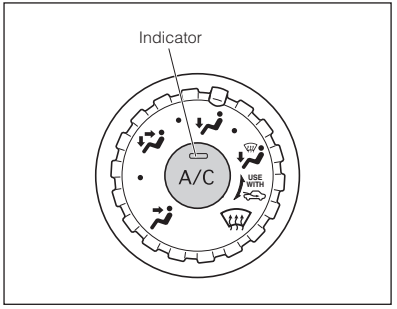
- **Do not use recirculation for a long time. The glass may easily mist. Use fresh air as a normal operation.**
- **During traffic jam, or inside tunnel, use recirculation to prevent exhaust gas entering into cabin.**
- **Do not use recirculation when using , , , glass may easily mist.**

**Blower fan switch**




Air flow speed is changed with this switch.

**Air conditioner switch**




Turn ON the air conditioner switch to cool or dehumidify air. To turn ON the air conditioner, push the switch with the blower fan turned "ON". To turn it off, push the switch again. The indicator light illuminates when the air conditioner is ON.

**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 on a long grade 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 stopping the vehicle.**

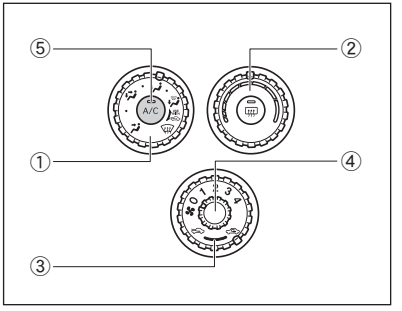
**Operation tips**

- Make sure that the air inlet ducts in front of the windshield are not blocked by leaves or other obstructions.
- Do not move the temperature control dial to the coldest position with the air outlet control dial in or , and the air conditioner on in extremely humid weather. The temperature difference between outside air and the windshield could cause mist on windshield, which may block your vision.
- Do not move the air intake control dial to with the air outlet control dial in , , or . The glass is prone to mist in this setting.
- 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.
  Should 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 or change 'recirculation' to 'fresh position' .**

**Cooling**




Setting position of each control dial and switch.

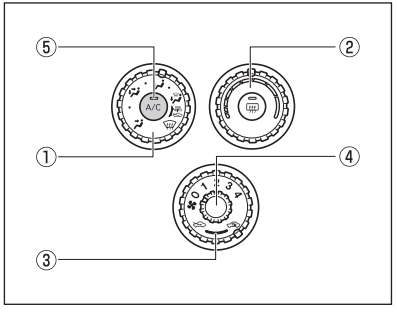
① 
② Low temperature side
③ 
④ Desired position
⑤ ON

If quick cooling is desired, set the dial ② to the right end, the dial ③ to position and the dial ④ to the right end.

**NOTE**

**Shift the dial to from time to time as the glass may become fogged or the inside the vehicle may become stuffy.**

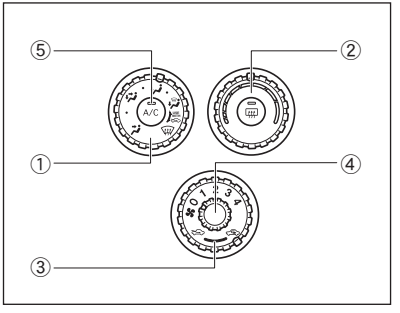
**Demisting**




Setting position of each control dial and switch.

① 
② Desired position
③ 
④ Desired position
⑤ ON or OFF

**Ventilation**




Setting position of each control dial and switch.

① 
② Desired position
③ 
④ Desired position
⑤ OFF

# 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 Switch | 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 FRESH, RECIRC, DEF, VENT for proper function | | I | I | I | I | I | I | I | I | I | I |
| Element Air Refiner | Check and replace Element Air Refiner | | I | R | I | R | I | R | I | R | I | R |

Section 7



# Audio systems


Features ..... 7–1
General operation ..... 7–2
Tuner operation ..... 7–5
Playing USB ..... 7–7
Bluetooth operation..... 7–11
Steering switch control system ..... 7–15
Installation ..... 7–16
Radio wire connection ..... 7–17
Specification ..... 7–18

## Features

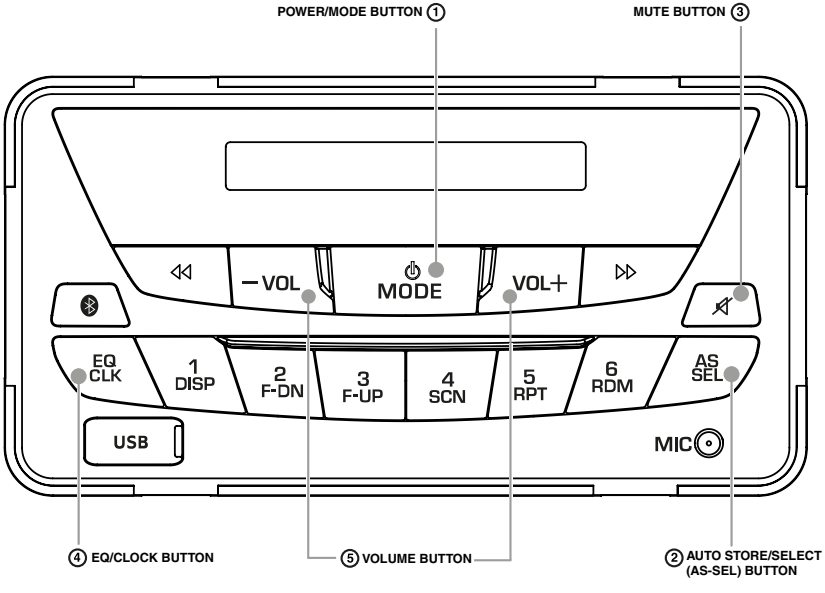
**Tuner**
- Digital PLL Tuning
- Manual UP/DOWN Tuning
- Seek UP/DOWN Tuning
- 18FM and 6AM Preset Memory
- Auto Store (AS)

**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**
- Track 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


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

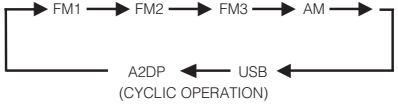
**Power / MODE Button ( ⏻ ) - ①**

- **System on / off**

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

- **Mode selecting**

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

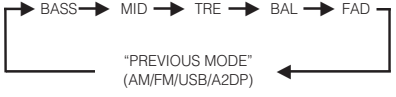



**Auto Store / Select Button (AS-SEL) - ②**

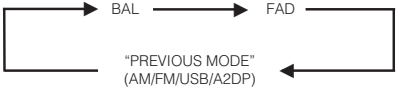
- **Audio mode selecting**

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**

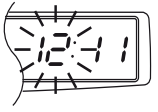
Press EQ / CLK button ④ to select “clear”, “bass”, “loud” (Prefix 3 pattern of tone) and “manual” (Non-prefix tone).



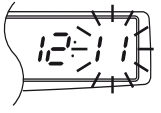

- **Selecting the time**

Press 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 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.

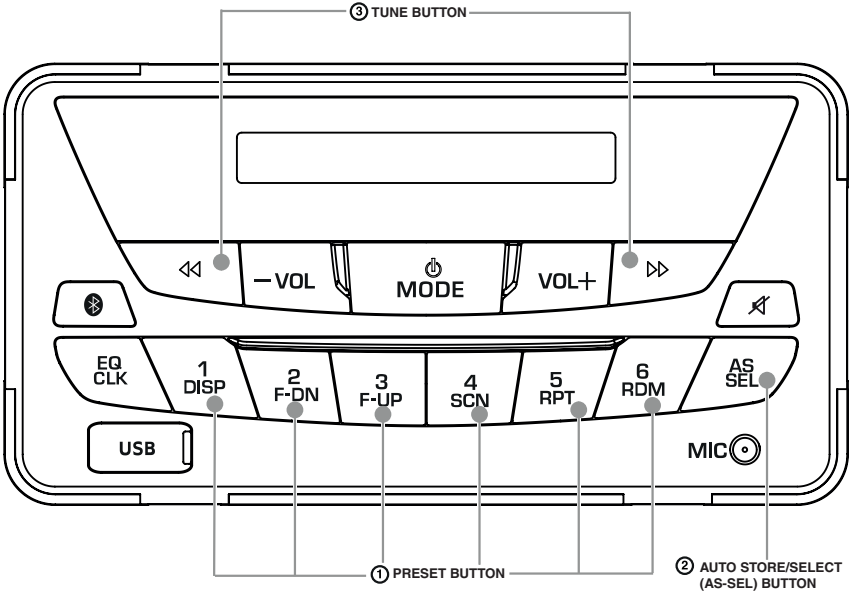


**Volume Up Button [VOL +] -** ⑤

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.


③ TUNE 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 PRESET BUTTON
② AUTO STORE/SELECT (AS-SEL) BUTTON

**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.

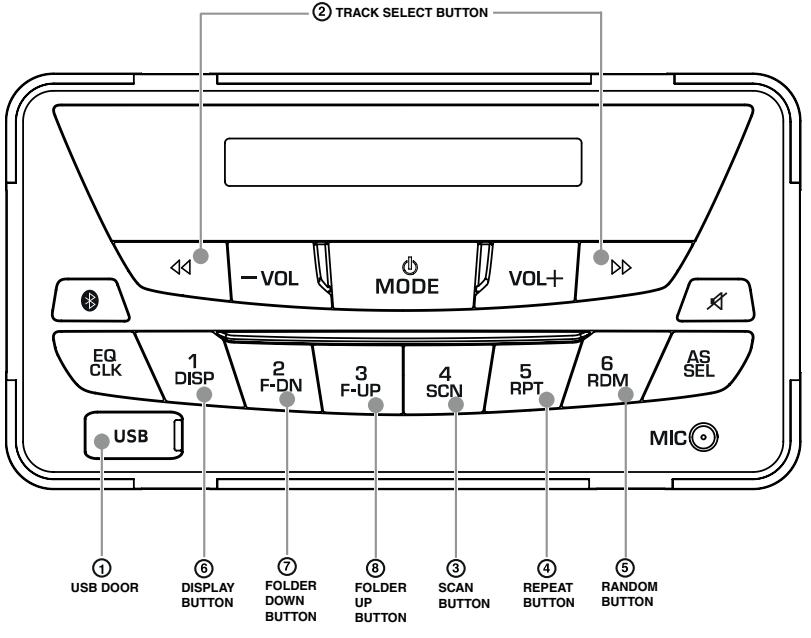
**Tune Button ( ◀◀ / ▶▶ ) -** ③

- **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.


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

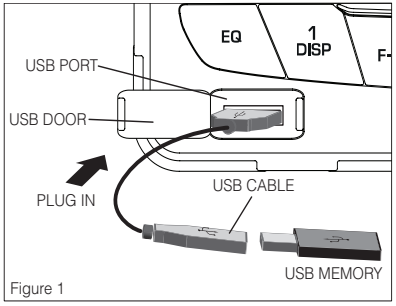


Figure 1

**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 files and support up to 64 GB USB memory.

**USB Phone Charging**

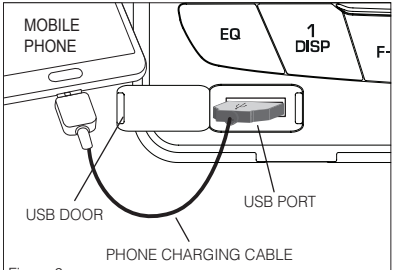


Figure 2

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 handsfree**

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

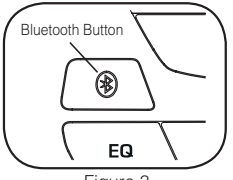


Figure 3

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**

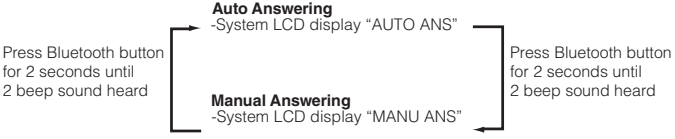
1. The audio system is entering into automatic connection mode whenever the ACC power is turned ‘on’. The auto connection mode allows automatic connection between last connected Bluetooth mobile phone with audio system.
2. To enable manual connection mode, it is required to press Bluetooth button for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

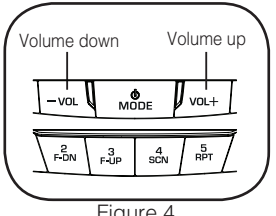


Figure 4

**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

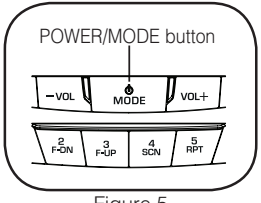


Figure 5

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 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<br>- Activate / deactivate auto search mode<br>- 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**

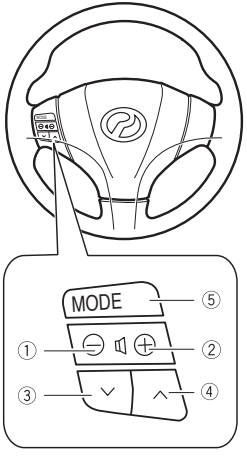
- Use the mobile phone in areas with good reception condition.
- If talking volume is low or noisy (claim from the person on the other end of the line), close the window, change the air direction, or adjust air blower's level from air conditioner to lower level.
- If the mobile phone battery is at low 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

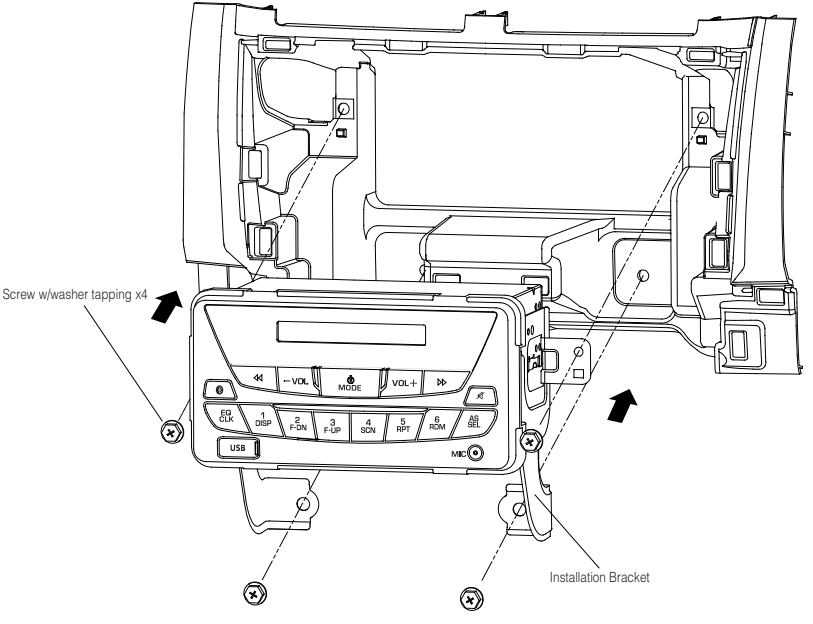
You can operate some of the functions of the audio system without taking your hands off the steering wheel.



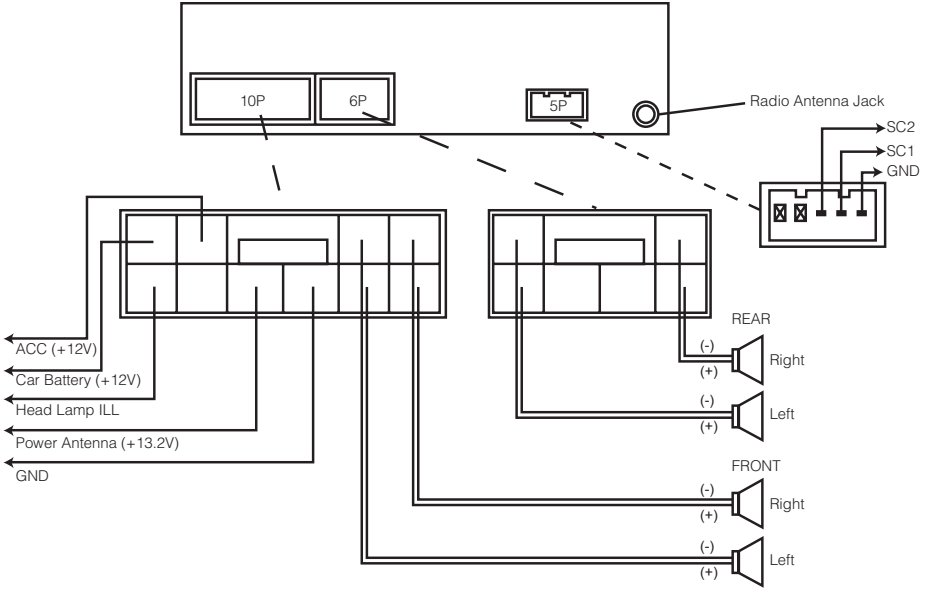

| Button | Condition / Mode | Operation | Function |
|---|---|---|---|
| **Volume down button (VOL(−) - ①** | - | Press button | Decrease volume level of audio |
| **Volume up button (VOL+) - ②** | - | Press button | Increase volume level of audio |
| **Tune down button ( ∨ ) -③** | FM/AM Mode | Press 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 |

## Installation

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



## Radio wire connection



## Specification

| Audio system | | |
|---|---|---|
| GENERAL | | |
| Power supply voltage | : | DC 12.0V |
| Rate | : | 14.4V |
| Audio Output | : | (20W x 4) Rms |
| Weight | : | 1 Kg |
| Mute | : | Decreased to - 79dB |
| Current consumption | : | less than 10A |
| Speaker impedence | : | 4 ohms |
| Grounding system | : | Negative type |
| FM TUNER | | |
| Frequency range | : | 87.5 to108 MHz |
| Usable sensitivity | : | 10 dB |
| -3dB limiting sensitivity | : | 10 dB |
| Signal to noise ratio | : | 50 dB |
| Stereo separation | : | 30 dB |
| AM TUNER | | |
| Frequency range | : | 522-1620 kHz |
| Usable sensitivity | : | 28 dB |
| Signal to noise ratio | : | 50 dB |
| USB | | |
| Frequency characteristics | : | 10 - 20,000 Hz (± 3 dB) |
| Signal to noise ratio | : | 70 dB |
| Dynamic range | : | 80 dB |
| POWER AMPLIFIER | | |
| Maximum power output | : | (20 W x 4) Rms |
| Tone controls (Bass) | : | ± 12 dB(@ 100 Hz) |
| Treble | : | ± 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 | : | -80 dBm @ 0.1% BER |
| Audio S/N | : | More than 90 dB |

Section 8

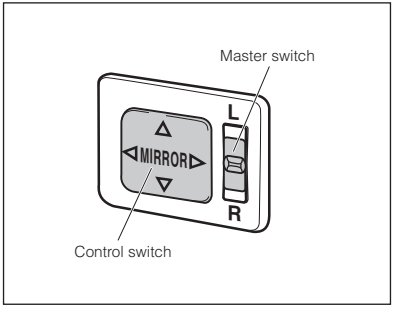


# Mirrors

**Side mirrors** ..... **8–1**
**Inside mirror** ..... **8–2**

⚠ **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 remote control mirror switch**

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.

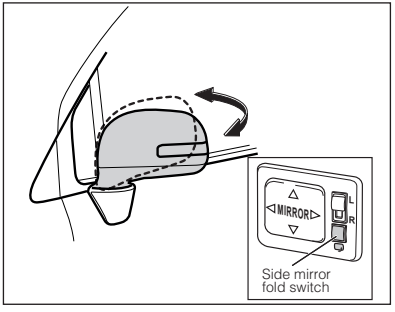
**CAUTION**

- **Adjust mirror before you start driving. Do not adjust the side mirror if the transmission lever is at R or D4 . 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.**

## Inside mirror

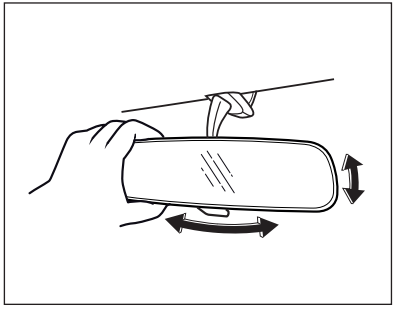



**To fold side mirrors by hand**

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.



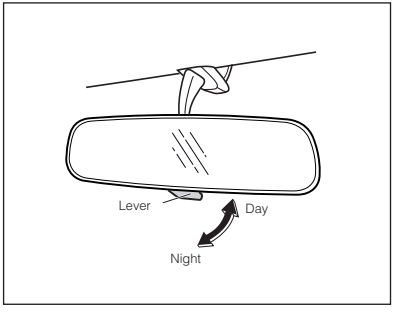
**To adjust mirror**

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

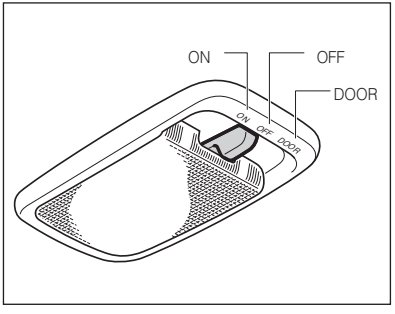


# Interior equipment


Interior lights ..... 9–1
Tilt steering ..... 9–2
Horn ..... 9–2
Assist grip ..... 9–3
Sun visor ..... 9–3
Glove box ..... 9–4
Driver upper box ..... 9–5
Utility box ..... 9–5
Armrest compartment ..... 9–5
Coin holder ..... 9–6
Under seat tray ..... 9–6
Bottle holder ..... 9–6
Seatback pocket ..... 9–8
Shopping hook ..... 9–8
Luggage under box ..... 9–8

## 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.

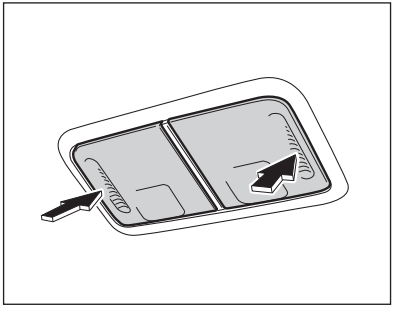
With the switch is set to the “DOOR” position, the light turns on when any door is opened or is not securely closed.

If the light keeps on illuminating even after the doors have been closed, the door may be open 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 the “LOCK” or “ACC” position, the room light (while the switch is set to the “DOOR” position) goes out. This is to prevent the battery from being discharged.

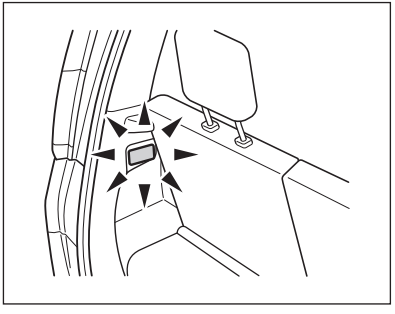
### Front personal light



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

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

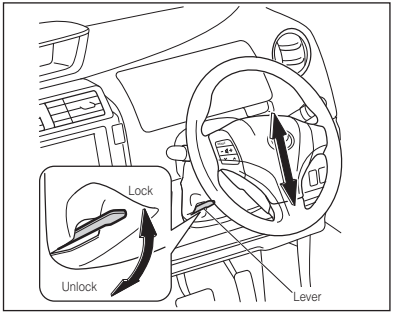
## Luggage room light



The light turns on when the back door is opened or is not securely closed.

The light switch can also be set to turn on or turn off whenever required, regardless if back door is opened or closed.

## Tilt steering

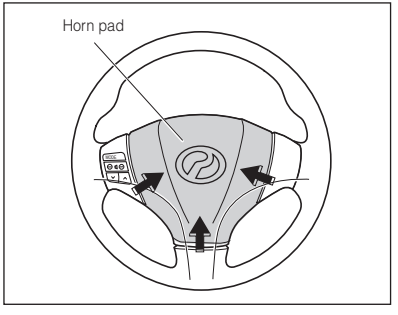



Pull down the tilt lever to unlock the steering column. Move the steering column to your desired position. Then securely pull up the tilt lever. The steering column will be locked at this position.

**⚠ WARNING**

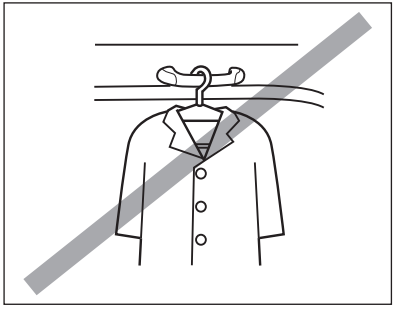
- **After adjusting, make sure the steering column is locked securely by trying to move it up and down.**
- **Do not adjust the steering wheel position while the vehicle is moving, as this can cause an accident.**

## Horn




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

## Assist grip

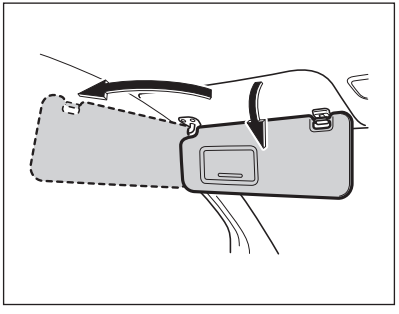


Assist grips are provided for passenger's convenience.

**⚠ WARNING**

**Do not hang anything on the assist grip. It could block the driver's vision or damage the assist grip.**

## Sun visor

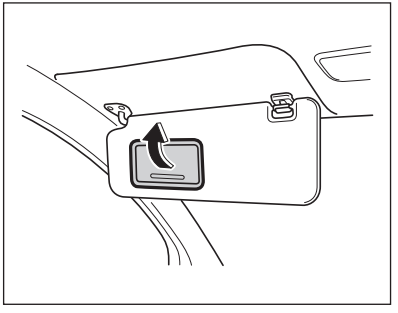


Lower the sun visor to protect your eyes from bright sunlight. The sun visor also moves toward the door window.

**⚠ WARNING**

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

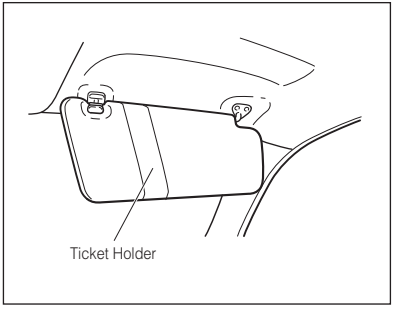
### Vanity mirror



Lower the sun visor and open the cover to use the vanity mirror.

## Glove box

### Ticket holder

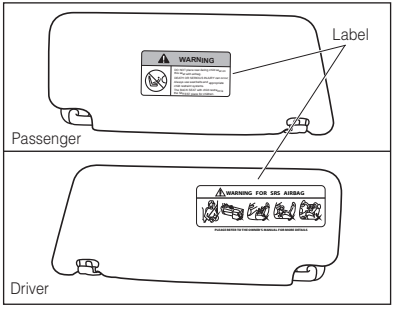



Use the ticket holder to keep any kind of tickets.

**⚠ WARNING**

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

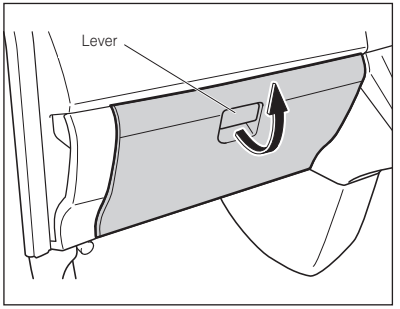
### SRS airbag warning label




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.**

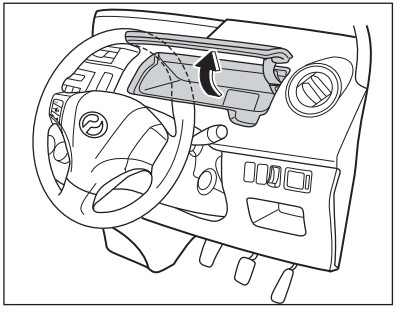



Pull the lever to open the glove box lid and push the lid to lock securely.

**⚠ 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.**

## Driver upper box

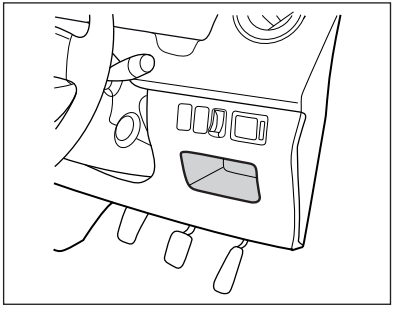


Pull the lid to open the upper box and push the lid to lock securely.

⚠ **WARNING**

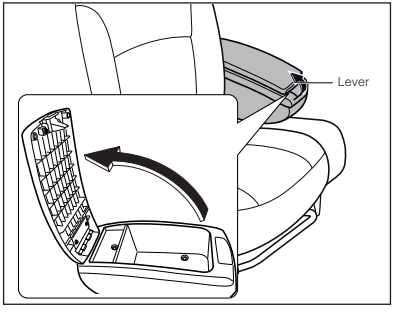
- **Keep the upper box lid closed while driving. This could help to reduce the risk of serious bodily injury in an accident or hard braking.**
- **During hot weather, the interior of the vehicle may become hot. Do not leave anything flammable or deformable such as lighter, glasses, etc. inside.**
- **Do not put or take out thing during driving. It may block driver's vision or unexpected accident may happen.**

## Utility box



Use utility box to keep things such as tickets and normal size cards.

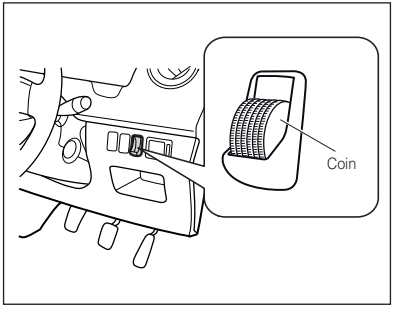
## Armrest compartment
**(If equipped)**




To open the armrest compartment, pull up the lever and lift the armrest.

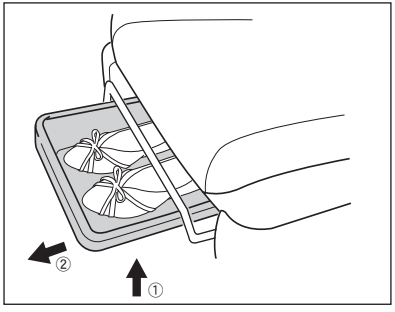
To close, lower the armrest and push it down until it latches.

## Coin holder




Used coin holder to keep coins.

## Under seat tray




This tray is placed under front passenger seat for storage of shoes, sandals or other small goods.

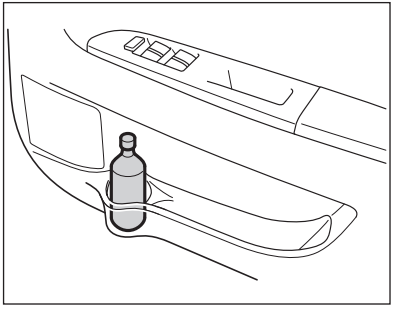
Slightly push up ① and then pull out ② the tray.

**CAUTION**

- **Do not pull out or push back the tray while the vehicle is moving.**
  **It can result an accident.**
- **Securely push back the whole portion of the tray when the vehicle is moving.**
- **Do not store object that is heavier than 1.0kg. The object may come out of the tray in the event of a sudden braking.**

## Bottle holder

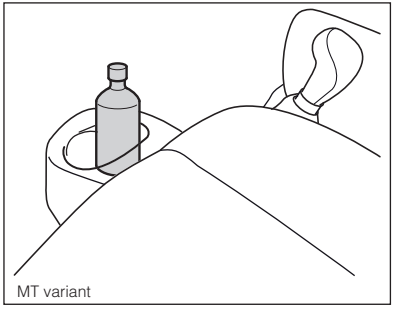
**Front**



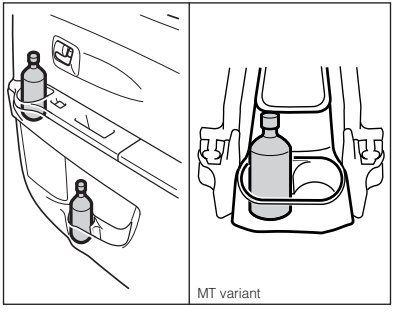
**⚠ WARNING**

**Be careful when using the bottle holder. A spilled liquid that is very hot could cause injury and a loss of control of the vehicle.**

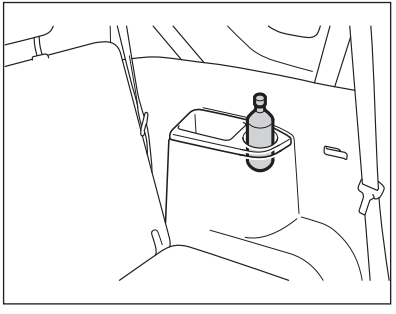
**Use only resealable bottles, cups, cans or containers in the bottle holder.**


MT variant

**Rear**


MT variant

**Deck side trim**

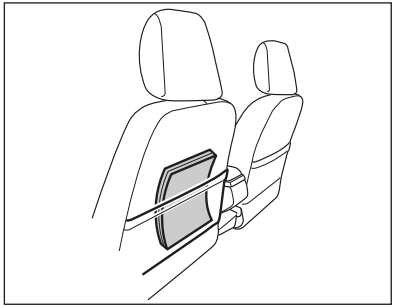


**⚠ WARNING**

**The drink in a bottle put in the bottle holder may spill over due to vibration, etc.**

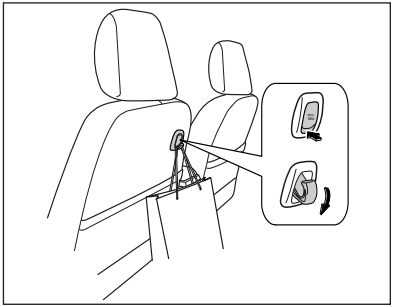
**Please be careful.**

## Seatback pocket



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

## Shopping hook
**(If equipped)**



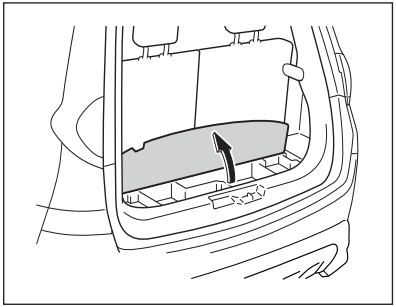
Shopping hook is set at the back of front passenger's seat.

It can keep shopping bags upright and prevent items from falling over and spilling**.**

**CAUTION**

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

## Luggage under box



Luggage under box can be used as a storage space.

**NOTE**

**This luggage under box can also be used to keep jack and other tools.**

Section 10



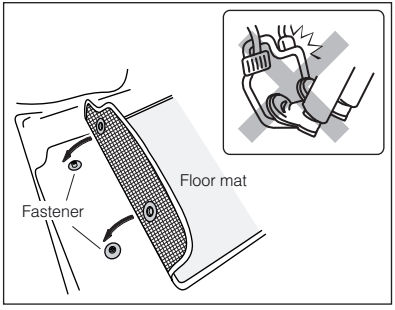
# Driving tips


Before starting engine ..... 10–1
Starting engine ..... 10–1
Manual transmission shifting instructions ..... 10–2
Shifting points (Manual transmission) ..... 10–3
Automatic transmission shifting instructions ..... 10–4
Normal driving tips ..... 10–8
Economical driving tips ..... 10–9
Brake system ..... 10–9
Brake pad wear limit indicator ..... 10–11
Parking tips ..... 10–11
Parking brake warning buzzer..... 10–14
Power steering ..... 10–14

## Before starting engine

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 and the transmission lever at Ⓟ (automatic transmission) .
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**




**⚠ 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 damage.**
- **Keep moderate speed until the engine warms up thoroughly.**
- **Make sure that you have seated on the driver seat before starting the engine. Do not turn the key from outside. 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.

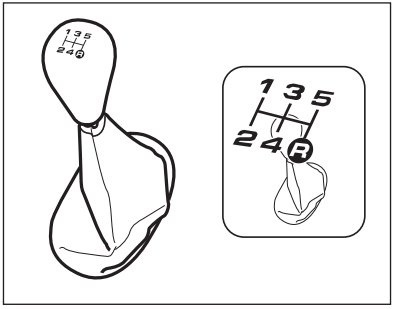
1. Depress the clutch pedal fully and hold it in that position until the engine starts (manual transmission).
2. Shift the transmission lever to neutral (manual transmission) or to P or N range (automatic transmission).
3. Turn the ignition key to “ON”. Ensure the warning lights go on.
4. With your foot off the accelerator pedal, turn the ignition key to “START” and release.
5. Check that warning lights except parking brake warning light or brake warning light go out.

**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 P range before starting the engine.
- The engine can also be started in the N range, but it is advisable to start the engine in the P range.
- For safety reasons, the shifting mechanism is so constructed that the engine cannot be started with the transmission lever shifted to the R, D4, 3 or 2 range.
- If the engine is stalled while the vehicle is moving, restart it with the transmission in the N 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 R, D4, 3 or 2 range during high engine speed.
- Shift the transmission from the P or N 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 so designed 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.

## Shifting points (Manual transmission)

**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.**

### 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.

Recommended shifting speeds

km/h (mph)

| Gear | Speed |
|---|---|
| 1st-2nd<br>2nd-1st | 15 (9) |
| 2nd-3rd<br>3rd-2nd | 35 (22) |
| 3rd-4th<br>4th-3rd | 50 (31) |
| 4th-5th<br>5th-4th | 70 (43) |

### Maximum allowable speeds

**CAUTION**

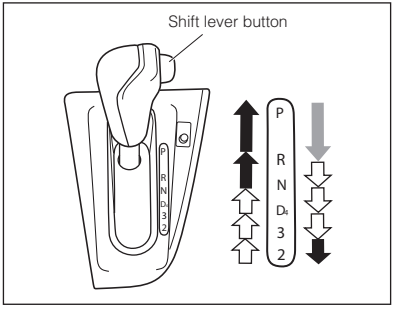
**If your vehicle exceeds the maximum allowable speeds given on the table below, do not downshift. If this caution is neglected, the engine could be damaged.**

Maximum allowable speeds

km/h (mph)

| Gear | Engine type |
|---|---|
| | 3SZ-VE |
| 1 | 40 (25) |
| 2 | 70 (43) |
| 3 | 105 (65) |
| 4 | 155 (96) |

## 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**

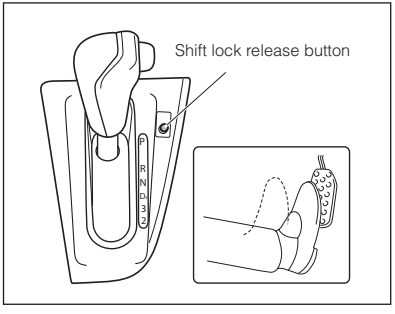
- **You cannot move the shift lever from the Ⓟ range to other ranges, unless you are depressing the brake pedal.**
- **When the ignition switch is set to the "LOCK" position, you cannot move the shift lever from the Ⓟ range to other ranges, even if you depress the brake pedal.**
- **There are cases where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

The following shows the function of each range.

| | |
|---|---|
| Ⓟ | For parking the vehicle, starting the engine and removing the ignition key |
| Ⓡ | For reversing the vehicle |
| Ⓝ | Neutral<br>The engine can be started in this range. It is, however, advisable to start the engine in the Ⓟ range for assured safety purpose |
| D4 | For normal driving<br>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<br>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 key 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 "LOCK" and the ignition key cannot be removed.

**Shift lock release button**

In case of the battery ran out or weak, use this release button for manually cancelling the shift lock mechanism.

**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 D4 (or 3 or 2) for forward driving or in R for backward driving.

After releasing the parking brake completely, move the vehicle by releasing the brake pedal slowly.

⚠ **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 P, R or 2 range, resulting in an unexpected accident.**
- **Do not place the shift lever in the P range before the vehicle comes to a complete stop. Also, do not place the shift lever in the N range when driving; in the R range when moving forward; or in the D4 , 3 and 2 ranges when moving backward. Failure to observe this warning may damage the trasmission or could cause loss of control, leading to an accident.**

**Driving**

- Use D4 for normal driving.
- Manual operation from 2 to 3 or D4 can also be carried out.
- When rapid acceleration is required, depress the accelerator pedal fully.
  Even if the shift lever is in D4, 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 N. It is, however, advisable to start the engine in P 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 P, R or 2 range, resulting in an unexpected accident.**
- **Do not place the shift lever in the P range before the vehicle comes to a complete stop. Also, do not place the shift lever in the N range when driving; in the R range when moving forward; or in the D4, 3 and 2 ranges when moving backward. Failure to observe this warning may damage the trasmission 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.**

Maximum allowable speeds

km/h (mph)

| Range | 3SZ-VE |
|---|---|
| | A/T |
| 2 | 98 (61) |
| 3 | 155 (96) |
| D4 | - |

**Brief stopping**

Depress the brake pedal firmly with the shift lever in the same range or in N.

If you stop for a long time, apply the parking brake with the shift lever in N.

**⚠ WARNING**

**If the brake pedal is not firmly depressed and the shift lever is in the 3, 2, D4 or R 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 N to other ranges.**

### Parking or stopping

After the vehicle has been 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 “LOCK” and the ignition key cannot be removed.

### 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 Ⓝ.**
- **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.**

**⚠ 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 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 unnecessarily sudden acceleration or braking. Keep the same speed as long as possible.
- Avoid unnecessarily high speed driving.
- It is advisable to drive in the top gear when driving in high speed. This will help reduce engine noise level as well as fuel consumption.
- Time your driving to help the vehicle move as long as possible 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 not required.
- Remove the roof rack when 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 should fail, 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 authorized Perodua Service Centre or tow truck service for assistance.**

### General precautions for braking

⚠ **WARNING**

- **Do not depress the brake pedal suddenly when a 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 keep depressing the brake pedal when descending a steep grade. Downshift to get engine braking.**

### A.B.S. (Anti-lock Braking System)

The A.B.S. (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 A.B.S. 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 A.B.S. system when it is conducting its initial, self- diagnosis.

### E.B.D. (Electronic Brake force Distribution)

The E.B.D. (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 A.B.S., 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 A.B.S. Always drive safely. Always pay careful attention to the road conditions while driving.**
- **Compared with those without A.B.S., the braking distance of a vehicle equipped with A.B.S. may be extended on rough roads or gravel roads. Under such road conditions, drive at a reduced speed.**
- **If the A.B.S. should encounter with a malfunction, the warning light goes on. Even under this state, the normal braking performance is retained, although the A.B.S. is no longer functioning.**

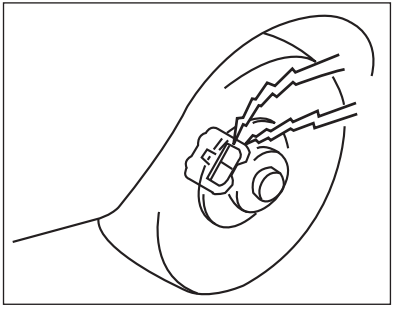
  **When this light illuminates, immediately have the vehicle checked by an authorized Perodua Service Centre.**

- **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 tires alone may lock during hard braking, thus making the vehicle unstable.**
- **In this case, avoid hard braking and immediately have the vehicle checked by an authorized Perodua Service Centre.**

**NOTE**

- **The A.B.S. 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 A.B.S. 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 the brake pedal little by little over several stages.**

## Brake pad wear limit indicator



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 "LOCK" then pull out the key.

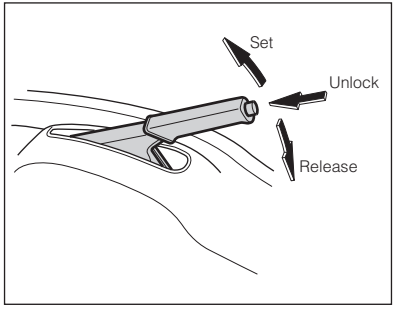
**CAUTION**

- **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 "LOCK" and pull out the key to avoid battery from being discharged.**
- **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 [P].**

**Parking brake**




**MT variant**

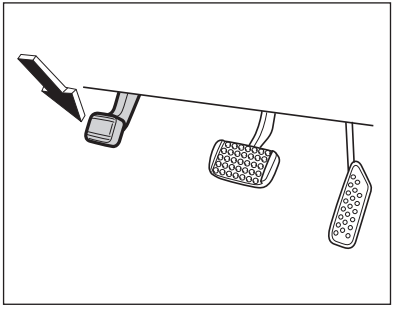
Pull the lever up to set the parking brake.

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.**

**Foot parking brake**



**AT variant**

To apply foot parking brake.

1. While pressing the brake pedal with your right foot, use your left foot to press the parking pedal.
2. When you set the ignition switch at “ON”, brake system warning light will turn on.

To release foot parking brake.

1. While pressing the brake pedal using your right foot, use your left foot to press the parking pedal. Slightly release the parking pedal when you hear a sound.
2. When you set the ignition switch at “ON”, brake system warning light will turn off.

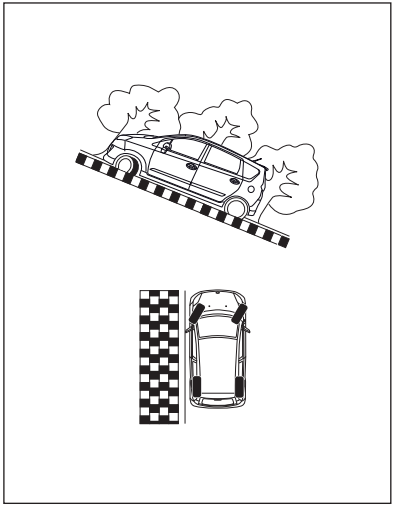
**NOTE**

- **If you need to apply parking brake harder than normal situation, press brake pedal and release the parking brake once, then apply the parking brake again after the parking pedal is completely return back.**
- **Check with your eyes whether you press the correct pedal while applying and releasing parking brake.**

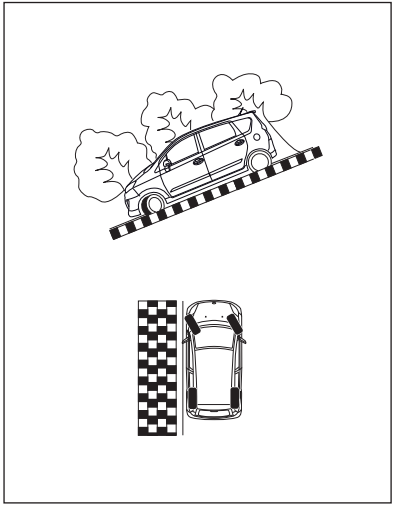
**Parking on slope**

Turn the front wheels as shown when parking on a slope.

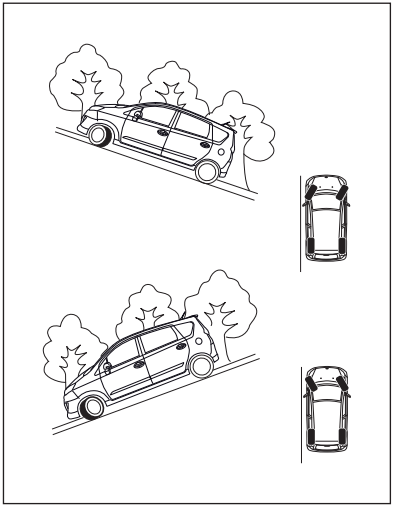
**On upgrade with curb**



**On downgrade with curb**



**On either grade without curb**



## Parking brake warning buzzer

The buzzer sounds when the vehicle speed exceeds 2km/h under condition of the parking brake is applied.

Make sure to release the parking brake to avoid any damage to your vehicle.

**NOTE**

**The buzzer will not sound if the brake fluid is low.**

## Power steering

On those vehicles equipped with the hydraulic driven power steering, 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 authorized 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 ..... 11–6
Towing ..... 11–14
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 dim, first check the battery.

See Section 14.

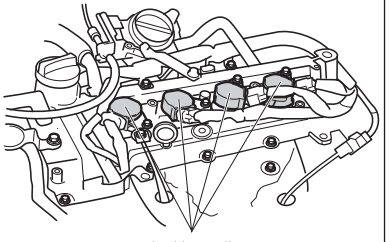
If the battery is discharged, jump-start it.

If the cause is still not clear, have the system checked by an authorized 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



Ignition coils

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 MIL flashes or goes on, the engine needs adjustment or repair. Call an authorized Perodua Service Centre immediately. Continuous driving under this state may cause serious damage to the catalyst, etc.**

## Jump-starting

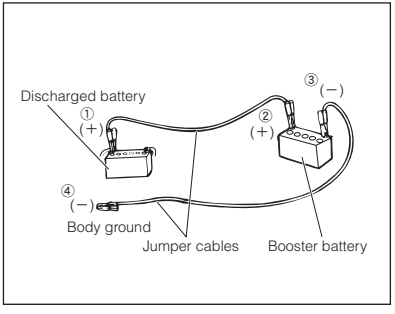
⚠ **WARNING**

**Observe the following instructions to prevent serious bodily injury and damage to your vehicle. In addition, follow the instructions of the jumper cable manufacturer.**

- **If you are not versed in the jump starting procedure, ask an authorized 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.**

**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) 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 “LOCK”.
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 authorized Perodua Service Centre.

## Engine overheating

If the engine overheats, the engine emits pinging noises and engine performance drops noticeably as well as the water temperature warning light flashes.

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.**

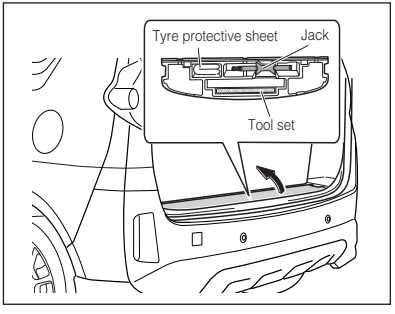
1. Park the vehicle on a safe place and turn the air conditioner off.
2. If steam is coming out from the hood, stop the engine. Keep the hood closed until no steam comes out from the hood. When no steam comes out any more, start the engine and open the hood so that the inside can be ventilated.
3. Visually inspect the engine compartment. If the engine compartment exhibits any of the following, immediately stop the engine and contact an authorized 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 fan belt is cut:

4. Stop the engine when the water temperature warning light goes out .
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 conspicuous contamination or adhesion of dirt.
7. Add coolant if the coolant level is insufficient. (See Section 14)
8. Have the vehicle checked by an authorized Perodua Service Centre as soon as possible.

   The engine is more prone to overheat in hot weather. The following should be checked regularly:

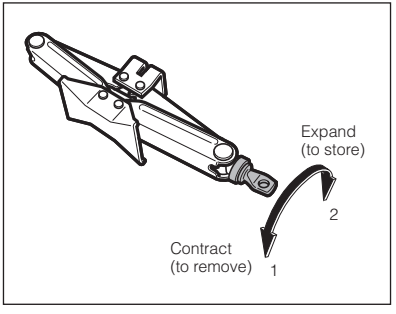
- Water leakage in the cooling system
- Water level of the radiator and reserve tank
- Radiator fin clogging
- Drive belt tension

  If the engine overheats frequently, have the cooling system checked by an authorized Perodua Service Centre.




Open the back door and raise the deck board.
Learn the storage location of tools and jack.

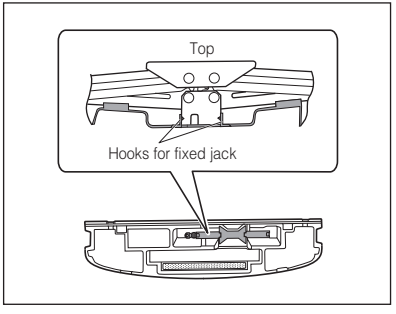
## Jack




The jack can be installed / removed by turning the worm shaft as shown in the figure above, using the jack handle provided in the tool bag.

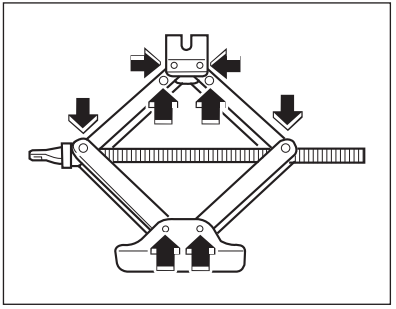
### Removal

Remove the jack from the jack bracket by turning in the direction 1 in the figure above.




### Installation

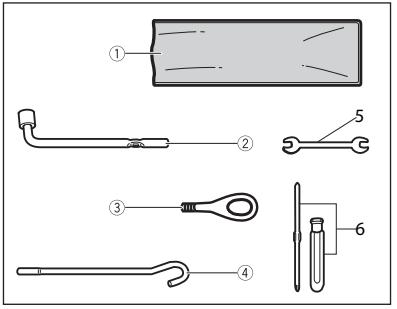
Place the jack, as shown in the figure above. Make sure the jack is fixed to the hooks.



**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.

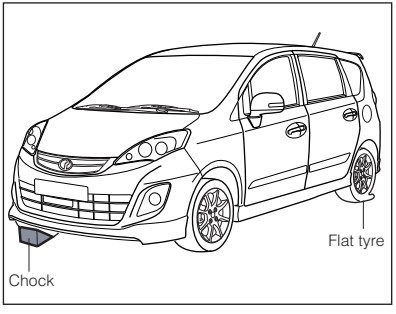
**Tool bag**




① Tool bag
② Hub nut wrench
③ Towing hook
④ Jack handle
⑤ Spanner (10 x 12)
⑥ Screw driver

**⚠ 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.**
- **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.**



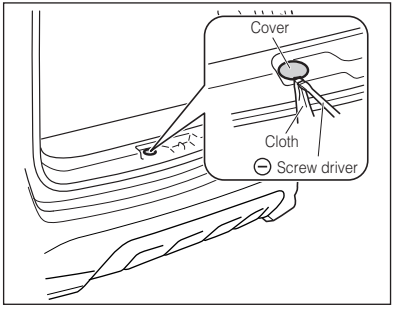

Chock the tyre, located diagonally opposite to the flat tyre, at the opposite end. This is the most effective location for a chock.

For improved safety, chock front and back of the tyre, if possible.

**CAUTION**

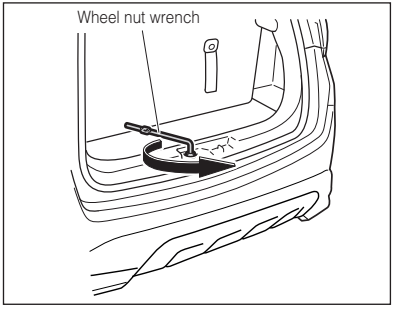
- **When your vehicle has a flat tyre on the front wheel, never use the emergency spare tyre on the front wheel.**
- **The chock is not equipped in the vehicle. Always prepare for the chock. You can use stones of sufficient size to chock the tyre.**
- **When your vehicle has a flat tyre on the front wheel, be sure to mount the emergency spare tyre on the rear wheel, and then, the removed rear tyre should be mounted to the front wheel.**

**Spare tyre**

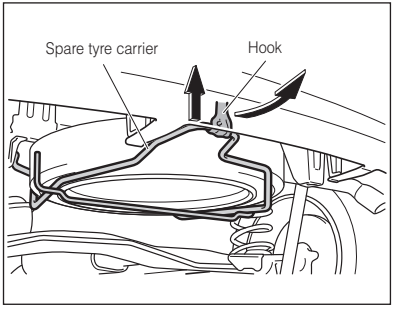



**Removal**

Open the back door and insert a flat ⊖ screw driver in the groove of the cover and remove the cover.




Loosen the fixed bolt with a wheel nut wrench until spare tyre carrier wobbles.




Lift up the spare tyre carrier a little bit and remove it off from the hook.

Slowly put the spare tyre carrier on the ground and take out the spare tyre.

Install the spare tyre carrier back to the hook and tighten the bolt.

Reverse the removal procedures to reinstall.

**NOTE**

**Ensure the wheel hub nut side of the spare tyre is on top when storing it on the spare tyre carrier.**

**CAUTION**

- **Improper installation condition may cause the spare tyre to fall during driving and may lead to accident.**
- **Get assistance from an authorized Perodua Service Centre if you have problem to remove or reinstall the spare tyre to the storage location.**

**Precautions for compact spare tyre**

- Drive slowly on rough, unpaved roads or over bumps to avoid severe shocks.

  As the compact spare tyre has high air pressure, it is prone to receive severe shocks, resulting in wheel disk damage.
- The compact spare tire is smaller than the standard tyre. Vehicle ground clearance is reduced with the compact spare tyre installed. Avoid driving over obstacles and do not wash your vehicle through an automatic car wash with a compact spare tyre installed.
- Have the emergency spare tyre checked at least once a month. Driving on an emergency tyre with insufficient pressure may result in an accident (the designated tyre pressure is indicated at the front door).

- Your compact spare tyre is specially designed for your Perodua. Do not install it to any other vehicle.

  Conversely, do not install compact spare tires from other vehicles to your Perodua.

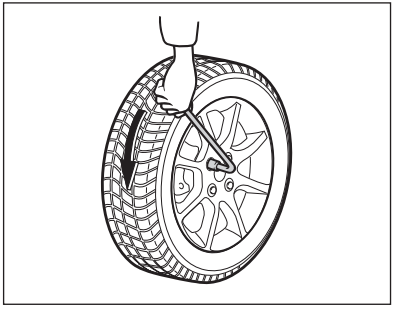
**NOTE**

**The compact spare tyre fitted to this vehicle must have a maximum load rating not less than 420 kg, or a load index of 87 and a speed category symbol not less than M (130 km/h).**

**⚠ WARNING**

- **Do not install a tire chain on a compact spare tyre. The chain will not fit properly and damage your vehicle. You could also lose control of your vehicle. When the front wheel gets a flat tyre, install the compact spare tyre on the rear wheel. Then, install the removed rear wheel on the front wheel. Fit the chain onto this front wheel. Check and adjust the tyre air pressure immediately.**
- **Do not drive in excess of 80 km/h (50 mph) with the compact spare tyre installed.**
- **Avoid rapid acceleration, hard braking and hard cornering.**
- **The compact spare tyre is for temporary use only. The standard spare tyre should be repaired and replaced as soon as possible.**
- **Do not install more than one compact spare tyre at the same time.**

**To remove / install the tyre**

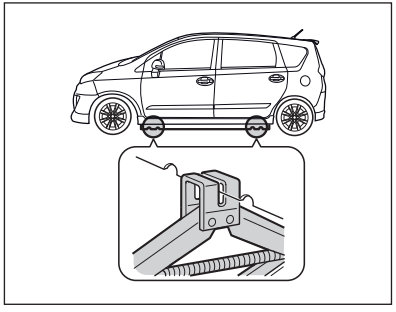


1. Slacken the wheel hub nuts with the wheel hub nut wrench.

   Do not remove the hub nuts.

**⚠ WARNING**

**Be careful not to get injured by slipping the hub nut wrench.**

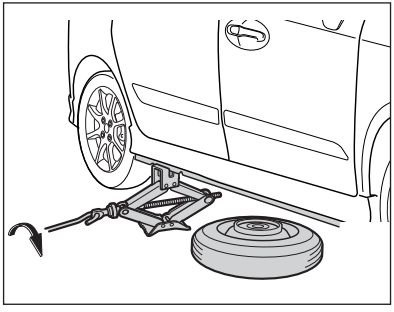


2. Four jack setting points are provided: two on each side as shown in the illustration. Set the jack at the jack setting point that is nearest to the flat tyre.

**⚠ 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 bodily 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.**



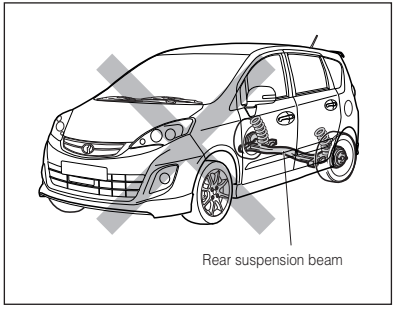
3. Insert the jack handle into the worm shaft of the jack and turn it clockwise to raise the vehicle.

   Jack up the vehicle gently until the tyre clears the ground surface only enough to remove and install the tyre.

**⚠ WARNING**

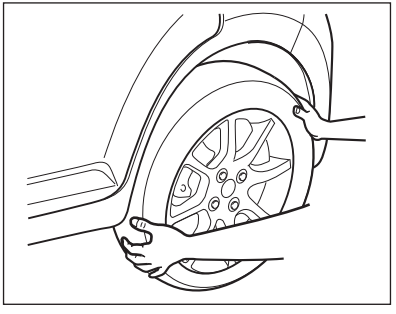
**Place the spare tyre under the vehicle body at a point near the tyre to be changed.**

**This is a precautionary measure that may be helpful to avoid danger in the event that the jack is detached.**




**CAUTION**

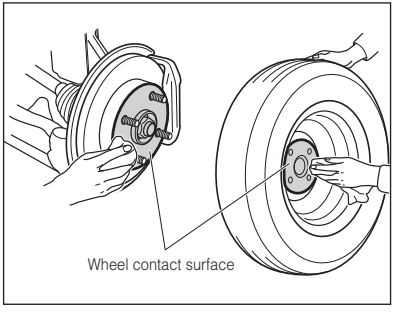
**Never apply a jack to the rear suspension beam.**



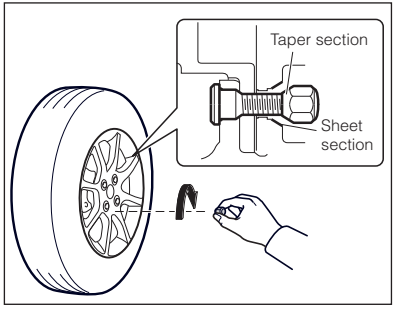
4. Remove the wheel hub nuts and replace the flat tyre with a spare tyre or new tyre.

**⚠ 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.**



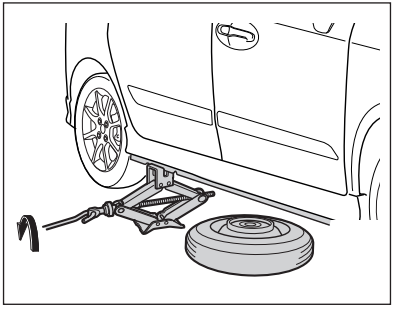

- **Remove any corrosion and objects on the brake drum and disk, and the wheel hub nut surface with a rag before putting on the spare tyre. Installation of wheels without secure metal-to-metal contact at the mounting surface may cause vehicle vibration and the wheel hub nuts to loosen while driving.**



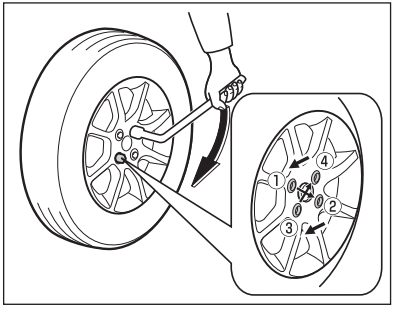

5. Reinstall all wheel hub nuts and tighten them until the wheel is no longer loose. Make sure the taper portion of the hub nuts are securely installed in the holes. Do not tighten them firmly yet.

**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, check to see 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.

**CAUTION**

**The tyre air pressure of the mounted spare tyre is kept higher than the installed one.**

**Make sure to adjust it after installation.**

**⚠ WARNING**

**If you notice any vibration or abnormal noise after changing a wheel, have them checked by an authorized Perodua Service Centre immediately.**

**NOTE**

**The flat standard tyre cannot be kept in the emergency spare tyre location.**

**Wrap it with protective sheet or cover and store it inside the vehicle.**

**Please refer to 'Tools' for the storage location of tyre protective sheet.**

**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.
- When using tyre chains, care should be exercised not to damage the aluminium wheels.
- 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 aluminum wheels for damage. If any damage is found, replace the damaged aluminium wheel immediately.

## Towing

We recommend that your vehicle be towed by an authorized Perodua tow truck service.

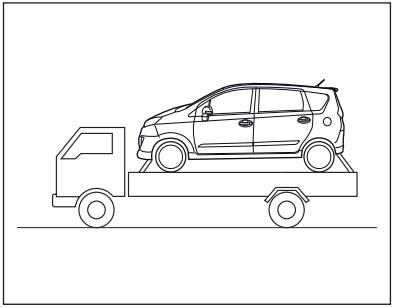
If the wheels or axles are damaged, use a towing dolly.

**CAUTION**

**Never perform towing, using sling type equipment.**

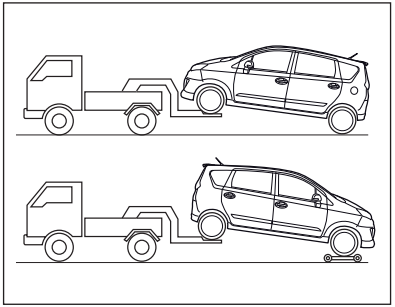
**This may severely damage the body.**

**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:**

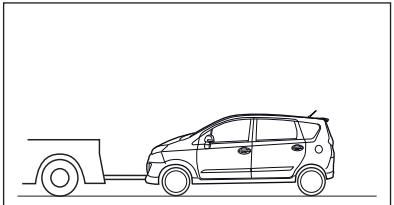
Use a towing dolly.

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**

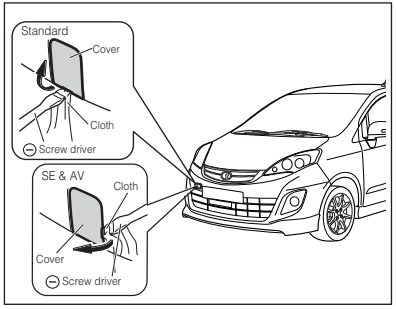
- **When the engine is not running, the brake booster does not operate. Therefore, braking will require more force than usual.**
- **For safety reasons, do not use a towing hook unless your vehicle is towed on hard-surfaced roads.**
- **The ignition of the vehicle being towed should not be pulled out or be set to “LOCK”.**

  **The towed vehicle could lose turning ability and cause an accident.**

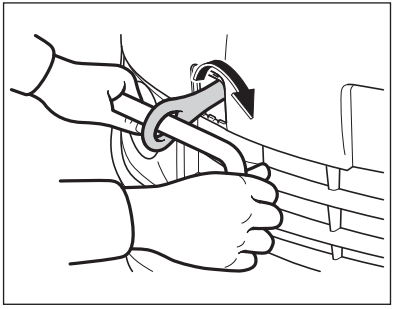
**CAUTION**

- **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 should attach a rope or a cable to the axle or any other place, it may damage these components.**
- **Check that the hook is installed securely.**

### Towing hook




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 clockwise as shown in the arrowheaded direction. Then, securely tight the towing hook.

### Instructions on towing

A driver must ride in the vehicle being towed and control it.

**⚠ WARNING**

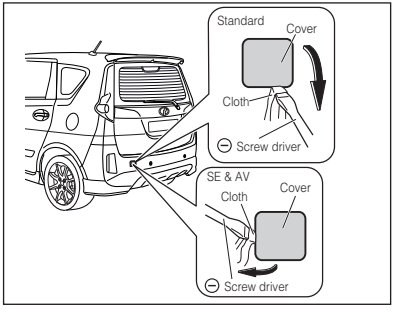
- **When the engine is not running, the brake booster does not operate. Therefore, braking will require more force than usual.**
- **For safety reasons, do not use a towing hook unless your vehicle is towed on hard-surfaced roads.**
- **The ignition key of the vehicle being towed should not be pulled out or be turned to "LOCK".**

  **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 key 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.**

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 light and buzzer).

(See Section 4, Light on warning buzzer).

(See Section 4, Key reminder 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** ..... **12–2**

## 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 and remove the roof antenna. Wash the vehicle from the front. Be sure to reattach the antenna before starting to drive.**
- **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.**

### 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.**

## Interior cleaning

Clean the interior with a vacuum cleaner.

**CAUTION**

**Gasoline or strong toxic solvents are not recommended.**
**It may damage the materials.**

**Air conditioning control panel, audio panel, instrument panel, console panel, and switches.**

**Use a soft damp cloth for cleaning.**

Soak a clean soft cloth in water or lukewarm water then lightly wipe off dirt.

**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 my contain the ingredients mentioned above. Immediately clean any spill using the method mentioned above.**

## Rust prevention

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 salt 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 $^{0}$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 authorized 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 should the life of the part expire, 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 parts recommended to be replace 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. Note that, however, the filters and the lubricants are at the owner's expense. Please feel free to bring your new vehicle to an authorized 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 gauge
- 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 watch your Perodua**

Watch 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 higher than normal

If you notice any of these conditions, have the vehicle checked by an authorized Perodua Service Centre.

**Maintenance records**

Keep a copy of the repair order 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 your authorized 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 your authorized 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 the vehicle has been driven whichever comes first, if without any notice.
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 | 5 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Month(s) | 1 | 3 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 |
| Engine | Air cleaner element | Cleaning<br>Check<br>• Damage<br>Change | | | ○ | ○ | ○ | ○ | ● | ○ | ○ | ○ | ● | ○ | ○ |
| | Engine oil | Change<br>(Use API: SJ or higher) | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| | Drain plug gasket | Change | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| | Engine oil filter | Change | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| | Cooling system (Fan motor) | Check<br>• Wear | | | | | | | ○ | | | | ○ | | |
| | Fuel line & connections (Including fuel hoses) | Check<br>• Crack<br>• Tightness<br>• Leakage<br>• Damage | | | | | | | ○ | | | | ○ | | |
| | Coolant (Long life coolant) | Check<br>• Leakage<br>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 | 5 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Month(s) | 1 | 3 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 |
| **Engine** | Drive belt (Alternator, water pump, air conditioner) | Check<br>• Tension<br>• Crack<br>• Damage | | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ |
| | Spark Plug | Clean & check<br>• Condition<br>• Gap<br>• Damage | | | | ○ | ● | ○ | ● | ○ | ● | ○ | ● | ○ | ● |
| | Battery | Check<br>• Crack<br>• Tightness<br>• Leakage (water level) | | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| **Fuel & Emission control** | Charcoal canister | Check<br>• Function<br>• Damage | | | | | | | ○ | | | | ○ | | |
| | Fuel tank cap & fuel line connection | Check<br>• Leakage | | | | | | | ○ | | | | ○ | | |
| | Fuel filter | Change | | Every 6 years | | | | | | | | | | | |
| | Evaporative emission hoses | Change | | Every 8 years | | | | | | | | | | | |
| | Exhaust pipe & muffler mounting | Check<br>• Tightness<br>• Damage | | | | | ○ | | ○ | | ○ | | ○ | | ○ |

● ....Replace ○ ....Inspect (repair/replace if needed)

| Section | Item | What to do / Inspection interval | x 1000 km | 1 | 5 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Month(s) | 1 | 3 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 |
| Power transmitting system | Clutch | Check<br>• Free travel<br>• Reserve travel<br>• Damage | | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| | Manual transmission API GL-3 or 4 | Check & Change<br>• Oil | | | | | | | ● | | | | ● | | |
| | Drain plug gasket (MT) | Change | | | | | | | ● | | | | ● | | |
| | Automatic transmission ATF D3-SP | Check & Change<br>• Fluid | | | | | | | ● | | | | ● | | |
| | Drain plug gasket (AT) | Change | | | | | | | ● | | | | ● | | |
| | Automatic transmission fluid warmer hose | Check<br>• Crack, scratch, cut, twist and swelling | | | | | ○ | | | | ○ | | | | ○ |
| | Drive shaft boots | Check<br>• Damage | | | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Suspension system | Suspension arm (Front)<br>Control arm (Rear)<br>Dust boots<br>Spring<br>Stabilizer | Check<br>• Tightness<br>• Rattle<br>• Damage | | | | | ○ | | ○ | | ○ | | ○ | | ○ |
| Steering system | Steering linkage<br>Gear box<br>Dust boots | Check<br>• Free play (steering wheel)<br>• Tightness<br>• Rattle<br>• Damage | | | | | ○ | | ○ | | ○ | | ○ | | ○ |
| | Wheel alignment | Check<br>• Toe-in | | | | | | | ○ | | | | ○ | | |

● ....Replace ○ ....Inspect (repair/replace if needed)

| Section | Item | What to do / Inspection interval | x 1000 km | 1 | 5 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Month(s) | 1 | 3 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 |
| **Steering system** | Fluid hose | Check<br>• Crack<br>• Scratch<br>• Cut<br>• Twist<br>• Swelling | | Every 4 years | | | | | | | | | | | |
| | Power steering fluid | Check<br>• Oil leakage<br>• Oil level | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| **Brake system** | Brake pedal & parking brake | Check<br>• Free play (brake pedal)<br>• Reserve travel (brake pedal)<br>• Working travel (parking brake)<br>• Tightness<br>• Rattle<br>• Damage | | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| | Disc & disc pad | Check<br>• Wear<br>• Damage | | | | | ○ | | ○ | | ○ | | ○ | | ○ |
| | Brake hose, tube and P & B valve | Check<br>• Leakage (fluid level, connection)<br>• Loose clamp<br>• Damage | | | | | ○ | | ○ | | ○ | | ○ | | ○ |
| | Brake fluid | Check<br>• Leakage<br>Change | | | ○ | ○ | ○ | ○ | ● | ○ | ○ | ○ | ● | ○ | ○ |
| | Brake drum & lining | Check<br>• Wear<br>• Damage | | | | | ○ | | ○ | | ○ | | ○ | | ○ |
| | Master & wheel cylinder | Check<br>• Leakage | | | | | | ○ | | | ○ | | | ○ | |

● ….Replace ○ ….Inspect (repair/replace if needed)

| Section | Item | What to do<br>Inspection interval | x 1000 km | 1 | 5 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Month(s) | 1 | 3 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 |
| **Chassis & body** | Wheel hub nut, other bolts & nuts | Check<br>• Tightness | | | | | | ○ | | | ○ | | | ○ | |
| | Tyres & inflation pressure | Check<br>• Pressure<br>• Wear | | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| | Lights, horns, wiper & washers | Check<br>• Condition (bulb, sound)<br>• Wear<br>• 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<br>Inspection interval | x 1000 km | 1 | 5 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Month(s) | 1 | 3 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 |
| **Engine** | Air cleaner element | Check & clean<br>• Damage<br>Change | | Check and clean : Every 5,000 km<br>Change : Every 20,000 km | | | | | | | | | | | |
| | Engine oil & oil filter | Change<br>(Use API: SJ or higher) | | ● | Every 5,000 km (every 3 months) | | | | | | | | | | |
| **Steering system** | Steering linkage<br>Gear box<br>Dust boots | Check<br>• Free play (Steering wheel)<br>• Tightness<br>• Rattle<br>• Damage | | | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| **Brake system** | Disc & disc pad | Check<br>• Wear<br>• Damage | | | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| | Brake drum & lining | Check<br>• Wear<br>• 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

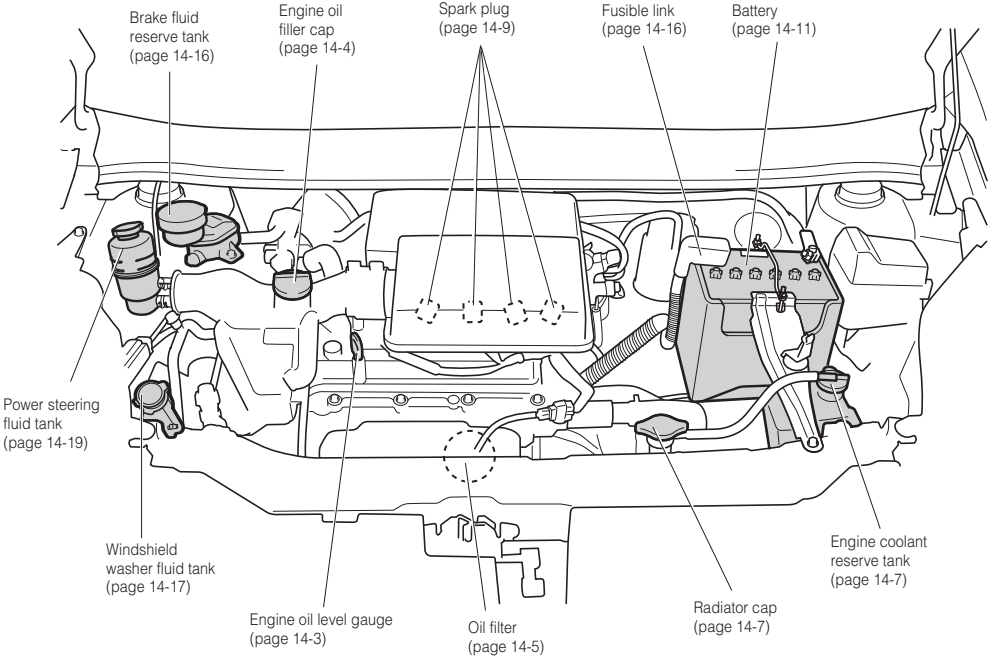


# Do-it-yourself maintenance service


Engine compartment ..... 14-1
Instruction on do-it-yourself maintenance service ..... 14-2
Engine oil ..... 14-3
Engine coolant ..... 14-6
Drive belt check ..... 14-8
Air filter cleaning and replacement ..... 14-8
Spark plug check and replacement ..... 14-9
Battery condition check and cleaning ..... 14-11
Fuse ..... 14-13
Fusible link check ..... 14-16
Brake fluid level check ..... 14-16
Windshield washer fluid level check ..... 14-17
Manual transmission oil level check ..... 14-17
Automatic transmission fluid level check ..... 14-18
Power steering fluid level check ..... 14-19
Steering wheel free play check ..... 14-20
Clutch pedal free play check ..... 14-20
Brake pedal ..... 14-20
Parking brake reserve travel check ..... 14-21
Brake booster operation check ..... 14-22
Wiper blade replacement ..... 14-23
Light bulb replacement ..... 14-25
Tyres ..... 14-33

## Engine compartment

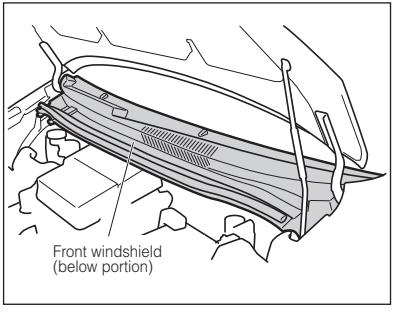
### Type 3SZ-VE engine



## Instructions on do-it yourself maintenance service

⚠ **WARNING**

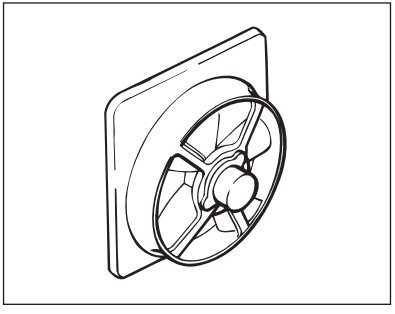
- **If you are not versed in servicing procedures given, do not attempt to check or adjust the components.**
- **Do not allow smoking, sparks or flames near flammable objects, such as fuel or battery, to prevent a fire.**
- **To help reduce the risk of serious bodily injury, remove any necklace, bracelet, 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 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.**

### Electric engine cooling fan



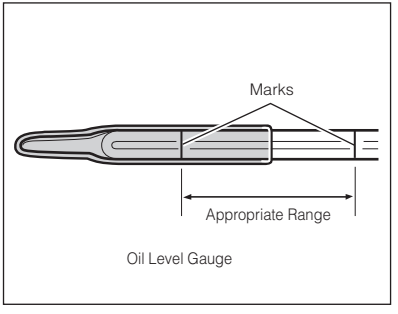
⚠ **WARNING**

- **Turn the ignition switch "LOCK" 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 condenser cooling fan will automatically start to rotate with the air conditioner on.**

## Engine oil

### Engine oil level check




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 "F" and "L" marks.
6. If the engine oil level is too low, add the engine oil. For recommended engine oil, see Section 17.

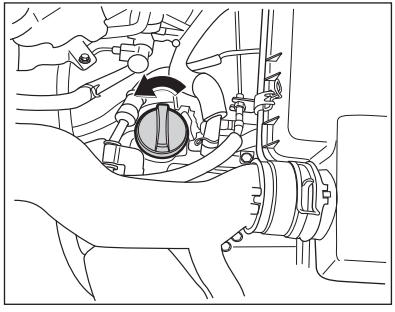
⚠ **WARNING**

**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.**

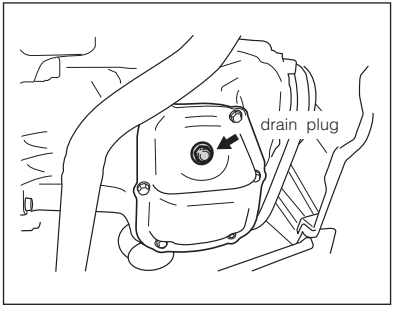
**Engine oil change**



1. Park the vehicle on a level surface.
2. Warm up the engine to operating temperature and stop it.
3. Remove the oil filler cap.

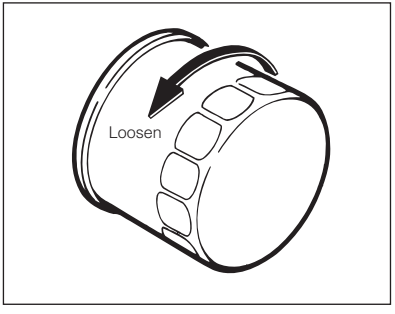
⚠ **WARNING**

**Be careful not to burn yourself with hot engine oil or hot engine components.**

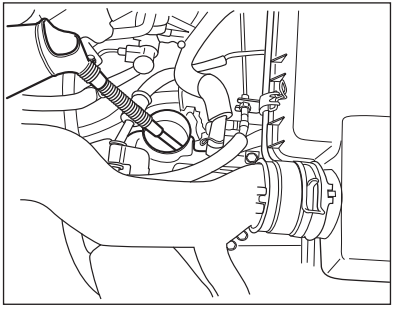



4. Place a container under the drain plug for draining engine oil.
5. Remove the drain plug and gasket with a wrench, and allow the oil to drain completely.

   Wear protective glasses, if necessary.




6. Loosen the oil filter with an oil filter wrench and remove it by hand.
7. Apply new engine oil on the rubber gasket of the new oil filter.
8. Tighten oil filter one turn after gasket contacts mounting base.
   Tightening torque:
   12 - 16 N.m
   (1.2 - 1.6 kgf-m)
9. Reinstall the drain plug and new gasket.
   Tighten the drain plug.
   Tightening torque:
   23.6 - 35.4 N.m
   (2.4 - 3.6 kgf-m)



**CAUTION**

**Do not overtighten the oil filter and drain plug. It could cause oil leakage.**

10. Slowly pour engine oil.
    For recommended engine oil and its capacity, see Section 17.
11. Install the oil filler cap by hand.
12. Wait a few minutes and check the engine oil level.
13. 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.
14. Turn the engine off and wait 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 authorized 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.**

- **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 Perodua or another oil filter of matching size and quality.**

**When it needs to be replaced, be sure to replace it at the authorized Perodua Service Centre.**

## Engine coolant

**⚠ WARNING**

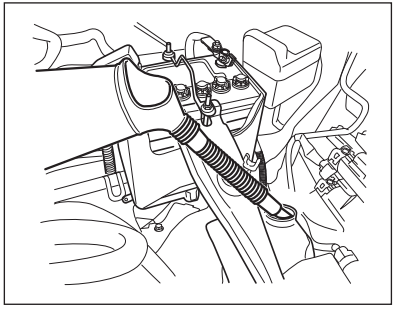
**Be careful not to burn yourself when removing the radiator cap or drain plug.**

**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 authorized 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 should 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.

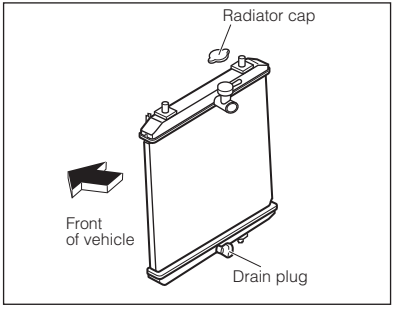
### Engine coolant change

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.**




**To change coolant**

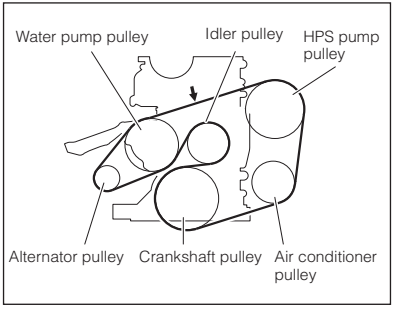
1. Remove the radiator cap.
2. Place a container under the drain plug for draining coolant.
3. Remove the radiator drain plug and gasket. Allow the coolant to drain completely.
4. Drain the coolant from the reserve tank.
5. Install the radiator drain plug and gasket.
6. Pour water into the radiator until 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 the 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.




**⚠ 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 authorized Perodua Service Centre.

Push the belt ➡ and measure the deflection.

You can clean the air filter with compressed air.

Apply compressed air only from the clean side of the air filter.

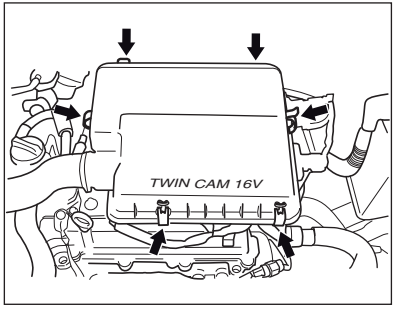
Replace the air filter, if necessary.

If the vehicle has been driven mainly in dusty areas, clean the air filter at intervals of 5,000 km.

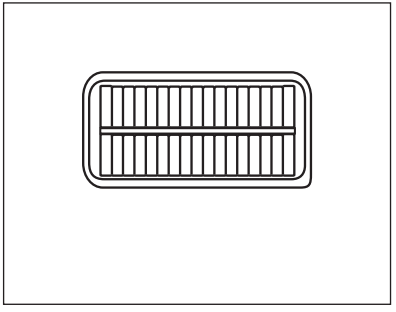
Wipe the air filter case and seat with a soft cloth to remove dirt or dust.

**CAUTION**

- **Do not drive with the air cleaner element removed. Failure to observe this will cause excessive engine wear.**
- **Do not oil the element. It may reduce the effectiveness of the element.**

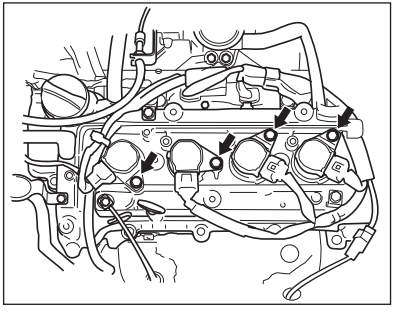



1. Unlock the 6 clips.
2. Lift the upper case.
3. Remove the air filter.



**To store**

1. Install the air filter.
2. Install the upper case.
3. Latch the clips.



1. Unlock the 6 clips.
2. Pull up air cleaner case with the hose and air filter.
3. Remove the lower air cleaner case by removing 3 bolts.
   See “Air filter cleaning and replacement”.
4. Remove the attaching bolt of the ignition coil.
   Pull out the ignition coil.

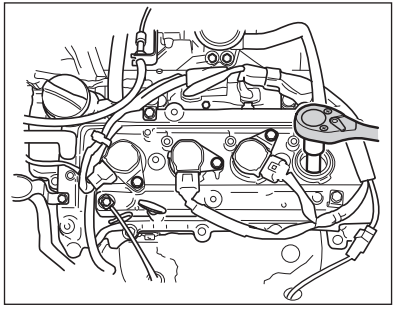
**NOTE**

**Be very careful not to pull out the wire during the removal.**

**If there is the possibility for pulling the wire, disconnect the connector of the ignition coil.**

⚠ **WARNING**

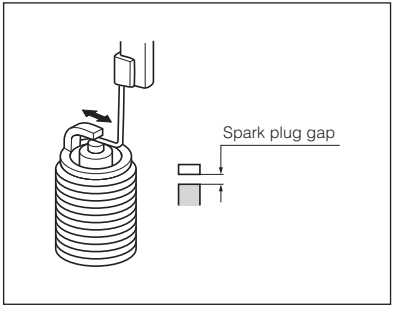
**Be careful not to burn yourself as the boot and spark plug may be hot.**



5. Unscrew and remove the spark plug with a spark plug wrench.
6. 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 authorized Perodua Service Centre.

**CAUTION**

**Do not allow dirt or anything to fall into the spark plug holes. It may cause engine damage.**




7. Check the gap of the new spark plugs with a spark plug gap gauge.
   Bend the ground electrode to adjust spark plug gap as specified, if necessary.
   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.**

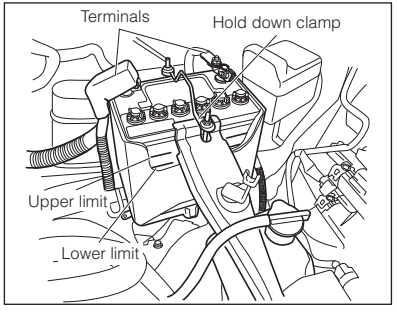
8. Install the spark plug securely.

**CAUTION**

**Do not overtighten the plug. Otherwise it may cause engine damage.**

9. Install the ignition coil.
10. Reconnect the ignition coil wire connector in correct order.

## Battery condition check and cleaning




Check for cracks, or 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**

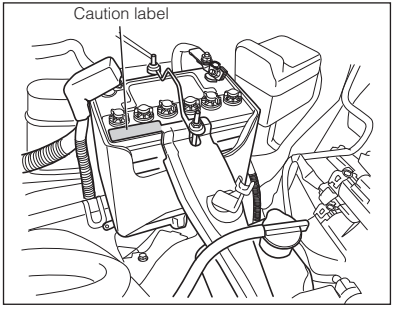
- **When you service the battery, be very careful not to short the terminals of the battery with tools or other metal objects. If the battery terminals are shorted, it will cause the battery to overheat, and can cause damage or explosion.**
- **Tighten the vent caps securely after adding distilled water. 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.**
- **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. It could cause battery explosion.**
- **Keep children away from the battery.**

**CAUTION**

**Wash splashed battery fluid away from paint finish immediately.**

**Precautions for battery**



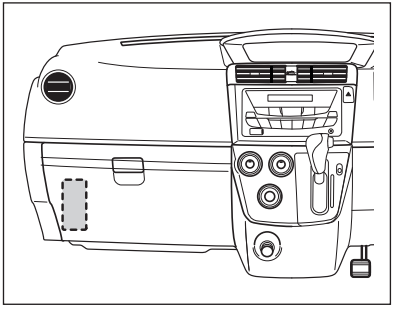

**DANGER EXPLOSIVE GASES**
- **Keep cigarettes, flames or sparks away from battery**
- **Always shield eyes and face from battery**
- **Do not charge or use battery booster cables or adjust post connection without proper instruction or training.**

**POISON CAUSES SEVERE BURNS**
- **Contains sulphuric acid-avoid contact with skin, eyes or clothing.**
- **In event of accident, flush with water and call physician immediately.**

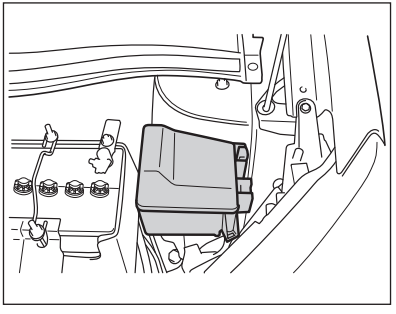
**KEEP OUT OF REACH OF CHILDREN**

## Fuse

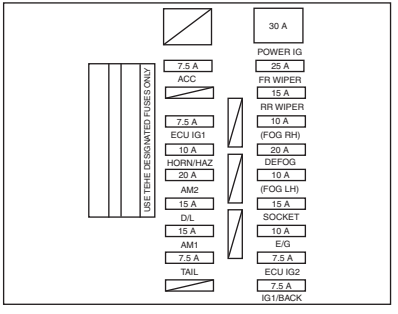
### Instrument panel fuse box



### Engine room fuse box

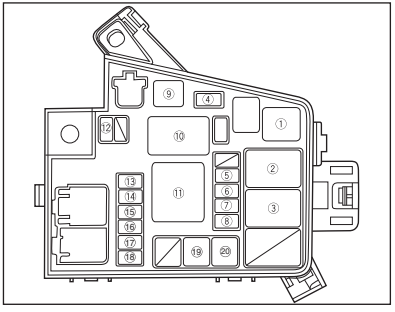


### Main fuse block



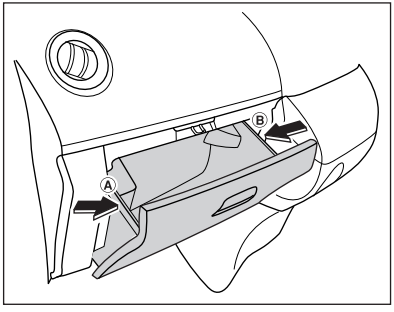

When replacing the fuse, use the specified fuse shown in the label attached on the cover of the fuse box.

**Relay & fuse box**



① ABS 1... 40A
② ST relay
③ R/FAN relay
④ ECU-B...10A
⑤ ABS 2...20A
⑥ BACK UP...10A
⑦ DOME...7.5A
⑧ MGC... 10A
⑨ AM 2...30A
⑩ MGC relay
⑪ HEAD relay
⑫ EFI...15A
⑬ STOP...7.5A
⑭ ST...7.5A
⑮ H-LP RH (HI)...10A
⑯ H-LP LH (HI)...10A
⑰ H-LP RH (LO)...10A
⑱ H-LP LH (LO)...10A
⑲ HEATER...40A
⑳ R/FAN...30A

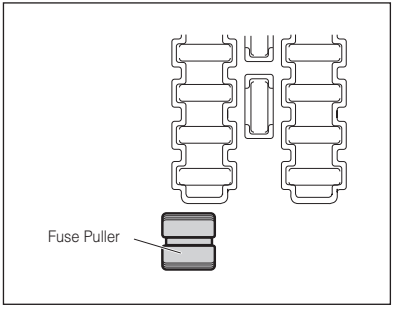
**Fuse check and replacement**



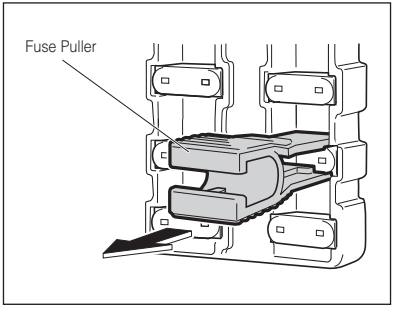

1. The fuse is located inside the glove box at the left side.
2. Push both side Ⓐ and Ⓑ inner glove box as shown in the illustration to remove.

**NOTE**

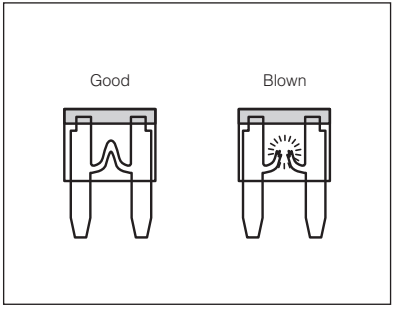
**Locate the cause and rectify the problem before installing a new fuse. If you cannot, have the system checked by an authorized Perodua Service Centre.**




3. Remove the fuse puller from the main fuse block.




4. With the fuse puller, pinch the fuse and remove it.




5. 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 car checked by an authorized Perodua Service Centre.

   Do not use fuse other than specified capacities. The wiring might overheat and damaged. This could couse afire and it is dangerous.

Should corrective repair be delayed, disconnect the cable from the negative terminal of the battery as a precautionary measure.

**NOTE**

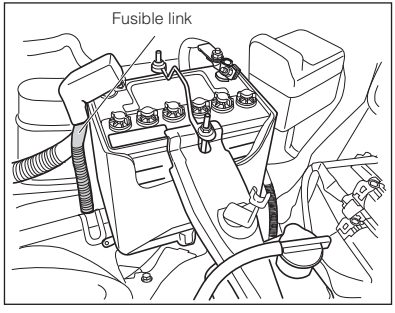
**If the cable is disconnected from the negative terminal, any data concerning EFI and electronically-controlled automatic transmission system that have been memorized through the diagnosis functions will be lost.**

**So will be the preset data of the clock and radio, 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 keep a set of spare fuses for emergency.

## Fusible link check

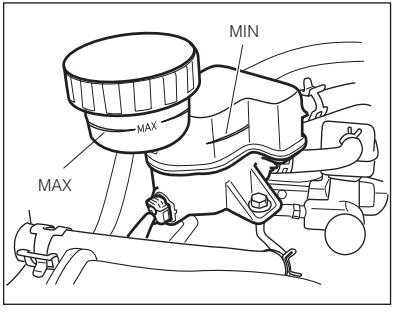



If excessive amount of current should run from the positive terminal of the battery to the headlight circuit or the ignition switch circuit, the fusible link will blow to prevent a fire.

Immediately call an authorized 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 manual transmission, this brake fluids tank is shared with clutch fluids.

For recommended brake fluid, see Section 17.

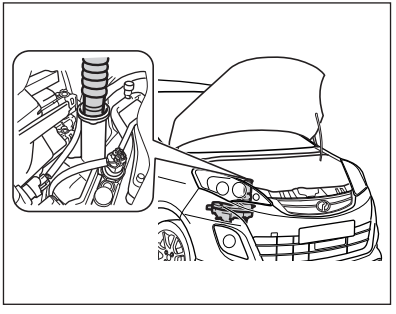
**CAUTION**

**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 authorized 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.**

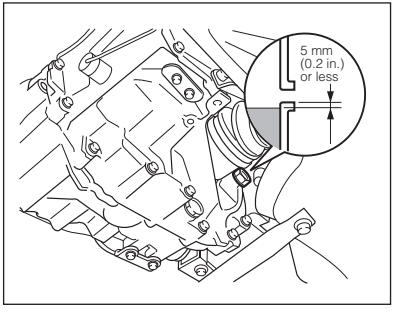
**CAUTION**

**Follow the manufacturer's instructions for proper mixing ratio of washer fluid.**

**NOTE**

**The window washer tank is shared with the front and rear window washers.**

## 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 "LOCK" and the engine has cooled sufficiently.**

Park the vehicle on a level surface and apply the parking brake. Turn the ignition switch "LOCK".

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.

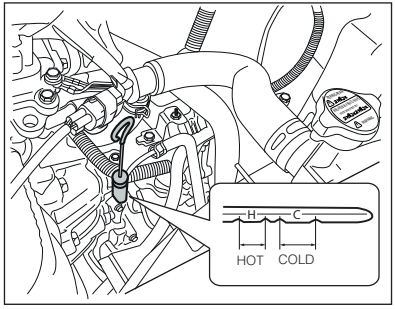
Tightening torque: 29.4 - 49.0 N.m
(21.6 - 36.1 ft-lb, 3.0 - 5.0 kgf-m)

When the oil level is low, add the specified oil until it starts to flow out the filler hole.

For recommanded manual transmission oil, see section 17. Reinstall the filler plug with new gasket interposed and tighten it securely.

Tightening torque: 29.4 - 49.0 N.m
(21.6 - 36.1 ft-lb, 3.0 - 5.0 kgf-m)

## Automatic transmission fluid level check




Check the fluid level when the transmission fluid temperature is 70 - 80°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 - 80°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 [P] to [2] smoothly and return to [P].
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 authorized Perodua Service Centre.**
- **If the fluid level is too low, or if fluid decreases noticeably, have the system checked by an authorized Perodua Service Centre.**

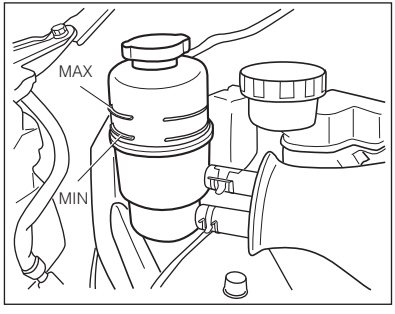
**⚠ WARNING**

- **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 - 80°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.**




Check the power steering fluid level as follows :

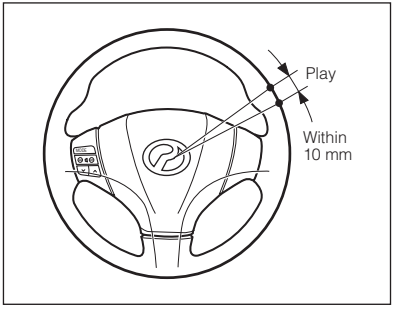
1. Park the vehicle on a level surface and apply the parking brake.
2. Keep the fluid temperature at about 20°C.
3. Ensure that the steering fluid level in the reserve tank is between the “MAX” and “MIN” marks.
4. Slowly add specified clean fluid if the level is too low. Do not overfill.

   For recommanded power steering fluid, see Section 17.

**CAUTION**

**If the fluid level is too low, or if fluid decreases noticeably, have the system checked by an authorized Perodua Service Centre.**

## Steering wheel free play check



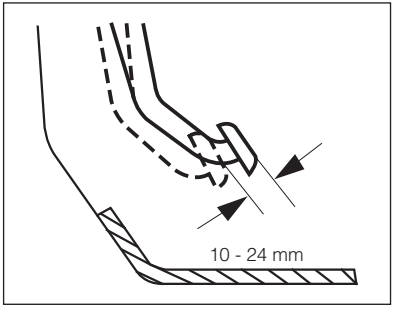

Move the steering wheel lightly from straight-ahead position to right and left until you feel resistance, and measure the free play.

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 authorized Perodua Service Centre.**

## Clutch pedal free play check




Depress the clutch pedal by hand lightly until you feel resistance, and measure the free play.

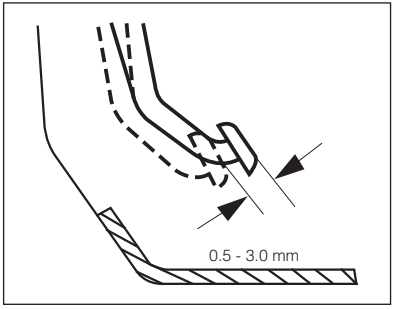
Check to see that the free play is within the specification.

**⚠ WARNING**

**If the free play is not within the specification, have the system checked immediately by an authorized 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.

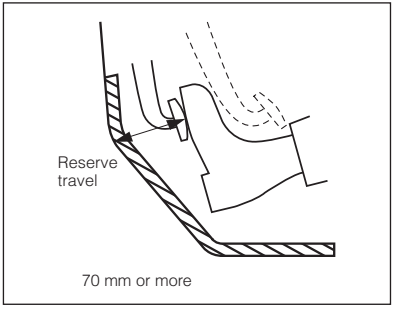
Measure the play of the pedal by pulling the brake pedal toward your side.

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 authorized Perodua Service Centre.**

### Brake pedal reserve travel check



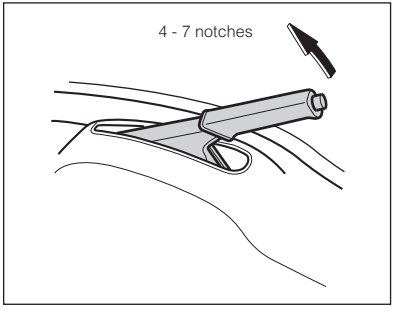

1. Park the vehicle on a level surface.
2. Shift the manual transmission lever in neutral, or the automatic transmission lever in [P].
3. Release the parking brake.
4. With the engine running, depress the brake pedal several times.
5. Depress the brake pedal with a force of 295 N (30 kgf), and measure 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.

**⚠ WARNING**

**If the reserve travel is not within the specification, have the system checked immediately by an authorized Perodua Service Centre.**

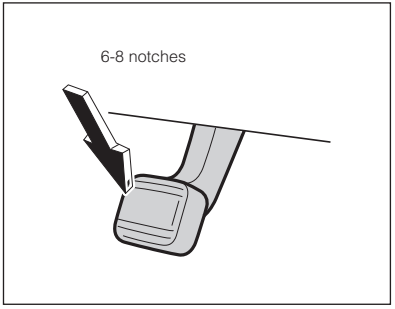
### Parking brake reserve travel check

**(Lever type)**




1. Park the vehicle on a level surface.
2. Shift the manual transmission lever in neutral.
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.

**(Foot type)**




1. Park the vehicle on a level surface.
2. Shift the automatic transmission lever in [P].
3. Firmly depress the brake pedal.
4. Fully release the parking brake.
5. Step on the parking brake pedal down slowly, and count the notches with a force of 245N (55 lb, 25 kgf).
6. Check that the number of notches is within the specification (6-8 notches).

**⚠ WARNING**

**If the number of notches is not within the specification, have the system checked immediately by an authorized 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 [P].
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 authorized Perodua Service Centre.**

## Wiper blade replacement

**⚠ WARNING**

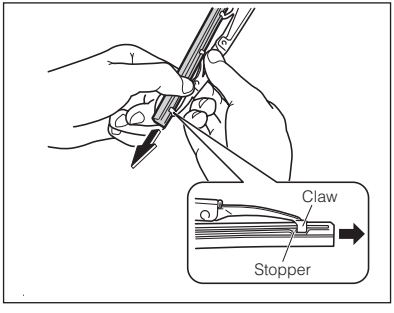
**Make sure the ignition switch is in "LOCK", before replacing the wiper blades.**

**CAUTION**

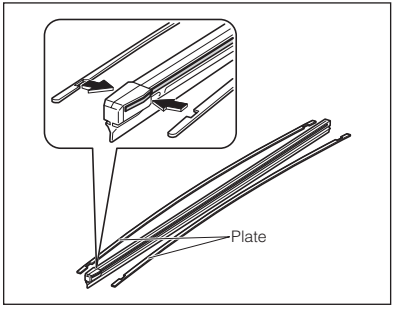
**Be careful not to scratch the glass with the wiper frame.**

**Fix the blade with suitable length.**

**Front**




1. Pull the rubber until the stopper of the rubber is disengaged from the claw of the blade.
2. Pull the rubber from the blade.

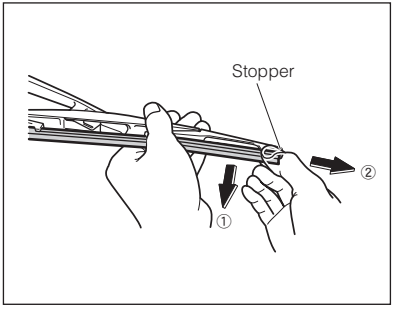



3. Insert the plate to the rubber, paying attention to the warp shape of the plate.
4. Insert the rubber into the blade from the side having no stopper.
5. When installing the blade to the wiper arm, install in such a way that the side having the stopper comes on the driver's seat side.

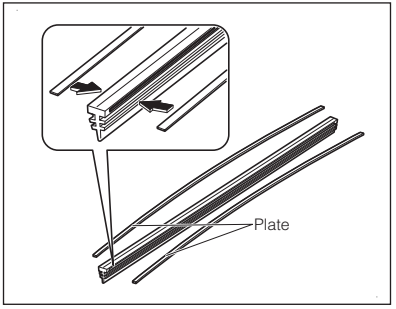
**CAUTION**

**Insert the blade claw into the rubber stopper firmly. Otherwise the windshield may get scratched.**

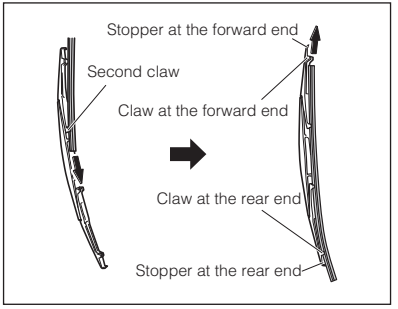
**Rear**




1. Pull the rubber toward you and remove it from the stopper at the forward end of the blade.
2. Pull the rubber from the blade.




3. Insert the plate to the rubber, paying attention to the warp shape of the plate.




4. Insert the new rubber through the second claw at the forward end of the blade and let the rubber pass through the stopper at the rear end of the blade.
5. Insert the rubber into the claw at the forward end of the blade.
6. Ensure that the rubber has been inserted securely in each claw.

**CAUTION**

**Insert the blade claw into the rubber firmly. Otherwise the windshield may get scratched.**

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.**

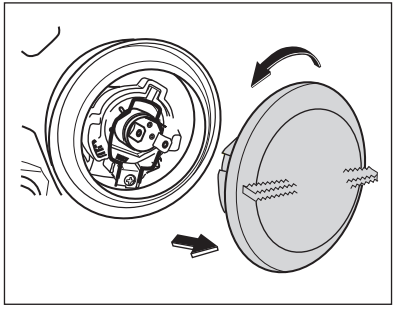
**CAUTION**
**Do not drop a bulb or scratch the surface.**

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 authorized Perodua Service Centre.

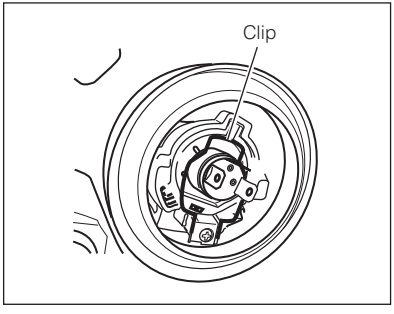
We recommend keeping a set of spare bulbs. Bulbs are available at an authorized Perodua Service Centre.

**Headlights**

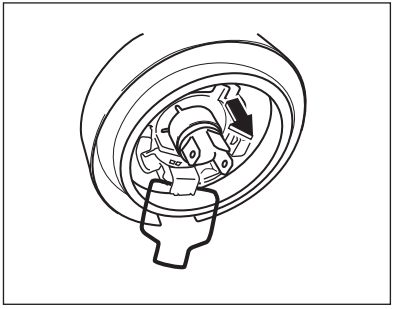


**To remove bulb**

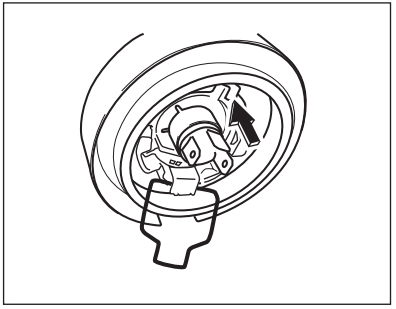
1. Open the back cover by pulling it counterclockwise.




2. Push both sides clip (if any) and pull it to release.



3. Pull out the bulb straight to remove.



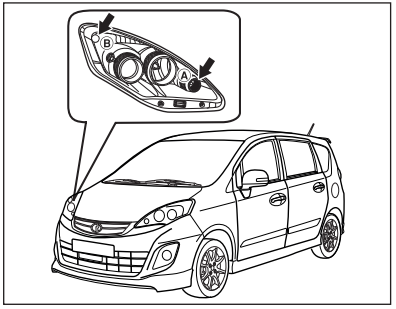
**To install bulb**

1. Install the bulb and lock the clip (if any).
2. Install the rubber cover.
3. Connect the wire connection.

**CAUTION**

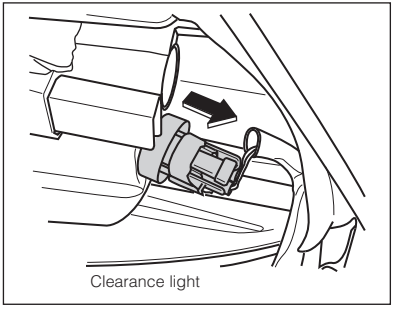
**Never touch the glass portion of the bulb. Oil of your finger will damage it.**

**Clearance lights / front turn signal lights**

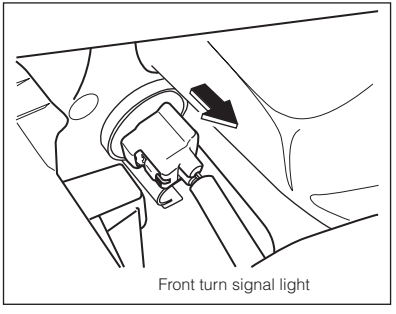



**NOTE**

**The clearance lights Ⓐ and right turn signal light Ⓑ can be removed from the engine compartment side.**



Clearance light

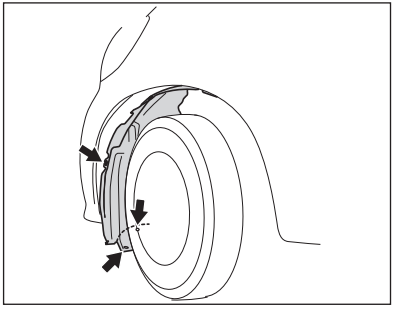


Front turn signal light

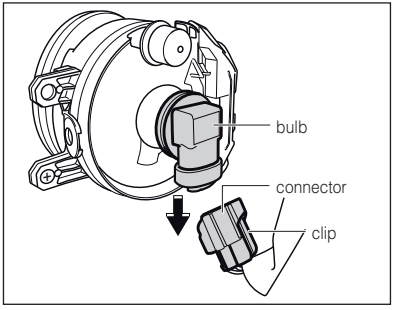
To remove the bulb:

1. Disconnect the wire connector by pulling it.
2. Remove the bulb socket by turning it counterclockwise about 45 degrees.
3. Remove the bulb from the socket by pulling it.

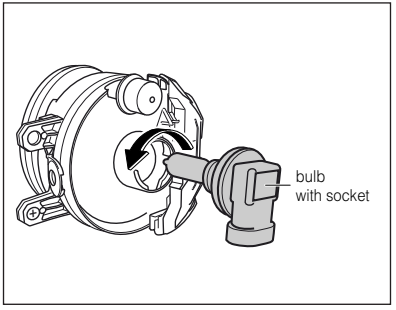
**Front fog lights**



1. Operate the steering wheel inward (rightward when replacing at the left side; leftward when replacing at the right side).
2. Detach the 3 clips installing front fender liner.




3. Push the clip to release the connector and disconnect the wire connector by pulling it.

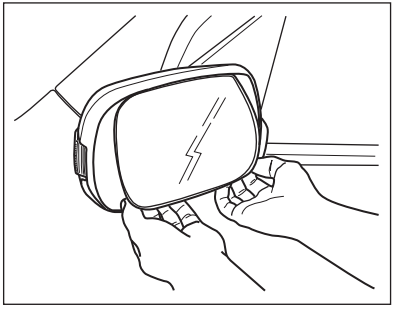



4. Remove the bulb with socket by turning it counterclockwise about 45 degrees. Change the bulb with socket.
5. Reverse the removal procedure to reinstall.

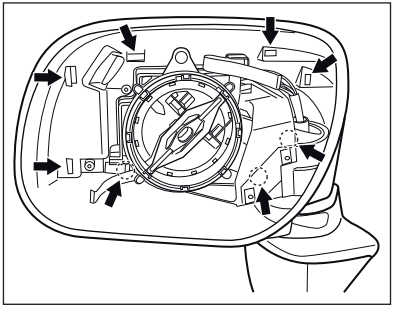
**CAUTION**

**Never touch the glass portion of the bulb. Oil on your finger will damage it. Be careful not to pinch the wire connector when you reinstall.**

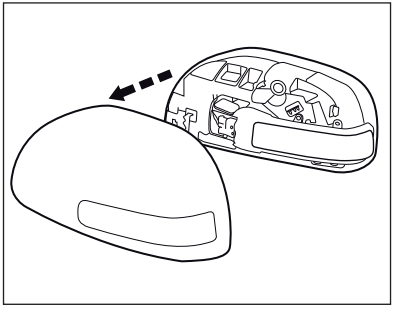
**Side turn signal lights (mirror)**



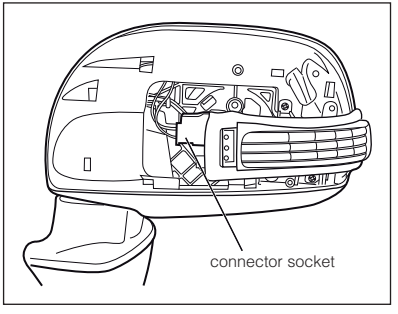
1. Apply hot air to pre-heat the mirror surface.
2. Remove the mirror by pulling it.



2. Push the 8 clips from inside to remove the housing.

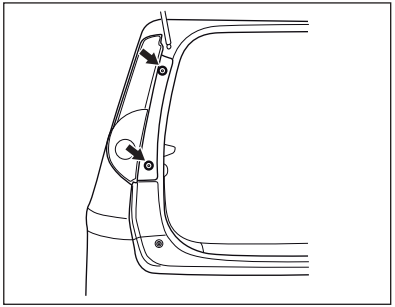


3. Remove the housing as shown in the illustration.



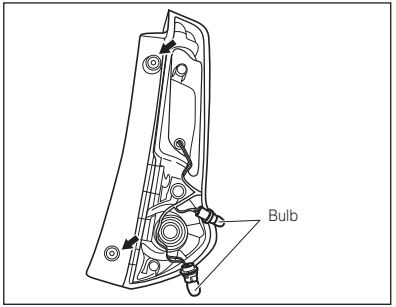

4. Press the connector socket to remove it.
5. Remove the 2 screws to detach the signal light assembly.

**Rear combination lights**



**(Rear turn signal lights / stop & tail lights / backup lights)**

1. Open the back door
2. Remove the 2 bolts to detach the light assembly.

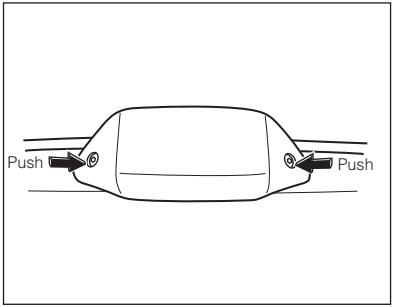



3. Remove the bulb socket by turning it counterclockwise about 45 degrees.
4. Change the bulb and reverse the removal procedure to re-install.
5. If the tail light and stop lamp (LED) malfunction, replace the whole combination lamp assembly.

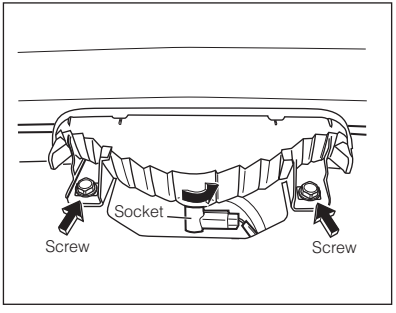
**NOTE**

**When installing the light assembly, be sure to align the projection of the light assembly with the body hole.**

**High-mounted stop light**

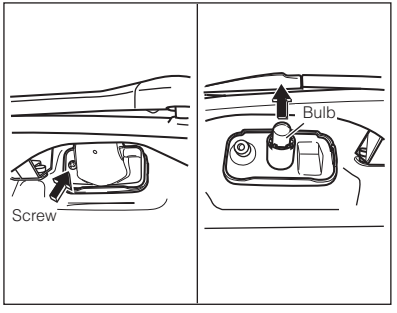



1. Push at the centre of the 2 clips and lightly pry out to detach the cover.



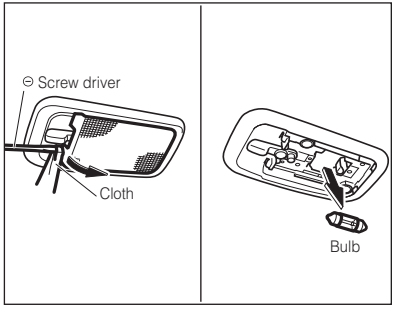

2. Remove the two screws by turning it counterclockwise.
3. Remove the bulb socket by pulling it counterclockwise about 45 degree.
4. Remove the bulb from the socket by pulling it.

**License plate lights**



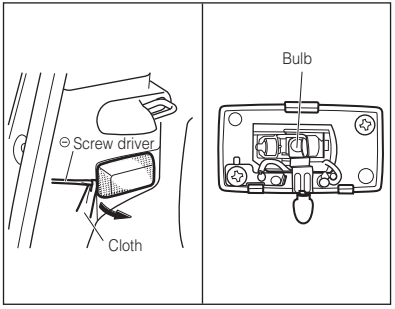

1. Remove the screw.
2. Remove the license plate lens.
3. Remove the bulb from the socket by pulling it.

**Room light**



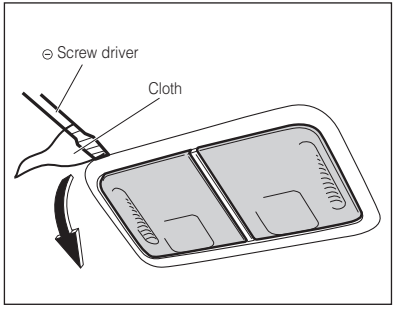

1. Lightly pry the lens to detach it.
2. Pull out the bulb straight.
3. Change the bulb.

**Luggage room light**

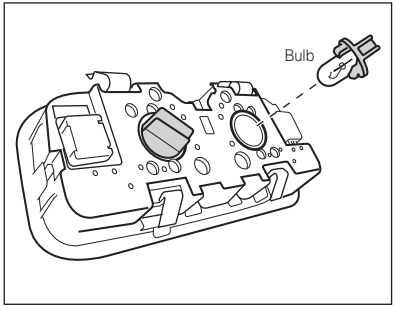



1. Lightly pry the lens to detach it.
2. Pull out the bulb straight.
3. Change the bulb

**Front personal light**



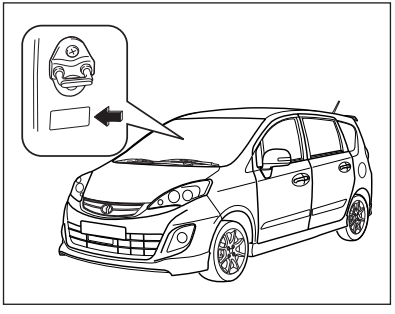

1. Remove the front personal light assembly by pushing it in the arrow headed direction.




2. Remove the bulb socket by turning it counterclockwise about 45 degrees.
3. Remove the bulb from the socket by pulling it.

## Tyres

### Tyre air pressure

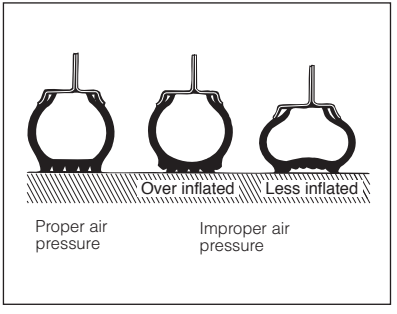


Check the cold tyre air pressure with a pressure gauge. For tyre air pressure, see Section 17 or the tyre label attached on the place shown in the illustration.

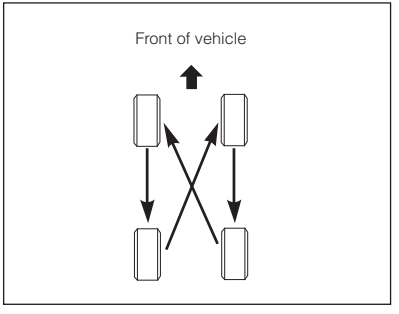
**⚠ WARNING**

**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 adjustment, have the wheel system checked by an authorized Perodua Service Centre.




### Tyre rotation

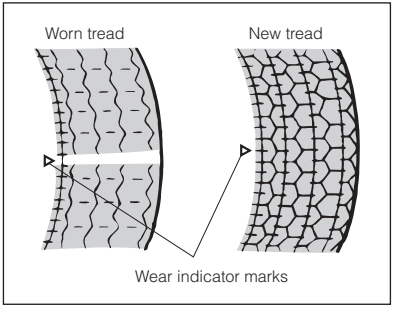



Tyres wear out in different ways if they are used in the same position for a long period. To prevent this problem, rotate the tyres in the order shown above. Adjust the tyre air pressure after rotation.
Tyre rotation interval: every 10,000 km

**CAUTION**

**Do not use the emergency spare tyre as one of the tyres to be rotated.**

**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.
- Have uneven wear or damage on a tyre checked by an authorized 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 by oiling etc.**

Section 15



# Alarm/central locking


**Introduction** ..... **15–1**
**Car alarm/central lock** ..... **15–1**
**Panic button** ..... **15–3**
**Car finder** ..... **15–3**
**Important** ..... **15–4**
**Replacement of battery in the transmitter** ..... **15–5**

## Introduction

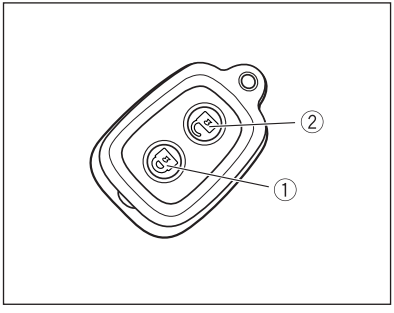
Perodua alarm system is controlled by a highly portable and durable 2-button transmitter.

The transmitter will transmit a security coded radio signal to activate the car alarm, central lock system and panic alarm. This system helps to detect the car door(s) at "lock" or "unlock" position within a distance around 10 metres (provided no obstruction, interference and battery in transmitter 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 unauthorized changes or modifications are made, proper operation of the system cannot be guaranteed.**

**2-Button Transmitter**



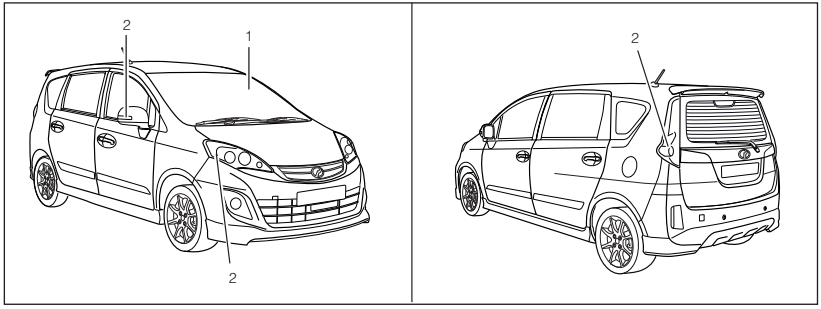

1. **Button** ①
- Lock
- Panic buttton
- Car finder

2. **Button** ②
- Unlock

## Car alarm/central lock

1. To activate the alarm system, all doors, back door and hood must be closed.
2. To disarm the alarm, make sure the door is locked and unlocked by the transmitter or ignition switch is turned from "OFF" to "ON" position.
3. When you lock or unlock the driver side door, the other door(s) will also automatically be locked or unlocked.

**Operation procedures**




**1. Room light**
**2. Hazard light**

Steps:

1. To activate the system, press the button ① of the transmitter once. The alarm system is "ON" and all doors are "LOCK". The hazard lights will flash once and the buzzer will sound once.
2. Should any of the doors, back door or hood be opened by an ignition key or other methods, the hazard lights will flash and room light lights immediately and the horn will sound.
3. To de-activate the system;

- Press the button ② once (1st press), the alarm system is OFF and driver door is unlocked or,
- Press the button ② twice (2nd press), the alarm system is OFF and all doors are unlocked.

  The hazard light flashes twice, the buzzer sounds twice and the room light goes for 15 seconds.

**To disable or enable transmitter answerback (hazard light and buzzer) during door lock and unlock**

1. Enter setting mode by inserting and removing the ignition key 2 times from the ignition switch within 5 seconds. Do not turn the key during this step.
2. Follow one of the following steps by pressing the “Lock” or “Unlock” button of the transmitter.
   i. To disable buzzer only :
      Lock→Unlock→(Hazard light flashes once)→Lock→Unlock. (Hazard light flashes once)
   ii. To enable hazard light and buzzer :
      Lock→Unlock→(Hazard light flashes once) → Lock → Lock → Unlock. (Hazard light flashes twice)
   ii. To disable hazard light and buzzer :
      Lock→Unlock→(Hazard light flashes once) → Lock → Lock → Lock → Unlock. (Hazard light flashes 3 times)

   You can confirm the setting has been made by observing the hazard light.
3. Insert the ignition key and turn to “ON” position to exit the setting mode.

## 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 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 ① of the transmitter for 3 seconds.
2. Horn will activate immediately and hazard lights flash.
3. Alarm system is still "ON" and all doors are "LOCKED".
4. To de-activate, press button ① again (once).
5. If the panic button is not de-activated as in step 4, the horn will continue to sound and hazard lights will continue flash 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 ① of the transmitter for 3 seconds.
2. Horn will activate, hazard lights will flash and all doors will be locked.
3. Press the button ① 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. Transmitter battery**

If the battery of the transmitter is weak, it will affect the system as follows:

a) The control distance of the transmitter becomes nearer or the transmitter 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**

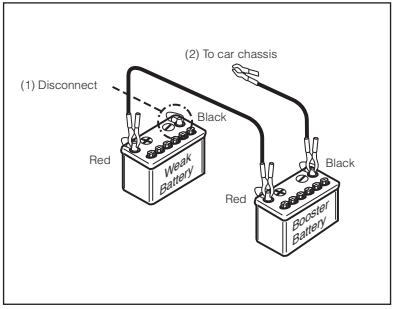
Even if the battery of the transmitter is in good working condition, the control distance may becomes nearer due to the excessive RF interference/harmonic interference (e.g. mobile telephone is in use beside the vehicle; installation of audio devices like car speaker is too close to system control unit)

**3. Avoid dropping or exposing the transmitter to water**

a) In the event where the transmitter is dropped, you may not be able to activate/de-activate the system. If this happens, open the transmitter casing and check the contact points of the battery holder.

b) In the event the transmitter is exposed to water, dry it before using.

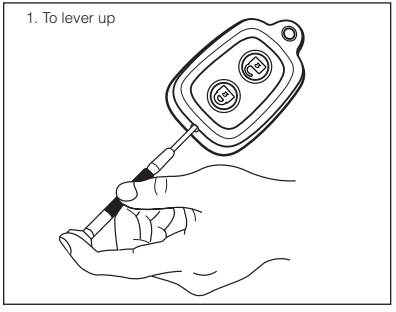
c) If the above cannot be rectified, consult our authorized Perodua Service Centre.



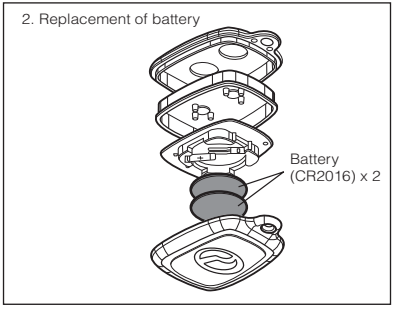

**4. Car battery weak-jump start**

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 transmitter




1. To change the battery, open the transmitter using the suitable flat screw driver or 10 sen coin size.




2. Replace the battery in its correct polarity.
3. The battery can be purchased from the electronic outlets.

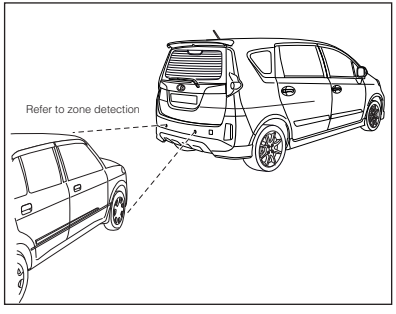
Section 16



# 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.

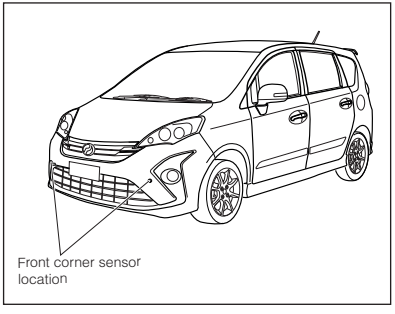
b) 1.0 meter to 0.5 meter → buzzer sounds : OFF 70 ms ON 70 ms.

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:

**Zone detection**

a) 0.6 meter to 0.3 meter → buzzer sounds : OFF 250 ms ON 125 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.**



**WARNING**

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


Vehicle specifications ..... 17–1
Engine specifications ..... 17–1
Fuel ..... 17–1
Coolant ..... 17–1
Battery ..... 17–1
Engine tune-up ..... 17–2
Lubricant recommendation ..... 17–3
Engine oil viscosity chart ..... 17–3
Brake fluid ..... 17–4
Tyre specifications ..... 17–4
Power steering fluid ..... 17–4
Bulb specifications ..... 17–4
Weights ..... 17–4

## Vehicle specifications

| | | | Standard | SE & AV |
|---|---|---|---|---|
| Overall length mm | | | 4,270 | 4,220 |
| Overall width mm | | | 1,695 | |
| Overall height mm | | | 1,620 | |
| Wheel base mm | | | 2,750 | |
| Track mm | Front | 15" tyre | 1,475 | |
| | Rear | 15" tyre | 1,465 | |

## Engine specifications

| | | |
|---|---|---|
| Engine ID | | 3SZ-VE |
| Engine type | | Gasoline, 4-cycle DOHC |
| Number of cylinders & arrangement | | 4-cylinder in line |
| Bore x stroke | mm | 72 x 91.8 |
| Displacement | cc | 1,495 |
| Max. output | kw/rpm | 76 / 6,000 |
| Max. torque | Nm/rpm | 136 / 4,400 |

## Fuel

| Fuel to be used | Fuel tank capacity ℓ |
|---|---|
| Unleaded gasoline having RON 90 or higher | 42.0 |

## Coolant

Type: Ethylene glycol based anti-freeze solution

Capacity:

| | | |
|---|---|---|
| Reserve tank LOW / FULL | 0.15 / 0.6 ℓ | |
| Total capacity | 3SZ-VE | 5.7 ℓ |

For coolant level check and change, see Section 14.

## Battery

| | |
|---|---|
| Types of battery | 34B19L |

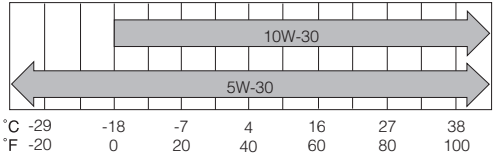
| Item \ Engine type | | 3SZ-VE | |
|---|---|---|---|
| Firing order | | 1–3–4–2 | |
| Ignition timing °BTDC/rpm | | 6 ± 2 /idling*1 | |
| Engine idling speed (in neutral) rpm | | AT/MT 750 | |
| Valve clearance mm | Intake [Cold] | 0.18 $^{+0.055}_{-0.035}$ | |
| | Exhaust [Cold] | 0.31 $^{+0.055}_{-0.035}$ | |
| Spark plug | Manufacturer | NGK | DENSO |
| | Type | DCPR7EA-9 | XU22PR9 |
| | Gap mm | 0.9 $^{+0}_{-0.1}$ | |
| Drive belt tension and deflection | Belt Condition | Tension [N(kgf)] | Deflection with a force of 10N (10.2 kgf) mm |
| | New belt | 883 ± 49 ( 90 ± 5 ) | 9 -11*2 |
| | At inspection | 441 ± 98 ( 45 ± 10 ) | 13 -15*2 |

*1 With check connector short-circuited
*2 Refer to “Drive belt check” at Section 14

## Lubricant recommendation

| | Engine | Grade | Viscosity | Capacity ℓ |
|---|---|---|---|---|
| Engine oil | 3SZ-VE | API SJ or higher | See next chart | With oil filter: 3.1<br>Without oil filter: 2.8 |
| Manual transmission oil | | API GL-4 | SAE 75W-80, 75W-85 or 75W-90 | Up to filler plug: 2.25<br>5mm below filler plug: 2.1 |
| Automatic transmission fluid | | ATF D3-SP | — | Total amount: 5.55<br>Replaceable amount: up to 2.83 ± 0.065 |

## Engine oil viscosity chart




Temperature range anticipated before next oil change

SOIL03

## Brake fluid

| |
|---|
| FMVSS116 DOT 3 or DOT 4 |

## Tyre specifications

### Standard tyre

kPa (kgf/cm$^2$, psi)

| Tyre size | Air pressure | | Rim size |
|---|---|---|---|
| | Front | Rear | |
| 185/55R15 | 230 (2.3, 33) | | 15 X 6J AL |

### Compact spare tyre (temporary use spare tyre)

kPa (kgf/cm$^2$, psi)

| Size | Air pressure | Rim size |
|---|---|---|
| T105/70D16 | 420 (4.2, 60) | 16 x 4T ST |

## Power steering fluid

| |
|---|
| PSF-I |

## Bulb specifications

| Light | Wattage |
|---|---|
| Head lights | 55/55 |
| Clearance lights | 5 |
| Front turn signal lights | 21 |
| Side turn signal lights | 0.86 (LED x 3) |
| Rear turn signal lights | 21 |
| Stop / Tail lights | 3/0.4 (LED x 18) |
| Back-up lights | 16 |
| Front fog lights | 55 |
| License plate lights | 5 |
| Room light | 8 |
| Front personal light | 8 |
| Luggage room light | 5 |
| High-mounted stop light (Bulb type) | 16 |

## Weights

| | Standard | SE & AV |
|---|---|---|
| Gross vehicle weight kg | M/T 1650<br>A/T 1670 | 1685 |



# Index

**[A]**

Antenna ..... 1-5
Air conditioner ..... 6-1
- Outlet ports ..... 6-1
- Extension IP ..... 6-2
- Air outlet control dial ..... 6-3
- Temperature control dial ..... 6-4
- Air intake control dial ..... 6-4
- Blower fan switch ..... 6-5
- Air conditioner switch ..... 6-5
- Operation tips ..... 6-6
- Cooling ..... 6-6
- Demisting ..... 6-6
- Ventilation ..... 6-6

Assist grip ..... 9-3
Armrest compartment ..... 9-5
Automatic transmission shifting instructions ..... 10-4
- Moving off ..... 10-6
- Driving ..... 10-6
- Maximum allowable speeds ..... 10-7
- Brief stopping ..... 10-7
- Parking or stopping ..... 10-8
- Reverse ..... 10-8

Air filter cleaning and replacement ..... 14-8
Automatic transmission fluid level check ..... 14-18

**[B]**

Bring your children and key with you whenever you leave the car ..... 1-4
Break-in period ..... 1-5
Back door ..... 2-10
Bluetooth operation ..... 7-11
Bottle holder ..... 9-6
- Front ..... 9-6
- Rear ..... 9-7
- Deck side trim ..... 9-7

Before starting engine ..... 10-1
- Floor mat ..... 10-1

Brake system ..... 10-9
- Tandem master cylinder brake system ..... 10-9
- Brake booster ..... 10-9
- General precautions for braking ..... 10-10
- A.B.S. (Anti-lock Braking System) ..... 10-10

Brake pad wear limit indicator ..... 10-11
Battery condition check and cleaning ..... 14-11
- Precautions for battery ..... 14-12

Brake fluid level check ..... 14-16
Brake pedal ..... 14-20
- Brake pedal free play check ..... 14-20
- Brake pedal reserve travel check ..... 14-21

Brake booster operation check ..... 14-22
Battery ..... 17-1
Brake fluid ..... 17-4
Bulb specifications ..... 17-4

**[C]**

Catalytic converter ..... 1-2
Child safety knobs ..... 2-6
Child restraint system ..... 3-16
- Child restraint system (CRS) ..... 3-16
- Types of child restraint system ..... 3-17
- Types of child restraint seat ..... 3-18
- Child restraint system (CRS) suitability for various sitting position ..... 3-19
- Installation with seat belt ..... 3-20
- Using a top strap ..... 3-26
- ISO* FIX Child restraint system ..... 3-27

Combination meter panel overview ..... 5-1
Coin holder ..... 9-6
Clutch pedal free play check ..... 14-20
Car alarm / central lock ..... 15-1
- Operation procedures ..... 15-2

Car finder ..... 15-3
Coolant ..... 17-1

**[D]**

Door locks ..... 2-3
- Keyless entry / transmitter ..... 2-4

Driver upper box ..... 9-5
Drive belt check ..... 14-8

**[E]**

Engine identification ..... iii
Exterior view ..... v
Engine exhaust gas ..... 1-1
Engine immobilizer system ..... 2-1
Extended luggage area ..... 3-8
Economical driving tips ..... 10-9
Engine overheating ..... 11-4
Exterior cleaning ..... 12-1
- Washing ..... 12-1
- Waxing ..... 12-2

Engine compartment ..... 14-1
Engine oil ..... 14-3
- Engine oil level check ..... 14-3
- Engine oil change ..... 14-4
- Oil filter change ..... 14-6

Engine coolant ..... 14-6
- Engine coolant level check ..... 14-7
- Engine coolant change ..... 14-7

Engine specifications ..... 17-1
Engine tune-up ..... 17-2
Engine oil viscosity chart ..... 17-3

**[F]**

For your safety ..... 1-3
Fuel recommendation ..... 1-4
Fuel filler ..... 2-11
  Remote fuel lid release ..... 2-11
  Fuel tank cap ..... 2-11
Front seats ..... 3-1
  Driver's seat height adjuster ..... 3-3
  Headrests ..... 3-3
  Amrest ..... 3-4
Front seat belt pretensioner ..... 3-14
  Force limiter mechanism ..... 3-15
Fog light switch ..... 4-4
Front corner sensor switch ..... 4-7
Fuel gauge ..... 5-10
Features ..... 7-1
Flat tyre ..... 11-6
  Spare tyre ..... 11-7
  To remove / install the tyre ..... 11-9
  Caution about aluminum wheel ..... 11-13
Fuse ..... 14-13
  Instrument panel fuse box ..... 14-13
  Engine room fuse box ..... 14-13
  Main fuse block ..... 14-13
  Relay & fuse box ..... 14-14
  Fuse check and replacement ..... 14-14
Fusible link check ..... 14-16
Front corner sensor ..... 16-1
Fuel ..... 17-1

**[G]**

General operation ..... 7-2
Glove box ..... 9-4

**[H]**

Hood ..... 2-8
Hazard warning signal switch ..... 4-6
Horn ..... 9-2

**[I]**

Interior view ..... vi
Instrument panel overview ..... vii
Installation / use of electronic items in your vehicle ..... 1-5
Instructions on seat belts ..... 3-9
Ignition switch ..... 4-1
Indicator lights ..... 5-8
  Automatic transmission shift indicator light ..... 5-8
  Water temperature indicator light (COLD) ..... 5-8
  High beam indicator light ..... 5-9
  Front fog light-on indicator light ..... 5-9
  Tail light-on indicator light ..... 5-9
  Turn signal indicator light/hazard warning indicator light . 5-10
  Security indicator light ..... 5-10

Illumination control ..... 5-12
Display mode flow ..... 5-12
Installation ..... 7-16
Inside mirror ..... 8-2
Interior lights ..... 9-1
Room light ..... 9-1
Front personal light ..... 9-1
Luggage room light ..... 9-2
If engine won't start ..... 11-1
In case the starter won't crank ..... 11-1
In case the starter cranks ..... 11-1
Interior cleaning ..... 12-2
Instructions on do-it-yourself maintenance service ..... 14-2
Electric engine cooling fan ..... 14-3
Introduction ..... 15-1
2 button transmitter ..... 15-1
Important ..... 15-4

**[J]**

Jump-starting ..... 11-2

**[K]**

Keys (with engine immobilizer system) ..... 2-1
Key reminder buzzer ..... 4-2

**[L]**

Light-on-warning buzzer ..... 4-4
Luggage under box ..... 9-8
Light bulb replacement ..... 14-25
Headlights ..... 14-25
Clearance lights / front turn signal lights ..... 14-26
Front fog lights ..... 14-27
Side turn signal lights (mirror) ..... 14-28
Rear combination lights ..... 14-30
High-mounted stop light ..... 14-30
Licence plate lights ..... 14-31
Room light ..... 14-31
Luggage room light ..... 14-32
Front personal light ..... 14-32
Lubricant recommendation ..... 17-3

**[M]**

Modification of your vehicle ..... 1-4
Multi-control switch ..... 4-3
Head light control ..... 4-3
Turn signal light control ..... 4-4
Multi information display ..... 5-11
Average fuel consumption (AVG) ..... 5-11
Distance to empty (RANGE) ..... 5-11
Manual transmission shifting instructions ..... 10-2

Maintenance requirements ..... 13-1
Maintenance schedule ..... 13-3
Schedule for NORMAL driving ..... 13-3
Schedule for SEVERE driving ..... 13-8
Manual transmission oil level check ..... 14-17

**[N]**

Normal driving tips ..... 10-8

**[O]**

Odometer and trip meter ..... 5-11

**[P]**

Power windows ..... 2-6
Window lock switch ..... 2-7
Master switch ..... 2-7
Window switch ..... 2-7
Power socket ..... 4-7
Playing USB ..... 7-7
Parking tips ..... 10-11
Parking brake ..... 10-12
Foot parking brake ..... 10-12
Parking on slope ..... 10-13
Parking brake warning buzzer ..... 10-14
Power steering ..... 10-14
Power steering fluid level check ..... 14-19
Parking brake reserve travel check ..... 14-21
Lever type ..... 14-21
Foot type ..... 14-22
Panic button ..... 15-3
Power steering fluid ..... 17-4

**[Q]**

**[R]**

Rear seats (second row seats) ..... 3-4
Headrest ..... 3-5
To fold seatback ..... 3-6
Getting into third row seats ..... 3-6
Getting off from third row seats ..... 3-6
Rear seats (third row seats) ..... 3-7
Headrest ..... 3-7
To fold seatback ..... 3-7
To return seatback ..... 3-8
Rear window defogger switch ..... 4-6
Recommended periodical maintenance guide ..... 6-8
Radio wire connection ..... 7-17
Rust prevention ..... 12-2
Replacement of battery in the transmitter ..... 15-5
Reverse sensor ..... 16-1

**[S]**

Seats ..... 3-1
Correct driving posture ..... 3-1
Seat belt warning light and buzzer (Driver side) ..... 3-14
SRS (Supplemental Restraint System) air bags for driver and front passenger ..... 3-29
SRS air bag ..... 3-32
How air bag operates ..... 3-33
Cases where the air bags are actuated ..... 3-35
Cases where the air bags are not actuated ..... 3-36
Important safety warning ..... 3-39
Service instructions ..... 3-41
Air bag computer ..... 3-42
Speedometer ..... 5-13
Steering switch control system ..... 7-15
Specifications ..... 7-18
Side mirrors ..... 8-1
Sun visor ..... 9-3
Vanity mirror ..... 9-3
Ticket holder ..... 9-4
SRS airbag warning label ..... 9-4
Seatback pocket ..... 9-8
Shopping hook ..... 9-8
Starting engine ..... 10-1
Starting procedure ..... 10-2
Precautions for automatic transmission - equipped vehicle ..... 10-2
Shifting points (Manual transmission) ..... 10-3
Recommended shifting speeds ..... 10-3
Maximum allowable speeds ..... 10-3
Spark plug check and replacement ..... 14-9
Steering wheel free play check ..... 14-20

**[T]**

3-point emergency lock retractor type seat belts (ELR) ..... 3-11
Adjustable shoulder belt anchors (Front seats) ..... 3-12
2-point seat belt ..... 3-12
Tachometer ..... 5-13
Tuner Operation ..... 7-5
Tilt steering ..... 9-2
Tools ..... 11-5
Jack ..... 11-5
Tool bag ..... 11-6
Towing ..... 11-14
Flat bed type ..... 11-14
Wheel lift type ..... 11-14
Emergency towing ..... 11-15
Towing hook ..... 11-16
Instructions on towing ..... 11-16
Other vehicle towing ..... 11-17

Tyres ..... 14-33
Tyre air pressure ..... 14-33
Tyre rotation ..... 14-33
Tyre wear check ..... 14-34
Instructions on tyres ..... 14-34
To disable or enable transmitter answerback (hazard light and buzzer) ..... 15-3
Tyre specifications ..... 17-4
Standard type ..... 17-4
Compact spare tyre ..... 17-4

**[U]**

Utility box ..... 9-5
Under seat tray ..... 9-6

**[V]**

Vehicle identification ..... ii
Vehicle specifications ..... 17-1

**[W]**

Wiper and washer switches ..... 4-5
Windshield wiper and washer switch ..... 4-5
Rear wiper and washer switch ..... 4-5
Warning lights ..... 5-2
Brake warning light ..... 5-2
Oil pressure warning light ..... 5-3
Battery charge warning light ..... 5-4
Malfunction indicator light (MIL) ..... 5-4
A.B.S. (Anti-lock Braking System) warning light ..... 5-5
Automatic transmission warning light ..... 5-6
Seat belt warning light ..... 5-6
Air bag warning light ..... 5-6
Door ajar warning light ..... 5-7
Low fuel level warning light ..... 5-7
Water temperature warning light (HOT) ..... 5-8
Warning sound ..... 11-17
Windshield washer fluid level check ..... 14-17
Wiper blade replacement ..... 14-23
Front ..... 14-23
Rear ..... 14-24
Weights ..... 17-4

**[X]**

**[Y]**

Your Owner's Manual ..... i
Your responsibility for maintenance ..... ii

**[Z]**

The following Wireless Communication products in this vehicle are certified (Type Approval) by SIRIM under Communication and Multimedia Act 1998




HIDM15000102

Keyless systems




HIDF15000053

Immobilizer systems

GD53L-D2208-003

ALZA

*Versatile As You*

**PERODUA SALES SDN BHD** (066332U)
Sungai Choh, Locked Bag 226, 48009 Rawang, Selangor Darul Ehsan, Malaysia. T : 03-6092 8888 F : 03-6733 0667 Hotline No. : 1800 88 6600

www.perodua.com.my