DAIHATSU

4WD

F300, 310 Series (AUS)

OWNER'S MANUAL

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Foreword

We are pleased to welcome you to the family of Daihatsu owners all over the world. 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 for the most benefit from your Daihatsu vehicle. Before you operate your vehicle, carefully read this manual and use it as a reference sources whenever necessary.
If you have any question, feel free to contact your Daihatsu dealer. We are ready for providing qualified services and assistance.

DAIHATSU MOTOR CO., LTD

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OFE-00001

Your Owner's Manual

- Before you operate your Daihatsu, carefully read this manual.
  To protect yourself and extend the life of your Daihatsu, 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. WARNINGS are given to help you avoid the risk of accidents or bodily injuries. CAUTIONS are given to help you avoid damages to your vehicle. NOTES are given to provide important information or tips in operating your vehicle.
- All information and specifications in this manual are current at the time of printing. We reserve the right to make changes at any time without notice.
- **Note that this manual applies to all models and explains all equipment, including options. Therefore, you may find some descriptions of equipment not installed in your Daihatsu. In addition, the illustrations are mainly of the left-hand drive vehicles.**
- The numbers below descriptions and illustrations do not affect the contents.
- If you sell your Daihatsu, leave this manual in the vehicle. The future owner will also need it.

OFE-00002

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.

OFE-00004

Important information for safe operation

We at Daihatsu want you to enjoy your new vehicle with all its capabilities. We also want you to remember that 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.
As with other vehicles of this type, failure to operate this vehicle correctly may result in loss of control or an accident. Be sure to read "For your safety" on page 1–1.

OFE-00013

Vehicle identification

The vehicle identification number is on the crossmember at the front section of the vehicle.

OFE-00005

Built date (for Australian specifications)

The built date is the calendar month and the year in which the body shell and power train sub-assemblies are conjoined and the vehicle is driven or moved from the production line.

OFE-00012

Engine Identification

The engine identifications are given on the places as shown in the illustration.

OFE-00006

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Section 1

Special precautions for your vehicle

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This vehicle is one of the class of vehicles which have higher ground clearance and a narrower track. Specific design characteristics give them a higher center of gravity than ordinary vehicles.
An advantage of the higher ground clearance is a better view of the road allowing you to anticipate problems. They are not designed for cornering at the same speeds as conventional 2-Wheel-Drive vehicles any more than low-slung sports cars are designed to perform satisfactorily under off-road conditions.

WARNING
To help reduce the risk of serious personal injury and damage to the vehicle:

- **If at all possible, avoid sharp turns or abrupt maneuvers. As with other vehicles of this type, failure to operate this vehicle correctly may result in loss of control or vehicle rollover.**
- **Avoid placing cargo or extra weight on the roof of your Daihatsu as this will increase the height of its center of gravity and may reduce its handling capabilities.**
- **Strong cross winds may cause the vehicle to be unstable.**
  Drive slower in these conditions to minimize the effects to your vehicle.
- **Do not attempt to drive crosswise or turn on steep slopes or hills.**
  Failure to observe this warning may result in losing traction, slipping sideways and even vehicle rollover.
- **Always try to drive straight up or straight down slopes. Should you encounter engine stall, do not try to turn around. We recommend backing down to a safe place with gear engaged.**
  Failure to observe this warning may result in loss of control or even rollover.
- **Make sure to slow down vehicle speed while operating on rough terrain so as to avoid jumping or striking objects, etc. Failure to observe this warning may cause damage to the vehicle's undercarriage, loss of control or vehicle rollover.**

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 and the back window closed.

To prevent exhaust gas accident, follow the precautions bellow.

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 snow, 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 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 snow or other objects do not accumulate around the tail pipe to prevent exhaust gases from accumulating under the vehicle body.

OFE-01003

Catalytic converter

The catalytic converter is an emission control device installed in the exhaust system.

The catalytic converter reduces pollutants contained in exhaust gases.

WARNING

- **Do not drive or park your vehicle over anything that might burn easily such as grass, leaves, paper or rags. This could lead to fire.**
- **Keep people and combustible materials away from the exhaust system while the engine is running. The exhaust gas and exhaust system are very hot. This could lead to fire.**

CAUTION

When a large amount of unburned gas is introduced into the catalytic converter, it may cause the catalytic converter to overheat and lead to a fire hazard. To prevent this and other damage, the following precautions should be observed;

- Do not drive with an extremely low fuel level. This could cause the engine to misfire, resulting in excessive load on the catalytic converter.
- Do not run the engine at idle speed for more than 20 minutes.
- Keep the engine in good condition. Malfunctioning engine, electrical, or ignition systems could cause the catalytic converter to overheat.
- Do not push or pull your vehicle to start it.
- Do not turn off the engine while the vehicle is moving.
- Avoid racing the engine.
- If the engine is difficult to start, stalls frequently, or pings or knocks during acceleration, have your vehicle checked as soon as possible by a Daihatsu dealer.
  The periodic inspections specified in the Daihatsu maintenance schedule must be performed to ensure that the catalytic converter and the entire emission control system operate properly.
- Use only unleaded gasoline.

QFE 01002

Fuel recommendation

Except for Australian specifications
Type HD-C engine:
Use leaded or unleaded fuel having Research Octane No. 90 or higher.

Type HD-E engine:
Use unleaded fuel having Research Octane No. 90 or higher.

For Australian owners:
Use unleaded fuel having Reserch Octane No. 90 or higher. Leaded fuel will cause the catalytic converter to lose its effectiveness and the emission control system not to function properly.

OFE 01004

Modification of your vehicle

Never modify your Daihatsu. 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.

OFE-01006

Installation of a mobile two-way radio system

A mobile two-way radio system in your vehicle could affect electronic systems such as the electronic fuel injection system. If you are going to install a mobile two-way radio system, make certain to follow the radio manufacturers' instructions or consult a Daihatsu dealer for precautionary measure or special instructions.

OFE-01008

Break-in period

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

We recommend observing the following precautions during the first 1,600 km (1,000 miles) 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 starts.
- If possible, avoid hard stops, especially during the first 300 km (200 miles).

OFE-01007

Section 2

Doors and locks

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Keys

Three keys are provided for the locks on your vehicle.

We recommend that you keep a copy of the key number with your important papers. Always keep a spare key with you in case you lock your key in the vehicle.

If you have lost your keys, contact a Daihatsu dealer.

OFE-02001

Door locks

WARNING

- **Ensure the safety around the vehicle before opening any door.**
- **Be sure, before driving, that all doors are securely closed and locked. This will help 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 in a hot day. Inside 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 of the vehicle to unlock the door.

Pull the outside handle to open the door.

On vehicles equipped with power door locks, when you lock the driver side door, the passenger side door will also automatically be locked.

To lock/unlock doors from inside
Push in the lock lever to lock the door. Pull the lock lever to unlock the door.

To lock doors from outside without key
Push in the lock lever. Close the door while holding the outside handle in its raised position.

Be careful not to leave the key inside the vehicle.

On vehicles equipped with power door locks, when you lock the driver side door, the passenger side door will also automatically be locked.

OFE-02002

Power windows

Window lock switch

To raise/lower the windows
Front door windows can be controlled by the window lock switch provided on the driver side door.

When the lock button is set in the "OFF" position, the passenger side window cannot be raised or lowered.

OFE-02C13

Auto-switch

Driver side window

With the ignition switch turned to the "ON" position, when the switch is pulled upward lightly the window will rise as long as the switch is held. When the switch is pushed down lightly the window will lower as long as the switch is held.

(Auto mode)
When the switch is pulled upward (Only for R.H. Drive Vehicles) or pushed down fully, the window will rise or lower automatically.

To stop the window halfway, lightly operate the switch to reversed direction.

After the window rise or lower completely, the switch will be turned off automatically.

OFE 02014

Window switch

Driver side

With the ignition switch turned to the "ON" position, when the switch is pulled upward, the window will rise as long as the switch is held. When the switch is pushed down, the window will lower as long as the switch is held.

WARNING:
Make sure that driver's and passenger's arms, heads and hands are inside the vehicle before raising the windows.

Passenger side

With the ignition switch turned to the "ON" position, when the switch is pulled upward, the window will rise as long as the switch is held.

When the switch is pushed down, the window will lower as long as the switch is held.

WARNING:
Make sure that driver's and passenger's arms, heads and hands are inside the vehicle before raising the windows.

OFE-02015

Door windows

To open/close door window
Turn the handle to raise or lower the window.

WARNING

- **Keep your hands, head and other parts of your body away from the moving window so as not to get pinched.**
- **Do not attach anything to or near the window. This could block driver's vision.**

OFE-U2004

Swing-out quarter windows

To open quarter windows

1. Pull the lever toward you.
2. Push the lever toward the outside.
3. Push the lever in the direction indicated by the arrow to lock the window in the open position

To close quarter windows

1. Pull the lever toward you.
2. Pull the lever to the inside.
3. Push the lever in the direction indicated by the arrow to lock the window.

OFE-02006

To open hood
Pull the hood lock lever under the driver side instrument panel toward you.

Stand in front of the vehicle. Raise the auxiliary catch with your fingers, then raise the hood.

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

To support hood
Securely support the hood by inserting the hood brace completely into the slot provided.

WARNING
After inserting the hood brace, make sure it supports the hood securely. Failure to do so could cause the hood to fall and result in injury.

To lock hood
Store the hood brace in the original storage position.

Lower the hood and push down gently on the front edge of the hood to latch it.

WARNING
- **Make sure the hood is fully closed and latched before driving.**
- **Should you notice while driving that the hood is not latched correctly, immediately pull your vehicle safely to the side of the road, stop the vehicle and latch the hood correctly.**

Back door

To open back door

To open the back door from out side, pull the outside handle toward you.

NOTE

On the soft top, first release the plastic strip from the rear retainer before opening the door.

CAUTION

Before closing the back door, raise the rear corner of the canvas so that it may not be pinched by the back door.

To lock/unlock door from outside

Turn the key clockwise to lock the door.

Turn the key counter clockwise to unlock to the door.

The key can be removed only after it has been returned to the original position.

OHE-02018

Remote back door release

To lock/unlock back door

The back door is locked by pushing the switch in the "LOCK" direction. The back door is unlocked by pushing the switch in the "UNLOCK" direction.

WARNING

Keep the back door closed at all times while driving so that poisonous exhaust gas will not enter the vehicle interior.

OFF 02017

Fuel filler

WARNING

- **To prevent a fire when refueling, always turn the vehicle 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.**

To unlock fuel lid
To unlock the fuel lid, turn the key clockwise.

To lock fuel lid
To lock the fuel lid, push the lid until it locks securely.

OFE-02C09

Remote fuel lid release

To open fuel lid
To open the fuel lid, pull the remote fuel lid release upward.

To close fuel lid
To close the fuel lid, push the lid until it locks securely.

OFE-02C10

Fuel tank cap

To open cap
Turn the fuel tank cap counterclockwise to open.

To close cap
Align the claws at the inner side of the cap with the cutout sections of the tank neck. Turn the fuel tank cap clockwise to securely close.

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 to prevent fuel spillage.**

OFE-02011

Sunroof

WARNING
- **Do not handle the sunroof while the vehicle is running.**
- **Never stand through the roof opening while the vehicle is in motion or running.**

How to open sunroof
1. Push the lock button and pull the handle toward you.

2. Push the handle all the way in the upward direction.

   Press the center of the handle until it is securely in place.

CAUTION
Make sure that the handle has been locked securely.

To close sunroof

1. Pull the handle toward you and close the roof.
2. Push the handle until clicking sound can be heard. Be sure that the handle is locked.

To remove sunroof

1. While pushing the link of right and left side, pull the handle towards you and detach the handle from its base.
2. Push up the back of the panel and remove it by pulling towards the rear.

CAUTION
When removing the sunroof, make sure that the sunroof is not interfered with the body.
When the sunroof is removed, do not hang on or sit on to the sunroof frame.

To install sunroof

1. Align the hinge on the sunroof front end and engage in catch on roof front open end, then push in to position from rearward.

CAUTION

1. **Ensure that two hinges are secured in the catch on the roof front open end.**
2. **Installing the sunroof, do not raise it more than 70°. Failure to observe this precaution will cause damage to the sunroof due to its interference with the body.**
2. Close the roof, push the left and right link on the handle and push in to the hole on base securely.
3. Lock the handle by pushing it until securely locked and a clicking sound can be heard.

To remove resin top panel

1. Remove the rear wiper blade and store it for next use.

NOTE

After the wiper blade has been removed, reinstall the retainer cap and the attaching nut for next use.

2. Remove the back window defogger ground harness attaching bolt.

NOTE

After the harness has been disconnected, reinstall the bolt to the back door for next use.

3. Disconnect the connector for the rear window defogger.

4. Remove the window support handles (4 points).

5. Remove the back window glass.
   Store the rear window glass in a safe place in order to avoid any damage.

6. Remove the caps for the resin panel attaching bolts (10 points). Then remove the resin top panel attaching bolts (10 points).

NOTE
When removing the caps, use a cloth to avoid any damage to the vehicle body.

7. Remove the attaching bolts on roll bar bracket.

8. Remove the resin top panel from the vehicle.

WARNING
Do not remove or modify the roll bar. Removal or modification of the bar will result in reduced occupant protection in the event of an accident.
Never drive the vehicle with the back window in place after the resin panel has been removed.
Failure to observe this warning will cause back window glass breakage and the risk of personal injury.

CAUTION

Do not remove any parts such as the roof panel, side panel and weather strip etc. from the resin top panel assembly. Failure to observe this caution may cause water leaking problem or damage.

To install resin top panel

Reverse the removal procedure to install the resin top panel.

WARNING

Never drive vehicle with the back window removed. Poisonous exhaust gases can enter the vehicle.

CAUTION

- **Make sure that all the resin panel attaching bolts tightened securely.**
  Tightening Torque:
  1.0 - 1.6 kg-m
  (7.2 - 11.6 ft-lb, 9.8 - 15.7 N·m)
- **Make sure that the back window attaching bolts are tightened securely.**

WARNING

- **The soft top is only provided to protect against some undesirable weather conditions. It is not designed to hold occupants inside the vehicle, or to protect against the forcible entry of foreign objects in the event of an accident.**
- **Never drive the vehicle with the rear window open unless the quarter windows are also open. Poisonous exhaust gases can enter the vehicle.**

CAUTION

- **Do not run a soft top through automatic car washes.**
- **Do not remove the soft top when temperature is below 5°C (41°F). If you do so, the soft top may be damaged.**
- **Do not remove the soft top when the windows are dirty because dirt and grit may scratch the window.**
- **If temperature is below freezing, do not attempt to change the position of the soft top on the vehicle or roll the soft windows. If you do so, the soft top may be damaged.**

- **Do not operate vehicle with the soft top partially installed.**

NOTE

- **Refer to "Appearance care" in section 12 for important information on cleaning and caring for your soft top.**
- **If temperature is below 24°C (72°F) and/or the soft top has been folded down for a period of time, the canvas will appear to have shrunk when you raise it, making it difficult to raise the canvas.**
  This is caused by a natural contraction of the vinyl coating on the canvas. Place the vehicle in a warm area. Pull steadily on the canvas. The vinyl will stretch back to its original size.

OFE-02014

Easy folding type soft top installation

To install soft top after removing resin top. (See "Resin top")

1. Make sure that the back door window has been removed.
2. Detach the 11 clips and remove the weather strip sub assembly.
3. Install the rear pillar outer weather strip and the back door lower weather strip onto the rear body.
   Cut the weather strip end to adjust its length, if necessary.
4. Install the 2 plastic grommets (white) onto the rear body as shown in the above illustration.

5. Remove the alignment pins from right and left corners of the body.

6. Install the back door upper seals onto the right and left corners as shown in the illustration.

7. Install the 2 straps onto the right and left corners in order to fix the canvas.

8. Install the canvas bow assembly onto the rear body.
   Tighten the 6 screws (3 points each at the right and left sides).
   Wind the strap around the rear bow. Secure the strap with the hook.

9. Install the side retainers onto each side with 6 screws (3 points each at the right and left sides) as shown in the illustration.

10. Install the rear side retainers onto each corner with four screws, while holding down the upper seal so that it may not float. (Two points each at the right and left corners)

11. Install the rear retainer onto the back door with five screws.
    Temporarily tighten the screws, starting from the second screw from the left. Then, tighten the screws securely.

12. Raise the front canvas bow and tilt it backward.

13. Attach the tarpaulin bow trim onto the front canvas bow.

14. Attach the canvas trim provided at the front end of the canvas onto the front canvas bow.

NOTE
When attaching the canvas trim, align the notch in the trim and center mark on the bow.

15.Move the front canvas bow forward.

16.Fix the front canvas bow with the two handles. Do not yet tighten firmly.

17.Set the rear bow into the front position.

18. Attach the 3 hooks at the upper rear bow.

19. Install the quarter windows.

First, zip the top (horizontal) zipper.
5-8 cm (2-3 in.)
Second, zip the rear and front side (vertical) zipper.
5-8 cm (2-3 in.)
Then, zip all the zippers completely.

Affix the Velcro Fastener®s around the quarter windows.

NOTE

- **You can also fasten the upper zipper from the inside of the vehicle.**
- **Be sure the zipper is properly lined up before zipping the quarter window. Failure to do so could damage the zipper.**
- **Be sure that the Velcro Fastener®s are completely affixed.**

20. Install the rear window.

    Zip the rear window starting from the lower left hand side.

21. Insert the plastic strips at the bottom of the canvas and quarter windows into the retainers.

NOTE
For easier operation, hook the tip end of the plastic strip to the retainer. Then, push down the plastic strip from above.

22. Insert the plastic strip at the bottom of the rear window into the rear retainer while pulling down the strap.

NOTE
For easier operation, hook the tip end of the plastic strip to the retainer. Then, push down the plastic strip from above.

23. Affix the Velcro Fastener®s on each side of the rear window.

NOTE
Make sure that the Velcro Fastener®s are completely affixed.

24. Completely tighten the two handles for the front canvas bow.

25. Set the rear bow as shown in the illustration.

WARNING
Ensure that the canvas is completely closed to prevent poisonous exhaust gases from entering the vehicle.

To remove soft top with bows

1. Put the rear bow into the front position.
2. Release all the plastic strips from the retainers.
3. Remove the rear and quarter windows.
4. Detach the two handles for the front canvas bow and three screws at each side.
5. Detach the two straps from the rear corner.

To fold removed canvas

1. Fold the removed canvas and quarter windows as shown in the illustration.
2. Roll the rear window from lower side.

NOTE

For best storage, make sure that all soft windows are clean before storage. We recommend that you put a soft cloth between the windows to protect the vinyl window.

Easy folding type soft top folding

To remove rear window

1. Set the rear bow into the front position.
2. Separate the Velcro Fastener®s.
3. Release the plastic strip from the rear retainer while pulling down the strap.
4. Unzip the rear window starting from the lower right hand corner.

To remove quarter windows

1. Separate the Velcro Fastener®s
2. Release the plastic strips from the retainers while pulling down the bottom of the canvas and quarter windows.
3. Unzip the front and rear (vertical) side zippers.
4. Unzip the top (horizontal) zippers.

NOTE

- **You can also unzip the upper zipper from the inside of the vehicle.**
- **Roll the removed rear and quarter windows from lower side.**
- **For best storage, make sure that all soft windows are clean before storage. We recommend rolling the rear and quarter windows with soft cloth between them to protect the vinyl window.**

To fold soft top

1. Insert the skirt of the rear corners into the vehicle as shown in the illustration.

2. Remove the two handles which retain the front canvas bow.

3. Raise the front canvas bow with the canvas on top and tilt it backward while folding the canvas roof as shown in the illustration.
4. Store the removed rear and quarter windows into the canvas as shown in the illustration.
5. Store the folded canvas and skirts into the space between rear seat and rear door.
6. Secure the base and link, using the two handles which are removed at step 2.
7. Secure the front and rear bow with the strap.
8. Fold the canvas end as shown in the illustration. Secure the canvas end by hooking the strap, which is attached on the rear bow, to the retainer.

To unfold soft top

Reverse the fold procedure to unfold the soft top.

CAUTION

Make sure that the handles, rear and quarter windows, plastic strips and Velcro Fastener®s are attached securely.

WARNING

- **The soft top is only provided to protect against some undesirable weather conditions. It is not designed to hold occupants inside the vehicle, or to protect against the forcible entry of foreign objects in the event of an accident.**
- **Never drive the vehicle with the rear window open unless the quarter windows are also open. Poisonous exhaust gases can enter the vehicle.**

CAUTION

- **Do not run a soft top through automatic car washes.**
- **Do not remove the soft top when temperature is below 5°C (41°F). If you do so, the soft top may be damaged.**
- **Do not remove the soft top when the windows are dirty because dirt and grit may scratch the window.**
- **If temperature is below freezing, do not attempt to change the position of the soft top on the vehicle or roll the soft windows. If you do so, the soft top may be damaged.**
- **Do not operate vehicle with the soft top partially installed.**

NOTE

- **Refer to "Appearance care" in section 12 for important information on cleaning and caring for your soft top.**
- **If temperature is below 24°C (72°F) and/or the soft top has been folded down for a period of time, the canvas will appear to have shrunk when you raise it, making it difficult to raise the canvas.**
  This is caused by a natural contraction of the vinyl coating on the canvas. Place the vehicle in a warm area. Pull steadily on the canvas. The vinyl will stretch back to its original size.

Soft top removal

To remove soft top

1. Put the rear bow into the front position.
2. Separate the Velcro Fastener®s.
3. Release the plastic strip from the rear retainer while pulling down the strap.
4. Unzip the rear window starting from the lower right hand corner.
5. Separate the Velcro Fastener®s.
6. Release the plastic strips from the side retainers while pulling down the bottom of the quarter windows.
7. Unzip the quarter windows.

NOTE

You can also unzip the upper zipper from the inside of the vehicle.

8. Pull up the quarter windows upward to remove the quarter windows.
   If any difficulties should encounter in pulling up the quarter windows, loosen the retainer attaching screws to remove the quarter windows, then tighten the screw again after removing the quarter windows.

9. Release the plastic strips from the rear side retainers while pulling down the bottom of the canvas.

10. Detach the 3 hooks from the upper rear bow.

11. Working from the rear side, wind the canvas forward so that the inner side of the canvas can face upward.

12. Separate the Velcro Fastener®s and untie the belt fixing the canvas to roll bar.

13. Release the plastic strips from the side plate.

14. Pull out the canvas as shown in the illustration to remove the canvas from the retainer.
If any difficulties should encounter in pulling out the canvas, loosen the retainer attaching screws to remove the canvas, then tighten the screw again after removing the canvas.

15. Remove the canvas bow assembly by removing the 6 screws with roof panel wrench (3 points each at the right and left sides)

If you will not to remove the canvas bow assembly, secure the rear bow with the strap.

To fold removed canvas

1. Fold the removed canvas and a quarter windows as shown in the illustration.
2. Roll the rear window from lower side.

NOTE

For best storage, make sure that all soft windows are clean before storage. We recommend that you put a soft cloth between the windows to protect the vinyl window.

QFE 02045

Soft top installation

To install soft top

1. Install the canvas bow assembly onto the rear body.
   Tighten the 6 screws (3 points each at the right and left sides) with roof panel wrench.

2. With inner side of the canvas faced upward, slide the rope provided at the front end of the canvas into the retainer. If any difficulties should encounter in sliding the rope, loosen the retainer attaching screws, then tighten the screw again after inserting the canvas.

NOTE
Align the notch in the canvas and center of the retainer.

3. Cover the canvas over the front roof.
4. Tie the belts to fix the canvas to the roll bar and affix the Velcro Fastener®s.

5. Insert the plastic strips of the canvas into the side plate.

NOTE
For easier operation, hook the tip end of the plastic strip to the retainer. Then, push down the plastic strip from above.

6. Cover the canvas over the vehicle body.
7. Put the rear bow into the front position.
8. Attach the 3 hooks at the upper rear bow.
9. Slide the front edge of the quarter windows down into the retainers.
   If any difficulties should encounter in sliding down the quarter windows, loosen the retainer attaching screws, then tighten the screws again after installing the quarter windows.

10. Zip the top and rear zipper.
    5-8 cm (2-3 in.)
    Then, zip them completely.

11. Insert the plastic strips at the bottom of the quarter windows into the side retainers.

NOTE
For easier operation, hook the tip end of the plastic strip to the retainer. Then, push down the plastic strip from above.

12. Affix the Velcro Fastener®s around the quarter windows.

NOTE
- **You can also fasten the upper zipper from the inside of the vehicle.**
- **Be sure the zipper is properly lined up before zipping the quarter window. Failure to do so could damage the zipper.**
- **Be sure that the Velcro Fastener®s are completely affixed.**

15. Zip the rear window starting from the lower left hand side.

16. Insert the plastic strips into the retainer while pulling down the strap.

17. Affix the Velcro Fastener®s on each side of the rear window.

NOTE
For easier operation, hook the tip end of the plastic strip to the retainer. Then, push down the plastic strip from above.

18. Put the rear bow as shown in the illustration.

WARNING
Ensure that the canvas is completely closed to prevent poisonous exhaust gases from entering the vehicle.

Section 3

Seats and seats belts

Front seats 3– 1

Rear seat 3– 3

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2-point seat belt 3– 9

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Child restraint anchorage (for Australian specifications) 3–11

To adjust seat position
Raise the lever underneath the seat and slide the seat with slight body pressure to the desired position for driving, then release the lever.

WARNING
- **After adjusting the seat and before starting the vehicle, make sure it is locked securely in position by trying to slide the seat forward and backward.**
- **Never attempt to adjust the driver's seat while driving. This could result in a loss of control of the vehicle or an accident.**

To adjust seatback angle
Lean forward and pull the reclining lever upward. Then lean back slowly and tilt the seatback to the desired angle and release the lever.

WARNING
- **Never attempt to adjust the driver's seatback while driving. This could cause a loss of control of the vehicle or an accident.**
- **After adjusting the seatback, exert body pressure to make sure it is locked in position.**
- **To reduce the risk of sliding under the seat belt during a collision, avoid reclining the seatback any more than needed. Seat belts provide best protection when persons are sitting well back and straight up in their seats. If a person is reclined, the lap belt may slide past the hips and apply forces to the abdomen.**
  This increases the risk of serious bodily injury in collision.

OPE-030U

Walk-in device

When the reclining lever provided at the front passenger's seat is pulled upward, the seatback will automatically tilt and slide forward.
This allows passengers to get into or out of the rear seat more easily.
After passengers are in, lift up on the seatback and push the seat backward until it locks.

In addition, a foot lever is provided on the rear of passenger's seat. When the foot lever is depressed, the seatback will automatically tilt and slide forward.

The foot lever should not be operated from the rear seat while the vehicle is in motion.

WARNING

- **After returning the seat to its original position, make sure it is locked securely in position by trying to slide the seat forward and backward.**
- **Never allow passengers to rest their feet on the foot lever while the vehicle is moving.**

DFE-03002

Headrest

To raise the headrest, pull it straight up.

To lower the headrest, push the headrest down while pushing in the lock button. Adjust the top of your headrest so that it is closest to the top of your ears.

Rear seat

Bench type seat

WARNING

- **Do not drive the vehicle with the headrest removed or improperly adjusted. Headrest may provide significant protection against injury.**
- **After adjusting the headrest, make sure it is locked in position.**
- **Headrest are most effective when closest to your head. A cushion on the seatback is not recommended.**

OFE-03003

To fold rear seat

1. To unlock the seatback, push the lock lever.
2. Move the seatback forward.
3. To unlock the seat cushion lock, pull up the lock lever.
4. Raise and move the entire seat forward.

5. Attach the strap provided on the seatback to the hook provided on the floor.

WARNING

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

- **Do not allow anyone to ride in the cargo area. It is not designed for passengers.**
- **Do not pile up anything in the cargo area higher than the front seatback.**

To restore rear seat

1. To raise the seatback, unhook the strap from the floor. ①
2. Return the seat to the floor by pulling down firmly. The seat should be locked automatically, however, push the seatback forward and backward to make sure that locking is secure. ②
3. Raise the seatback to the securely locked position ③.

WARNING

- **When restoring the rear seat to its original position, make sure that there is no hand, seat belt webbing or other obstruction on the place where the rear seat is placed.**
- **Make sure that the rear seat cushion hook is securely locked. To do this, push the lock lever downward completely and push forward and pull rearward on the top of the seatback.**
  Failure to do so, could result in serious bodily injury in the event of an accident.

Split type seat

To fold rear seat

1. To unlock the seatbacks, push the lock levers provided at outside of the seats.
2. Move the seatbacks forward.
3. To unlock the seat cushion locks, pull up on the lock levers provided at inside of the seats.
4. Raise and move the entire seat forward.
5. Attach the straps provided on the seatbacks to the hooks provided on the floor.

WARNING

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

- **Do not allow anyone to ride in the cargo area. It is not designed for passengers.**
- **Do not pile up anything in the cargo area higher than the seatback.**

To unfold rear seat

1. To raise the seatbacks, detach the straps from the floor. ①
2. Return the seats to the floor by pulling down firmly. The seats should be locked automatically, however, push forward and backward on the seatbacks to make sure that locking are secure. ②
3. Raise the seatbacks to the securely locked position. ③

WARNING

- **When returning the rear seats to their original positions, make sure that there is no hand, seat belt webbing or other obstruction on the place where the rear seats are placed.**
- **Make sure that the rear seat cushion hooks are securely locked. To do this, push the lock lever downward completely and push forward and pull rearward on the top of the seatbacks.**
  Failure to do so could result in serious bodily injury in the event of an accident.

Daihatsu recommends that all occupants be properly restrained with a seat belt provided. 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.

Check the belt system periodically and if any seat belt fails to function properly, have the system checked promptly by a Daihatsu dealer.

Child: We recommend children 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 him.

Pregnant woman; Daihatsu recommends using a seat belt.
The lap belt should be worn securely and as low as possible over the hips, not on the waist. Consult your doctor for recommendation.

Injured person; Daihatsu recommends using a seat belt.
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, jewelry, 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 came across a severe impact, have it replaced by a Daihatsu dealer, even if damage is not obvious.**

3-point emergency lock retractor type seat belts

CAUTION

- **Take care not to damage the seat belt webbing or hardware by pinching in the seat, door etc.**
- **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.

OFE-03004

To fasten belt

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

WARNING

For full restraint, make sure, after inserting the tongue plate, the connection is secure 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.

WARNING

- **High-positioned lap belts and loose fitting shoulder belts can increase the chance of serious bodily injury due to sliding under the lap belt during an accident.**
- **Never wear the shoulder part of belt under your outer arm or behind your back.**
- **Adjust the seat belt to a snug fit.**
- **When fastening the belt of a child, make sure the shoulder portion of the belt crosses the child's chest and is positioned below the child's face and neck.**
- **Be sure the belt is not twisted.**

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 retracted.

OFE 05C16

To fasten belt

Insert the tongue plate into the buckle until it clicks.

WARNING

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

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.

WARNING
- **High-positioned lap belts can increase the chance of serious bodily injury due to sliding under the lap belt during an accident.**
- **Adjust the seat belt to a snug fit.**
- **Be sure the belt is not twisted.**

To unfasten belt
Push the buckle release button.

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

OFE-03021

Seat belt warning light (for GCC specifications)

When the driver side seat belt is not fastened, the warning light will go on for about six seconds.

OHE-03029

Child restraint anchorage (for Australian specifications)

The child restraint anchorage is for attachment of the child restraint, provided at two portions shown in the illustrations.

Install the 5/16″-18 UNC × 30 mm metallic bolt through the upper anchor fitting and 5 mm spacer provided with the child restraint system.

WARNING
Child restraint anchorages are designed to withstand only those loads imposed by correctly fitted child restraints. Under no circumstances are they to be used for adult seat belts or harnesses.

OFE-05024

Section 4

Instruments and controls

Ignition switch 4–1
Multi-control switch 4–2
Hazard warning signal switch 4–3
Day-light system 4–4
Dim-dip system 4–4
Headlight-leveling switch 4–5
Wiper and washer switches 4–5
Rear window defogger switch 4–6
Cigarette lighter 4–7
Rear fog light switch 4–7
Three stage damper 4–8

Ignition switch

LOCK ... The key can be pulled out or inserted in this position. If you can not turn the key from the "LOCK" position to the "ACC" position, turn the key while the steering wheel is being turned alternately to the right or left.

WARNING

- **Under no circumstances should the key be turned to the "LOCK" position while the vehicle is in motion. Once the key is in the "LOCK" position, it can very easily and even unintentionally be removed from the ignition switch. Removing the key will lock the steering column and could result in loss of ability to steer the vehicle and an accident.**
- **Do not leave keys in an unattended vehicle or in a vehicle occupied only by children.**

ACC ... For use when you want to operate the radio or other accessary with the engine off.

ON ... When the engine is running.

CAUTION

Never leave the ignition switch in the "ON" position while the engine is stopped. Failure to observe this caution will cause the battery to be discharged and the ignition system could be damaged.

START ... To start the engine, turn the key to the "START" position.
After the engine has started, release the key and it will automatically return to the "ON" position.

For starting tips, see page 10–1.

OFE 0400

Multi-control switch

Headlight control

To turn the lights on, turn the knob on the end of the multi function lever.

Light \ Switch position	Turn	
	1st stage	2nd stage
Headlights	OFF	ON
Clearance lights	ON	ON
Tail lights	ON	ON
License plate lights	ON	ON
Instrument panel lights	ON	ON

To turn on high beam with headlights ON, push the lever forward. A blue high beam indicator light on the instrument panel also goes on.

To return to low beam, pull the lever back to the original position.

To flash the headlights, pull the multi function switch lightly and release.

The headlight flasher works with the headlight switch in the "ON" or "OFF" position.

OFF-04002

Turn signal light control

To signal a left or right turn, move the lever down or up. The indicator signal on the instrument panel will begin flashing.

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

OFE-04003

When the outer edge of the switch is pushed, all front and rear turn signal lights will flash intermittently. The indicator lights on the instrument panel will also flash. Do not use the hazard lights except in an emergency.

OFE-04004

Day-light system

When the engine is started, the lights with "O" marks in the following table glow, even the light control switch is OFF position.

Headlights (Lower beam)	O
Clearance lights	O
Tail lights	O
License plate lights	O
Meter illumination lights	O

Under this condition, when the light control switch is turned to the 1st stage, the lights with "O" marks in the following table glow.

Headlights (Lower beam)	—
Clearance lights	O
Tail lights	O
License plate lights	O
Meter illumination lights	O

OFE 04015

Dim-dip system

When the light control switch is set to the first stage with the engine key switch turned ON, the lights with "O" marks in the following table glow.

Headlamps (with luminous intensity reduced to 10% of that of lower beam)	O
Clearance lights	O
Tail lights	O
License plate lights	O
Meter illumination lights	O

OFE 04016

Headlight-leveling switch

Adjust the headlight-leveling control switch to appropriate position in response to load condition of your vehicle.

Switch position

Load condition \ Model	F300	F310
A driver	0	0
2 persons in front seats	0 or 1	0 or 1
2 persons in front seats + 2 persons in rear seats	2	2
2 persons in front seats + 2 persons in rear seats + *1 Full load in luggage	2	3
A driver + *1 Full load in luggage	3 or 4	4

*1 Up to gross vehicle weight (see page 15–3.)

OFE-04013

Wiper and washer switches

WARNING

- **Warm the window with the defroster or defogger before operating washer in cold weather. This will help prevent icing which could impair your vision, and an accident.**
- **Worn or dirty wiper blades could reduce your visibility. Be sure to maintain and replace wiper blades as necessary.**

CAUTION

- **Do not use radiator coolant in place of washer fluid to prevent paint damage.**
- **Do not operate the wiper when snow or ice is on the window, or when window is dry. It may damage the wiper blades.**
- **Do not operate the washer if the washer tank is empty. This may damage the motor.**

OFE-04006

Windshield wiper and washer switch

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

To turn the wipers on, push the lever down.

To activate the washer, pull the lever toward you.

The wiper operates intermittently when the wiper switch is set at the "INT" position.

OFE-04007

Rear wiper and washer switch

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

Push the upper side of the switch to turn the wiper on.
Push it further to activate washer while operating the wiper.
To activate only the washer, push the lower side of the switch.

OFE-04008

Headlight washer

When the wiper switch is pulled toward you with both the ignition switch and headlight switch in their ON position, washer fluid is squirted onto the headlights.

OFE-04017

Rear window defogger switch

To demist the rear window, push the outer edge of the defogger switch while the ignition switch is in the "ON" position. While the defogger switch is turned "ON", the indicator light of the defogger switch remains lighted, reminding you that the defogger is operating.

OFE-04011

Cigarette lighter

With the ignition switch in the "ACC" or "ON" position, push the cigarette lighter all the way in. The cigarette lighter will automatically return to the original position when it becomes hot.

Pull the lighter out to use.

CAUTION

- **If the cigarette lighter should fail to automatically pop back to the original position in 20 seconds after the cigarette lighter was fully pushed, it indicates a malfunction of the lighter. Immediately pull back the lighter to the original position. Take your vehicle to a Daihatsu dealer as soon as possible to have the malfunctioning cigarette lighter repaired.**
- **Never try to use a malfunctioning cigarette lighter by holding the lighter in.**
- **Do not insert another vehicle's cigarette lighter into the lighter socket.**
  If this caution should be neglected, it may cause a malfunction or poor contact with the potential of an overheated lighter or wiring.
- **Always use a genuine Daihatsu cigarette lighter for replacement.**

OFF-040-2

Rear fog light switch

The rear fog light glows only with the headlights on.
Push the switch at the position of ① to turn on and push it at the position of ② to turn off.

OFE-040-1

Three stage damper

To adjust the damping force of the front and rear shockabsorbers, select the switch according to the road and driving conditions.

Switch Position

1. H ..... If this position is selected when the vehicle is running on expressways, curved roads or rough terrain, or the vehicle is in a loaded state, the stability will be increased.

2. S ..... If this position is selected when the vehicle is running through urban areas, the riding will become soft.

3. N ..... Under this setting, the riding will become the middle point between the settings obtained under 1 and 2. This position is suitable for normal runnings.

The switch can be operated either while the vehicle is stationary or while it is running.

OFE-04020

Section 5

Meters and gauges

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Fuel gauge 5– 5
Water temperature gauge 5– 6
Speedometer, odometer and trip meter 5– 7
Tachometer 5– 7
Digital clock 5– 7
Inclinometer 5– 8
Volt meter 5–10

Combination meter panel overview

OFE-050'6

Warning lights

The warning lights indicate abnormal conditions in the pertinent 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 key to the "ON" position, but do not start the engine. All the warning lights should go on.
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 a Daihatsu dealer as soon as possible.

OHE-05003

Brake warning light

When the brake fluid level drops to near the "MIN" line of the brake fluid reserve tank while the engine is running, the warning light goes on. The warning light warns the driver to check the brake system for brake fluid leakage or to replenish the brake fluid.

This light also glows when the parking brake is applied while the engine is running.

WARNING

Do not operate vehicle if brake warning light is on. Failure to do so could cause an accident. Have the brakes checked immediately.

OFF-05320

Parking brake warning light

(For European specifications)
This light will glow if the parking brake is applied while the engine is running.

OFE-05019

Oil pressure warning light

If the lubrication system should malfunction during engine operation, the warning light will be illuminated to warn the driver of low oil pressure.

CAUTION
Pull safely off the road surface and turn off the engine if oil pressure warning light is on.

Failure to do so could cause severe engine damage.

OFE-05021

Battery charge warning light

The warning light will illuminate if the charging system should malfunction during engine operation.

CAUTION

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

WARNING
Do not attempt to check or adjust the drive belts when the engine is running. Before you start checking the tension of the drive belts, shut off the engine and allow it cool. Failure to do so could cause injury to fingers, hands and arms because condenser fan can go on after engine has been turned off.

OFE-05022

Indicator lights

Check engine light

Type HD-E engine

This light will glow should the engine electronic control system malfunction during engine operation.

When this light goes on, immediately have the vehicle checked by a Daihatsu dealer.

DFE-05025

Exhaust gas temperature warning light

If the exhaust gas temperature rises abnormally while the engine is running, the warning light goes on. Park the vehicle on a place where there is no flammable object and stop the engine to allow it to cool off thoroughly (about 15 minutes). Then, have the system checked by a Daihatsu dealer as soon as possible.

CAUTION

Once the warning light goes on, it will remain illuminated, even if the exhaust gas temperature drops, unless the trouble is remedied.

OFE-06028

4WD indicator light

When this light is illuminated, it indicates that the vehicle is in its four wheel drive mode.

When the transfer shift is shifted to 4H or 4L with the engine switch turned ON, the light will go on.

OFE-05008

DIFF LOCK indicator light

When this light is illuminated, it indicated that the vehicle is in its center differential lock mode.

When the transfer shift lever is shifted to "CENTER DIFFLOCK" with the engine switch turned ON, the light will go on.

CAUTION
Never move the transfer lever from the "FULLTIME" position to the "CENTER DIFFLOCK" position when the wheels are spinning.

OFT 05009

Fuel gauge

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

(for GCC and Hong Kong's specifications)
The pointer does not return to "E" when the ignition key is turned to the "ACC" or "LOCK" position so the fuel gauge always indicates the approximate remaining fuel amount in the tank.

When the left end of the pointer is on the empty line, a slight amount of fuel [about 3 liters (0.8 U.S. gal.)] is still available as a reserve. We recommend that you make it a habit to always keep the fuel level over 1/4 full to help ensure proper functioning of the electronic fuel injection system.

WARNING
Driving with low fuel can lead to an accident if the vehicle stalls or hesitates due to lack of fuel.

Water temperature gauge

CAUTION

Do not drive with the fuel level below the empty line.

It may cause engine misfire and damage to the catalytic converter.

OFE-05004

The water temperature gauge indicates the temperature of the engine cooling system with the ignition in "ON".

CAUTION

- **Do not continue driving if the gauge indicates overheating.**
  (See "Engine overheating")

WARNING

- **To help reduce the risk of burn injuries, allow the engine to cool before you start checking any component in the engine compartment.**
- **Never remove the radiator cap while the engine is still hot. Pressurized hot coolant will spout out and both you and bystanders could sustain serious bodily injuries.**

OFE-05005

Speedometer, odometer and trip meter

Speedometer
The pointer indicates vehicle speed.

Odometer
The odometer indicates distance that has been driven.

White digit — 1 km (1 mile) unit

Black digit — 100 m (1/10 mile) unit

Trip meter
The trip meter indicates distance that has been driven in each trip. Push the reset knob to set the meter to zero.

White digit — 1 km (1 mile) unit

Black digit — 100 m ($^1/_{10}$ mile) unit

OFE 05006

Tachometer

The tachometer indicates the engine revolutions per minute.

The red zone indicates engine over-reving.

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

OFE 05007

Digital clock

To set time

"Hour" quick setting method
Quick setting of the hour indication takes place while the (H) button is depressed.

"Minute" quick setting method
Quick setting of the minute indication takes place while the (M) button is depressed.

Inclinometer

Easy way to set the clock at a given time signal

Simply push the (SET) button simultaneously with the time signal.
(Example)
When you want to set the clock at the 3 o'clock time signal.
If you push the (SET) button when the clock registers between 2:30 and 2:59, the clock is set at 3:00.
If you push the (SET) button when the clock registers between 3:00 and 3:29, the clock is set at 3:00.
If you push the (SET) button when the clock's reading is past 3:30, the clock is set at 4:00.

OFE 050°0

The inclinometer indicates the inclination angle of the vehicle body and the acceleration being applied to the vehicle.

(Inclination state)

The meter shows any inclination angle in the fore-and-aft direction and in the right-and-left direction when the vehicle is stationary.

OFE-05011

(Inclination state)

- When the vehicle inclines in the right-and-left direction.

- When the vehicle inclines in the fore-and-aft direction.

- When vehicle is inclined in fore-and-aft and right-and left directions.

OHE-05012

(Acceleration [G])

The meter shows the acceleration (G) being applied to the vehicle body when the vehicle is under acceleration, deceleration or making a turn.

OFF-05013

Volt meter

The volt meter indicates the battery voltage with the ignition in "ON".

Normally, the meter indicates a reading of 10V to 16V.

If the meter fails to register a reading of 10V to 16V during normal driving in daytime, have the charging system checked by a Daihatsu dealer.

QFE-050'4

Section 6

Air control system

Heater/Air conditioner **6–1**

Rear heater **6–9**

Heater/Air conditioner

Outlet ports

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

OFE-06002

Control lever and switches

① Air outlet control lever

When this lever is operated, air outlet will be switched (to Ⓐ, to Ⓐ & Ⓒ, to Ⓒ, to Ⓑ & Ⓒ, or to Ⓑ).

- Cooling & Ventilation
  Cooled air or heated air is directed to the upper section of your body.

  Outlet vent ..... Ⓑ

- Keeping your head cool and your feet warm
  Air flow that keeps your head cool and your feet warm is provided.

  Outlet vent ..... Ⓑ & Ⓒ

- Heating
  Heated air is provided.

  Outlet vent ..... Ⓒ

- Heating and demisting
  Heated air and windshield and door glass demisting are provided simultaneously.

  Outlet vent ..... Ⓐ & Ⓒ

- Defroster
  The windshield and the door glass are demisted.

  Outlet vent ..... Ⓐ

② **Temperature control lever**

Temperature can be adjusted.

Left direction ..... Temperature will be low (blue).

Right direction ..... Temperature will be high (red).

When the heating is not desirable, move the control lever to the far left (cool) position.

③ **Air intake control lever**

- Recirculating inside air ..... This setting should be used temporarily when quick cooling/heating or maximum cooling/heating is desired, and when outside air is unpleasant.

When this setting is used for a prolonged period of time, the glass may become fogged. Therefore, be certain to move the air intake control lever ③ to the position in normal use.

- Introducing outside air ..... This setting switches to outside air introduction method.

When you enter a tunnel or get involved in a traffic jam where the outside air is unpleasant, move the air intake control lever to the position.

④ **Blower fan switch**

Air flow can be adjusted in four stages.

- First stage ..... Low air flow
- Second stage ..... Mild flow
- Third stage ..... Medium flow
- Fourth stage ..... High flow

The fan switch can be operated only when the ignition switch is turned ON.

⑤ **Air conditioner switch**
(Only for air conditioner equipped vehicles)

This switch controls air conditioner operation whenever the blower fan is "ON".

This switch will be "ON" once it is pushed in, and "OFF" when it is pushed again (when this switch is "ON", the indicator light glows).

NOTE

- **When ambient temperature drops near 0°C, the dehumidifying function will not work even if the air conditioner switch is turned "ON".**
- **Though you may see fog from the outlet port, this is normal and is caused by the air being cooled rapidly.**
- **When the vehicle is driven on a long grade, etc., with the air conditioner ON, the air conditioner compressor will turn OFF automatically if the engine water temperature rises excessively.**

OFE-0800

Cooling

Setting position of each control lever and switch

①
② Colder side
(the left end is maximum cooling)
③
④ Desired position
⑤ ON

When the air intake control lever ③ is moved to the position, maximum cooling is provided. It is important to shift the air intake control lever ③ to the position from time to time to allow outside air into the passenger compartment.

- When the outside air is unpleasant, temporarily move the air intake control lever ③ to the position.

OFE-06019

Keeping your head cool and your feet warm

Setting position of each control lever and switch

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

Warm air is directed to the foot section, while comparatively cooler air is directed to the upper half of your body, thus, you can have bi-level heating.
The temperature differences between the foot section and the upper half section of your body differ according to the position of the temperature control lever ②.
Therefore, move the temperature control lever ② to the most comfortable position. When the temperature control lever ② is at mid position, maximum temperature difference between the foot section and the upper half section of your body can be obtained.

When the air outlet control lever ① is moved to the mid detent position, air flow rate to your feet and your face can be changed accordingly.

OFE-06020

Heating

Setting position of each control lever and switch

① ⌄ ④ Desired position
② High temperature side ⑤ OFF
③

Vehicle interior is heated. Move the air intake control ③ to the position only when the outside air is unpleasant. Normally, use this lever the position.

- When heating is excessive, move the blower fan switch ④ to the "Lower side and the temperature control lever ② to the left side to adjust to the desired temperature.
- If the heater continues to be operated in the position, the vehicle interior will eventually become poorly-ventilated, probably resulting in a misted windshield. It may, therefore, become necessary to shift the air intake control lever ③ to the position from time to time.

Quick heating

Setting position of each control lever and switch

① ⌄ ③ ⑤ OFF
② High temperature side ④ Fourth stage (High)

Quick heating can be obtained in this setting.

OFE-08008

OFE-08021

Dehumidified heating

Setting position of each control lever and switch

①
② Desired position
③
④ Desired position
⑤ ON

OFE-06022

Heating and demisting

Setting position of each control lever and switch

①
② Desired position
③
④ Desired position
⑤ OFF

- After demisting the windshield, move the air outlet control lever ① to the position and you can have both demisting and heating that warms your feet.

OFE-06011

Dehumidified heating and demisting

Setting position of each control lever and switch

①
② Desired position
③
④ Desired position
⑤ ON

You can have both demisting and dehumidified heated air that keeps you feet warm.

When the ambient temperature drops near 0°C, the dehumidifying function will not work even if the air conditioner switch is turned "ON".

OFE-08023

Demisting

Setting position of each control lever and switch

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

OFE-08024

Forced ventilation

Setting position of each control lever and switch

① ② Desired position ③ ④ Fourth stage (High) ⑤ OFF

- Natural Outside air is directed into the vehicle forcibly from the center and side outlet ports.
- Air direction can be changed by moving the knob provided at the outlet port up, down, left or right.

OFE-06012

Natural ventilation

Setting position of each control lever and switch

① ② Desired position ③ ④ OFF ⑤ OFF

- Outside air is introduced into the vehicle from the center and side outlet ports.
- Air direction can be changed by moving the knob provided at the outlet port up, down, left or right.

NOTE

If air flow is not sufficient, turn the blower fan switch ④ on.

OFE-06013

Heater/Air conditioner operating tips

- Make sure that the air inlet ducts in front of the windshield are not blocked by leaves or other obstructions.
- In extremely humid weather, when the air outlet control lever ① is at the or position, you should not move the temperature control lever ② to the coldest setting during cooling operation as the difference between the temperature of the outside air and that of the windshield could cause the outer surface of the windshield to fog up which may block visibility.
- When driving on dusty roads, move the air intake control lever ③ to the position. However if the heater/air conditioner continues to be operated in the position, the vehicle interior will eventually become poorly-ventilated. Therefore it may be necessary to move the air intake control lever ③ to the position from time to time.
- When the air outlet control lever ① is in , or position, be sure not to move the air intake control lever ③ to the position.
  The glass is prone to mist in this setting.
- Do not use the position to cool in high humidity.
  This can cause the windshield to fog up.
- If you have parked your vehicle in intense sunlight for a lengthy time, the temperature of the vehicle interior becomes excessively high. Under such conditions, first open the windows to expel the hot air while operating the air conditioner.
  When the vehicle interior becomes cool, close the windows and set the temperature to your desired comfort level.
- When windows mist:
  The windows are prone to mist on rainy days resulting in poor visibility. Should this happen, operate the air conditioner in the cooling or demist mode. The windows will be demisted easily.

OFF 06025

Fast idle device:

The engine is equipped with a fast idle device which increases the engine idle speed slightly when the air conditioner system is in use when the vehicle is stopped. Since the engine idle speed is higher than normal, special attention must be paid to starting or stopping the vehicle.

OFE-06026

Rear heater

Rear heater switch

The rear heater functions when the ignition switch is turned "ON".

To operate the rear fan motor, turn "ON" the rear heater switch.

When the rear heater switch is turned "ON", the rear heater switch indicator light will also go on, reminding you that the rear fan motor is operating.

OFE-06016

Temperature adjusting lever

Lever position

WARM ..... Temperature rises
COOL ..... Temperature lowers

NOTE

When the heater is not being used, keep the temperature adjusting lever in the "COOL" position.

OFE-06017

Section 7

Audio system

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AM/FM radio 7– 4

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AM/FM radio with cassette tape player 7–10

FM broadcasting 7–13

You can use the audio system with the ignition switch set to the "ON" or "ACC" position.

NOTE

To prevent the battery from being discharged, please do not operate the audio system for a lengthy time without the engine running.

Antenna

NOTE

Be sure to retract the antenna when washing the vehicle with an automatic car washer.

Please make it your habit to retract the antenna when you do not listen to the radio.

Cassette tape player

1. Never bring a magnet, a screwdriver or the like close to the head and cassette tape.
2. A slack tape may cause malfunction when it is inserted to the cassette tape player. Therefore, eliminate any slack in the tape before it is put into use.

3. Type C-120 cassette tapes are made of extremely thin film. Hence, tapes are vulnerable to elongation or breakage. Please avoid using a tape C-120.
4. If sound quality of treble range drops extremely because of a dirty head, clean the head, using a head cleaning tape.
5. When you do not listen to a tape, eject the tape from the player and put it in a case. Store the tape at a place not exposed to direct sunrays and free of dust.
6. If a label is about to peel off, reaffix the label properly.

AM radio

① Power supply switch/volume control knob
② Tone control knob
③ Tuning/time adjusting button
④ Preset station selection buttons
⑤ Display button
⑥ Just-time setting button
⑦ Display section

① Power supply switch
Push the switch to turn ON the power supply.
Push the switch again to turn OFF the power supply.

① Volume control knob
Turn the knob to adjust the volume.
Clockwise ..... Increase
Counterclockwise ..... Decrease

② Tone control knob
Turn the knob to adjust the tone.
Clockwise ..... Stronger treble
Counterclockwise ..... Weaker treble

③ Tuning button
Push the button to set to a desired frequency.
See "Tuning."

③ Time adjusting button
Set the time by pushing the time adjusting button and display button at the same time.
See "Adjustment of time."

④ Preset station selection buttons
Push the button to select a desired station.
See "Tuning" and "How to preset broadcasting station."

⑤ Display button
When this button is pushed while the radio is tuned in to a broadcasting station, the indicator of the display section is switched from the time to the frequency.
About five seconds later, the indicator returns to the time mode.

⑥ Just-time setting button
Push this button to set the "minute" digit of the clock to zero.
See "Adjustment of time."

⑦ Display section
This section normally indicates the time.

Radio operating procedure

Tuning

There are three kinds of the station selecting methods.

1. Manual tuning
   Lightly push the tuning button to set to a desired frequency.
   Each time the button is pushed, the frequency changes progressively.
   - Λ side ..... Higher frequency
   - V side ..... Lower frequency

   The receiving frequency is indicated in the display section.
   If the frequency being received has already been preset, the channel number is also indicated in the display section.

2. Seek tuning
   Keep the tuning button pushed for more than one second and release your finger. The radio starts seeking a broadcasting station, starting from the current frequency toward a higher or lower frequency. When the station is received, the seek tuning stops automatically.
   - Λ side ..... Higher frequency
   - V side ..... Lower frequency

   The receiving frequency is indicated in the display section.
   If the frequency being received has already been preset, the channel number is also indicated in the display section.
   To cancel the seek tuning, push the tuning button again.

3. Preset tuning
   The preset station is automatically selected by pushing the preset station selection button.
   The receiving frequency and channel number are indicated in the display section.

How to preset broadcasting station

You can preset six stations.

1. Push the tuning button to set to a desired frequency.

2. Keep pushing the preset station selection button of the desired number for two seconds or more. The display section flashes to show completion of memorizing.

NOTE

In cases where the battery is disconnected or the fuse is blown out, the memory of the preset station selection button is erased. It is necessary to have the stations memorized again.

Adjustment of time

Time can be adjusted when the display section is indicating the time.
While pushing the display button, push the time adjusting button to adjust the time.

- V side ..... Adjustment of hour
- Λ side ..... Adjustment of minute

How to set to just-time

Push the just-time setting button to reset the "minute" digit of the clock to zero.

Example:

If this button is pushed when the indicator of the time is between 2:00 and 2:29, the time will be set to 2:00.

If this button is pushed when the indicator of the time is between 2:30 and 2:59, the time will be set to 3:00.

AM/FM radio

① Power supply switch/volume adjusting knob
② Tone control knob
③ Balance control knob
④ Tuning button
⑤ AM/FM selection button
⑥ Preset station selection buttons
⑦ Display section

① Power supply switch
Push the switch to turn ON the power supply.
Push the switch again to turn OFF the power supply.

① Volume control knob
Turn the knob to adjust the volume.
Clockwise ..... Increase
Counterclockwise ..... Decrease

② Tone control knob
Turn the knob to adjust the tone.
Clockwise ..... Stronger treble
Counterclockwise ..... Weaker treble

③ Balance control knob
Turn the knob to adjust the balance of volume between the right and left speakers.
Clockwise ..... Stronger at right
Counterclockwise ..... Stronger at left

④ Tuning button
Push the button to set to a desired frequency.
See "Tuning."

⑤ AM/FM selection button
Push the button to choose either the AM band or the FM band.

⑥ Preset station selection buttons
Push the button to select a desired station.
See "Tuning" and "How to preset broadcasting station."

⑦ Display section
The display section indicates as follows:

Radio operating procedure

Tuning

Choose either the AM band or the FM band by pushing the AM/FM selection button.
The radio will change automatically to stereo reception when an FM stereo broadcasting is being received. The display section indicates the "ST" sign.
If the stereo broadcasting becomes weak because of being static, the radio will automatically switch over to monaural reception.

There are three kinds of the station selecting methods.

1. Manual tuning
   Lightly push the tuning button to set to a desired frequency.
   Each time the button is pushed, the frequency changes progressively.
   - Λ side ..... Higher frequency
   - V side ..... Lower frequency

   The receiving frequency is indicated in the display section.
   If the frequency being received has already been preset, the channel number is indicated in the display section.

2. Seek tuning
   Keep the tuning button pushed, until beep sound is emitted. Then, release your finger. The radio starts seeking a broadcasting station, starting from the current frequency toward a higher or lower frequency. When the station is received, the seek tuning stops automatically.
   - Λ side ..... Higher frequency
   - V side ..... Lower frequency

   The receiving frequency is indicated in the display section.
   If the frequency being received has already been preset, the channel number is also indicated in the display section.
   To cancel the seek tuning, push the tuning button again.

3. Preset tuning
   The preset station is automatically selected by pushing the preset station selection button.
   The receiving frequency and channel number are indicated in the display section.

How to preset broadcasting station

You can preset five stations for each of the AM band and FM band.

1. Choose either the AM band or the FM band by pushing the AM/FM selection button.
2. Push the tuning button to set to a desired frequency.
3. Keep pushing the preset station selection button of the desired number. The unit emits beep sound to indicate completion of memorizing.

NOTE

In cases where the battery is disconnected or the fuse is blown out, the memory of the preset station selection button is erased. It is necessary to have the stations memorized again.

OFE-07009

MW/SW/FM radio

① Power supply switch/volume adjusting knob
② Tone control knob
③ Balance control knob
④ MW/SW/FM selection button
⑤ Tuning button
⑥ Preset station selection buttons
⑦ Display section

① Power supply switch
Push the switch to turn ON the power supply.
Push the switch again to turn OFF the power supply.

① Volume control knob
Turn the knob to adjust the volume.
Clockwise ..... Increase
Counterclockwise ..... Decrease

② Tone control knob
Turn the knob to adjust the tone.
Clockwise ..... Stronger treble
Counterclockwise ..... Weaker treble

③ Balance control knob
Turn the knob to adjust the balance of volume between the right and left speakers.
Clockwise ..... Stronger at right
Counterclockwise ..... Stronger at left

④ MW/SW/FM selection button
Push the button to choose one of the FM, MW, SW1 (2.94 - 5.175 MHz), SW2 (5.82 - 12.215 MHz) and SW3 (15.10 - 21.975 MHz) bands.

⑤ Tuning button
Push the button to set to a desired frequency.
See "Tuning."

⑥ Preset station selection buttons
Push the button to select a desired station.
See "Tuning" and "How to preset broadcasting station."

⑦ Display section
The display section indicates as follows:

Radio operating procedure

Tuning

Push the MW/SW/FM selection button to select a band from the FM, MW, SW1 (2.94 - 5.17 MHz), SW2 (5.82 - 12.215 MHz) and SW3 (15.10 - 21.975 MHz) bands.

If seeking a broadcasting station is difficult because of weak reception radio wave, this unit will automatically switch the station selecting sensitivity. In this case, the display section indicates the "DX" sign.

The radio will change automatically to stereo reception when an FM stereo broadcasting is being received.

If the stereo broadcasting becomes weak because of being static, the radio will automatically switch over to monaural reception.

There are three kinds of the station selecting methods.

1. Manual tuning
   Lightly push the tuning button to set to a desired frequency.
   Each time the button is pushed, the frequency changes progressively.
   - Λ side ..... Higher frequency
   - V side ..... Lower frequency

   The receiving frequency is indicated in the display section.
   If the frequency being received has already been preset, the channel number is also indicated in the display section.
2. Seek tuning
   Keep the tuning button pushed, until beep sound is emitted. Then, release your finger. The radio starts seeking a broadcasting station, starting from the current frequency toward a higher or lower frequency. When the station is received, the seek tuning stops automatically.
   - Λ side ..... Higher frequency
   - V side ..... Lower frequency

   The receiving frequency is indicated in the display section.
   If the frequency being received has already been preset, the channel number is also indicated in the display section.
   To cancel the seek tuning, push the tuning button again.
3. Preset tuning
   The preset station is automatically selected by pushing the preset station selection button.
   The receiving frequency and channel number are indicated in the display section.

How to preset broadcasting station

You can preset five stations for each of the MW, SW and FM bands. (In the case of the SW, a total of five stations can be preset for SW1, SW2 and SW3.)

1. Push the MW/SW/FM selection button to select a band from the FM, MW, SW1 (2.94 - 5.17 MHz), SW2 (5.82 - 12.215 MHz) and SW3 (15.10 - 21.975 MHz) bands.
2. Push the tuning button to set to a desired frequency.
3. Keep pushing the preset station selection button of the desired Number. The unit emits beep sound to indicate completion of memorizing.

NOTE

In cases where the battery is disconnected or the fuse is blown out, the memory of the preset station selection button is erased. It is necessary to have the stations memorized again.

OFE-07010

Cassette tape player

① Cassette tape insertion slot
② Volume control knob/balance control knob
③ Fader control knob
④ Treble control knob
⑤ Bass control knob
⑥ Tape selector button
⑦ Program indicator
⑧ Power level indicator
⑨ Program selector button
⑩ Fast forward/rewind/eject buttons
⑪ Automatic music selection button
⑫ Tuner operation indicator

① Cassette tape insertion slot
Insert a cassette tape into the cassette tape insertion slot in such a way that the open edge comes at the right side and the side to which you want to listen faces upward. The music starts when the cassette tape is fully inserted.
The playing direction of the tape is indicated by the program indication.
At the end of the tape, the cassette will automatically reverse and play the other side of the tape.

② Volume control knob
Turn the knob to adjust the volume.
Clockwise ..... Increase
Counterclockwise ..... Decrease

② Balance control knob
With the knob pulled, turn the knob to adjust the balance of volume between the right and left speakers.
Clockwise ..... Stronger at right
Counterclockwise..... Stronger at left
After the adjustment, push the knob to the original position.

③ Fader control knob
(Two-speaker system)
Turn the knob to make the setting according to the position of the speaker.
Full left ..... When front speakers are used:
Full right ..... When rear speakers are used:

NOTE
If the knob is set to the position where no speaker is used, the unit can produce no sound. Therefore, be sure to set the knob to the position where the speakers are used.

(Four-speaker system)
Turn the knob to adjust the balance of volume between the front and rear speakers.
Clockwise ..... Stronger at rear side
Counterclockwise ..... Stronger at front side

④ Treble control knob
Push the knob. With the knob protruded, turn it to adjust the treble range.
Clockwise ..... Stronger treble
Counterclockwise ..... Weaker treble
After the adjustment, push the knob to the original position.

⑤ Bass control knob
Push the knob. With the knob protruded, turn it to adjust the bass range.
Clockwise ..... Stronger bass
Counterclockwise ..... Weaker bass

After the adjustment, push the knob to the original position.

⑥ Tape selector button
You can select equalizer characteristics suited for the tape by pushing the button.
▬ ON ..... Metal and chrome tapes
▮ OFF ..... Normal tape

⑦ Program indicator
The tape playing direction is shown by the indicator.

⑧ Power level indicator
The right and left output levels are shown over seven stages by the indicator.

⑨ Program selector button
Push this button to play the music on the opposite side while the tape is being played.
The lighting direction of the program indicator changes.

⑩ Fast forward/rewind/eject buttons
To eject tape
The tape ejects when the ◀◀ and ▶▶ buttons are pushed at the same time.
Fast forward
Push the ▶▶ button when the program indicator is ▶; the ◀◀ button when the program indicator is ◀.
Rewind
Push the ◀◀ button when the program indicator is ▶; the ▶▶ button when the program indicator is ◀.
To cancel the fast forward or rewind, lightly push the next button.

⑪ Automatic music selection button
With the button pushed to the ON ▬ state, push the fast forward or rewind button to search for the start point of the music, as follows:
- When fast forward button is pushed: ..... Searching for start point of next music
- When rewind button is pushed: ..... Searching for start point of music being played

The automatic music selection function is cancelled when you push the automatic music selection button again to the OFF ▮ state.

⑫ Tuner operation indicator
This indicator is illuminated when the power supply switch of a combined AM radio tuner is turned ON.

NOTE

1. **There are instances where the automatic music selection function fails to operate fully in the following tapes.**
   - **A tape with a low record level**
   - **A tape recording a music with a long pause or the like**
   - **A tape recording speech, conversation, etc.**
   - **A tape in which the interval between music programs (unrecorded portion) is less than five seconds**
   - **A tape having no interval between the music programs (unrecorded portion)**
2. **If you start the searching within about 15 seconds after the start of the music to get back to its start point, there are cases where the tape is rewound to the start point of the preceding music.**
3. **If you start the searching for the start point of the next music when the remaining time of the music being played is less than about 15 seconds, there are cases where the function skips the next music.**

AM/FM radio with cassette tape player

① Power supply switch/volume control/balance control knob
② Fader control knob
③ Tone control knob
④ AM/FM selection button
⑤ Tuning/time adjusting button
⑥ Preset station selection buttons
⑦ Cassette tape insertion slot
⑧ Fast forward/rewind/eject buttons
⑨ Program selection button
⑩ Display button
⑪ Display section

① Power supply switch
Push the switch to turn ON the power supply.
Push the switch again to turn OFF the power supply.

① Volume control knob
Turn the knob to adjust the volume.
Clockwise ..... Increase
Counterclockwise ..... Decrease

① Balance control knob
With the knob pulled, turn the knob to adjust the balance of volume between the right and left speakers.
Clockwise ..... Stronger at right
Counterclockwise ..... Stronger at left
After the adjustment, push the knob to the original position.

② Fader control knob
(Two-speaker system)
Turn the knob to make the setting according to the position of the speaker.
Full left ..... When front speakers are used:
Full right ..... When rear speakers are used:

NOTE
If the knob is set to the position where no speaker is used, the unit can produce no sound. Therefore, be sure to set the knob to the position where the speakers are used.

(Four-speaker system)
Turn the knob to adjust the balance of volume between the front and rear speakers.
Clockwise ..... Stronger at rear side
Counterclockwise ..... Stronger at front side

③ Tone control knob
Bass control ... Turn the knob to adjust the bass range.
In relation to the center (clicking portion) of the knob:
Clockwise ..... Stronger bass
Counterclockwise ..... Weaker bass
Treble control ... While the knob pulled turn it to adjust the treble range.
In relation to the center (clicking portion) of the knob:
Clockwise ..... Stronger treble
Counterclockwise ..... Weaker treble

④ AM/FM selection button
Push the button to choose either the AM band or the FM band.

⑤ Tuning button
Push the button to set to a desired frequency.
See "Tuning."

⑤ Time adjusting button
Set the time by pushing the time adjusting button and display button at the same time.
See "Adjustment of time."

⑥ Preset station selection buttons
Push the button to select a desired station.
See "Tuning" and "How to preset broadcasting station."

⑦ Cassette tape insertion slot
Insert a cassette tape into this insertion slot.
See "Operating procedure for cassette tape player."

⑧ Fast forward/rewind/eject buttons
Push these buttons to fast forward, rewind or eject a cassette tape.
See "Operating procedure for cassette tape player."

⑨ Program selection button
Push this button to play the music on the opposite side while the tape is being played.
See "Operating procedure for cassette tape player."

⑩ Display button
When this button is pushed while the radio is tuned in to a broadcasting station, the indication of the display section is switched from the time to the frequency.
About five seconds later, the indicator returns to the time mode.

⑪ Display section
This section normally indicates the time.

Radio operating procedure
Tuning

If a cassette tape has been inserted, eject the cassette tape.
Choose either the AM band or the FM band by pushing the AM/FM selection button.
The radio will change automatically to stereo reception when an FM stereo broadcasting is being received. The display section indicates the "ST" sign.
If the stereo broadcasting becomes weak because of being static, the radio will automatically switch over to monaural reception.

There are three kinds of the station selecting methods.

1. Manual tuning
   Lightly push the tuning button to set to a desired frequency.
   Each time the button is pushed, the frequency changes progressively.
   - Λ side ..... Higher frequency
   - V side ..... Lower frequency

   The receiving frequency is indicated in the display section.
   If the frequency being received has already been preset, the channel number is also indicated in the display section.

2. Seek tuning
   Keep the tuning button pushed for more than 0.5 second and release your finger. The radio starts seeking a broadcasting station, starting from the current frequency toward a higher or lower frequency. When the station is received, the seek tuning stops automatically.
   - Λ side ..... Higher frequency
   - V side ..... Lower frequency

   The receiving frequency is indicated in the display section.
   If the frequency being received has already been preset, the channel number is also indicated in the display section.
   To cancel the seek tuning, push the tuning button again.

3. Preset tuning
   The preset station is automatically selected by pushing the preset station selection button.
   The receiving frequency and channel number are indicated in the display section.

How to preset broadcasting station

You can preset six stations for each of the AM and FM bands.

1. Choose either the AM band or the FM band by pushing the AM/FM selection button.
2. Push the tuning button to set to a desired frequency.
3. Keep pushing the preset station selection button of the desired number. When the button is pushed, no sound can be heard once. After a lapse of two seconds, the radio will produce sound again. This means completion of memorizing.

NOTE

In cases where the battery is disconnected or the fuse is blown out, the memory of the preset station selection button is erased. It is necessary to have the stations memorized again.

Operating procedure for cassette tape player

To listen to tape

Insert a cassette tape into the cassette tape insertion slot in such a way that the open edge comes at the right side and the side to which you want to listen faces upward. The music starts when the cassette tape is fully inserted.
If a cassette tape is inserted when the radio is playing, the unit automatically switches to the tape play.
The playing direction of the tape is indicated by the program indicator.
At the end of the tape, the cassette will automatically reverse and play the other side of the tape.

To fast forward or rewind

Fast forward
Push the ▶▶ button when the program indicator is ▶; the ◀◀ button when the program indicator is ◀.

Rewind
Push the ◀◀ button when the program indicator is ▶; the ▶▶ button when the program indicator is ◀.

To cancel the fast forward or rewind, lightly push the next button.

To change tape direction
Push the program selection button to play the music on the opposite side while the tape is being played. The direction of the program indicator will change.

To eject tape
The tape ejects when the ◀◀ and ▶▶ buttons are pushed at the same time.

NOTE
Be sure to eject the tape by pushing the eject buttons when you turn OFF the ignition key switch.

Adjustment of time
Time can be adjusted when the display section is indicating the time.
While pushing the display button, push the time adjusting button to adjust the time.

- V side ..... Adjustment of hour
- Λ side ..... Adjustment of minute

How to set to just-time
When the AM/FM selection button and display button are pushed at the same time, the "minute" digit of the clock is reset to zero.

Example:
If both buttons are pushed when the indication of the time is between 2:00 and 2:29, the time will be set to 2:00.

If both buttons are pushed when the indication of the time is between 2:30 and 2:59, the time will be set to 3:00.

OFE-07012

Compared with normal radio broadcasting (AM), FM broadcasting provides better quality of tone. In addition, stereo reception is possible. Nevertheless, there are some problems for a moving vehicle to receive FM broadcasting due to its inherent characteristics.

OFE-07001

Straight advance characteristic of FM radio signal

Since an FM radio signal has higher frequency than AM radio signal, FM radio signal has properties similar to light. Therefore, there are instances where the radio signal is interrupted by buildings or mountains, thus making it impossible to receive FM broadcasting. As a result, the reception range of FM broadcasting is narrower than AM radio signal.

OFE-07002

Service area of FM broadcasting

(The range of clear reception in the illustration above is one example on a flat zone without any obstacles. This range may very depending upon power, ground configuration and so forth.)

In case that you listen to FM broadcasting in your home, using a stereo radio for household use, you can enjoy clear FM broadcasting, even if the radio signal is very weak, by making the antenna higher or use of a high sensitivity antenna.
On the other hand, if you listen to FM broadcasting using your automotive radio while driving, the broadcasting is adversely affected by many limiting factors, such as the shape of antenna, its installation position and engine noise. Consequently, the zone you can enjoy clear broadcasting becomes smaller compared with the reception in your home.

To fully catch the radio signal, make sure that the antenna is extended to the fullest length during FM reception.

OFE-07003

Fadeout

There are places where FM radio signal becomes weak suddenly. This is called "fadeout."
Fadeout means a phenomenon where radio signals disappear. For example, the radio signal becomes extremely weak behind obstacles, e.g. buildings and poles. When your vehicle passes through these places, no radio signal reaches your antenna. At this point, a sound of "Shatz, shatz ..." is emitted. This is inherent to FM radio signals, which is caused by the unique way of transmission. You can not avoid this phenomenon.

OFE-07004

Multi-path

An FM radio signal reflects when it hits buildings or mountains. When the antenna of your vehicle simultaneously catches direct radio signal and reflective radio signal a sound of "Julu, julu ...." is emitted or the voice of a female announcer becomes husky. This phenomenon is called "Multi-path" distortion.
The number of places where such phenomenon takes place is comparatively small. To avoid the phenomenon, you must move your vehicle from this zone.

How to receive radio signal when noise is bothering you

When noise is bothering you, reduce the high-pitched tone with the treble tone control. This will reduce the noise level, thus providing a more pleasant sound.

- **This radio incorporates the ASC (Automatic Separation Control) circuit. When your vehicle enters a zone having weak radio signal, this circuit automatically lowers the stereo separation degree, thus improving S/N (Signal/Noise) ratio. When your vehicle returns to a zone having strong radio signal, the stereo separation degree will be increased.**

OFF-07005

Section 8

Mirrors

8

Outside mirrors **8–1**

Inside mirror **8–2**

Outside mirrors

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

CAUTION
Be careful not to scratch the mirror when removing ice or snow.

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

To adjust mirrors by lever
Adjust the outside mirrors by moving the lever so that you can see part of your vehicle in the mirror closest to the vehicle.

To adjust mirrors by remote control mirror switch

The remote control mirror switch operates with the ignition in "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.

CAUTION

Return the master switch to the neutral (OFF) position when not in use.

To fold outside mirrors

To fold the outside mirror, simply push it forward or backward.

OFE-08001

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

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

WARNING

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

OFE-D5004

Section 9

Interior equipment

Interior light 9–1

Horn 9–1

Assist grip 9–1

Ashtray 9–2

Sun visor 9–3

Glove box 9–4

Luggage room light 9–4

Tilt steering 9–4

Fire extinguisher (for GCC specifications) 9–5

Interior light

The interior light operates when the interior light switch is set in the "ON" position. The interior light will not operate when the switch is set in the center "OFF" position.

When the interior light switch is set in the "DOOR" position, the interior light will light when the door is opened. Also, when the door is not closed properly, the interior light will light, thus warning that the door is not closed properly.

OFE-09001

Horn

Push the position as shown to activate horn.

OFE-09002

Assist grip

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

OHE-09003

Ashtray

Front ashtray

To use the ashtray, pull it out.
When cleaning, pull out the ashtray as far as it will go. Then, remove the ashtray while applying a slight downward force on the spring plate.

When installing, first align the ashtray with the right and left rails. Then push the ashtray into position.

CAUTION

- **After using the ashtray, return it to the original position.**
- **Do not use the ashtray for trash disposal. Failure to observe this caution may result in a fire.**

OFE-09C05

Rear ashtray

Pull out the ashtray to use.

When cleaning, pull out the ashtray as far as it will go. Then, remove the ashtray, while applying a slight down-ward force on the spring plate.

When installing, align the claws provided at the ashtray with the cut-out sections of the ashtray holder. Push the ashtray into position while applying a slight downward force on the spring plate.

CAUTION

- **After using the ashtray, return it to the original position.**
- **Do not use the ashtray for trash disposal. Failure to observe this caution may result in a fire.**

OFF-09006

Sun visor

Lower the sun visor to protect your eyes from bright sunlight. For bright sunlight coming through the door window, turn the lowered visor 90 degrees toward the door window.

OFE-09007

Glove box

To unlock
Turn the master key counterclockwise. To open the glove box, pull the lever.

To lock
Close the glove box, then turn the master key clockwise.

WARNING
Be certain to keep the glove box door closed while driving to reduce the risk and/or severity of serious bodily injury in the event of an accident or hard driving.

OHE-0900B

Luggage room light

Set the luggage room light switch in "ON" to turn the light on.

With the switch set in the "DOOR" position, the light goes on when the back door is opened and goes out when it is closed.

OFE 09011

Tilt steering

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

WARNING
- **After the adjustment, be sure the steering wheel is locked positively, by moving it up and down.**
- **Never try to adjust the steering wheel position while the vehicle is running, as this can cause an accident.**

OFE-0901C

Fire extinguisher (for GCC specifications)

Remove the fire extinguisher from the cowl side panel.

1. Pull out the safety clip.
2. Aim the nozzle at the fire source. The distance from the fire source should be 2 m (6.6 ft) to 4 m (13.1 ft).
3. Tap the push button strongly.

OFE-09013

Section 10

Driving tips

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Starting engine 10– 1
Driving 4-Wheel-Drive vehicles on the road (Part-time 4WD and Fulltime 4WD) 10– 3
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Parking brake 10–13
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Before starting engine

1. Check the area around the vehicle before entering it.
2. Make sure that parking brake is applied.
3. Adjust seat position, seatback angle, and head restraint height.
4. Adjust the day/night inside mirror and the outside mirrors.
5. Lock all doors.
6. Fasten seat belts.
7. Turn off unnecessary lights and accessories.
8. Check fuel gauge.

OFF-10001

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.**

HD-C engine in normal climate

1. Depress the clutch pedal fully and hold it until the engine starts.
2. Shift the transmission into neutral.
3. Lightly depress the accelerator pedal once and release it, and turn the ignition switch to "START" position to start the engine.
4. When the engine starts, lightly depress the accelerator pedal and assure that charge warning light and oil pressure warning light turn off.

   Method for starting a hot engine:
   Hold the accelerator pedal halfway down until the engine starts.

Starting in cold climate

1. Fully depress the accelerator pedal a few times and then release the pedal.
2. Depress the clutch pedal and start the engine.
   Do not depress the accelerator pedal at this occasion.
3. Warm up the engine. Due to the automatic choke the idling speed is higher than usual, and therefore, it is not necessary to keep the accelerator pedal depressed.
4. Depress the accelerator once again and then release the pedal after the engine is warmed up.
   The automatic choke is released when the pedal is depressed and idling speed will be reduced to normal level.

When engine hardly starts

1. If the engine does not start after a few attempts, allow a short period of time before the next attempt, as excessive suction of fuel might have occurred.
   Or, operate the starter with the accelerator fully depressed. (Do not continue cranking for 10 seconds or longer, otherwise, damage to the battery and or the starter may result.)
2. If the engine does not start yet, do not unnecessarily operate the starter. But check fuel system and spark plugs.

HD-E engine

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

1. Depress the clutch pedal and shift the transmission into neutral.
   Hold the clutch pedal to the floor until the engine is started.
2. With your foot off the accelerator pedal, crank the engine by turning the engine key to "START".
   Release it when the engine starts.

OFE-10002

Driving 4-Wheel-Drive vehicles on the road (Part-time 4WD and Fulltime 4WD)

Basic driving methods

- Make sure to operate the vehicle in 2H position on dry, paved roads. (Part-time 4WD vehicles)
- Make sure to operate the vehicle in FULLTIME position on dry paved roads. (Fulltime 4WD vehicles)
- Special care should be exercised when driving on slippery paved roads such as loose sand, wet, gravel, snow or ice roads.

Avoid sharp turn

4-Wheel-Drive vehicle is a vehicle with higher ground clearance.
4-Wheel-Drive vehicle is not designed for cornering at the same speeds as ordinary 2-Wheel-Drive vehicles.
If possible, avoid sharp turning maneuvers. As with other utility vehicles of this type, if the vehicle is not operated correctly, this may cause loss of control or an accident.

Drive around curves cautiously

Most 4-Wheel-Drive vehicles have higher centers of gravity. Therefore, it should be noted that the effects of centrifugal force differ from those for ordinary 2-Wheel-Drive passenger cars.
Be sure to approach curves after slowing down to normal driving speed, driving slowly and cautiously.

On paved road driving in bad weather

When you drive on the road covered with snow or collected heavy rains, shift into 4WD which provides high traction. You should drive slowly and cautiously.

On paved road driving in snow and ice

When you drive on snowy or icy roads, you should maintain traction by changing vehicle speed gradually and avoiding sudden steer. Should you start to slide, release the accelerator pedal and steer in the direction of the slide. Avoid abrupt brake application. When you regain control, depress the accelerator pedal slightly to go back to normal driving lane. Be sure to keep sufficient distance to maneuver between you and the vehicle ahead.

Drive slowly using engine brake with lower gear. When stopping the vehicle, repeat a light brake application to avoid locking of the wheels.

OFE-10027

Driving 4-Wheel-Drive vehicles off-road (Part-time 4WD)

The type of terrain and condition of the off-road surface will require you to select either 2H, 4H, or 4L position for part-time 4WD vehicles in order to get the best performance from your vehicle.
Please see this manual at p. 10–6, 7, Transfer Shift Lever, for help on selection.

You will also want to know about the advantages of the manual free-wheeling hub, automatic locking hub, and how to set it for off-road use. See manual at p. 10–8, 9.

Sand

Always try to keep all four wheels of the vehicle on the solid surface of the trail.
Drive slowly and cautiously avoiding abrupt steering and spinning of the wheels.
When the rear wheels are bogged down in sand and the vehicle will not move, shift the transfer gear into the 4L position for the best traction.

Mud

When driving in mud, keep the accelerator pedal slightly-depressed and avoid abrupt steering. Drive in the center of the road as much as possible, avoiding area where the mud may be deeper.
Should you start to slide, release the accelerator pedal and steer in the direction of the slide until you regain control. Avoid abrupt brake application.
If the rear wheels are bogged down in mud and the vehicle will not move, shift the transfer gear to the 4L position for the best traction and power.
After the vehicle has been driven through mud, thoroughly wash the undercarriage of the vehicle to avoid any damage to the vehicle components.

Water

Before you enter water, shift the transfer lever to the 4L position. Carefully check the conditions of the water bottom. While negotiating through water, do not to drive the vehicle so fast as to splash water.

When your vehicle has passed through water, be sure to check whether the vehicle still retains good braking performance before you continue ordinary driving. Lightly depress the brake pedal two or three times so as to ascertain the brake effects.

- If water enters into the brake system (i.e. pads, linings, rotor or drum), braking effect will be deteriorated temporarily.
- For such situations, decrease speed for safe driving. While paying due attention to nearby vehicles, repeat the braking action for a little while. This will speed up drying the brake pads, rotor, linings, or drum and the braking effect will be restored to the normal state quickly.

Gravel

Maintain steady speed and avoid sudden steering. Drive on the center side of the road as much as possible, for gravel at the side of the road may be looser and unstable. Should you start to slide, release the accelerator pedal and steer in the direction of the slide until you regain control. Avoid abrupt brake application. Repeat light braking action, utilizing engine braking effort.

In very loose gravel, be sure to shift into 4L position.

Snow
Shift into 4L position and maintain steady speed. This will help prevent the wheels from spinning.

We recommend to use tire chains.

Install the tire chains only on the rear tires. Do not install the tire chains on the front tires.

Climbing steep grades
4-Wheel-Drive vehicles can climb up a very steep grade, by selecting a suitable transfer gear range. To climb a very steep grade, shift the transfer shift lever to the 4L position at the foot of the steep grade. Proceed to climb up the hill slowly without racing the engine. When descending a steep downhill, do not rely solely on your service brakes alone, but be sure to use to engine brake.

WARNING
- **Never attempt to drive crosswise or turn on steep slopes or hills. Failure to observe this warning may result in losing, slipping sideways and even rolling over.**
- **Always try to drive straight up or straight down slopes. Should you encounter engine stall, do not try to turn around. We recommend backing down with gear engaged to a safe place.**

Always perform a maintenance inspection after each day of off-road driving that has taken you through sand, dirt, mud, heavy snow, or water.

Maintenance items
- Front brake pads and discs
- Rear brake linings and drums
- Brake line and hoses
- Transmission, transfer, and differential oil
- Wheel bearings
- Dust boots
- Air filter

Grease applied items
- Steering linkage and knuckle
- Propeller shaft

OFE-10028

[illegible]

[illegible]

[illegible]

[illegible]

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[illegible]

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[illegible]

[illegible]

Vehicles with manual free wheeling hub

- **2H → 4H**
  Move the shift lever from 2H to 4H with both the free-wheeling hubs engaged while the vehicle is running slowly or is stopped.
  Keep the steering wheel in the straight-ahead position.

- **4H → 2H**
  To shift from 4H to 2H, simply move the shift lever. Disengage both the free wheeling hubs for continued 2H use.
  If you make a shift from 4H to 2H while the vehicle is cornering, the vehicle may still remain in the 4H state although the 4WD indicator is extinguished.
  But, when the vehicle assumes the straight-ahead condition, the shift to the 2H position will take place automatically.

- **4H ↔ 4L**
  Do not perform this shift unless the vehicles is stopped.

OFE-10030

Vehicles with automatic locking hub

- **2H → 4H**
  Stop the vehicle. Move the transfer shift lever from the 2H position to the 4H position.
  Start the vehicle slowly.
  The automatic locking hub will be automatically locked.

- **4H → 2H**
  The shift operation can be performed during the vehicle running.
  Move the transfer shift lever from the 4H position to the 2H position. Then, slowly drive the vehicle straight ahead in opposite direction about 3 m (10 ft).
  The automatic locking hub automatically becomes free.

  If you make a shift from 4H to 2H while the vehicle is cornering, the vehicle may still remain in the 4H state although the 4WD indicator is extinguished.
  If this case, drive the vehicle straight ahead and try again.

- **4H ↔ 4L**
  Be sure to perform the transfer shift operation while the vehicle is stopped. Start the vehicle slowly.

OFE-10031

Fulltime four-wheel drive

Fulltime (four-wheel drive with center differential free) .....
This position is used during normal operation in under the four- wheel operation.

Center differential lock (four-wheel drive with center differential locked) .....
This position is used during operation on lost traction driving conditions.

CAUTION
The full-time 4WD vehicle is not equipped with a 4L range. Hence do not operate this vehicle at those places where a high traction is required.

Manual free wheeling hub

CAUTION

- **Be sure to perform the transfer switching operation when the vehicle is stopped or the vehicle is moving straight ahead.**
- **When the wheels are spinning, never switch from the fulltime position to the center differential lock position.**
- **When this vehicle is to be towed, it is necessary to place the transfer shift lever in the two-wheel drive position. Refer to the section 11 under the "Emergency Towing."**

NOTE

- **When operating the control lever, be sure to positively switch the control lever to the lock or the fulltime position without stopping it halfway.**
- **When any difficulty is encountered in switching the control lever to the lock position, drive the vehicle forward or backward for a short distance. Then, retry the switching operation.**

OHE-10034

This is a device which makes it possible to reduce vehicle running resistance during the 2-wheel driving (2H), by making the front wheels free.

Operating Instructions

For driving in 2H, align the hub handle (△ mark) with the "FREE" position on the hub cover (▽ mark) for both the front wheels.

For 4L or 4H driving, align the hub handle (△ mark) with the "LOCK" position on the cover (▽ mark) for both the front wheels.

CAUTION

1. **Do not move the vehicle if the handle (△ mark) is not aligned exactly with the ▽ mark at the "FREE" or "LOCK" position on the cover.**
2. **Do not operate the vehicle in 4L or 4H when the hub handle is set at the "FREE" position.**
3. **Make sure to set the handle (△ mark) on the both the right and left wheels at the same position.**

OFF-10032

Automatic locking hub

The automatic locking hub can be locked or unlocked, following the shift operation described under the "Transfer shifting instructions (with automatic locking hub)" section on page 10-7.

CAUTION

- **Never switch from the two-wheel drive to the four-wheel drive while moving. Failure to observe this caution may cause abnormal noise from the automatic locking hub and/or its premature wear.**
- **After switching from two-wheel drive to four-wheel drive, start vehicle slowly.**
- **Do not try to fast starts. Failure to observe this caution may cause abnormal noise from the automatic locking hub and/or its premature wear.**
- **If fast starts is made, while trying to get the rear wheels out of slippery places with the transfer shift lever shifted in the 4H or 4L position from 2H position, the automatic locking hub may emit abnormal noises. In this case, slowly engage the clutch so as to lock the automatic locking hub.**
- **When driving the vehicle with the transfer shift lever placed in the 2H position during cold weather, there may be cases where the automatic locking hub emits abnormal noises. In this case, drive the vehicle first under the four-wheel drive mode. After the transfer has warmed up, move the transfer shift lever to the 2H position.**
- **For the lubrication of the front drive system, drive the vehicle under the four-wheel drive mode at least once a month.**

NOTE

The automatic locking hub may emit a noise when locking or unlocking, however, this does not indicate any mulfunction.

OFL 10033

Shifting points

Recommended shifting speeds

For better fuel economy and longer engine life you should upshift at the following speeds;

Upshift speed

km/h (mph)

Upshift	Normal acceleration	Cruise
1st to 2nd	19 (12)	19 (12)
2nd to 3rd	34 (21)	24 (15)
3rd to 4th	48 (30)	39 (24)
4th to 5th	64 (40)	60 (37)

OFF 10004

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 damageded.

km/h (mph)

Gear	Vehicle speed	
	2H and 4H	4L
1	42 (26)	23 (14)
2	71 (44)	40 (25)
3	108 (67)	61 (38)
4	154 (96)	87 (54)

OFF 10025

CAUTION

When descending a steep hill or long grade ...

- **Down shift to assist the brakes by selecting a suitable lower gear. Excessive prolonged use of the brakes can cause loss of braking efficiency or loss of brake function due to overheating and can cause premature brake wear.**
- **Use care in downshifting on icy, slippery, or wet roads.**
  Failure to do so could cause your wheels to lock or skid, and could lead to loss of control or accident.

- Gear shifting should be made in accordance with vehicle speeds.
  Do not use excessive engine speed by operating your vehicle in lower gears for a prolonged period.
  Avoid letting the engine labor at low speed with the transmission in the higher gear positions. This driving practice will strain the engine and increase fuel consumption.
- Accelerate your vehicle moderately. Avoid unnecessary sudden accelerations or abrupt brake applications.
  Once your vehicle has attained the desired speed, maintain that speed as constantly as possible.
- Avoid driving at unnecessarily high speeds.
  A reasonable vehicle speed helps lower fuel consumption.

- It is advisable to select 5th gear during high speed operation. This will help save fuel consumption and reducing the engine noise level.
- Adjusting your driving to help keep the vehicle moving whenever possible since it requires more fuel to move the vehicle from a stop.
- Sensible driving of your vehicle, combined with proper maintenance, not only makes it possible to obtain the originally-designed performance of your vehicle, but also contributes to saving fuel.

OFL 10013

Battery
Check the battery condition and cables. Battery capacity tends to reduce in cold weather. (See Section 14)

Engine coolant
Fill the sufficient mixture rate of coolant.

Engine oil
Refer to the engine oil viscosity chart on Section 15.

Washer fluid
Use anti-freeze type washer fluid.

Parking brake
Do not apply the parking brake when the mechanism could be frozen.
Shift the transmission to 1st or reverse. Chock the wheels.

WARNING
- **Remove snow on the roof before driving. Accumulated snow may fall down and block your vision.**
- **Remove ice or snow from your shoes before entering the vehicle. This could prevent accidental slipping during pedal operation.**

Snow chain
CAUTION
To prevent damage to your vehicle;

- **Install a tire chain on a safe place.**
- **Do not exceed 50 km/h (30mph) or the tire chain manufacturer's recommended speed limit whichever is lower.**
- **Adjust vehicle speed to road conditions and avoid sharp turns.**
- **Avoid bumps and potholes which may cause vehicle to bounce.**
- **If possible, avoid hard braking and drive carefully.**
- **Follow the instructions of tire chain manufacturers.**
- **Install the tire chains on the rear tires as tightly as possible.**
- **Do not install tire chains on the front tires.**
- **Retighten the tire chains after driving 0.4 - 0.8 km (1/4 - 1/2 mile).**

OFT 10014

Brake system

Tandem master cylinder brake system

Your Daihatsu is equipped with a front disc brake and an automatic adjusting rear drum brake. Its brake system is a power-assisted dual hydraulic braking system. These dual brake systems function independently from each other.

If either of the dual systems should fail, the other system still remains operative. Nevertheless, a greater force is required to depress the brake pedal. As a result, braking distance increases. When either system fails, the brake warning light should glow. Do not rely on a single operative brake system. Have the brake system repaired immediately.

WARNING
If either of the dual brake systems malfunctions, braking efficiency will be reduced and stopping distance will greatly increase.

OHE-10016

Brake booster

The brake booster utilizes engine manifold vacuum to assist braking force.

If the engine is stopped during driving, the brake booster system can retain a residual vacuum that is enough for stopping the vehicle only once or twice with a normal pedal applying force. After that, no residual pressure remains.

OHE-10017

General precautions for braking

- **The brake booster utilizes engine manifold vacuum to provide power assisted braking performance. If the engine is stopped during driving, the effectiveness of brakes will decrease significanty.**
- **If malfunction of one of the dual brake systems should occur, the travel of the brake pedal will increase. Stopping distance is significantly increased.**
- **Make sure that free movement of the brake, clutch and accelerator pedals are not hindered by the floor mat.**
- **While driving, never rest your foot on the brake pedal. Riding the brake will result in overheated brakes, loss of braking ability, and premature lining wear.**

- **Before you start to descend a steep grade, shift the transmission to a lower gear so that speed may be reduced and controlled.**
  Be sure not to apply the brake for extended amounts of time or continuously. Continuous application of brakes may cause the brakes to overheat and loss of brakes.
- **Tire traction ability may be reduced while driving in water. Moisture in the brakes caused by water on the road, car washing or the adhesion of salt applied on the road may affect the braking ability adversely.**
  If the brakes become wet, cautiously apply the brakes and they will dry. Several cautious applications of the brakes will remove moisture or any adhesion of salt.

OFE-10018

Brake pad wear limit indicators

The brake pad wear limit indicators on the front disc brakes give a warning noise when the brake pads are worn.
If you should hear a squealing or scraping noise while driving, have the brake pads and rotor checked and/or replaced by a Daihatsu dealer as soon as possible.

WARNING
Never continue to use worn brake pads. This can result in a dangerous loss of braking, which may lead to an accident or serious damage to the vehicle braking components and serious bodily injury.

OFE-10037

Parking brake

How to set
Pull the lever up.

How to release
First, raise the lever slightly and then push the button with your thumb, then lower the lever completely to the down position.

WARNING
Before driving, make sure to release the parking brake completely and that the brake warning light is off.
A partially-applied parking brake may cause the rear brake to overheat, resulting in reduced effectiveness of the rear brakes and premature wear.

CAUTION
When you park your vehicle, always engage the parking brake fully and put the shift lever in either reverse gear or first gear. In addition, when parking your vehicle on a grade, turn the front wheels as indicated in the picture.

OFE-10021

On an upgrade:
(with curb)

Turn the front wheels away from the curb.

On a downgrade:
(with curb)

Turn the front wheels in a direction toward the curb.

Power steering

On any grade without a curb:

Turn the front wheels toward the side of the road.

OFE-1002

The power steering system on your vehicle is of the hydraulic pressure type operated by the engine output.

Therefore, the steering operation requires increased force with the engine off.

CAUTION
If you notice any malfunction, have the system checked by a Daihatsu Dealer.

OFE-0013

Section 11

In case of an emergency

If engine won't start 11– 1

Jump starting 11– 1

Engine overheating 11– 3

Flat tire 11– 5

Emergency towing 11–11

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 still is not clear, have the system checked by a Daihatsu dealer.

WARNING

- **Do not push- or pull-start the vehicle. This could damage the vehicle or cause an accident.**

In case the starter cranks

(1) Check to see if the engine is getting fuel.

Check the fuel gauge. If the pointer registers at or below the empty line, the fuel tank may be empty. Refill the fuel tank.

(2) If the engine is getting fuel, check that the spark plug wires connecting the distributor and spark plugs are securely inserted in place.

(3) If the engine still won't start, or if the check engine light (CHECK ENGINE) goes on, the engine needs adjustment or repair. Call a Daihatsu dealer for assistance.

Jump starting

WARNING

- **To avoid serious bodily injury and damage to your vehicle which might result from battery explosion, acid burns, electrical burns or damaged electronic components, these instructions must be followed precisely. If you are unsure about how to follow this procedure, seek the help of a competent technician or towing service.**
- **Batteries contain sulfuric acid, which is poisonous and corrosive. Wear protective safety glasses when jump starting and avoid spilling acid on your skin, clothing or vehicle. If you should accidentally get acid on your skin or in your eyes, remove any contaminated clothing and flush the affected area with water for at least 15 minutes. Then get immediate medical attention. If possible, continue to apply water with a sponge or cloth while enroute to the medical facility.**

- **The gas normally produced by a battery will explode if a flame is brought near the battery. Therefore, do not smoke, light a match, or have any flames or sparks near the battery while jump starting a vehicle.**

To help reduce the risk of serious bodily injury and damage to the vehicle;

- **Be certain to heed to all WARNINGS and instructions of the jumper cable manufacturer.**
- **The jumper cables must be long enough so that the vehicles do not touch each other.**
- **If the booster battery is used improperly when starting the vehicle, there is a possibility that an explosion may occur.**
- **Never attempt to charge a frozen battery. First, melt the ice in the battery. There is a possibility that gases trapped in the ice may explode.**
- **Do not attempt to jump start the vehicle when the electrolyte level is low in the battery. Add distilled water.**

CAUTION

The voltage of the booster battery must be 12 volts.

Application of a higher voltage may cause expensive damage to sensitive electrical equipment (relays and radio, etc.).

Do not jump start unless you are sure that the booster battery is of the correct voltage.

The capacity (AH rating) of the booster battery must not be lower than that of the discharged battery.

Connect cables in numerical order
Disconnect in reverse order after use

1. If the booster battery is installed in another vehicle, make sure that the vehicles are not touching. Turn off all unnecessary lights and accessories on both vehicles.
2. If the engine in the vehicle with the booster battery is not running, start it and let it run for a few minutes. During jumping, idle the engine at about 2,000 rpm.
3. Before connection of the jumper cables, make sure that the engine key on the vehicle with the discharged battery is turned to the LOCK position.

4. Connect the jumper cables in the exact order shown in the illustration; positive-to-positive (+), and negative-to-engine or body ground (–).

   Connect the positive cable (+) first to the discharged battery and then to the booster battery. Next, connect the negative cable (–) to the booster battery and then to a solid, stationary, metallic point (e.g. engine hanger hook) away from the battery. Do not connect it to or near any moving parts.

   When making the connections, do not let the jumper cables or clamps touch anything except the correct battery terminals or the ground. Do not lean over any battery when making the connections. Do not allow the jumper cable clamps to touch each other while any one or more clamps are connected.

5. Start the engine in the normal starting procedure. After starting the engine, run it at 2,000 rpm for several minutes.

6. Carefully disconnect the cables in the exact reverse order; the negative cable first and then the positive cable.

If the cause of your battery discharging is not apparent (i.e. having left the light on by error), you should have your vehicle checked.

Engine overheating

If the engine overheats, the pointer of the water temperature gauge moves beyond the "proper temperature zone" toward the "overheating zone".

Furthermore, the engine begins to emit "pinging" noises and engine performance drops noticeably.

In this case, observe the following WARNINGS and take the procedure described.

WARNING
To help reduce the risk of serious bodily injury:

- **Do not attempt to remove the radiator cap when the engine and radiator are hot.**
- **Never permit your face, fingers, hair or clothes to come near the fan blades when the engine is running.**
- **Allow enough time for the engine to Cool.**
  Your skin could get a burn if your body touches a hot part in the engine compartment.
- **If the radiator cap is loosened or removed while the engine is hot, it will permit steam or boiling water to blow out and may cause serious personal injury.**

1. Park the vehicle on a safe place and turn the air conditioner off.
2. If steam is coming out, turn the engine off. If it is not, run the engine at idling.
3. After the engine has cooled, carefully open the hood and check the components.
4. If the drive belt is broken, engine coolant is leaking, or the coolant level is low etc., stop the engine immediately and contact a Daihatsu dealer.
5. Add coolant if the coolant level is insufficient. ("See Section 14".)

The engine is more prone to overheat in summer. 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 a Daihatsu dealer.

Flat tire

If your vehicle should have a flat tire, drive safely to a point of rest so as not to obstruct traffic. Avoid changing flat tires on a slope or on soft ground.

CAUTION

- **Use the jack provided with your vehicle only for the purpose of changing the wheels. Under no circumstances should your jack be used to raise other vehicles or other loads.**
- **Never use the jack to support the vehicle when you work under the vehicle. If the jack should be moved accidentally, you may be seriously injured. When you work under your vehicle, always use jack stands designed specially for this purpose.**
- **No person should remain in the vehicle while the vehicle is being jacked up or resting upon a jack.**
- **Prior to changing a wheel, make sure that the ground is level and solid. Place a flat and wide board underneath the jack, if necessary, to stabilize the jack.**
- **Make sure parking brake is engaged.**
- **Put vehicle transmission in first or reverse gear.**

Placing a chock

Apply the parking brake.
Place a chock at the opposite end of the tire located diagonally opposite to the flat tire (this is the most effective location for a chock).

Tools and Jack

Learn the storage location of your tools and spare tire before you need then.

Storing location

The tools are stored between the left front seat and the floor tunnel.
The jack is set underneath the left front seat.

How to remove/store the jack

The jack can only be removed/stored from the rear of the front seat.
To remove the jack, turn the joint by hand counterclockwise until the jack is free.

To store the jack, turn the joint by hand clockwise until the jack is firmly secured to prevent it moves during a collision or sudden braking.

NOTE

Be sure to tighten the joint from the front side.

If the joint is tightened from the back side, the feet of an occupant at the rear seat may hit the joint, resulting in loose joint.

Maintenance instructions

- Apply the MP grease to all the siding parts.
- Ensure that there is no distorton or crack on the jack.
  If there is replace it with a new one.

Jack handle bar

Storing Location

The jack handle bar is located at the radiator upper member in the front of the engine compartment.

The jack handle is stored in the tool bag.

Tools

① Tool bag

② Hub nut wrench & Jack handle

③ L type handle

④ Spark plug wrench

⑤ Spanner (10 x 12, 14 x 17, 19 x 22)

⑥ A pair of pliers

⑦ Wheel cap replacer

⑧ Screwdriver ⊕ ⊖

⑨ Roof panel wrench

Spare tire

Spare tire removal

Remove the two nuts and one bolt that hold the spare tire to the spare tire carrier.
Then take the spare tire off.

Spare tire storage

Install the spare tire with the valve stem side of the wheel facing rear-ward.
Then tighten the two attaching nuts and one bolt to 3.5 - 5.5 kg-m (25 - 40 ft-lb, 34.3 - 53.9 N·m).

Wheel center cap

To remove wheel center cap

WARNING

In order to avoid serious bodily injury do not attempt to pull off the wheel center cap by hand.

For steel weel

Insert the L type handle into position and pry off the center cap.

For aluminium wheel

Remove the wheel center cap after removing the wheel.
From the back side, lightly tap the edge of the wheel center cap at several points by means of a screwdriver ⊖.

To install wheel center cap
Front side (with free wheel hub)
With the wheel cap replacer placed on the center cap, lightly tap the replacer so as to install the center cap.

Slightly loosen wheel lug nuts

Using the wheel lug nut wrench, slightly loosen each of the wheel lug nuts.

Setting jack

Set the jack at the jack setting point nearest to the tire to be replaced.

Setting position:

Front: Setting position is at the transmission member attaching section under the frame. Place the jack at the center portion of the transmission member attaching bolts. See illustration.

Rear: Place the jack head center under the protrusion provided on each side of rear axle housing. See illustration.

WARNING

To help reduce the risk of damage to your vehicle and serious bodily injury:

- **Do not set the jack at places other than the specified jack setting points.**
- **Make sure that the jack is positioned on level and solid ground. If necessary, place a board underneath the jack to stabilize it.**
- **Never place any portion of your body under the vehicle while its weight is being supported by a jack.**

Jacking up vehicle

Turn the jack handle clockwise to raise the vehicle. Gently jack up the vehicle until the tire clears the ground surface by about 2.5 cm (1 inch).

Replacing tire

Remove the wheel lug nuts.
Replace the flat tire with the spare tire.

- **Before putting on the spare wheel, remove any corrosion on the brake drum or disc and wheel lug surface with a wire brush. Be sure not to get any foreign matter between the brake drum or disc and the wheel lug.**
- **Installation of wheels without good metal-to-metal contact at the mounting surface can cause the wheel lug nuts to loosen during driving.**

Reinstalling wheel lug nuts

Reinstall all the wheel lug nuts and tighten them until the wheel is no longer loose. Do not yet tighten firmly.

Lowering vehicle

Turn the jack counterclockwise to lower the vehicle.

Tightening wheel lug nuts

After the jack has been lowered, tighten the wheel lug nuts securely in a diagonal sequence across the wheel.

Tightening torque:
9 - 12 kg-m
(65 - 87 ft-lb, 88.2 - 117.6 N·m)

After during 1,000 km (600 miles), check to see that the wheel lug nuts are tight.

After changing wheels

Check the air pressure of the replaced tire and adjust it to the specified pressure. Store all tools, jack, jack handle and flat tire securely in the proper place.

WARNING

- **Improper air pressure may cause premature tire wear and adversely affect the handling of your vehicle causing a loss of steering control or accident.**
- **If you encounter vibrations or abnormal noises after the tires have been changed, have them checked by a Daihatsu dealer immediately.**

Emergency towing

If towing is necessary, we recommend you have it performed by a Daihatsu dealer or a commercial tow truck service.

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

WARNING
Under no circumstance should a person be allowed to ride in a vehicle being towed when the front or rear wheels off the ground.

CAUTION
Be sure to use the towing dolly when towing faster or farther than the described limits. Failure to observe this precaution will cause damage to the transmission.

2WD position (Fulltime 4WD vehicle)

Figure 1

Figure 2

Before a vehicle with fulltime 4WD vehicle is to be towed with the front wheels or rear wheels on the ground, be sure to set the transfer case to the "2WD" mode and follow the procedure listed below.

Step 1. Release the set bolt. (figure 1) (From underneath of vehicle)

Loosen the set bolt provided at the lower section of the retainer of the transfer case until it comes out from the threaded portion. Then pull the set bolt all the way down by hand.

Step 2. Shift the transfer shift lever into "2WD" position. (from vehicle interior)

The shift lever is now able to moved into the "2WD" position as shown in the figure 2. To move the lever into "2WD" position, move it to the right and upward as indicated.

CAUTION

- **Upon completion of towing, be sure to return the transfer shift lever to the "CENTER DIFF LOCK" position or "FULLTIME" position. Securely tighten the set bolt.**

Tightening torque:
3.0 - 4.5 kgf·m
(21.7 - 32.5 ft-lb, 29.4 - 44.1 N·m)

- **Failure to tighten the bolt to the original position after towing will make the vehicle unsafe to drive.**

Towing with front wheels on ground

We recommend using a towing dolly.
If a towing dolly is not available, be sure to observe the following conditions.

1. Transmission in "NEUTRAL".
2-1. Transfer case in "2H" on Part-time 4WD vehicles.
2-2. Transfer case in "2WD" on Fulltime 4WD vehicles. (See page 11-11 for "2WD" position)
3. Maximum speed 50 km/h (30 mph).
4. Maximum distance 80 km (50 miles).
5. Ignition key in "ACC" position.
6. Steering wheel secure to keep the front wheels in a straight ahead position.

OFF 11014

Towing with rear wheels on ground

We recommend using a towing dolly.

If a towing dolly is not available, be sure to observe the following conditions.

1. Release the parking brake.
2. Transmission in "NEUTRAL".
3-1. Transfer case in "2H" on Part-time 4WD vehicles.
3-2. Transfer case in "2WD" on Fulltime 4WD vehicles. (See page 11-11 for "2WD" position)
4. Maximum speed 50 km/h (30 mph).
5. Maximum distance 80 km (50 miles).

OFF 11015

Towing with four wheels on ground

If your vehicle is disabled, attach a sturdy rope, towing strap or cable to the towing hook.
The following steps must be performed.

1. Parking brake must be released.
2. Transmission must be placed in the "NEUTRAL" position.
3-1. Transfer case must be placed in "2H" position on Part-time 4WD vehicles.
3-2. Transfer case must be placed in "FULLTIME" or "2WD" position on Fulltime 4WD vehicles.
4. Ignition key must be placed in the "ACC" position.

5. Manual free wheeling hubs or automatic locking hubs must be placed in "FREE" position. (See page 10-8)
6. Wheels, axles, drive train and steering must be in good condition.
7. Towing speed does not exceed 50 km/h (30 mph).
8. Maximum distance 300 km (200 miles)

CAUTION

- **The vehicle can be towed in this manner only when wheels, axles, drive train, steering or brakes are in good condition. Otherwise never try to tow in this manner.**
- **A driver must ride in the vehicle to maneuver it and operate the brakes.**
- **When the engine is not running, the brake booster and power steering do not operate. Therefore braking and steering will require much more effort than usual.**
- **Do not use the towing hook unless your vehicle is towed on hard-surfaced roads.**

Precautions about towing hook

- **Be sure to check that the hook is installed securely.**
- **Attach the towing rope or cable securely to the hook.**
- **Do not pull the hook sharply.**
- **Always pull the hook straight ahead to prevent it from being damaged. Do not pull it from the side or from a vertical direction.**

OHE-1105

Instructions on being towed

When your vehicle is being towed, the brakes should be applied as required so that the towing rope or tow cable is tight at all times.

If the towing rope or cable should loosen, the rope or cable will be pulled sharply when the towing vehicle is accelerated. This may cause the rope or cable to break, any knot to untie, or hook to disengage.

WARNING

Make sure to set the ignition key in the "ACC" position, when your vehicle is being be towed. Under no circumstances should the ignition key be pulled out or turned to the "LOCK" position during towing. Once the key is in the "LOCK" position, it can very easily and even unintentionally be removed from the ignition switch. Removing the key would result in the towed vehicle's losing its ability to turn and could cause an accident.

Section 12

Appearance care

Exterior cleaning 12–1

Interior cleaning 12–3

Rust prevention 12–3

Exterior cleaning

Washing

1. Park the vehicle away from direct sunlight and in a well-ventilated area.
   Turn the engine off.
2. While evenly applying water, gently wash the surface with a car washing brush. Use car wash solution or neutral detergent, if required.
3. Apply pressurized water to under-body.
4. Rinse the surface thoroughly so that no solution will remain.
5. Wipe off water with a sponge or chamois.
6. Dry the brake system.

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.**

OFE-12001

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 on wax.**

OFE-12002

Soft top care

Soft top needs special care.

- Use mild soap, lukewarm water, and a brush with soft bristles for washing the soft top. If extra cleaning is required, use a mild foaming cleaner on the entire top.
- After washing the soft top, always make sure it is completely dry before lowering.
- When washing the vinyl quarter and rear windows, be aware of the directions for "Tips for cleaning soft top windows".

CAUTION

To prevent the damage, the following precautions should be observed;

- **Do not run your soft top through automatic car washes.**
- **When washing the soft top, never use harsh cleaners or bleaching agents.**
- **Never use any brush on the vinyl windows.**
- **Do not allow any vinyl cleaner to run down and dry on the paint surface.**
- **Avoid leaving your vehicle unattended with the soft top down, as exposure to sun or rain may damage interior trim.**

OFE-12005

Tips for cleaning soft top windows

The soft top windows are so pliable that they can be easily scratched unless special care is taken.

- To wipe off the dust, use a soft cotton cloth moistened with warm or cold clean water, and wipe across the window, not up and down.
- After thorough rinse, wipe with a soft and slightly moist, clean cloth.
- Zipper operation can be eased by lubricating the zipper.

CAUTION

To prevent the damage, the following precautions should be observed;

- **Never use a dry cloth to remove dust.**
- **When washing the windows, never use hot water or any strong soap or detergents. Never use solvents such as alcohol or harsh cleaning agents.**
- **When removing frost, snow or ice, never use a scraper or de-icing chemicals. Use warm water only if you must clean the window quickly.**

- **Never paste stickers, gummed labels or any tape to the windows. Adhesives are hard to remove and will damage the windows.**

OFE-12006

Interior cleaning

Clean the interior with a vacuum cleaner.

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

Moisture under the floor mats or carpets will cause corrosion of a vehicle. Make sure to check at regular intervals that the underside of the mats or carpets are dry.

Be particularly careful when transporting chemicals, cleansers, fertilizers, salt etc., and these should be transported in the proper containers. If a spill or leak should occur, immediately clean and dry the area.

OFE-12003

Rust prevention

We at Daihatsu have been producing high-quality vehicles with advanced rust prevention design and construction.

Nevertheless, this constitutes merely part of a total rust prevention program. In order to maintain good rust preventive quality for a long period of time, it is important for you to understand how to do your part.

Causes for rust formation
Normally, the following are causes for rust formation.

- Salt on the roads, dirt and water may promote corrosion on the underside of the vehicle.
- Chips, nicks, scratches and dents that expose bare metal.

Adverse areas for rust formation
If you are living in an area where vehicles are exposed to rust-prone environmental conditions, rust prevention becomes a matter of critical importance.
Causes for rust formation and factors promoting rust formation are salt sprinkled on the road, chemical substances, salt air, industrial pollution materials and so forth.

Effects of moisture on rust formation
Moisture can provide an environment under which rust formation is prone to occur. Under such a rust-promoting high humidity environment, (specifically when the temperature is higher than 32 degrees Fahrenheit), rust-inducing materials are retained on the surfaces of a vehicle because evaporation of water progresses slowly.

Mud is especially harmful from the viewpoint of rust prevention. Mud is hard to dry, thereby making the vehicle retain moisture for a lengthy time. There are many instances where mud still contains water and causes rust to occur, even if the mud appears to be dry.

High temperature, too, promotes rust formation of some parts, if ventilation for them is inadequate.

Because of these reasons, it is of great importance to keep your vehicle clean (being free from mud or other rust-promoting materials). This applies not only to the exterior of the vehicle, but also to the underside of the vehicle.

Rust preventive measures
If you observe the following points given below, this will help you to prevent rust formation on your vehicle.

Keeping your Daihatsu clean
The most effective rust preventive method is to always keep your vehicle clean and to protect it from corrosion-inducing materials. It is especially, important to pay attention to the underside of the vehicle.

- If you live in an area where rust formation is prone to occur (e.g. region where salt is sprinkled on the road, near bodies of salt water and regions exposed to industrial pollutants), it is advisable for you to pay particular attention to this rust prevention. We recommend that the underside of your vehicle be washed with clean water at least once a month during winter seasons. Upon completion of the winter, the underside should be cleaned thoroughly.
- When cleaning the underside of your vehicle, be sure to pay particular attention to the fenders and other parts hidden from your view. If you fail to clean the mud thoroughly and leave it halfway, the wet mud will further promote the rust formation. Hence, be certain to wash off the mud completely. High-pressure steam cleaning is an effective method especially for removing mud or other rust-inducing materials.
- When cleaning the underparts of the doors, rocker panels, frame members and so forth, make sure that the water drain holes are not restricted.

Keeping your garage dry
Do not park vehicle in a poorly-ventilated garage with high humidity. Such garage constitutes a rust-inducing environment.

If you wash your vehicle in the garage or put your vehicle into the garage with the vehicle in a wet condition or covered with snow, it produces the same environment as described above. Also, the heated garage will promote rust formation, if the ventilation is poor.

Keeping paint finish coats and trims in good conditions

Any scratches or chips on the paint finish must be touched up as soon as possible to help protect rusting. If the bare steel is exposed, it is advisable to have it repaired at a qualified body repair shop.

Do not neglect care for interior, too

Moisture under the floor mats or carpets will cause corrosion of a vehicle. Make sure to check at regular intervals that the underside of the mats or carpets are dry.

Be particularly careful when transporting chemicals, cleansers, fertilizers, salt, etc., and these should be transported in the proper containers. If a spill or leak should occur, immediately clean and dry the area.

OFE-12004

Section 13

Vehicle maintenance

Maintenance requirements 13– 1

Scheduled maintenance service 13– 3

Schedule for NORMAL driving 13– 4

Schedule for SEVERE driving 13–12

Maintenance requirements

Maintenance service is important to ensure trouble-free, safe and economical driving. Failure to maintain your vehicle can cause an accident or damage to your vehicle.

We at Daihatsu offer you a new-vehicle check when your new vehicle has been operated 1,000 km (600 miles) since the registration date. Note that, however, the filters and the lubricants are at the owner's expanse. Please feel free to bring your new vehicle to a Daihatsu dealer for this free but very important inspection service.

OFE-13001

Pre-starting check
For safe and comfortable driving, perform the pre-starting check.

Weekly check:
- Engine oil dirt and level
- Engine coolant level
- Brake fluid level
- Washer fluid level

Monthly check:
- Drive belt
- Battery electrolyte level
- Tire air pressure and wear
- 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 pulled to one side while driving straight on a level road or when the brakes are applied.

Carefully watch your Daihatsu
Watch your Daihatsu for changes in performance, sounds, and visual tip-offs that indicate requirement of maintenance service. Some important clues are as follows:

- Engine missing, stumbling, or pinging
- Appreciable loss of power
- Unusual engine noises
- Any leak of fluid or oil (Water drainage from the air conditioner is normal.)
- Change in exhaust sound
- Flat-looking tire, excessive squeal when cornering or braking, or uneven tire wear
- Vehicle pulling 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 pulling to one side when braking
- Engine temperature continually higher than normal

If you notice any of these conditions, have the vehicle checked by a Daihatsu dealer.

Maintenance records
Keep a copy of the repair order for any maintenance service performed on your Daihatsu.
It proves that all required maintenance has 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 owner's service book for the details of warranty statements.

Scheduled maintenance service

Schedule selection

Daihatsu provides two kinds of maintenance schedules, one for NORMAL driving conditions and one for SEVERE driving conditions.

Please follow the schedule for NORMAL driving or SEVERE driving according to your driving conditions.

How to select schedule for SEVERE driving

Please follow the Schedule for SEVERE driving if you consistently operate your Daihatsu under one or more of the conditions below.

- Towing a trailer
- Operating when outside temperature remains below freezing
- Repeated short trips less than 8 km (5 miles)
- Idling for extended periods and/or low speed operation for long distance such as police, taxi, door-to-door delivery or daily rental service
- Operating in dusty, rough, muddy or salt sprayed roads
- Operating daily for a maximum of 25 km (15 miles) or less, or continuously for 30 minutes or less

→ Follow Schedule for SEVERE driving on page 13-12 in addition to schedule for NORMAL driving

How to select schedule for NORMAL driving

Please follow the schedule for NORMAL driving if none of the above conditions apply.

→ Follow Schedule for NORMAL driving on page 13-4

Schedule for NORMAL driving

Follow the distance and the period the vehicle has been driven whichever comes first, if without any notice.
Continue periodic maintenance service after 100,000 km, following the schedule.

○....Check or inspect ●....Change or replace

Section	Items	What to check	× 1,000 km	1	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
			× 1,000 miles	0.6	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
			(month) year	—	(3)	(6)	(9)	1	(3)	(6)	(9)	2	(3)	(6)	(9)	3	(3)	(6)	(9)	4	(3)	(6)	(9)	5
Engine	• Air cleaner element	• Cleaning, change				○		○		○		●		○		○		○		●		○		○
	• Valve clearance	• Clearance										○								○				
	• Engine oil (API SG, SF or SE)	• Leakage • Level • Change		●	○	●	○	●	○	●	○	●	○	●	○	●	○	●	○	●	○	●	○	●
	• Oil filter	• Change				●		●		●		●		●		●		●		●		●		●
	• Fuel filter	• Change (HD-C engine)										●								●				
		• Change (HD-E engine)																						●
	• Fuel lines & connections	• Damage, crack • Tightness • Leakage		○				○				○				○				○				○

○....Check or inspect ●....Change or replace

Section	Items	What to check	× 1,000 km	1	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
			× 1,000 miles	0.6	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
			(month) year	—	(3)	(6)	(9)	1	(3)	(6)	(9)	2	(3)	(6)	(9)	3	(3)	(6)	(9)	4	(3)	(6)	(9)	5
Engine	• Fuel lines & connections	• Fuel hose replacement		Every 4 years																				
	• Carburetor (HD-C engine)	• Idle speed • Acceleration						○				○				○				○				○
	• Coolant (LLC)	• Quantity • Leakage • Change		○		○		○		○		●		○		○		○		●		○		○
	• V-belt	• Tension • Crack • Damage		○		○		○		○		○		○		○		○		○		○		○
	• Timing belt	• Replacement		Every 100,000 km (60,000 miles)																				
	• Distributor cap, rotor*1	• Damage						○				○				○				○				○
	• Spark plug*1	• Cleaning						○				○				○				○				○
	• Ignition timing*1	• Timing						○				○				○				○				○

*1---In case of US'83 engine, check every 30.000 km (18.000 miles).

○....Check or inspect ●....Change or replace

Section	Items	What to check	× 1,000 km	1	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
			× 1,000 miles	0.6	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
			(month) year	—	(3)	(6)	(9)	1	(3)	(6)	(9)	2	(3)	(6)	(9)	3	(3)	(6)	(9)	4	(3)	(6)	(9)	5
Exhaust emission control system	• Blow-by gas ventilation hose	• Connection • Damage										○								○				
	• Dash pot	• Operation						○				○				○				○				○
	• Spark control system	• Operation						○				○				○				○				○
	• Charcoal canister	• Operation						○				○				○				○				○
	• EGR system*	• Operation																						○
Power transmitting system	• Clutch	• Free play • Reserved working travel				○		○		○		○		○		○		○		○		○		○
	• Transmission & differential	• Oil level • Oil leakage • Oil change		○		○		○		●		○		○		●		○		○		●		○
	• Propeller shaft	• Tightness • Rattle • Damage						○				○				○				○				○

* mark shows only for US'83 engine.

○....Check or inspect ●....Change or replace

Section	Items	What to check	× 1,000 km	1	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
			× 1,000 miles	0.6	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
			(month) year	—	(3)	(6)	(9)	1	(3)	(6)	(9)	2	(3)	(6)	(9)	3	(3)	(6)	(9)	4	(3)	(6)	(9)	5
Suspension system	• Suspension arm, control arm, dust cover	• Tightness • Damage						○				○				○				○				○
	• Shock absorber	• Function • Oil leakage • Damage						○				○				○				○				○
	• Suspension ball joint	• Grease apply						○				○				○				○				○
Running system	• Steering ball joint	• Grease apply						○				○				○				○				○
	• Tire	• Pressure • Damage • Wear		○		○		○		○		○		○		○		○		○		○		○
	• Front wheel bearing	• Rattle						○				○				○				○				○
		• Grease change										●								●				
	• Rear wheel bearing	• Rattle						○				○				○				○				○

○....Check or inspect ●....Change or replace

Section	Items	What to check	× 1,000 km	1	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
			× 1,000 miles	0.6	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
			(month) year	—	(3)	(6)	(9)	1	(3)	(6)	(9)	2	(3)	(6)	(9)	3	(3)	(6)	(9)	4	(3)	(6)	(9)	5
Running system	• Rear wheel bearing	• Grease change										●								●				
Steering system	• Steering wheel	• Tightness • Free play						○				○				○				○				○
	• Linkage, dust cover	• Tightness • Rattle						○				○				○				○				○
	• Wheel alignment	• Side slip test						○				○				○				○				○
	• Knuckles	• Rattle						○				○				○				○				○
	• Ball joint dust seal	• Damage				○		○		○		○		○		○		○		○		○		○
	• Steering knuckles	• Grease apply						○				○				○				○				○
	• Gear box	• Oil check		○				○				○				○				○				○

○....Check or inspect ●....Change or replace

Section	Items	What to check	× 1,000 km	1	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
			× 1,000 miles	0.6	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
			(month) year	—	(3)	(6)	(9)	1	(3)	(6)	(9)	2	(3)	(6)	(9)	3	(3)	(6)	(9)	4	(3)	(6)	(9)	5
Steering system	• Gear box	• Tightness						○				○				○				○				○
	• Power steering belt	• Tightness • Damage				○		○		○		○		○		○		○		○		○		○
	• Power steering fluid	• Fluid check		○		○		○		○		○		○		○		○		○		○		○
		• Fluid hose change		Every 4 years																				
Brake system	• Brake pedal & parking brake	• Free play • Reserved working travel		○		○		○		○		○		○		○		○		○		○		○
	• Disc pad	• Clearance • Wear • Damage						○				○				○				○				○
	• Brake hose, tube	• Leakage • Damage • Loose clamps		○		○		○		○		○		○		○		○		○		○		○
		• Hose, caliper piston seal and boot change		Every 4 years																				

○....Check or inspect ●....Change or replace

Section	Items	What to check	× 1,000 km	1	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
			× 1,000 miles	0.6	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
			(month) year	—	(3)	(6)	(9)	1	(3)	(6)	(9)	2	(3)	(6)	(9)	3	(3)	(6)	(9)	4	(3)	(6)	(9)	5
Brake system	• Brake fluid	• Level		○		○		○		○		○		○		○		○		○		○		○
		• Fluid change (Disc brake)		Every 1 year																				
	• Brake drum, lining	• Wear • Damage						○				○				○				○				○
	• Brake booster	• Function						○				○				○				○				○
		• Vacuum hose replacement		Every 4 years																				
	• Master & wheel cylinder	• Cup and dust seal replacement		Every 2 years																				
	• Proportioning valve	• Replacement		Every 4 years																				
Chassis & body	• Exhaust pipe and muffler, mountings	• Tightness • Damage						○				○				○				○				○

○....Check or inspect ●....Change or replace

Section	Items	What to check	× 1,000 km	1	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
			× 1,000 miles	0.6	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
			(month) year	—	(3)	(6)	(9)	1	(3)	(6)	(9)	2	(3)	(6)	(9)	3	(3)	(6)	(9)	4	(3)	(6)	(9)	5
Chassis & body	• All doors, hood	• Lock operation • Tightness						○				○				○				○				○
	• Seat belt	• Operation • Tightness						○				○				○				○				○
	• Chassis grease	• Condition • Grease apply		○		○		○		○		○		○		○		○		○		○		○
	• Wheel hub nuts, other bolts and nuts	• Tightness		○		○		○		○		○		○		○		○		○		○		○
Electrical system	• Battery	• Electrolyte level			○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	• Wire harness	• Tightness clamps • Damage		○		○		○		○		○		○		○		○		○		○		○
	• Lighting system, meter & gauge	• Function		○		○		○		○		○		○		○		○		○		○		○
	• Heater	• Heater hose replacement		Every 4 years																				

OFE-13003

Engine compartment

HD-E engine

OFE-14050

HD-C engine

Air filter
Distributor
Brake fluid reserve tank
Window washer tank
Battery
Engine oil dipstick
Spark plug
Coolant reserve tank
Radiator cap
Oil filter

Instructions on Do-it-yourself maintenance service

WARNING

- **If you are not versed in the correct repair procedure, please do not attempt to perform the checks and adjustments described in these pages.**
- **To help reduce the risk of serious bodily injury, when you work on any part of your vehicle, remove any neck tie, necklaces, watches, bracelets, rings and so on. If your hair is long, secure it behind your head. Before you service the electrical or fuel system, turn off the ignition switch and disconnect the cable from the negative (–) terminal of the battery so that spark will not occur.**
- **Adjustments for idling and ignition timing require special equipment. Therefore, we recommend that you have them performed only by a Daihatsu dealer.**
- **If you notice that engine oil has been splashed over components in the engine compartment, do not drive your vehicle.**
- **Under no circumstances should the wiring be modified. Failure to follow this caution may cause malfunctioning components or even a fire.**
- **When the engine is running, keep hands, tools, clothes, and other objects away from the moving fan and drive belt.**
- **Do not allow smoking, sparks, or flames near gasoline or the battery, as the fumes are inflammable.**

Never modify your vehicle construction

WARNING

- **Any modification of your Daihatsu could affect its performance, safety, durability or warranty, and may even violate governmental regulations.**
- **Modifying your vehicle can adversely affect its handling, cause an accident, and cause serious bodily injury.**

Condenser cooling fan

Make sure the ignition switch is off when you work near the condenser cooling fan or radiator grille.

WARNING

- **To help reduce the risk of burn injuries, allow the engine to cool before you start checking any component in the engine compartment. Your skin could get a burn if your body touches a hot part.**

- **If your vehicle is equipped with air conditioner, the condenser cooling fan will automatically start to run if the air conditioner is on. Therefore, never touch or come close to the fan blades when the ignition is "ON".**

Engine oil

Engine oil level check

Remove the oil level dipstick from the engine block. Wipe the oil away and re-insert the dipstick. Again, pull out the oil level dipstick to check the oil level.

- The oil level is correct if it is between "F" and "L" marks.
- Be sure to check the engine oil level after more than three minutes has elapsed after the engine has stopped.
- If the engine oil level is too low, be sure to add engine oil.
- Clean any spilled oil.

Engine oil and oil filter change

OFE-14005

Warm up the engine for a few minutes and stop it.
Remove the oil filler cap.

WARNING
Do not change the oil in a hot engine.

Remove the engine under cover rear side to access the oil drain plug.

Place a container for draining the engine oil under the oil pan.
Remove the drain plug with a wrench and allow the oil to drain completely.

Loosen the oil filter with an oil filter wrench and remove it by hand.

Apply a little engine oil on the rubber gasket of the new oil filter. Screw the new filter into place and tighten it until the gasket contacts the seat. Then give it about one additional turn to seat the filter.

Reinstall the drain plug and a new drain plug gasket.
Tighten the drain plug with a proper size wrench.

After adding oil, make sure that the filler cap is installed securely.

Check the oil level with the dipstick.

With the engine running, make sure that there are no small leaks around the oil filter or drain plug. Check underneath the vehicle to make sure no oil is dripping from the vehicle. Any leak indicates improper installation.

Turn off the engine and wait for at least three minutes.
Check the oil level again and add oil if necessary.

WARNING
Spilled oil is highly flammable. To help reduce the risk of fire, be sure to:

- **Securely install the oil filler cap.**
- **Add engine oil carefully and completely wipe away any spillage. Pay particular attention to any spillage on the manifolds, exhaust pipe, and any other parts that become hot.**
- **Wash your hands thoroughly. Prolonged contact with used engine oil could cause skin cancer.**

Install the engine under cover and tighten the five bolts securely.

Engine coolant

Engine coolant level check

Coolant level check should be made at the reserve tank. The coolant level is correct if it is between the "FULL" and "LOW" lines when the engine is cold. If the coolant level is too low, add coolant up to the "FULL" line.
Use only ethylene-glycol type coolant.
Reinstall the reserve tank cap securely.

CAUTION

- **It is necessary to maintain a proper coolant/water ratio that matches the lowest temperature you anticipate in your local region.**
  Follow the coolant manufacturer's directions for information on antifreeze protection.
  If the coolant level becomes low due to natural evaporation, replenish with soft water only.
  If a substantial amount of coolant is lost, the cooling system must be filled with coolant (anti-freeze solution) in the correct concentration.
- **If the reserve tank should become empty, be certain to fill the radiator as well as the reserve tank with the proper mixture of coolant and soft water.**
- **If your cooling system is losing coolant frequently or uses coolant at an excessive rate, bring your vehicle to a Daihatsu dealer so that the cooling system may be inspected and necessary correction made.**

Engine coolant change

The sealed radiator system uses a long life coolant. It is, however, necessary to change the coolant at regular intervals.

Coolant change intervals: every 40,000 km (24,000 miles) or 24 months

For coolant capacity, see Section 15 "Specifications".

WARNING
To reduce the risk of burn injuries from escaping steam or hot water, do not remove the radiator cap or the drain plug if the engine is hot.

Remove the engine under cover front side to access the coolant drain plug.

To drain coolant
Remove the radiator cap.
Drain the coolant, by removing the drain plug from the radiator.
Drain all coolant from the reserve tank.

To fill coolant

1. Install the radiator drain plug and tighten it securely.
2. Follow the coolant manufacturer's directions for information on anti-freeze protection. Use only ethylene-glycol coolant.
   The total capacity of the cooling system is described in Section 15, Specifications.
3. Put the correct proportion of ethylene-glycol coolant in the radiator and reserve tank first. Next, fill the radiator with the correct proportion of clean soft water until the radiator is full.
   Fill the reserve tank with clean soft water to the "FULL" line.
4. After filling the cooling system, close the radiator cap and the reserve tank cap securely.

5. Run the engine for several minutes. Stop the engine and check the coolant level by carefully removing the radiator cap. Add clean soft water, if necessary, directly to the radiator.
6. After adding clean soft water, install the radiator cap tightly.
7. After changing coolant, warm the engine to its normal operating temperature.
   Make sure that no water is leaking from the drain plug.
8. Install the front engine under cover by using bolts securely.
9. After driving for a short while, check the coolant in the reserve tank.
   If the coolant level decreases, add clean soft water to the "FULL" line in the reserve tank.

OFE-14010

Drive belt check

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 a Daihatsu dealer.

Push the midpoint of the drive belt between the alternator and the water pump pulley, and measure the deflection.

Check to see that the deflection is within the specification.
See section 15.

If the deflection is not within the specification, have the drive belt adjusted by a Daihatsu dealer.

OFE-14085

Air filter cleaning and replacement

Type HD-E engine

Should the air filter become clogged due to accumulation of dirt or dust, it may cause an engine malfunction.

In instances where the vehicle is operated mainly in dusty areas, the air filter should be cleaned at intervals of 2500 km (1500 miles).

You may clean the air filter by using compressed air. However, the preferred method is replacement of the filter.
When installing the air filter cap, make sure that the three points clamping lock securely.

Air filter replacement intervals:

under NORMAL driving:
40,000 km (24,000 miles) or 24 months

under SEVERE driving:
20,000 km (12,000 miles)

CAUTION

- **Do not drive with the air filter removed. Failure to observe this will cause excessive engine wear.**
- **When installing the air cleaner cover, align the arrow headed marks provided on them with that of the case.**

Disengage the clips (four) and remove the wing nut.

Then remove the air cleaner cover to remove the air cleaner element.

When installing the air cleaner element and the air cleaner cover, align the projected portions provided on them with that of the case.

Air filter replacement interval:

Under NORMAL driving:

40,000 km (24,000 miles) or 24 months

Under SEVERE driving:

20,000 km (12,000 miles)

Spark plug check and replacement

Be sure to use the following recommended spark plugs or their equivalent:

Recommended spark plugs:

Manufacturer	Code
CHAMPION	RC7YC4 RC9YC4
NIPPONDENSO	K20PR-U11 K22PR-U11
NGK	BKR6E-11 BKR7E-11

To remove air chamber (HD-E engine)

(1) Disconnect the air conditioner and/or power steering idle-up vaccum hoses from the air chamber. ① (If so equipped)

(2) Remove the 3 attaching bolts. ②

(3) Disconnect the air chamber hose at the 2 clamping positions illustrated above. ③

(4) Remove the air chamber. ④

Disconnect the spark plug wires by pulling the boot, not the wire itself.

WARNING
Both the boots and spark plugs may be hot. To help reduce the risk of burn injuries, exercise care when handling them.

Unscrew and remove the spark plugs using the spark plug wrench with width across flats of 16 mm.

Spark plug inspection:
If the insulator tip of a spark plug is light brown without showing any signs of fouling, it indicates that the spark plug has functioned properly.

CAUTION
Do not allow dirt or anything else to fall into the spark plug holes.

Check the gap of the new spark plugs with a spark plug gap gauge.
Bend the ground electrode carefully in order to set the spark gap to specifications, if necessary.
Install the spark plugs securely.

Reconnect the spark plug wire in correct order.

Battery condition check and cleaning

To install air chamber (HD-E engine)

(1) Put the air chamber on to the bracket. ①

(2) Connect the air chamber hoses. Make sure to align the marks provided on the air chamber and hose. ②

(3) Tighten the 3 attaching bolts securely. ③

(4) Connect the air conditioner and/or power steering idle-up vacuum hoses to the air chamber. ④

CAUTION:
Make sure to align the marks provided on the air chamber and hose.

Check the electrolyte level if it is between the upper and lower limits. If the level is low, add distilled water.

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 and apply new grease on them.

If the terminals are loose, tighten them securely.

WARNING

- **Before you work on the electrical system, be certain to disconnect the cable from the negative (–) terminal of the battery.**
- **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.**
- **Do not allow battery acid to touch your skin, eyes, fabrics or paint finish.**
- **Do not expose the battery to open flames or electric sparks. Hydrogen gas generated by the battery is explosive.**
- **In case your eyes or skin should contact battery electrolyte acid, immediately flush with cold water for at least 15 minutes. Call a physician immediately.**

Fuses

Main fuse block

RHD
LHD: General specification and day-light specification

LHD: European specification (except for day-light specification)

The fuse block is located on the left side under the instrument panel.

Sub fuse block

The sub fuse block is located to the right of the main fuse block.

Relay & fuse box

A relay & fuse box is located next to the battery in the engine compartment.

Fuse check and replacement

Turn the ignition switch off and open the fuse box lid.

To remove a fuse, insert the fuse puller into the fuse you want to replace and pull it out.

- **If a fuse is blown, locate the cause and remedy the problem before a new fuse is installed. If you cannot locate the cause, be sure to have the problem repaired at a Daihatsu dealer.**
- **Make sure you use only fuses having the correct specified capacities. NEVER use a fuse of higher amperage rating than specified on the fuse block cover.**
- **Should corrective repairs be delayed, disconnect the cable from the negative (–) terminal of the battery as a precautionary measure.**

Fusible link check

We recommend that you purchase a set of spare fuses for emergency.

OFE-14015

If an excessive amount of current should flow from the positive terminal of the battery to the headlight circuit or the ignition switch circuit, the fusible link will blow. The fusible link serves as a safety valve that prevents a fire.
Therefore, if the fusible link is blown, immediately call a Daihatsu dealer for necessary inspection and repair.

CAUTION

- **Always use genuine Daihatsu fusible links for replacement. Never install a wire, even for a temporary fix. It may cause extensive damage to the vehicle and possibly a fire.**
- **Before replacing the fusible links, the cause of the electrical overload should always be determined and repaired by a Daihatsu dealer.**

Brake fluid level check

OFE-14017

The brake fluid level is correct, when it is between the "MAX" and "MIN" lines.

If the brake fluid level is near the "MIN" line, fill the reserve tank to the "MAX" line with a clean brake fluid equivalent to DOT3.

Warnings about brake fluid

Using improper, dirty, or moisture contaminated brake fluid can cause unreliable braking performance, which can lead to an accident and cause serious bodily injury.

Brake fluid can harm your eyes, so avoid spillage. Follow these instructions carefully:

- **If the brake fluid needs to be filled or**

changed, be sure to use clean DOT3 brake fluid only.

- **Check the brake fluid level even between periodic maintenance services.**
- **Under no circumstances should brake fluids be mixed.**
- **Use caution in filling the reserve tank. Brake fluid can damage paint finish and plastic parts.**
- **Do not use brake fluid that has been opened for more than 1 year or that has had the cap left off. Brake fluid absorbs moisture from the air, and excess moisture can cause unreliable braking performance.**
- **If you find that the brake fluid level is decreasing at a noticeable rate, bring your vehicle to a Daihatsu dealer in order to have your brake system repaired immediately.**
- **Do not allow dirt, sand or dust to enter the reserve tank or to contaminate braking fluid.**

Make sure that the washer tank is filled with washer fluid.

Add washer fluid if the level is too low.

Open the cover provided inside the back door. Detach the cap of the washer tank. Make sure that the tank is filled with washer fluid.

Dirty water can cause clogging of the window washer system.
Daihatsu recommends using commercial brand washer fluids. Water will freeze in the washer tank and will turn to ice if squirted anto the window in freezing temperature.

Transmission oil level check

Place the vehicle on a level surface and set the parking brake lever. Turn off the ignition switch.
Remove the filler plug and check the transmission oil level with your finger.
The oil level should be no more than 5 mm (0.2 in.) below the bottom edge of the hole.
If the oil level is satisfactory, reinstall the filler plug and tighten it securely.

WARNING
To reduce the risk of serious bodily injury, do not attempt this operation unless the ignition switch has been turned completely off and engine and transmission have cooled.

When transmission oil level is low:
Add the specified transmission oil until it starts to flow of the filler hole.

After completion, reinstall the filler plug and tighten it securely. Clean any spilled transmission oil.

Specified transmission oil:
API GL-3 or GL-4
Viscosity SAE 75W-90

Transfer oil level check

Place the vehicle on a level surface and set the parking brake lever. Turn off the ignition switch.
Remove the filler plug and check the transfer oil level with your finger.
The oil level should be no more than 5 mm (0.2 in.) below the bottom edge of the hole.
If the oil level is satisfactory, reinstall the filler plug and tighten it securely.

WARNING
To reduce the risk of personal injury, do not attempt this operation unless the ignition switch has been turned completely off and engine and transfer have cooled.

Differential oil level check

When transfer oil level is low:

Add the specified transfer oil until it starts to flow out of the filler hole.

After completion, reinstall the filler plug and tighten it securely. Clean any spilled oil.

Specified transfer oil:
API GL-3 or GL-4
Viscosity SAE 75W-90

OFE-14053

Place the vehicle on a level floor and set the parking brake lever. Turn off the ignition switch.
Remove the filler plug and check the differential oil level with your finger.
The oil level should be no more than 5 mm (0.2 in.) below the bottom edge of the hole.
If the oil level is satisfactory, reinstall the filler plug and tighten it securely.

WARNING
To reduce the risk of personal injury, do not attempt this operation unless the ignition switch has been turned completely off and differential has cooled.

When differential oil level is low:
Add the specified differential oil until it starts to flow out of the filler hole.

After completion, reinstall the filler plug and tighten it securely. Clean any spilled oil.

Specified differential oil: API GL-5
Recommended Viscocity:
SAE 90 or 80W-90

CAUTION
For vehicles equipped with a limited slip differential (L.S.D.), fill the differential with oil designated for exclusive use in L.S.D.

Power steering fluid level check

Check the power steering fluid level as follows.

1. Park the vehicle on a level surface and apply the parking brake.
2. Turn the reserve tank cap counterclockwise to remove the fluid level dipstick.
3. Wipe the fluid away and re-insert the dipstick to check the fluid level.
   When the fluid is cold (fluid temperature of about 20°C or 70°F), make sure that the fluid level is within the "COLD" range on the dipstick. Conversely, when the fluid is hot (fluid temperature of about 70°C or 160°F), make sure that the fluid level is within the "Hot" range on the dipstick.

If the vehicle is driven with the fluid level too low, it will cause a malfunction of the power steering, and/or abnormal noises.
Be sure to add the fluid if the level is too low.

CAUTION
Replenish the fluid to the specified level. If the level is too high, it will cause fluid leakage.
After the fluid level check and replenishment, be sure to tighten the cap securely, and wipe spilled fluid away.

Steering wheel free play check

The steering adjustment is correct if the play of the steering wheel is within 30 mm (1.18 in.) at the steering wheel circumference when the wheel is moved slightly to the right or left from the straight-ahead position.

WARNING
If the steering wheel should have excessive play or if you should feel abnormal operation, bring your vehicle to a Daihatsu dealer immediately for necessary inspection and repair.

Clutch pedal free play check

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

The free play must be within the specification shown above.

CAUTION
If the free play is not within specifications, have the vehicle checked by a Daihatsu dealer.

OFE 14023

Brake pedal

Brake pedal free play check

With the engine stopped, first reduce the vacuum in the booster by depressing the brake pedal more than five times. Depress the pedal by hand slowly until you feel resistance, then and measure the free play.

The free play must be within the specification shown above.

CAUTION
If the free play is not within specifications, have the vehicle checked by a Daihatsu dealer.

OFE 14024

Brake pedal reserve travel check

This check should be made with the engine running.
The distance between the top of the brake pedal and the bulkhead, with the brake pedal depressed with a pedal applying force of 50 kg (110 lb), must be not less than 80 mm (3.15 in.). The brake pedal reserve travel should remain constant when the brake pedal is held at its applied position for a short of time.

WARNING
If the brake pedal reserve travel is not within specifications, have the vehicle checked by a Daihatsu dealer.

Parking brake reserve travel check

The parking brake lever should travel four to six notches when an operating force of 25 kg (55 lb) is applied. An audible clicking sound will be heard at each notch.
After the engine has started, ensure that the warning light (BRAKE) goes on when the parking brake lever is applied. Also, ensure that the warning light (BRAKE) goes out when the parking brake lever is released.

CAUTION
If any malfunction should be encountered in the brake system, have the vehicle repaired at a Daihatsu dealer immediately.

Brake booster operation check

Check the operation of the brake booster following the procedure given below.

(1) With the engine stopped, depress the brake pedal several times. The travel distance should not change.

(2) With the brake pedal slightly depressed, start the engine. The pedal should move down slightly when the engine starts.

(3) Depress the brake pedal, stop the engine and hold the pedal for about 30 seconds. The pedal should neither sink nor rise.

(4) Restart the engine, run it for about a minute and turn it off. Then depress the brake pedal firmly several times. The pedal travel distance should decrease with each application.

WARNING
If any malfunction should be encountered in the brake system, have the vehicle checked by a Daihatsu dealer immediately.

Wiper blade replacement

1. Pull the end of the rubber blade until it comes to the large hole section.
2. Pull the rubber blade away from the large hole section.

Wiper arm installing position

3. When installing a new rubber blade, insert the end having small protrusion into the large hole section, and pull the rubber blade along the slot in the blade frame.
4. After installing the rubber blade in the frame slot, squeeze the other end of the rubber blade until it comes to the large hole section. Then insert it into the slot and fit it in the end.

OFF 14028

1. Operate the wiper motor to the automatic stop position.
2. Set the wiper arm to the position as indicated in the above figure.

1. Operate the wiper motor to the automatic stop position.
2. Set the wiper arm to the position as indicated in the above figure.

OFF 14055

Light bulb replacement

Use the bulb as specified.
(See Section 15)

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 a Daihatsu dealer.

We recommend keeping a set of spare bulbs. Bulbs are available at a Daihatsu dealer.

Headlights

(1) Open the engine hood and securely support it by the hood brace.

(2) Disconnect the wire connector from the headlight.

(3) Remove the socket cover.

(4) Turn the bulb retainer counterclock wise to remove it.

(5) Remove the bulb.

(6) To install the bulb reverse the removal procedure.

CAUTION

Do not touch the glass portion of the halogen bulbs.

Normal body oils from finger prints will reduce the bulb life.

OFF 14056

Clearance lights/Front turn signal lights

How to remove

(1) Remove the two screws.

(2) Turn the bulb counterclockwise while pushing it in.

How to install

Reverse the removal procedure to install the bulb.

OFE 14048

Side turn signal
Front marker lights

To remove bulb

(1) Remove the screws to detach the light assembly.

(2) Turn the bulb holder counterclockwise.

(3) Pull the bulb straight out.

To install bulb

Reverse the removal procedure to install the light assembly.

OFE 14056

Rear turn signal light/ stop & tail lights/back-up light

(For general specifications)

To remove bulb

(1) Remove the three screws to detach the light assembly.

(2) Turn the bulb holder counterclockwise.

(3) Turn the bulb counterclockwise while pushing it.

To install bulb

Reverse the removal procedure to install the light assembly.

(For European & Australian specifications)

To remove bulb

(1) Remove the three screws to detach the light assembly.

(2) Turn the bulb counterclock-wise while pushing it.

To install bulb

Reverse the removal procedure to install the light assembly.

Rear fog/back-up light

(For European & Australian specifications)

To remove bulb

(1) Remove the two screws to detach the light assembly.

(2) Turn the bulb counterclock-wise while pushing it.

To install bulb

Reverse the removal procedure to install the light assembly.

License plate lights

To remove license plate light

(1) Remove the screws to detach the lens.

(2) Pull the bulb straight out.

To install

Reverse the removal procedure to install the light assembly.

OFE-14039

Interior light

To remove interior light

(1) Lightly pry the lens to detach it.

(2) Pull the bulb straight out.

To install

Reverse the removal procedure to install the light assembly.

OFE-14042

Luggage room light

How to remove luggage room light

(1) Remove the two screws to detach the light assembly.

(2) Pull the bulb straight out.

How to install

Reverse the removal procedure to install the light assembly.

Tires

Tire air pressure

Except for Australia
L.H.D. vehiles:

Tire pressure is posted at the lower part of the left pillar section.

R.H.D. vehicles:

Tire pressure is posted at the lower part of the right pillar section.

For Australia
Tire pressure is posted at the inside of the glove compartment.

NOTE
Check the tire air pressure regularly to assure inflation to specifications.
Incorrect tire air pressure reduces tire life, increases fuel consumption and causes unstable handling and cornering.

For the specified tire air pressure, see "Section 15 Specifications".

OFE 14043

Tire rotation

If a vehicle is operated for a long period of time with its tires in the same location, these tires will wear in their own particular patterns. It is therefore, recommended that tires be rotated periodically in order to equalize wear.
After performing the tire rotation, adjust each tire air pressure to specification.

Tire rotation interval:
every 10,000 km (6,000 miles)

OFE 14044

Tire wear chack

If the safety indicator on the tire surface is visible, replace the tire as soon as possible.

OFE-14045

Instructions on tires

- Install the tires of the same size and construction as originally-installed tires, and of the same or larger load capacity.
- Use only the disc wheels as specified.
- Drive at a moderate speed for the first 160 km (100 miles) as a new tire do not have maximum traction.
- Replace the air valve stem whenever replacing a tubeless tire.
- Always have a tire valve dust cap on a tire.
- Have uneven wear or damage on a tire checked by a Daihatsu dealer.

WARNING

- **Do not install different types of tires on your vehicle. You could lose a control, of the 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 tire. If may deflate suddenly. Also avoid using a damaged wheel rim.**

CAUTION

Be careful not to damage the tires by scratching or by oiling ect.

OFE-14046

Section 15

Specifications

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Vehicle specifications

Overall length mm (in.)

Model			Option parts
F300		F310	
EL	DX		
3,785 (149.0)	3,700 (145.7)	3,770 (148.4)	195R15 Tire, w/out bumper guard
—	+ 70 (2.8)	—	With large bumper
+ 15 (0.6)	+ 15 (0.6)	+ 15 (0.6)	Tire 195R15 → 225R15
+120 (4.7)	+120 (4.7)	+120 (4.7)	With bumper guard

		F300	F310
Overall width mm (in.)		*1 1,580 (62.2)	1,740 (68.5)
		*2 1,635 (64.4)	
Overall height mm (in.)		1,720 (67.7)	1,720 (67.7)
Wheel base mm (in.)		2,175 (85.6)	2,175 (85.6)
Tread	Front mm (in.)	1,335 (52.6)	1,480 (58.3)
	Rear mm (in.)	1,335 (52.6)	1,480 (58.3)

*1 ... Vehicles without over fender.
*2 ... Vehicles with over fender.

Engine specifications

Model	HD
Type	Gasoline, 4-cycle
Cylinder number & arrangement	4-cylinder-in-line
Bore x Stroke mm (in.)	76.0 x 87.6 (2.99 x 3.45)
Displacement cc	1,589

Fuel

Fuel to be used	HD-E: Unleaded gasoline having RON90 or higher HD-C: RON90 or higher
Fuel tank capacity ℓ (Imp. gal)	60 (13.2)

Coolant

Type	Long life coolant
Capacity ℓ (Imp. gal)	5.5 (1.21) excluding 1.0 (0.22) for reserve tank Plus 0.53 (0.12) if rear heater equipped

Engine tune-up

Firing order		1—3—4—2		
Ignition timing °BTDC/rpm		3/850		
Engine idling speed rpm		850 ± 50 *1(When check: 850 ± 50, When adjust: *2800)		
Valve clerance mm (in.)	Intake (hot)	0.25 ± 0.05 (0.010 ± 0.002)		
	Exhaust (hot)	0.33 ± 0.05 (0.013 ± 0.002)		
Spark plug	Manufacturer	CHAMPION	NIPPONDENSO	NGK
	Number	RC7YC4 RC9YC4	K20PR-U11 K22PR-U11	BKR6E-11 BKR7E-11
	Gap	1.0 - 1.1 (0.039 - 0.043)		
Drive belt deflection mm/kg (in./lb)		5 - 6/10 (0.20 - 0.23/22)		

*1 ... Vehicles equipped with US 83 spec.engine.
*2 ... With check connector short-circuited.

Lubricant recommendation

Engine oil	Grade		API SG, SF or SE
	Viscocity		See chart right
	Capacity ℓ (Imp. gal)	Without oil filter	3.3 (0.73)
		With oil filter	3.5 (0.77)
Transmission oil	Grade		API GL-3 or GL-4
	Viscocity		SAE 75W-90
	Capacity	ℓ (Imp. gal)	1.7 (0.37)
Transfer oil	Grade		API GL-3 or GL-4
	Viscocity		SAE 75W-90
	Capacity	ℓ (Imp. gal)	Part time: 1.4 (0.31), Fulltime: 1.7 (0.37)
Differential oil	Grade		API GL-5
	Viscocity		SAE 90 or 80W-90
	Capacity	Front ℓ (Imp. gal)	0.9 (0.2)
		Rear ℓ (Imp. gal)	2.19 (0.48)

Recommended engine oil viscosity (SAE)

Classification

API SG, SF or SE

Atmosphere temperature range anticipated before next oil change

Clutch pedal

Free travel 18 - 27 mm (0.71 - 1.06 in.)

Brake pedal

Free travel (with booster) 1 - 3 mm (0.04 - 0.12 in.)

Reserve travel Not less than 80 mm (3.15 in.)

Parking brake working travel

4 - 6 notch, with apply force of 25 kg (55 lb, 245 N)

Brake fluid

FMVSS116 DOT 3 or SAE J1703

Power steering fluid

DEXRON®-II

Tire specifications

Size			195R15, 225/70R15, 195/80R15 (for GCC)
Pressure	Front kg/cm^2 (psi, kPa)		Unloaded: 1.6 (23, 160) Loaded: 1.6 (23, 160)
	Rear kg/cm^2 (psi, kPa)	For U.K. specifications	Unloaded: 2.1 (30, 210) Loaded: 2.3 (33, 230)
		Except for U.K. specifications	Unloaded: 1.6 (23, 160) Loaded: 2.3 (33, 230)

Bulb specifications (Wattage)

Head lights	Candecent		45/40
	Halogen		60/55
	Yellow		45/40
Front combination lights	Clearance lights		5
	Turn signal lights		21
Side turn signal lights			5
Rear combination lights	Stop/tail lights		21/5
	Turn signal lights	General specifications	23
		European & Australian specifications	21
	Back up lights	General specifications	23
		European & Australian specifications	21
Licence plate lights			5
Interior light			10
Rear fog light			21
Luggage room light			8

Weights

kg

Model		F300	F310
Gross vehicle weight		1,650	1,750
Maximum permissible axle weight	Front	750	800
	Rear	1,100	1,100

Section 16

Emission control system (For Australian specifications)

Emission control system 16–1

Emission control system (for Australian specifications)

Environmental protection and Daihatsu
It is a matter of great importance and also the duty of mankind to protect our atmosphere and environment against pollution and leave it clean and unpolluted to posterity. Daihatsu has long been directing its technical efforts and resources toward ful-filling this important requirement. As a result, Daihatsu has succeeded in developing various emission control systems that will minimize atmospheric pollution without sacrificing vehicle utility.
The emission control systems installed in your vehicle comply with all the requirements of the relevant Australian Design Rules as well as various other regulations.

Your role in controlling air pollution
To keep our air clean, you are responsible for the proper operation, maintenance and care of your vehicle in accordance with the instructions contained in this manual. Do not remove or modify the emission control systems. Any maintenance work on the emission control systems other than that specified by Daihatsu should be avoided.

Sources of vehicle emission
There are three kinds of gases emitted by the vehicle that pollute the atmosphere:

1. Crankcase emission (Blow-by gas)
This is the unburned gas in the cylinder that leaks into the crankcase and is released into the atmosphere, and contains hydrocarbons (HC).

2. Exhaust emission
This is the gas formed by the combustion of the fuel inside the cylinder and discharged into the atmosphere through the exhaust pipe. It contains carbon monoxide (CO), hydrocarbons (HC), and nitrogen oxides (NOx).

3. Fuel evaporative emission
This is the gasoline vapor formed by vaporization in the fuel tank and contains hydrocarbons (HC).

Fuel evaporative emission control system
The fuel evaporative emission control system functions for preventing fuel vapors from escaping into the atmosphere. Fuel vapor from the fuel tank is introduced into the charcoal canister when the engine is stopped, and then into the intake manifold when the engine is running, by means of negative pressure, for combustion.

Blow-by gas recirculating system
The blow-by gas recirculating system functions for preventing blow-by gas from escaping into the atmosphere. Blow-by gas from the crank case is returned to the combustion chamber for recombustion.

Throttle positioner system
If the throttle valve is suddenly closed when deceleration, insufficiency of air-fuel mixture will cause misfire, which will increase the amount of unburnt gas. The throttle positioner system is provided for gradually closing the throttle valve.

EFI system

- Air-to-fuel ratio control system
  This controls the air-to-fuel ratio of the mixture in such a way that the three-way catalyst may perform the purification of emissions with the best possible efficiency.
- Control system for deceleration period
  This reduces CO and HC emissions by cutting the fuel supply during deceleration period. Also, this prevents overheating of the three-way catalyst.

Three way catalyst

The three-way catalyst functions for converting CO, HC and NOx into harmless carbon dioxide (CO_2), water (H_2O) and nitrogen (N_2) .

CFE 19001

Vehicle emission control information label

The vehicle emission control label indicates the engine family identification and the engine tune-up specifications relating to the exhaust emissions.
The label is attached on the inside surface of the engine hood shown in the illustration.

CFE 19002

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