



Notes

Owner Manual and Service & Maintenance Manual define the agreements between SAIC GM Wuling Automobile^① and Owners on establishment and termination of related product quality assurance liabilities, after-sales rights and duties. Please always read Owner Manual and Service & Maintenance Manual carefully before using our products.

Owner Manual of Wuling Sunshine



Thank you for choosing the vehicle manufactured elaborately by SAIC GM Wuling.

Read thoroughly this manual since the information in it leads you to know how to operate your vehicle properly and enjoy your driving pleasure at maximum.

SAIC GM Wuling Automobile Co., Ltd.

Month Year

① SAIC GM Wuling Automobile Co., Ltd. is referred as SAIC GM Wuling or The Company for short, the same as below.



上汽通用五菱
SGMW

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This manual is made according to the specific condition of Wuling Sunshine vehicle manufactured by SAIC GM Wuling Automobile. This manual includes the latest

product information available at the time of printing. The Company has the full authorities to take charge of the amendment and statements on this manual, and reserves the right to make changes to the product without further notice after the manual is printed. Some of pictures in this manual are illustrations only for your reference, and please refer to real objects if pictures are not consistent with real objects.

Special Notices

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will be rejected by the Company After-sales Service Center if your vehicle or components are inoperative due to abuse, neglect, misuse or failure to be maintained according to the specified mileage/interval, or if any alteration is done to them without approval.

How to Use the Manual

Many owners will read the Owner Manual for new vehicle from A to Z after they purchase a new vehicle. Use this manual to learn about the features of your new vehicle and how they operate. You will find descriptions in this manual are presented with illustrations and text for your easy search and understanding.

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Preface

This manual is provided for owners to be familiar with Wuling Sunshine vehicle operation and maintenance, as well as important safety information. Please always read carefully and observe the recommended information contained in this manual in order to assist you to enjoy your driving pleasure at maximum and meanwhile keep the vehicle safe and away from accidents.

All employees at SAIC GM Wuling Aftersales Service Center[®] are well trained and be able to provide you with fully satisfactory services. If any service is needed, please contact the Aftersales Service Center.

This manual shall be kept with the vehicle permanently, and when you change a new vehicle, please hand over this manual to the next owner.

SAIC GM Wuling Automobile Co., Ltd.

Safety & important precautions

Three types of security information are given in this manual and definitions of the information are as follows. Please always observe these security descriptions.

Danger

Death or serious injury will occur due to failure to comply with the directions in the "Danger".

Warning

Personal injury, accidents or vehicle damage will occur due to failure to comply with the directions in the "Warning"

Note

Observing the directions in the "Note" will ensure a safe driving.

*: The asterisk** behind the title or words indicates the mentioned device is optional and maybe not included in your vehicle.

Important statement

It must be specially noted that for those auto parts or accessories produced by non-supporting factories which are not tested and approved by SAIC GM Wuling Automobile, we can't guarantee their stability and security even they have continuous product monitoring. Therefore, we will take no responsibilities or liabilities for the damage caused by these auto parts or accessories.

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Chapter 2 Before Driving Your Vehicle

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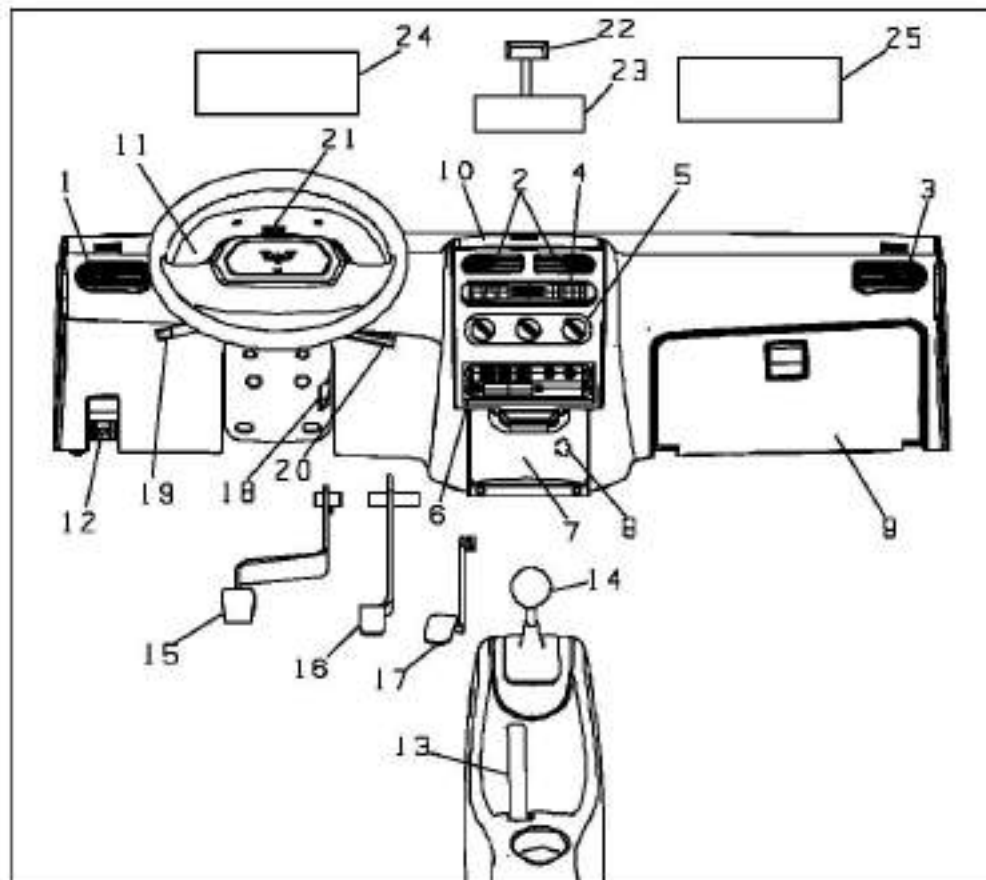
Symbols

The figure as follows indicates some symbols in your vehicle, so that you can identify the controls and indicators in the instrument panel and other part. Try to memorize them so you can identify at a glance any failures that might occur.



NI-CM 0201

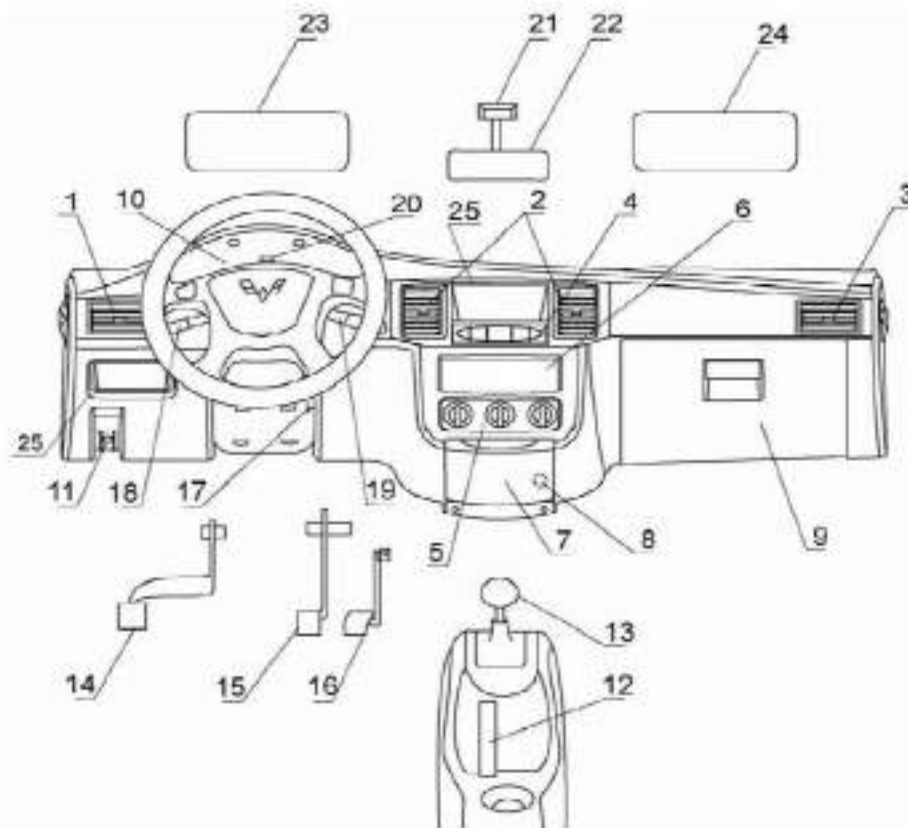
1. Switches and levers in the cabin



1. Air outlet (Left)
2. Air outlet (Central)
3. Air outlet (Right)
4. Electronic clock, A/C switch, Fog lamps switch
5. Air-conditioner control panel
6. Radio
7. Ashtray
8. Cigar lighter (in the ashtray)
9. Glove compartment
10. Side compartment
11. Combination instrument
12. Hood release lever
13. Parking brake handle
14. Transmission shifter
15. Clutch pedal
16. Brake pedal
17. Accelerator pedal
18. Ignition switch
19. Combination switch (for turn signal indicators, lamps and dimmer)
20. Wiper and washer switch
21. Hazard warning lamp switch
22. Dome lamp and switch
23. Inside rearview mirror
24. Sunshade (left)
25. Sunshade (right)

N1-0M 0254

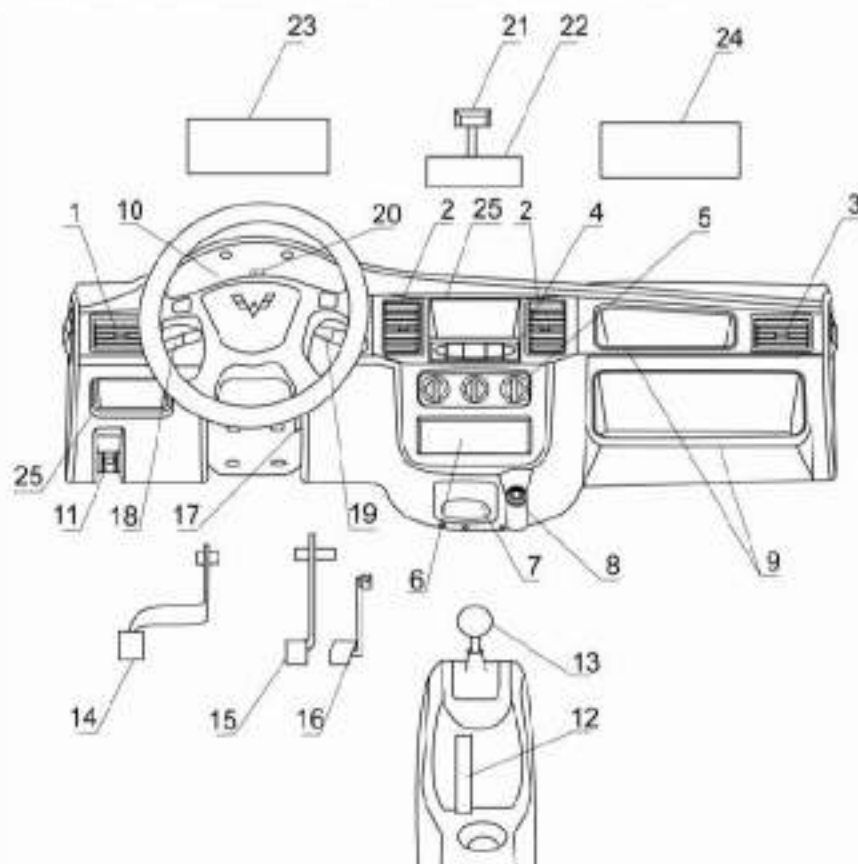
2. Switches and levers in the cabin (for new I/P)



1. Air outlet (Left)
2. Air outlet (Central)
3. Air outlet (Right)
4. Button switch assembly
5. Air-conditioner control panel assembly
6. Radio and audio player assembly
7. Ashtray
8. Cigar lighter (in the ashtray)
9. Glove compartment
10. Combination instrument
11. Hood release lever
12. Parking brake handle
13. Transmission shifter
14. Clutch pedal
15. Brake pedal
16. Accelerator pedal
17. Ignition switch
18. Combination switch (for turn signal indicators, lamps and dimmer)
19. Wiper and washer switch
20. Hazard warning lamp switch
21. Dome lamp and switch
22. Rearview mirrors
23. Left sunshade
24. Right sunshade
25. Box for bill or receipt

N1-OM 0255

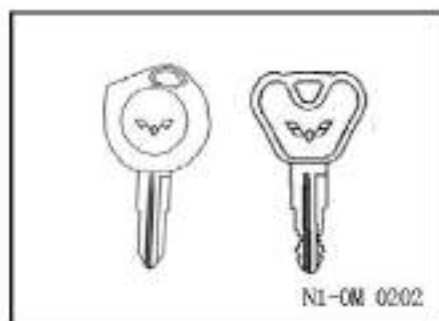
3. Switches and levers in the cabin (for Utility Model)



1. Air outlet (Left)
2. Air outlet (Central)
3. Air outlet (Right)
4. Button switch assembly
5. Air-conditioner control panel assembly
6. Radio and audio player assembly
7. Ashtray
8. Cigar lighter
9. Glove compartment
10. Combination instrument
11. Hood release lever
12. Parking brake handle
13. Transmission shifter
14. Clutch pedal
15. Brake pedal
16. Accelerator pedal
17. Ignition switch
18. Combination switch (for turn signal indicators, lamps and dimmer)
19. Wiper and washer switch
20. Hazard warning lamp switch
21. Dome lamps and switch
22. Rearview mirrors
23. Left sunshade
24. Right sunshade
25. Box for bill or receipt

N1-OM 0256

Keys and remote control* Keys

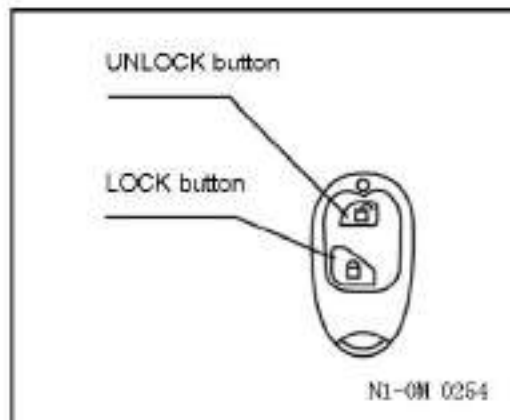


There are two sets of keys for each vehicle, among which one is used for ignition and opening all the doors.

Note

- Keep the spare key in a safe spot outside your vehicle in order to prevent vehicle theft.
- DO NOT take the key out of the ignition switch when driving.
- When leaving the vehicle, DO NOT leave the key in the vehicle.

Central locking system*



The central locking is controlled by the side door of the driver.

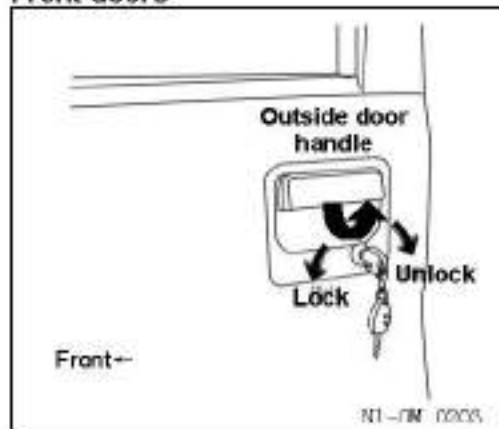
When the side door of the driver is locked or unlocked by the key or the lock pin, all the doors (except rear lift gate) will be locked or unlocked at the same time.

The remote control * uses batteries of DC•12V•23A. The icon of "🔒" indicates LOCK, while "🔓" indicates UNLOCK.

Within the distance range of 10 - 15 meters, when pressing the "🔓" button on the central locking remote control, the four lamps will flash 3 times, and all the doors (including front L/R doors and rear L/R doors) will be unlocked; within the distance range of 10 - 15 meters, when pressing the "🔒" button on the central locking remote control, the four lamps will flash 1 time, and all the doors (including front L/R doors and rear L/R doors) will be locked.

Warning

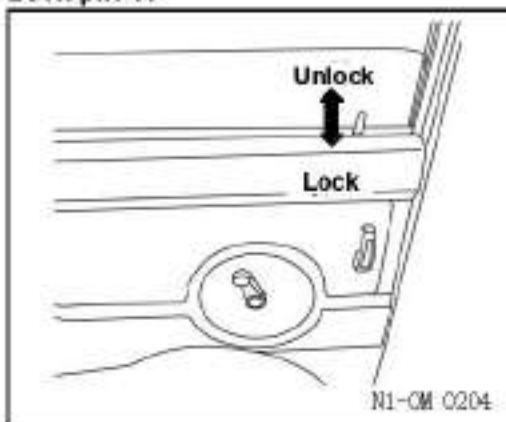
- For the vehicle with a central locking system, when leaving the vehicle, lock the side door of the driver.
- For the vehicle with a central locking system, if a user does not use it for a long time (for more than twenty days), he shall pull out the main fuse wire for fear that the power consumption makes the vehicle difficult to start.

Front doors**Outside the vehicle:**

Lock or unlock the door with the key from the outside. Rotate the key ahead to lock and rotate the key backward to unlock. When opening the door, rotate the key backwards to unlock it and then pull the outside handle to open the door.

Do not use the key, use the lock pin (advancing), pull the outside handle and then close the door. Unlatch the outside handle and the door will be locked.

Note: The vehicle head is ahead. (the same below)

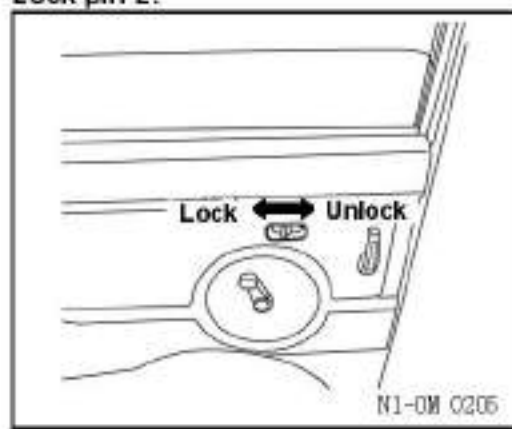
Inside the vehicle:**Lock pin 1:**

Lock or unlock the door from the inside with the lock pin. The lock pins are located at the inner side of front window and rear window, so as to lock or open the doors.

Pull up the lock pin to unlock, and push down the lock pin to lock. When locking, the inside and outside handles do not work.

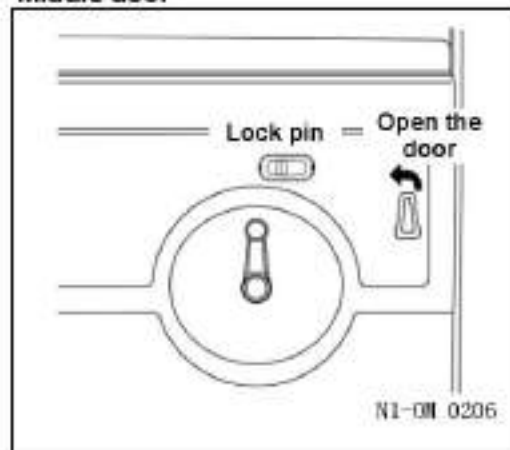
Note

For your safety, we recommend that you lock the doors with these pins during the course of driving.

Lock pin 2:

The lock pin is located at the inner side of rear door, so as to lock or open the door.

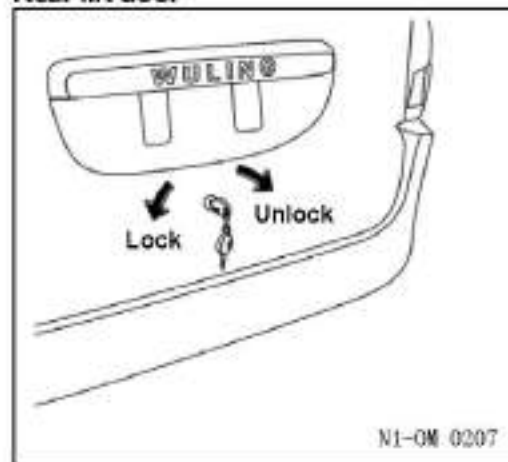
Operate the pin as shown in the figure to lock or unlock the door. When locking, the inside and outside handles do not work.

Middle door**Unlock:**

Open the lock pin, operate the inside or outside handle and the doors are unlocked.

Lock:

Press the lock pin, close the doors and the doors are locked.

Rear lift door**Unlock:**

To unlock the rear lift door, rotate the key clockwise to the stop and pull the tail gate handle at the same time.

Lock:

To close the rear lift door, rotate the key counterclockwise to the stop.

Warning

Lock the rear lift gate before driving to avoid accidents in which dust and exhaust gas enter the vehicle and passengers or articles are thrown out.

Note

We recommend that you check all doors for security after locking.

Windows**Manual windows**

Rotate the handle inside of the door to open or close the windows.

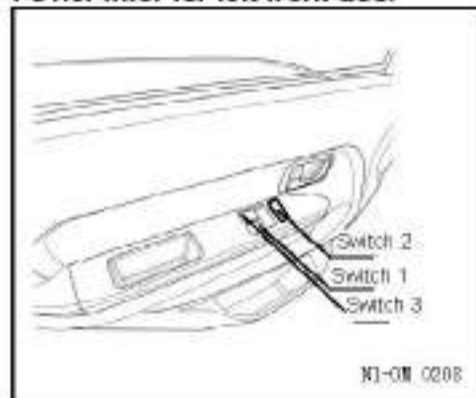
Do not close the window until you are sure that no items are on the way, so as to avoid clamping.

Note

Before leaving the vehicle, please make sure that all windows are closed, so as to avoid things get stolen.

Danger

Before close the window, please make sure that no parts of the human body are on the way, so as to avoid injury.

Power front windows ***Power lifter for left front door**

When the ignition switch is at "ACC" or "ON" position, the power window can be operated by the electric lifter at the side door of the driver.

Switch 1 (to control the left front door glass):

Press the switch upward or downward, so that the left front door glass will continuously ascend or descend (stop when released).

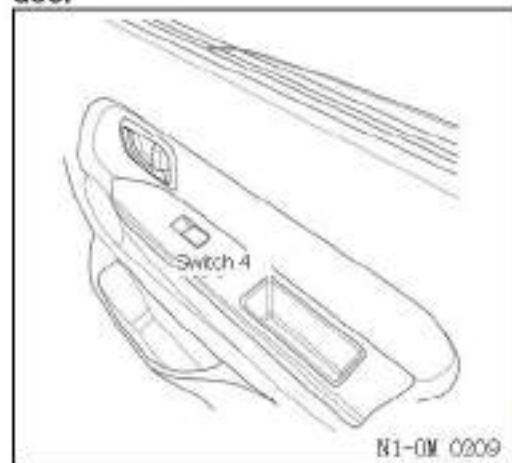
Switch 3 (to control the right front door glass):

Press the switch upward or downward, so that the right front door glass will continuously ascend or descend (stop when released).

Switch 2 * (to lock the right front door glass):

Press switch 2, so as to lock or unlock the right front door glass.

Power lifter switch for right front door



When the ignition switch is at "ACC" or "ON" position, the right power window can be operated by the electric lifter in the right front door.

Press switch 4 upward or downward, so that the right front door glass will continuously ascend or descend (stop when released).

Do not close the window until you are sure that no items are on the way, so as to avoid clamping.

Danger

- Before close the window, please make sure that no parts of the human body are on the way, so as to avoid injury.
- Before leaving the vehicle, remove the ignition key in case the children would play the switch of the power windows and get injured.
- Do not let the children play with any switches for power window; otherwise, unintentional close of such window may result in personal injury.

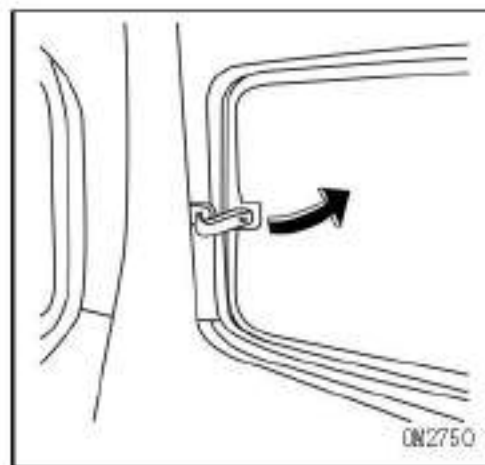
Warning

Open the power window. Release the switch when moved into position, or the power window will be damaged.

Note

Before leaving the vehicle, please make sure that all windows are closed, so as to avoid things get stolen.

Rear side rear butterfly window



Open the window:

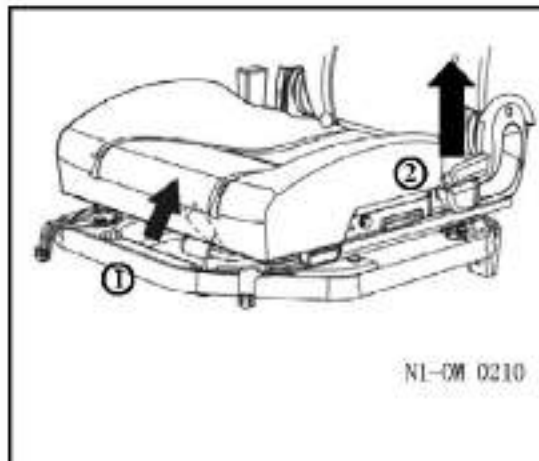
Turn the butterfly window latch to the direction as shown in the illustration, then push the glass outward.

Close the window:

Pull the butterfly window latch inward by hand, and then press the latch firmly backward with certain force.

Seats

1. Front seats



① Seat horizontal position adjustment:

To adjust the seat horizontal position, lift up the front control handle (item ① as shown in the figure), move the seat to a satisfactory position, then release the handle.

② Seat back adjustment:

To adjust the seat back, lift up the adjusting handle (item ② as shown in the figure) located on the outboard side of the seat, and adjust to a proper angle, then release the adjusting handle.

Danger

After seat adjustment, please make sure that the sliding rail has been locked.

- When driving, please DO NOT adjust the driver's seat; otherwise, it will cause a loss of control to the vehicle.

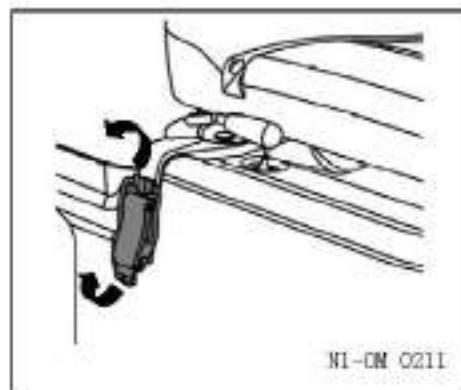
Warning

Loose objects may become interferences to the moving mechanism of seats.

- Please DO NOT place any objects under the seats.

Seat overturn

If you want to lift the seat:



- ① Pull up the adjuster handle of backrest to fold the backrest forward.
- ② Pull up the handle of seat according to arrow direction in the figure to loosen the shackle from hook of seat.
- ③ Turn over the seat.

**2. Middle seats
a Standard single seat
(non-rotatable)**



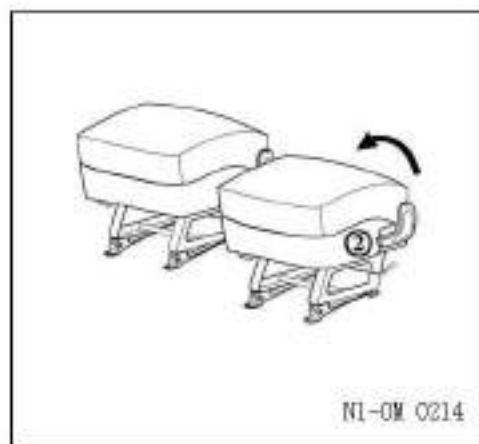
- ① **Back and forth adjustment of the seat:** Control the handle forwards and backwards to adjust the seats (as ① shown in the figure)
- ② **Adjustment of the backrest:** the method is same with that of front seat. Backrest angle adjuster (as ② shown in the figure)

③ Seat overturn

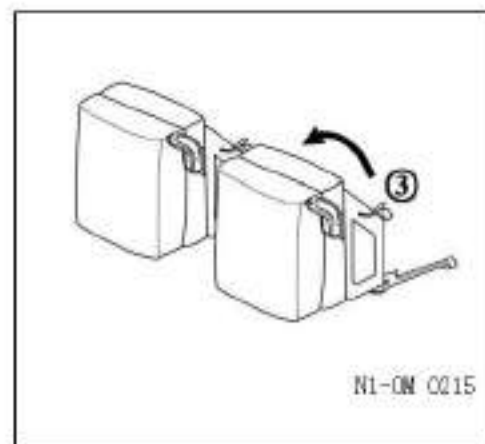


To provide convenience for passengers on the rear seats to get on/off the vehicle, it is possible to fold and overturn the middle seats to leave a passage.

- 1) First, slide the seats to the end, and lower the headrest to the end.



- 2) Pull up the adjuster handle ② to retract the backrest



- 3) Pull up the handle ③ on the rear of the seats to overturn the seats forward.

b Middle double-seat



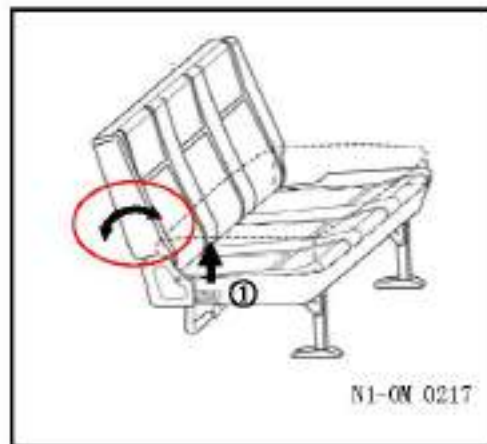
Folding of seatback:

Pull up handles at both sides of the cushion and unlock the seatback to fold it forwards.

The backrest of this seat is fixed and cannot be adjusted.

c Middle triple seats**Folding of seatback:**

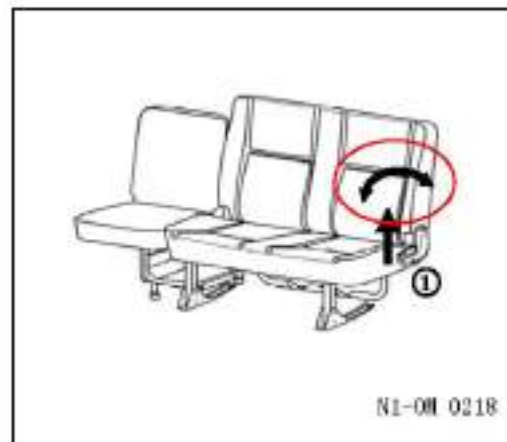
Pull up the handle ① at right side of the cushion and unlock the seatback to fold it forwards.



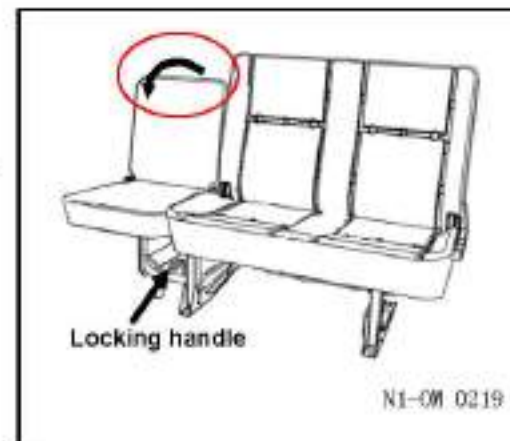
The backrest of this seat is fixed and cannot be adjusted.

d Middle seats with side seat**① The adjustment of backrest of seat:**

Pull up the adjuster handle ① at the lower left side of cushion and adjust the backrest with your back to a required angle before releasing the adjuster to lock on the position.

**② Folding of side seat**

Retract and fold the backrest of the side seat forward;



Rotate the locking handle of the side seat downward;

Draw back the side seat cushion near the door and turn it inward till a clatter is heard, which means the overturn of the side seat has been locked up.



③ Unfolding of the side seat

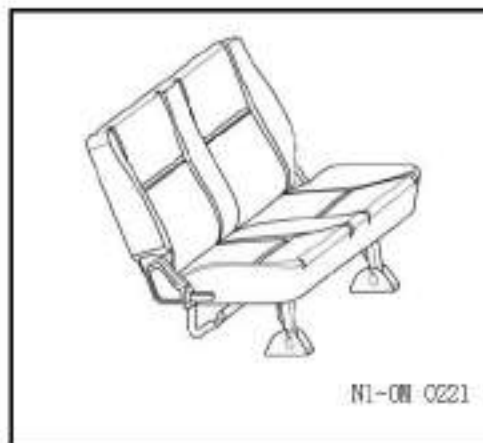
Rotate the locking handle of the side seat downward, and unfold the seat with the reverse order of folding.

Backrest adjustment

Pull up the adjuster handle ② and incline the backrest slowly to a proper position, then release the lever to lock up the backrest.

Middle triple tilt seats

Seat overturn



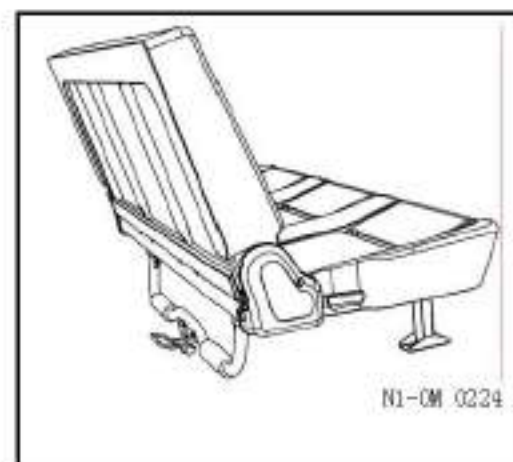
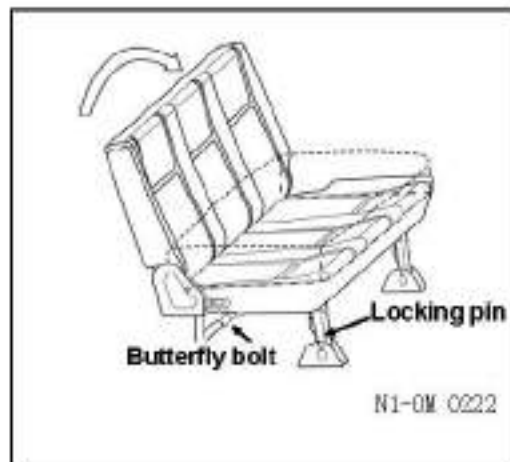
Take down the headrest (if any) first and then turn over the seat.

First, uplift the backrest lock handle to unlock the backrest and turn it to the cushion side, then remove the lock pin on the top of the seat front footwell and release the butterfly bolt on the rear footwell of the fixed seat, to tilt the seat forward.

Lock up the seat with the lock pin after tilting, preventing the seat from falling backward to damage goods.

3. Rear seats

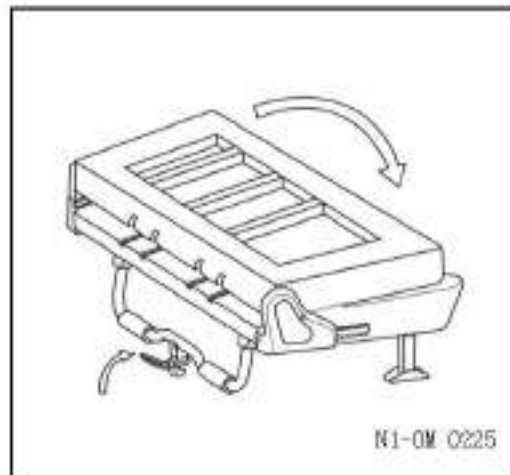
① Rear seats



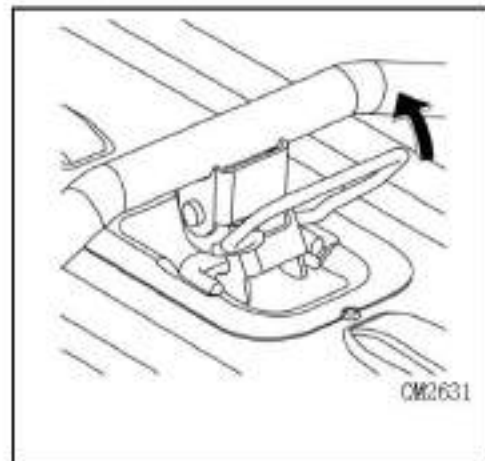
Overtum the rear seats forward for 90° to leave more space for goods.

Take down the headrest (if any) first and then turn over the seat.

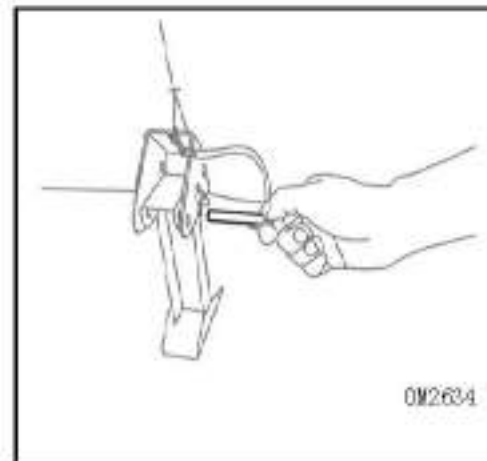
1. Pull up the handle at the right side of cushion to unlock the backrest and then overturn it to the cushion side.



2. Open the rear compartment as shown in the above figure, hold the handle and uplift it while overturning the seat forward.



3. Lock up the seat with the lock pin to prevent it from reclining backward.



②Rear seat with tea table**Unfolding of tea table seat**

Release the puller strap of the tea table seat from the buckle behind the backrest;

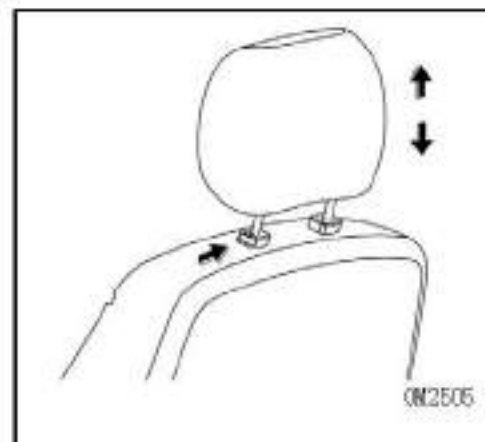


Pull out the tea table from the backrest and turn it over to the seat cushion

Then unfold the secondary tea table panel.

**Folding of tea table seats**

Fold the tea table with the reverse order of unfolding. Check the tea table and make sure that it has been locked up.

Headrest**Height adjustment of headrest**

To adjust the headrest height, press the left button under the headrest, adjust to the proper position as required (the top of the headrest shall be in parallel with the upper part of ear) and release the button to lock it.

Note: The headrest of van can not be adjusted.

Note

If the safety belt is locked when being pulled out, loose the belt first, and then pull out it to the necessary length.

Removal of headrest

Press the locking button and pull up the headrest to finish the removal.

Safety belts

The safety belt is one of the most important safety devices for the driver and passenger. Never neglect using the safety belts. Be sure to fasten the safety belt before driving.

There are two kinds of safety belts equipped on this vehicle: lap belts or lap-shoulder belts.

Warning

- Improper use of safety belt may cause even more serious injury.
- Sharing one piece of safety by several persons is strictly forbidden.
- The belts should not be against fragile objects inside pockets, such as pens, glasses, and so on, otherwise, the occupant may be hurt.
- Amend on any part of the safety belt unit by user is strictly forbidden.
- Do not adjust the chair in case the safety belt has already been fastened during driving.

Lap-shoulder safety belt 1

Using safety belts in a correct method



Pay attention to the following points when using safety belts:

- Adjust the seat so that you can sit up straight. The seat back shall not be lean back to the extreme.
- Gently pull the safety belt from the retractor and fasten the belt across your body without twisting it. The part covered by the safety belt is showed on the above picture.

- Be sure that safety belts are not twisted.

Fasten the safety belt



Press the latch plate into the buckle until it clicks.

To make the lap part tight, pull the shoulder belt.

Unbuckle the safety belt

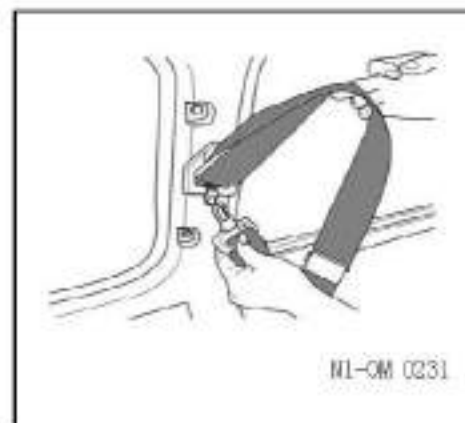
To unbuckle, press the buckle button. The seat belt will retract automatically.



When seat belt retracts automatically, be sure to avoid the rebound of buckle onto your body or interior board and vehicle window.

Lap-shoulder safety belt 2 (for utility-type)

Lap-shoulder safety belt 2 is located on the middle seat of utility-type vehicle. Its using method is same with that of lap-shoulder safety belt 1.



The buckle of lap-shoulder safety belt 2 is suspended on the interior board. Before using the belt, take it down; after using the belt, hang it back.

The using of lap safety belt
Using lap safety belts in a correct method



Pay attention to the following points when using safety belts:

- Adjust the seat so that you can sit up straight. The seat back shall not be lean back to the extreme.
- Gently pull the safety belt from the retractor and fasten the belt across your body without twisting it. The part covered by the safety belt is showed on the above picture.

- Be sure that safety belts are not twisted.

Adjust the seat belt length



To adjust the seat belt length, take the latch plate and pull it along the belt.

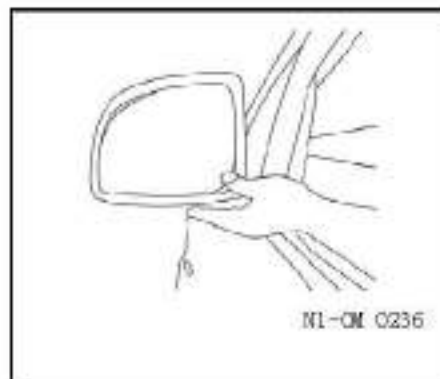
Buckle and unbuckle the safety belt



Press the latch plate into the buckle until it clicks.

To unbuckle, press the red buckle button.

Outside rearview mirror



Press the four angles of the outside rearview mirror to a proper position for the driver.

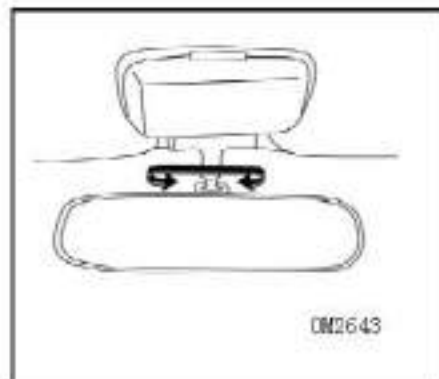
Note

- Adjust the outside rearview mirrors and check for the correct position before driving your vehicle so as to maintain the rear vision.
- The outside rearview mirror is a convex mirror. The actual position of the object is closer than the one seen in the rearview mirror.

Warning

- Never adjust inside and outside rearview mirror, or the vehicle can be out of control.

Inside rearview mirror



Adjust the inside rearview mirror and check for the correct position before driving your vehicle so that the driver can get the best view. The inside rearview mirror can be turned according to the picture.

Ignition and start switch



The ignition key can be turned to the following position:

LOCK

This is the normal parking position, only at which the key can be removed. Only after the key is removed can the steering column be locked.

ACC

When the key is at this position, the accessory power supplies including those for wiper, cigarette lighter etc. are switched on, but the engine is power off.

ON

When the key is at this position, all vehicle power supplies are switched on, and the engine is ready to start.

START

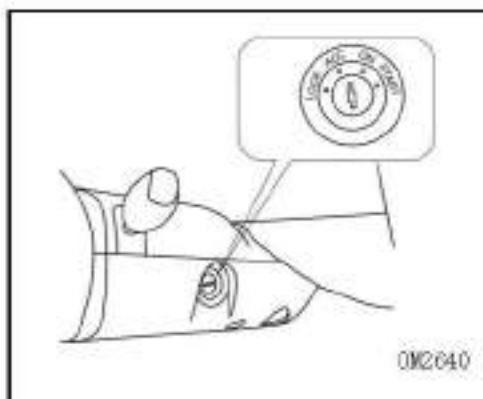
When the key is at this position, the engine starts, and release the key, it will return to ON position automatically.

Danger

- During the vehicle movement, never remove the key. Otherwise, the steering column will be locked, and you will lose control of the vehicle.
- Never use hands by crossing the steering wheel to operate the ignition switch. Otherwise, you will lose control of the vehicle due to the diversion of steering wheel

- Never leave the children alone inside your vehicle when the key is inserted in the ignition switch. Otherwise the children or others may get seriously injured or even dead because they may start other electronic control devices and even start the vehicle.

Locking and unlocking the steering column*



To lock the steering column, remove the key at LOCK position. Then rotate the steering wheel until you hear a CLICK of locking.

To unlock the steering column, insert the key and turn it clockwise to other positions. If the key is hard to turn, you may turn it while rotating the steering wheel left and right lightly.

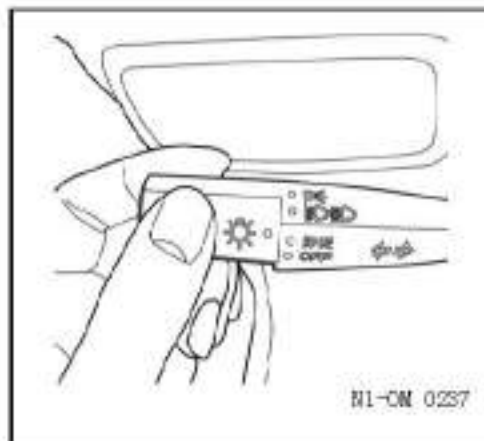
Warning

- When the engine is inoperative, do not leave the key at ON position, otherwise the battery will discharge.
- When the engine is operative, do not turn the key to the START position, otherwise it may damage the engine.


Headlamp switch

Low beam lamps

To turn on or off the lamps, rotate the knob at the end of the combination switch. The switch has four positions:

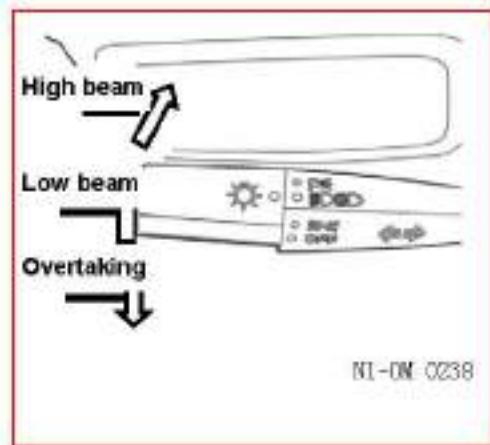


“OFF” position: all the lamps off.

•  position: parking lamps, tail lamps, license lamps and instrument lamps on

• $\text{D}\text{D}\text{E}\text{C}$ position: Headlamps (*low beam*) and all the above lamps on

• P position: parking lamps, tail lamps on



High beam lamp

When the lamp knob is at the position of $\text{D}\text{D}\text{E}\text{C}$, push the lever towards the dashboard and the high beam lamp illuminates.

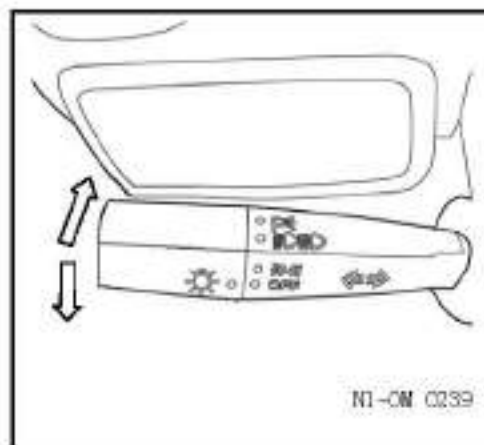
To resume the low beam, pull back the lever to the original position.

Headlamp dimming (overtaking lamps)

Dimming is used for high beam flashing.

When the lamp button is at $\text{D}\text{D}\text{E}\text{C}$, pull the lever to the steering wheel direction to turn it on. Release the switch and it will return to the normal position. For continuous dimming, repeat the above operations.

Turn signal lamps



By moving the turn signal lever clockwise, all the right turn signal lamps will go on. By moving the turn signal lever counterclockwise, all the left turn signal lamps will go on.

The turn signal indicator will go out after the turn is finished and the switch will return to the original position. When you are overtaking or changing lanes, the turn signal lever will not return. In this case, press the lever lightly by hand.

Windshield wiper switch



To use the front windshield wiper, the ignition switch shall be at ON or ACC position. The windshield wiper lever can be moved to any of the positions as shown in the Figure:

Warning

- Never use a wiper on a dry glass. Otherwise, the wiper will be worn and the windshield will be scratched.
- Repair the damaged wiper as soon as possible otherwise it will be dangerous to drive in the rain.

OFF: turned off

INT: Intermittent operation

1: Continuous low-speed operation.

2: Continuous high-speed operation.

Note

Before using the windshield wiper, all the obstructions shall be cleared. If the wiper has been stuck by objects (ice cake, etc.), the using of wiper will cause the damage of wiper motor.



Washer switch





To spray the washer solvent to the windshield, the lever shall be pull towards the steering wheel as shown in the Figure.

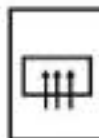
Avoid continuously using the washer for more than 20 seconds.

Button switch**Front fog lamp***

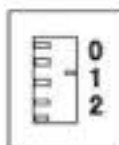
When the lamp switch is at  or  position, press the front fog lamp switch to turn on the front fog lamp, and also the front fog lamp switch is positioned at ON. To turn the front fog lamps OFF, press the switch again.

Rear fog lamp

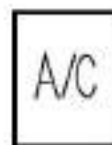
When the lamp switch is at  or  position, press the rear fog lamp switch to turn on the rear fog lamp, and also the rear fog lamp switch is positioned at ON. To turn the rear fog lamps OFF, press the switch again.

Rear defog and defrost switch*

When the ignition switch is at ON position, press the switch to turn on the indicator lamp and rear defog and defrost glass will operate. To turn the rear fog lamps OFF, press the switch again. And rear defog and defrost glass will stop operation.

Front headlamp electrically regulating knob*

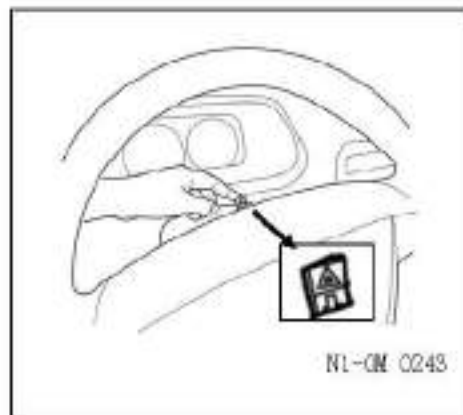
The electrically-controlled up/down direction of headlamp light has been adjusted before delivery, which is at the "0" position. When there is a heavy load on the vehicle (vehicle head may uptrend) or climbing on hills, the light can be adjusted downward to an ideal state for vision observation. Position "1" and "2" are for downward adjustment. The higher the adjustment of position is, the more light will be adjusted downward.

A/C switch*

Air-conditioner switch; Refer to Chapter 3 for more details about cooling system.

Hazard warning lamps

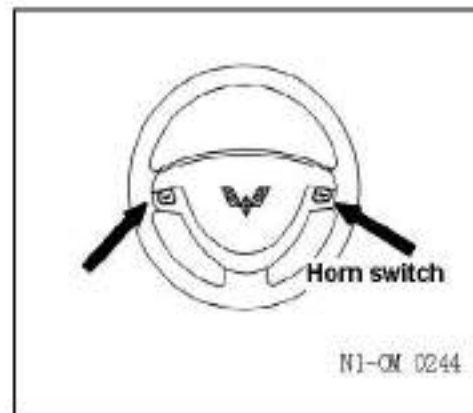
When pressing the hazard warning lamp switch, all the turn signal lamps flash; when pressing again, all the turn signal lamps will be off.



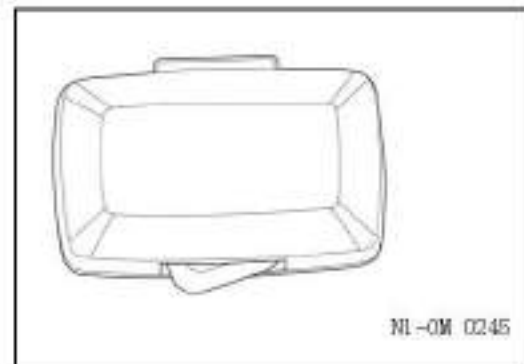
When the ignition switch is at OFF position, the hazard warning lamp may still be operative.

Note

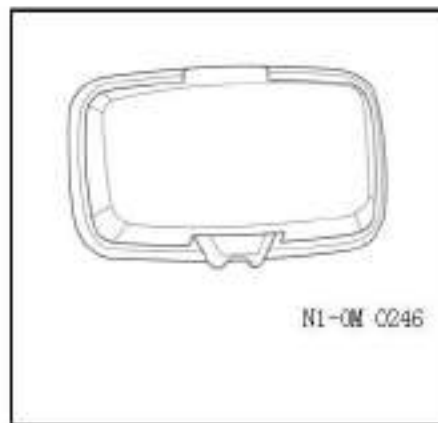
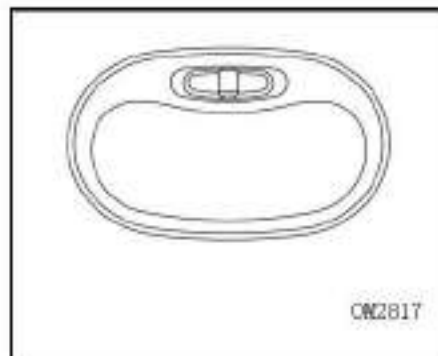
These signal lamps shall be used only in emergency stop or when vehicle accidents occurred. When the vehicle is stopped, the service time of the lamps shall not exceed 1 hour in order to protect the battery from draining.

Horn switch

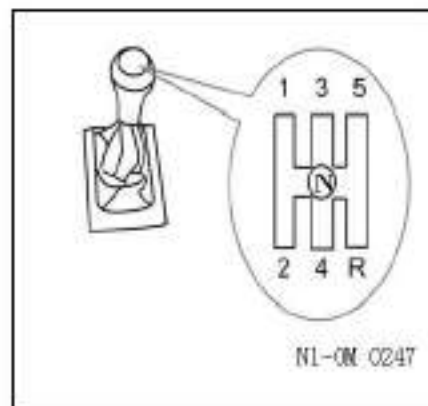
To actuate the horn, press any part of horn switch. When the ignition switch is at any position, the horn will be operative. Try to avoid using the horn switch.

**Interior lamps and dome lamps
Dome lamp 1**

Press the switch (as shown in the figure), and dome lamp can be turned on. Press again, and dome lamp can be turned off.

Dome lamp 2

- **ON position:**
The illumination lamp keeps on
- **OFF position:**
The lamp keeps off
- **Middle position:**
When any door is opened, the illumination lamp will be on.

Manual transmission**Shift lever position**

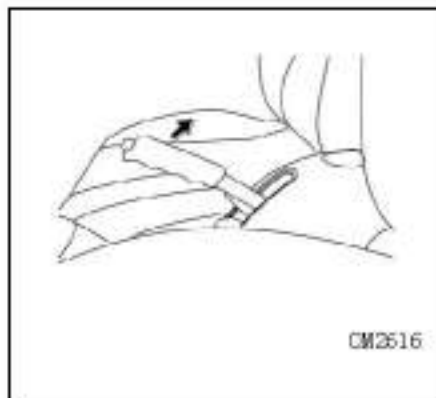
1~5 1st~5th gear

R: Reverse

N: Neutral

Warning

When the vehicle is moving, you cannot shift to reverse. Position the shift lever in R (Reverse) only after stopping steadily the vehicle and depressing the clutch pedal.

Parking brake

Parking brake: Pull up the operating level of parking brake.

Release of parking brake: Depress the brake pedal, pull up the hand brake level slightly, and press the lower release button to loosen the level downwards completely.

Warning

- Be sure that the grip brake was completely loosened, otherwise, the brake will be overheated, and the brake pad will wear dramatically, and the fuel consumption shall increase.
- Do not use parking brake while driving. Flammable materials in contact with hot exhaust components under the vehicle may catch fire.
- Do not park your vehicle on paper, leaves, dry grass or other flammable materials.
- Do not run the engine in an enclosed area (such as the garage) for too long. Engine generates highly toxic emissions such as carbon monoxide (CO), which you can not see or smell but may be lethal.
- If you want to take a nap inside after the vehicle is stopped, always turn off the engine and keep indoor ventilation (and keep alert to theft) to avoid an accidental starting and incur serious injury to the vehicle and

people or even death.

Note

- If the vehicle stops on the upward slope, select the first gear and turn the steering wheel away from the road shoulder.
- If the vehicle stops on the downward slope, select reverse gear and turn the steering wheel away from the road shoulder.

Rear carriage board and side carriage board

Rear carriage board

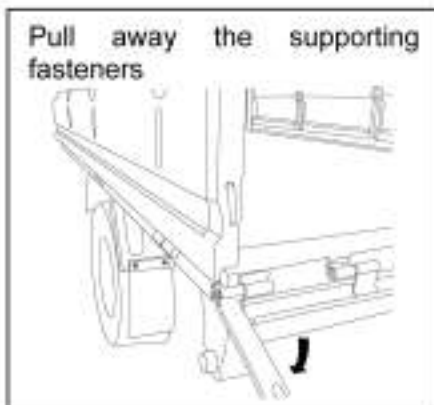
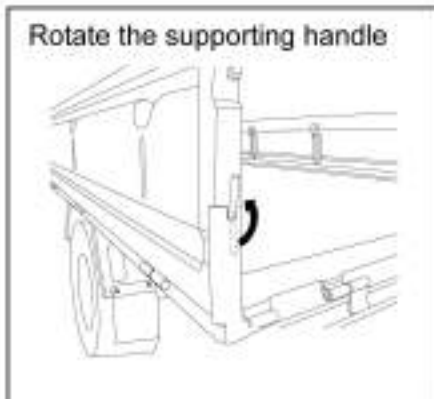
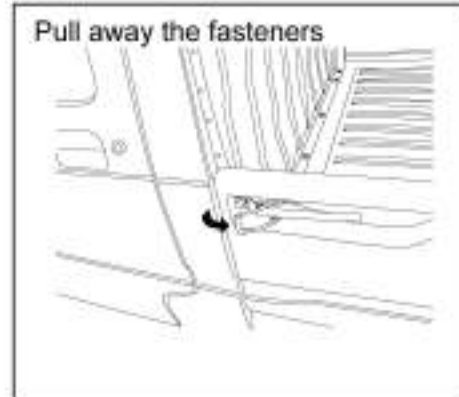
Pull away—Pull away the fasteners of rear carriage board to slowly lower the rear carriage board. Never drive the vehicle when the rear carriage board is open because at this time the rear combination lamp has been covered by the rear carriage board. Discharge the rear carriage board when transporting the long-strip cargoes.

Discharge—Remove the bolt at the right side of rear carriage board, lift the board a little and pull it towards right direction, and the discharge of board can be made. (See Figure "Discharge")

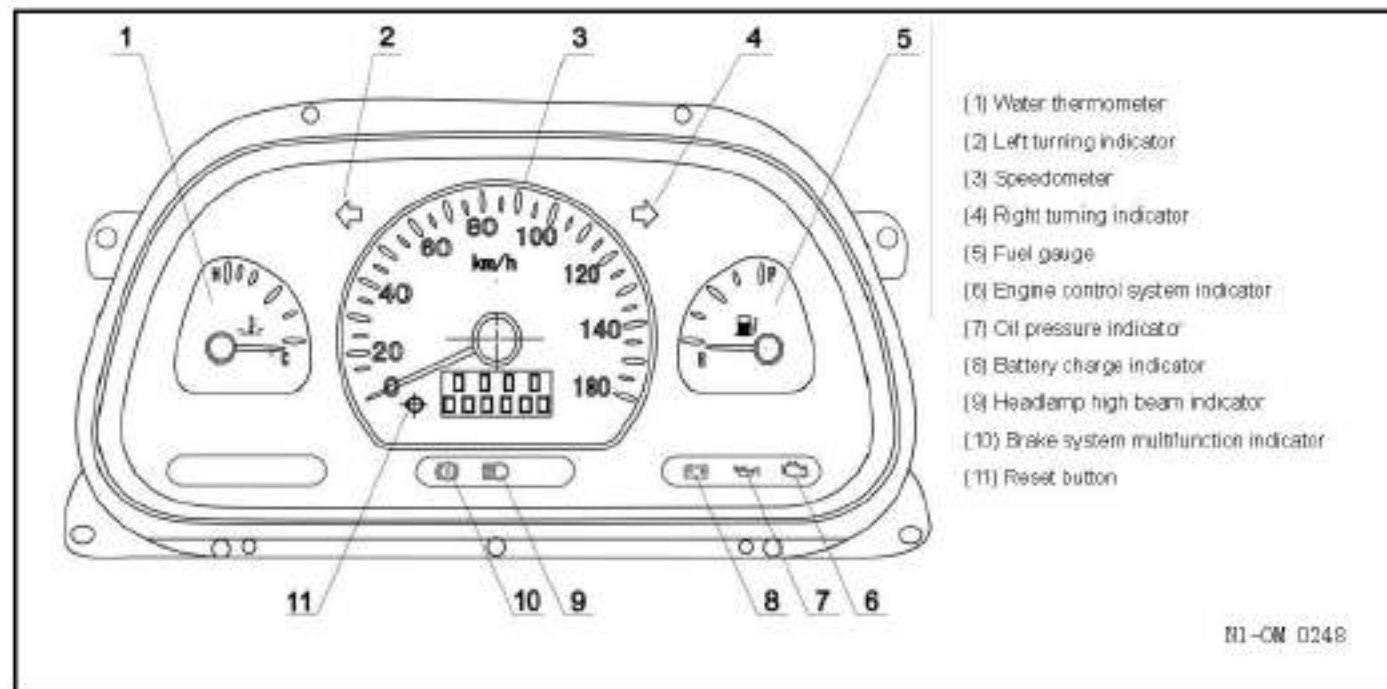


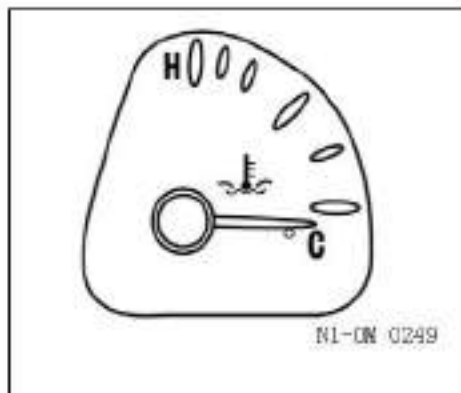
Side carriage board

Pull away—Pull away the fasteners of side carriage board and rotate the supporting handle to open the supporting fasteners and then slowly lower the rear carriage board. The side carriage board shall be closed when driving.



Combination instrument 1



Water temperature gauge

When the ignition switch is in position ON, the water thermometer can indicate the temperature of the engine coolant.

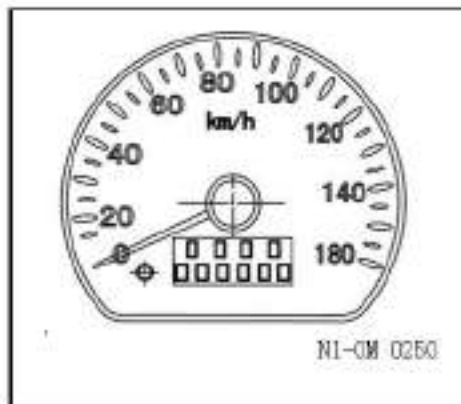
“H” refers to “HIGH TEMPERATURE”; “C” refers to “COLD STATE”. When the water thermometer is in the red area, it indicates that the engine is overheated and shall be cut off for check.

Be sure to maintain the normal temperature of engine when in driving.

The electronic fan equipped on the water tank of engine will start when the water temperature of engine rise to the specified level to ensure that the engine is not overheated.

Warning

- Stop of vehicle and timely inspection shall be made when the engine is overheated.
- Open the radiator cover after the cooling of engine to avoid burning.

Speedometer

It is used to indicate vehicle speed (immediate speed) in km/h.

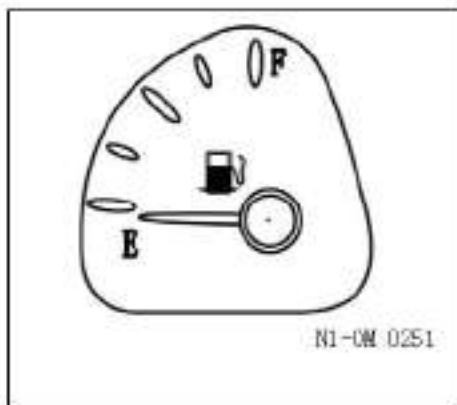
The data in upper line is short-distance mileage displayed by four digits with a minimum unit of 0.1 kilometers. The short-distance mileage can be reset to “0” by pressing the reset button of short-distance odometer.

The data in lower line is total mileage (can not be reset) displayed by six digits with a minimum unit of 1 kilometers (the display range is from 0 to 999999 kilometers).

Note

Pay attention to the mileage, the maintenance of speedometer shall be in accordance with the maintenance regulations in the manual.

Fuel gauge



When ignition switch is position in ON, the fuel gauge indicates the residual fuel in the tank.

Driving uphill, accelerating, hard braking and sharp curving makes the fuel level indications fluctuate. The best condition for reading the fuel level is doing it with vehicle leveled. When vehicle is moving, the fuel level indication may present slight changes.

"F" refers to "FULL";

"E" refers to "EMPTY".

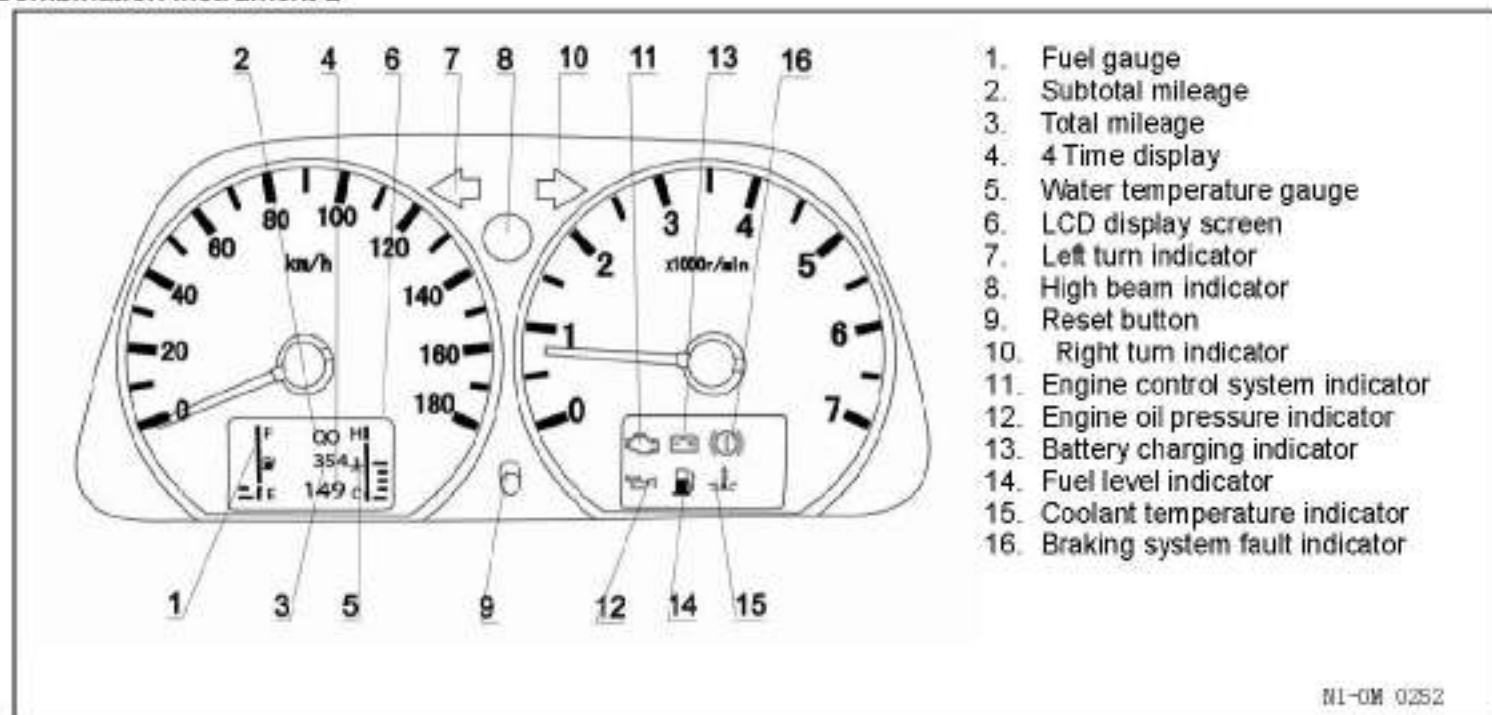


When the fuel is nearly used up, the low level indicator will illuminated and indicates that it is time for you to fuel the vehicle.

Note

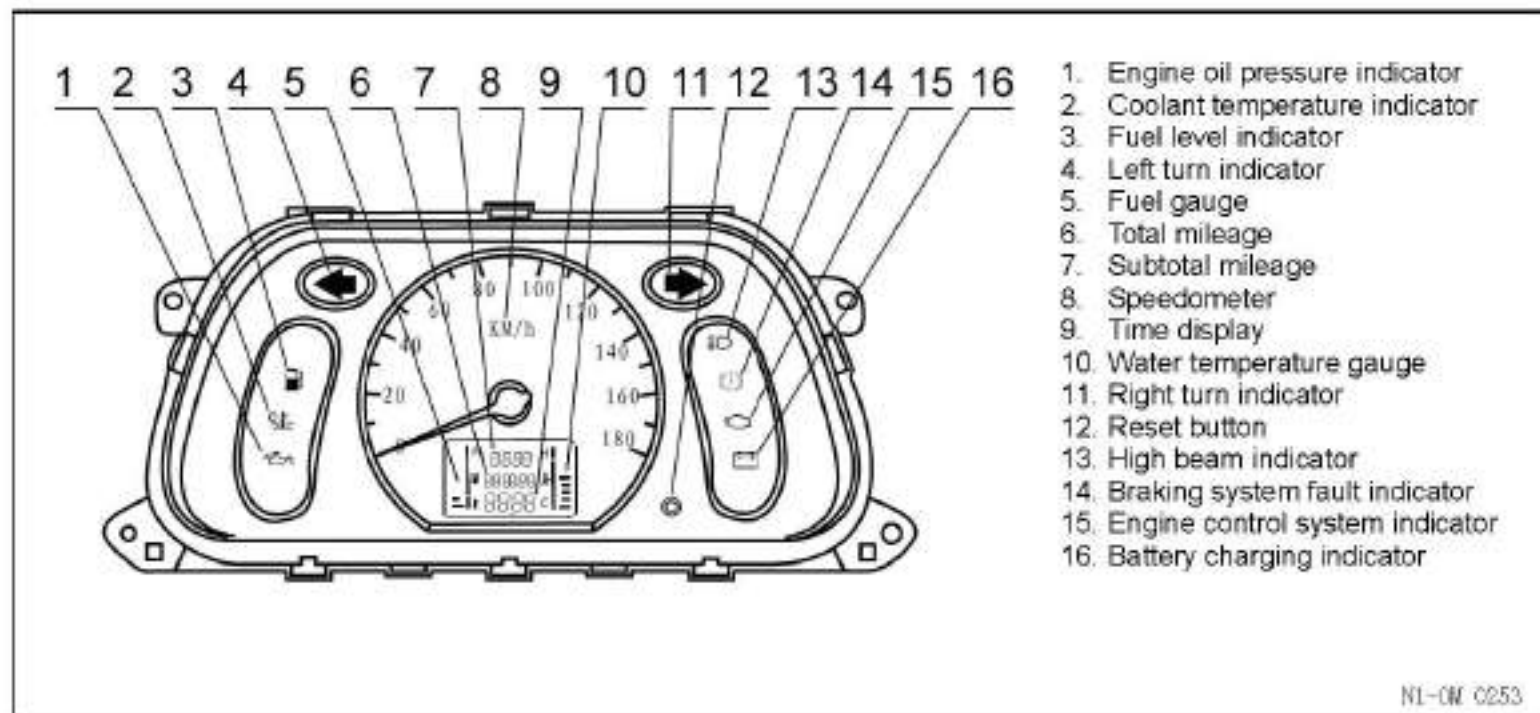
When the fuel is nearly used up, the indicator will indicate that it is time for you to fuel the vehicle.

Combination instrument 2



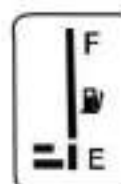
N1-OM 0252


Combination instrument 3



NL-OW 0253

- Fuel gauge



"F" refers to "FULL";
 "E" refers to "EMPTY".
 When the 2nd division
 of fuel gauge is displayed,
 the fuel level indicator will be
 ON. 

It indicates that the fuel
 will be used up in short time
 and replenishment of fuel
 shall be made.

Note

The illumination of fuel level
 indicator indicates that the fuel
 will be used up in short time and
 replenishment of fuel shall be
 made.

- Mileage and time display



In display screen:

The data in first line is subtotal
 mileage displayed by four digits with a
 minimum unit of 0.1 kilometers. The
 short-distance mileage can be reset to
 "0" by pressing the reset button of
 short-distance odometer.


The data in second line is total
 mileage (can not be reset) displayed
 by six digits with a minimum unit of 1
 kilometers (the display range is from 0
 to 999999 kilometers).

The data in third line is time, which
 can be reset to "0:00" by pressing the
 reset button.

- Water temperature gauge



"C" refers to "LOW
 TEMPERATURE".
 "H" refers to "HIGH
 TEMPERATURE".

When the 4th division of
 temperature gauge is displayed,
 the coolant temperature
 indicator will be ON. 

The display of the 4th or 5th
 division of temperature gauge
 indicates that the coolant

Warning

The constant illumination of coolant
 temperature indicator indicates the
 overheating of engine or other faults.

- Stop of vehicle and timely
 inspection shall be made when the
 engine is overheated.
- Open the radiator cover after the
 cooling of engine to avoid burning.

Warning lamps and indicators

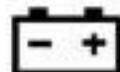
● Engine coolant temperature indicator



This indicator will come on briefly for self-checking and goes out in three seconds when the ignition key is in position ON.

Be always alert to this indicator, once the engine is overheated, it may cause severe damage to the engine.

● Battery charge indicator



The battery charge indicator will come on for self-checking when the ignition switch is in position ON and will go out as soon as the engine starts running.

Note

If the charge indicator stays on while the engine is running, probably there is a failure with the charging system. Contact the After-Sales Service Center immediately.

● Brake system malfunction indicator



This indicator is on when the level of braking fluid is too low. Contact the After-Sales Service Center immediately.

This indicator will come on briefly for self-checking and goes out in three seconds when the ignition key is in position ON.

If this indicator stays on, it indicates that there is a leak of braking fluid or the parking break is not released.

Ensure the parking break is released before driving.

Warning

If the parking break is fully released and this indicator is on constantly, it indicates that there is not enough fluid in the braking fluid on which will impair the braking performance.

- If it happens during driving, stop the vehicle in the roadside.
- Check the braking fluid.
- If the fluid level is below the MIN (the lowest value allowed) scale mark, refill the recommended fluid to the MAX (the highest value allowed) scale mark.

- Check if the braking operation is normal.
- If the braking system is normal, please drive carefully to the After-Sales Service Center for checking and repairing.
- If this indicator remains on and the braking system does not work, or a leak is found, contact the After-Sales Service Center immediately.

● Engine controls indicator



This indicator will come on for self-checking when the ignition switch is in position ON, and will go out right after the engine starts.

If this lamp goes on while the vehicle is moving, probably there is a failure with the system. In this case the system switches to an emergency program that allows you to continue driving the vehicle.

Find your After-Sales Service Center as soon as possible. Do not drive over extended period with the warning lamp on, otherwise the catalytic converter may be damaged.

and the fuel consumption may increase.

If the warning lamp goes on briefly and then goes off, there will not be any reasons for worry.

- **Front fog lamp indicator***



When the front fog lamp is switched on, this indicator will illuminate.

- **Headlamp Indicator (high beam)**



The indicator lamp turns on when the high beams illuminate.

- **Turn signal indicator**



Moving the turn signal lever flashes the indicator. These indicators also blink when the hazard warning lamps is actuated.



When the ignition switch is in position **ON**, the indicator will illuminate for self-checking and goes off after the start of engine.

Warning
If this lamp goes on, or turns on during driving, stop the vehicle and turn the engine off immediately, since it indicates a low oil pressure. Contact the After-Sales Service Center as soon as possible.

- **Rear fog lamp indicator**



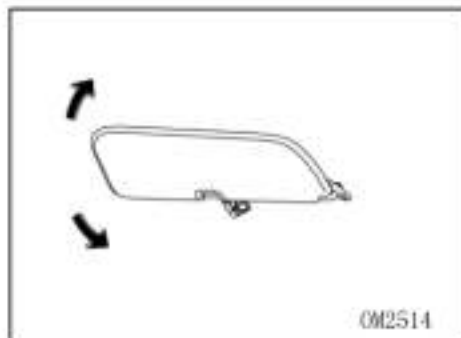
When the rear fog lamp is turned on, the indicator will illuminate.

Chapter 3 Features and Controls

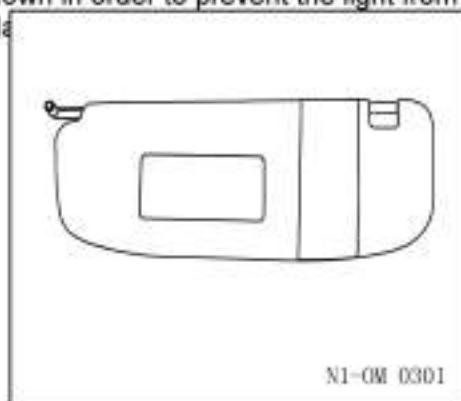
Vehicle audio.....	3-1
Sunshade	3-2
Glove box.....	3-3
Cigar lighter.....	3-4
Air conditioning.....	3-5
Engine hood.....	3-6
Refuel door.....	3-7

Vehicle audio

Refer to *Instruction Manual for Vehicle Audio* for more details. The manual is placed in glove box.

Sunshade

The sunshade can be moved up and down in order to prevent the light from da



The sunshade of some types of vehicle is equipped with cosmetic mirror.

Glove box

To open the glove box, hold the bottom of box handle and pull it upward. To close the glove box, push the box door tightly with a force.

Warning

The glove box shall keep closed in driving otherwise more damages will occur once there is an accident or emergent brake.

Cigar lighter

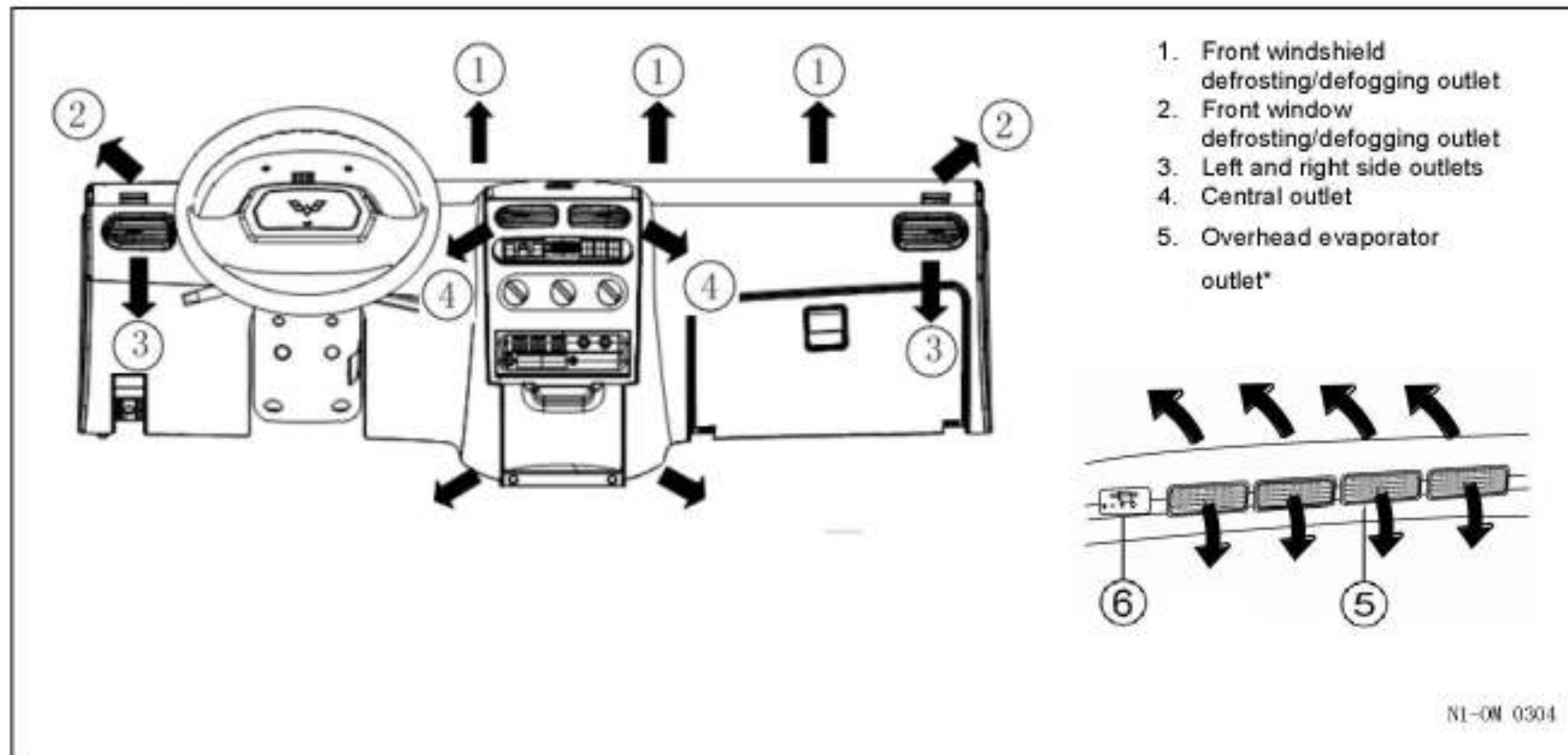
When the ignition switch is at ON or ACC position, press the cigar lighter in place, and after the heating is complete, the cigar lighter will eject automatically.

Warning

- The cigarette lighter may be very hot, so do not put hands on the cigarette lighter.
- If the cigarette lighter cannot eject automatically within 30 seconds, it indicates that the cigarette lighter is at fault. Remove it and send to the After-Sales Service Center for repair.

Air conditioning*

Heating, ventilation and air-conditioning
Airflow direction diagram



NI-OM 0304

Ventilate air-conditioning system**Intake**

Fresh air enters the car through filter through intake grille under the front windshield.

The intake grille must be kept clean (with no obstacles such as leaves or snow, etc in it).

Avoid jetting into the inlet while washing the car with high pressure water.

Outlet

各处。

Most outlets are equipped with knobs to control airflow direction, and grille damper to control the airflow.

- To increase airflow in central air outlet, close the outlets at both sides.
- To achieve the most comfortable ride, make sure all outlets are open and that the airflow direction controlling knob is in middle position.

Central intake

The airflow can be guided from two central intakes to all positions of the vehicle.

Side intake

The airflow can be guided from the left and right intakes to all positions of the vehicle.

Front door & window defroster intake

The airflow is guided to the front door & window glass.

Front windshield defroster intake

The airflow is guided to the front windshield.

1) The heating system

The functions of the heating system are heating up, defrosting and ventilation. The heating temperature is directly linked

with the coolant temperature of the engine. Therefore, Warm up the engine first and then use the heater. When the key of the ignition switch is "ON", the airflow rate can be adjusted by regulating the fan speeds.

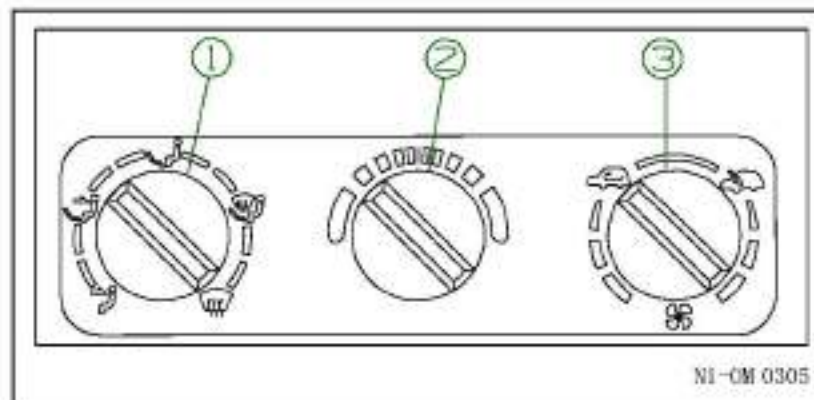
Note

When using heater, you shall check whether water valve is in ON position. If water valve is still in OFF position, first switch on the water valve which is on the water pipe of heater in vehicle head position (behind radiator), then heater can be used.

When you want to add or replenish engine coolants, you must remove exhaust pipe and shall assembly it to origin position after air is exhausted.

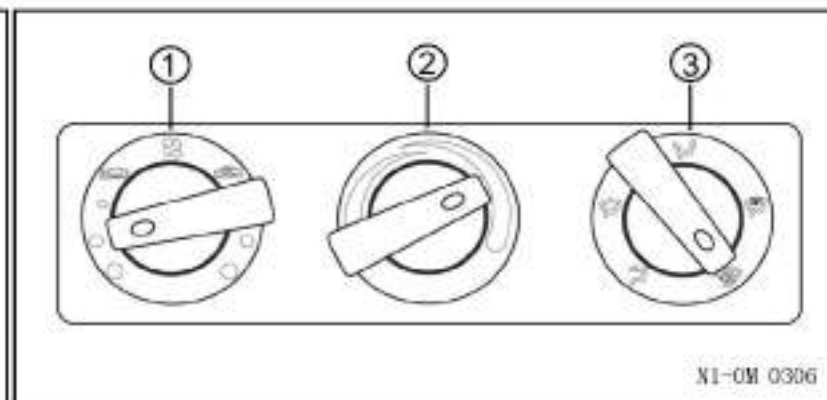
Controls

Air-conditioner control panel 1



- ① Air distribution switch
- ② Temperature control switch
- ③ Airflow switch and air circulation selecting switch

Air-conditioner control panel 2



- ① Airflow switch and air circulation selecting switch
- ② Temperature control switch
- ③ Air distribution switch

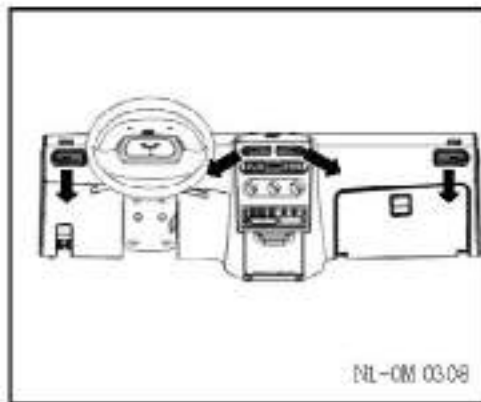
↕ Air distribution switch



Use this switch and you can choose the outlet position of the airflow.

This switch has the following five positions:

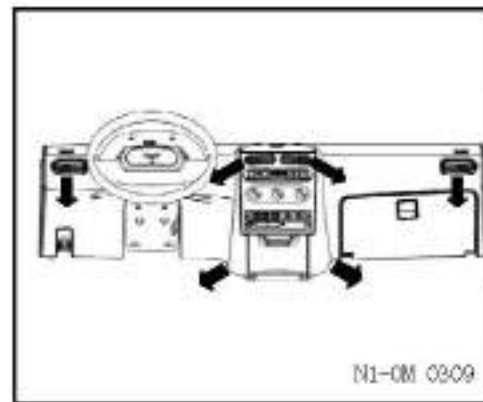
●The position of the face



The airflow is from the central and side outlets. The air is blown to the face of the passenger.

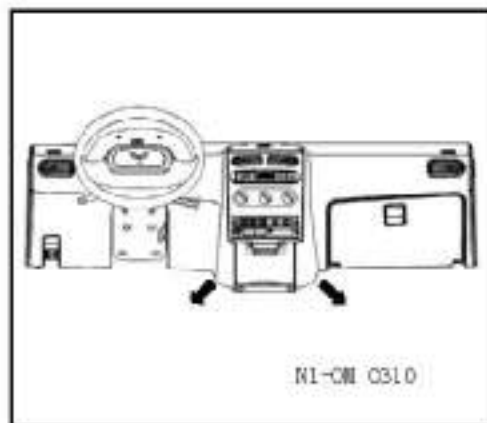
Note: In hot summer, the cool air blows to the driver's head to keep a clear head.

●The position of the feet/face



The airflow is from the central and side outlets and below the dashboard. The air is blown to the face and feet of the passenger.

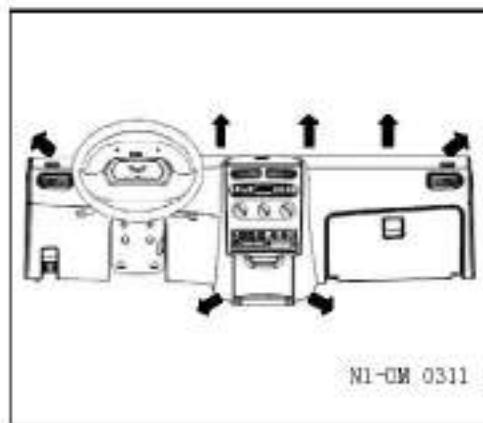
- The position of the feet



The airflow is below the dashboard. The air is blown to the feet of the passenger.

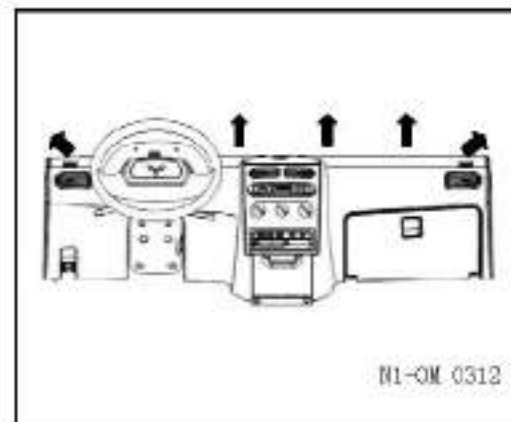
Note: In cold winter, the warm air blowing to the driver's feet can keep a comfortable drive by accelerating the blood circulation of the feet.

- The position of feet-defroster



The airflow is from the underside of the dashboard, the defroster outlets of the front windshield and front door window glass. The air is blown to the feet of the passenger, front windshield and front door window glass.

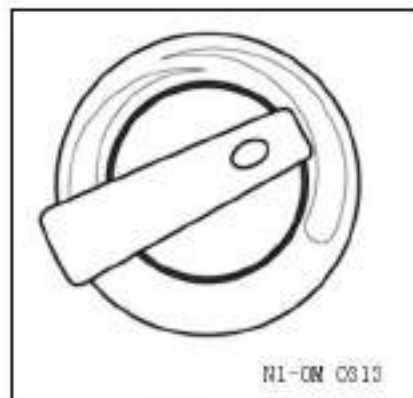
- The position of defroster and defogger



The airflow is from the defroster outlets of the front windshield and front door window glass. The air is blown to the front windshield and front door window glass.

Controls

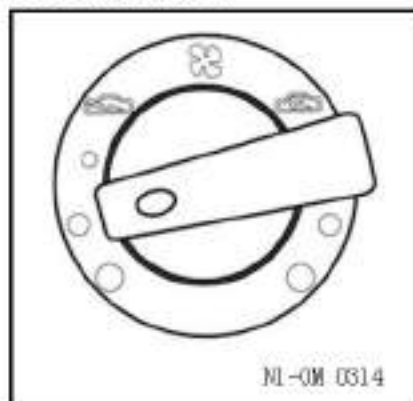
2 Temperature control switch



The switch is to control the temperature of outlet.

In blue position, cool air is chosen.
In red position, warm air is chosen.

3 Airflow switch and air circulation selecting switch



● Fresh air mode



In this mode, the intake opens, and the external air can enter the vehicle.

This position is useful for the normal ventilation, heating or cooling state. Rotate the switch in CCW direction, and fan will start to gradually increase the airflow.

● Indoor circular mode

In this mode, the intake close, and the internal air circulates in the vehicle.

In a dusty or smoky environment and in need of swift cooling or heating, select this mode.

Rotate the switch in CW direction, and fan will start to gradually increase the airflow.

Note

Continuously using the indoor circular mode may lead to the internal bad ventilation and window fogging. Do not use this mode for a long time.

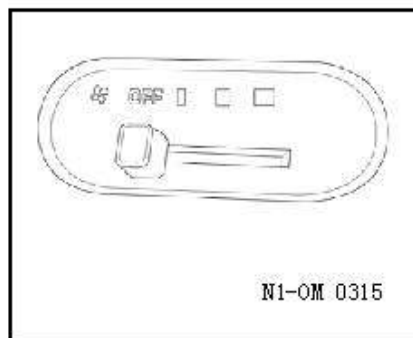
The connecting line between



is a transition where the fan switch is in closing state.

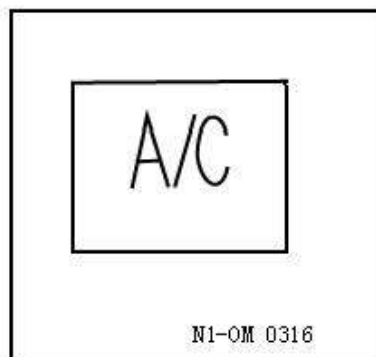


Controls

Airflow switch (overhead evaporator)*

Airflow switch (overhead evaporator) controls the overhead airflow of outlet. There are three grades of airflow.

Moving the sliding button in right direction can increase airflow. On the contrary, the airflow will decrease when moving the sliding button in left direction. When in OFF position, the sliding button will be turned off.

Air-conditioner switch*

The switch is used to turn on and off the air-conditioning system.

Start up the engine, rotate the airflow switch to the required wind speed and press the air-conditioning switch to turn on the air-conditioner. When the air-conditioner is turned on, the indicator light will illuminate. Press the button again to turn off the air-conditioner and the indicator light will go out.

For good air conditioning effect, close the window when using the air conditioner.

Note

- When the airflow switch is off, the air-conditioner does not work.

Air-conditioning system

As an optional configuration, the air-conditioning system of this vehicle is the one with single front evaporator or "dual evaporator" (front + overhead evaporator).

The cold air is ventilated from the dashboard outlets and overhead evaporator outlets respectively. The A/C switch is on the dashboard. There are two airflow switches: one is on the A/C control panel of the dashboard; the other is near the overhead evaporator outlet.

The heating system and refrigeration system is an integrated functional design unit to guarantee the best comfort in any weather condition all the year round. Except for cooling

Controls

the air, the air-conditioning system can demist, dedust and regulate the humidity of the air.

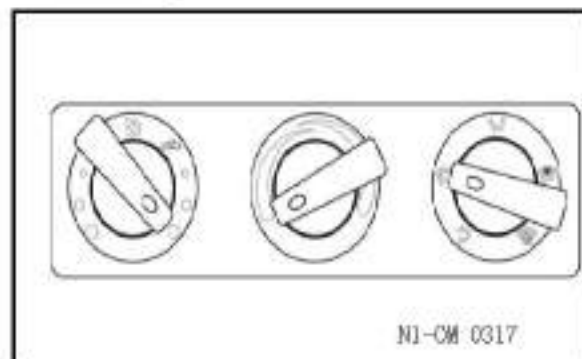
The following are some suggestions for air-conditioner operation for your reference.

Note

- The refrigerant used for this vehicle is R134a type, and the refrigerant lubricant is R134a special oil. Applying incorrect refrigerant and refrigerant lubricant may damage the cooling system of air conditioner.
- It is not allowed to mix two different refrigerants.
- Do not switch on the air conditioner when the engine is not running.
- Please try to turn off the air condition system when driving on a steep incline or accelerating to cut in.

- After the cooling system of air conditioner is started, if cooling air is used for a long time, the airflow knob and the switch of fan motor of top mounted evaporator shall be turned on simultaneously, or the cooling system will be damaged.

Swift cooling

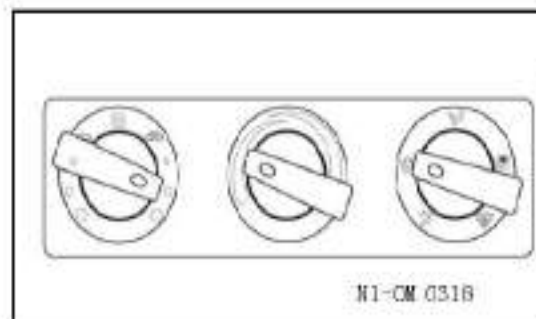


In hot summer, when the vehicle is exposed to the sunshine for a long time, there is no doubt that you shall want to cool the vehicle. At this time, fully open the windows for ventilation first and then follow these steps:

- The air-conditioning switch: On
- The intake control mode:
- The air distribution mode: or
- The temperature switch: Rotate counterclockwise to the end (blue)
- Airflow switch: maximum airflow

Controls

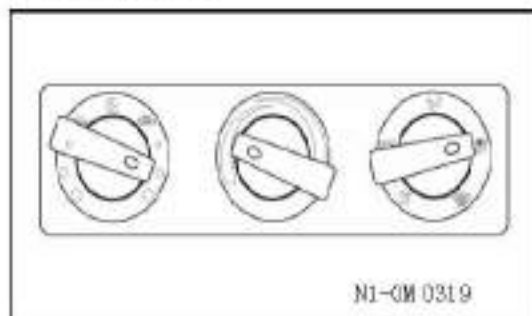
Cooling under normal circumstances



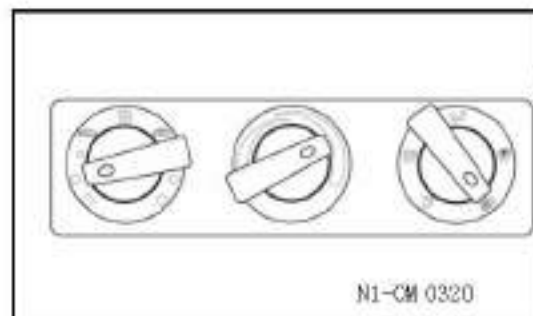
For cooling, follow these steps:

- The air-conditioning switch: On
- The intake control mode:
- The air distribution mode:
- The temperature switch: In the blue area (suitable for you)
- Airflow switch: Your desired airflow

Windshield and front door & window glass defogger

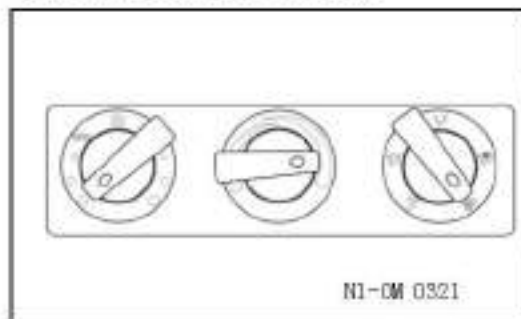


- For **swift defogging**, follow these steps:
- The air-conditioning switch: ON
- The intake control mode:
- The air distribution switch:
- The temperature switch: In the blue area (suitable for you)
- Airflow switch: Your desired airflow







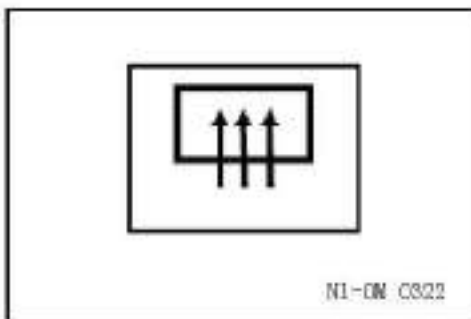
- When using in **cold weather**, follow these steps:
- The air-conditioning switch: OFF
- The intake control mode:
- The air distribution mode:
- The temperature switch: In the red area (heating)
- Airflow switch: Your desired airflow

Controls

**Windshield and front door & window
glass defroster glass defogger**

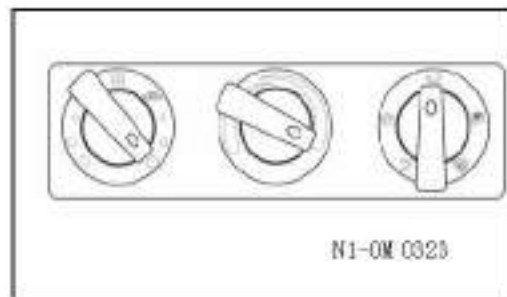
When using, follow these steps:

- The air-conditioning switch: OFF
- The intake control mode:
External frosting 
Internal frosting 
- The air distribution mode:
 or 
- The temperature switch: In the red area (heating)
- Airflow switch: You desired airflow



Rear windshield defroster*

When defrosting the rear windshield, the ignition switch shall be in position ON. Press this button and the indicator light illuminates.

Once the visibility of the rear windshield is resumed, turn it off.

The maximum heating (swift heating)

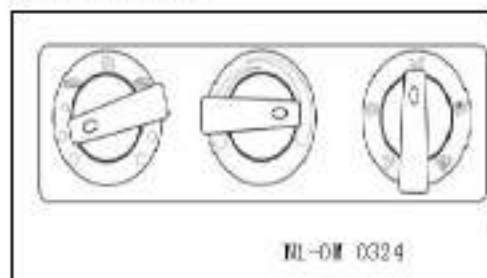
In the cold winter, to warm the interior of the vehicle, follow these steps:

- The air-conditioning switch: OFF
- The intake control mode: 
- The air distribution mode: 
- The temperature switch: Rotate it counterclockwise to the end (red)
- Airflow switch: Maximum airflow

Controls

Note

- Do not use the maximum heating function for a long time because it may lead to the indoor bad ventilation and window fogging. This method can only be used for the swift heating and it shall return to the normal position as soon as possible by adjusting to the fresh air mode.

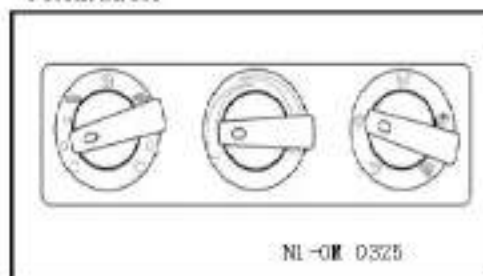
Warm air under normal circumstances

When using the central heating in the ordinary course of events, follow these steps:

- The air-conditioning switch: OFF
- The intake control mode:

- The air distribution mode: or
- The temperature switch: In the red area (heating)
- Airflow switch: Your desired airflow

Note: When the key of the ignition switch is in position ON, the airflow rate can be adjusted by regulating the airflow switch.

Ventilation

In the pleasant season, to obtain a better ventilation effect at room temperature, follow these steps:
The air-conditioning switch: OFF

- The intake control mode:
- The air distribution mode: or

- The temperature switch: In the blue area (cooling)
- Airflow switch: Your desired airflow

Operation notice

- If the vehicle is exposed to the sunshine for a long time, open the windows for ventilation before turning on the air-conditioner.
- When driving in a crowded area, the cold airflow may be insufficient due to the frequent parking and low-speed driving.
- If the air-conditioning system is not used for one month or more, run the engine in an idle speed every week and keep the air-conditioner ON for some time, even in winter. It will keep the compressor and oil seal properly lubricated to increase the service life.

Controls

- When the airflow switch is at OFF position, the compressor will not run.
- Do not turn on the air-conditioner unless the engine is started up. The air-conditioner only works when the engine is running.

Warning

When climbing the steep hills or diving overloaded, it may overheat the engine to use the air-conditioner.

- Pay attention to the water temperature gauge at that time.
- If the water temperature gauge indicates overheating (the pointer points to red area), turn off the air-conditioner.

Ashtray

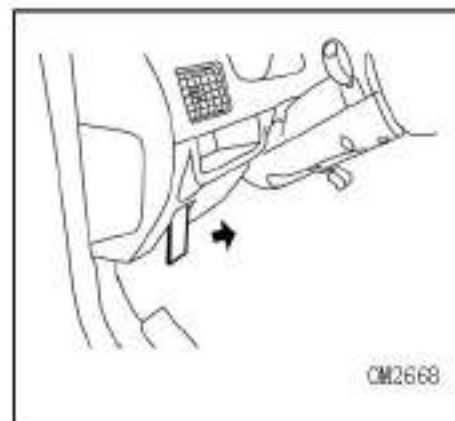
If you use the ashtray, open the ashtray outward. After using, push it in fully again.

When removing the ash, open the ashtray first, then properly hold it upward, and take it out.

Reinstall it in the reverse sequence.

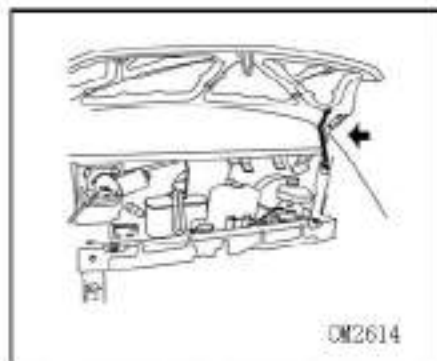
Note

- If a burning cigarette or match is put into the ashtray, fire may occur.
- Do not use the ashtray as a dustbin.

Engine hood

To open the hood, pull the hood release handle on the lower left side of the dashboard in the vehicle.

Controls



Then lift up the engine hood in the front of the vehicle. The prop rod may be hot due to the internal high temperature so remember to protect yourself. Pull the prop rod and insert it into the slot in the hood.

Before closing the hood, make sure that all filler openings have been covered. Release the prop rod of the engine hood and return it to the original position. Drop down and lock the engine hood.

Warning

- Before driving, inspect whether the engine hood has been locked to prevent the engine hood from suddenly being opened and causing an accident in the driving.
- When driving, never pull the hood release handle.
- Before opening the engine hood, make sure that the vehicle will not move.

Refuel door

When filling the oil for the vehicle:

- 1) First use the key to open the refuel door.
- 2) Rotate it counterclockwise to open the oil tank cover.
- 3) After filling the oil, clockwise rotate and screw the oil tank cover until it clicks.
- 4) Use the key to lock the refuel door.

Note

- The fuel may have pressure and you shall disassemble the oil tank cover slowly. Do not completely remove the cover until the "XI" sound.
- The gasoline will damage the paint surface. If the gasoline drops onto the paint surface, clean it with water at once.
- Do not smoke and use mobile phone when replenishing fuel to prevent the outflow of fuel. Do not add too much fuel.
- When replenishing fuel, engine shall be turned off.



Chapter 4 Drive Your Vehicle

Driving tips	4-2	Manual transmission	4-3
Drive during the first 2,000 kilometers	4-2	Tires.....	4-3
Maintenance	4-2	How to save fuel.....	4-4
Clutch	4-3	Tips for ABS (antilock brake system) (if equipped).....	4-4
Brake.....	4-3		

Maintenance

Starting of engine

In the ordinary course of events, warm up your engine with the vehicle running and the engine is at idle stability. Do not accelerate heavily and drive at high speeds before the engine reaches normal operating temperature.

Avoid long-time engine idling, and if the ambient temperature is high, long-time engine idling may cause the engine to be overheated.

Due to the low temperature in winter, the viscosity of the engine oil will be increased with a worse lubrication effect than that in summer. Therefore, the vehicle cannot be driven at once after the engine starts, the rather that it runs at high speeds and load. The correct way is to warm up the vehicle for 2~5 min in the idle

state to increase the temperature of the engine oil and coolant. Only after the engine is fully lubricated and stably idled can the vehicle be driven.

Battery and starter

On traffic jams, if possible, turn off all devices that may demand the battery, such as heater, air conditioning, accessories, etc.

For vehicles equipped with manual transmission, at the neutral position of the shift lever and during cold starts, depress the clutch pedal to reduce the transmission resistance, thus releasing the starter and battery effort.

The time for starting the engine is less than 10 seconds each time. Allow 15 seconds and try again and do not insist if the engine does not start after several attempts. Contact the

After-Sales Service Center in time.

Manual transmission

Warning

- Do not shift suddenly into a lower gear on a slippery surface. This would cause a front-wheel braking effect and would make the vehicle skid.
- When shifting, press the clutch pedal all the way to the floor. This can avoid the damage to transmission and clutch, and make it easier when shifting.

Clutch

Warning

- For vehicles equipped with manual transmission, resting the foot on the clutch pedal while driving results in engine and clutch system damage and fuel consumption increase.

Brakes

- Make sure the brake pedal travel is free of obstacles.
- Do not drive with the engine off.
The brake booster will not work and braking will be harder.
- When driving down on hilly roads, shift into a low gear and apply the brakes occasionally, to prevent them from overheating, thus resulting in lack of braking efficiency.

Warning

- Keep the same speed with the flow of vehicles. Avoid unnecessary, (especially emergency braking), and to keep distance. Too much heavy braking will cause faster wear of brake, besides, there is the risk of skid.
- If the engine stops as you're driving,

brake normally but don't pump your brakes. Otherwise the remaining vacuum will be used up soon, resulting in brake pedal harder to push and longer braking distances. After the engine stops, it requires applying greater force to step on the brake pedal to brake.

Notice:

During the braking process, the vehicle speed is reduced by the brake, as well as the friction between tire and ground.

The slight braking noise in brake and that between tire and ground is normal, which doesn't require special treatment; the occasional screaming is also normal.

Some foreign articles may stick on the friction surfaces when the vehicle is running; rusting occurs on friction

surfaces after being unused for a long time or after raining, which can result in a loud screaming noise. But no special treatment is needed as long as it does not occur frequently.

Warning

- Check if the brake lamps are in good condition before driving. After starting, drive at a low speed and inspect the brake performance, especially after the vehicle is washed.
- Wet brake may cause accidents. The brake will not perform normally in case being wetted, or even cause vehicle leaning and loss control. Therefore, drive the car at low speed and step the brake pedal intermittently in order to dry the brake after driving on water or being washed.

Brake pedal travel

Take your vehicle to an After-sales Service Center anytime you notice the brake pedal does not return or the brake pedal travel becomes longer. It may indicate that a trouble has occurred in the brake system.

Do not pave thick carpet in the brake pedal area to avoid influencing the brake pedal travel.

Tips for ABS (antilock brake system) *

For the vehicles equipped with ABS, this indicator flashes for several seconds when the ignition switch is ON. ABS is operative during the emergent braking to prevent the wheels from being locked and keep the vehicle in control with the best brake efficiency at the same time; the ABS effect will become more obvious

especially on a wet and slippery road. You will feel the pulsation of the brake pedal and noise of the motor during the control. These are normal, which indicate that ABS is adjusting the brake effect. Do not worry about it.

Warning

- If the ABS indicator does not go out after the ignition switch is turned on or if it illuminates while you are driving, you may have an ABS failure, though the brake system of your vehicle will keep working. Have the After-Sales Service Center made a troubleshooting.
- If the ABS indicator and the parking one illuminate at the same time (without using the parking brake), the brake system may have serious failures in need of instant repair and maintenance.

Warning

In the state of emergency, depress the brake panel so that ABS could prevent the wheels from being locked and keeps the vehicle the stability of steering and driving. However, you should still drive carefully even your vehicle is equipped with ABS.

The following dangers can't be eliminated:

- Keep a close distance to the front vehicles when driving;
- Vehicle slipping;
- Traveling too fast when making a turning;
- Bad road condition.

Tires

- If you are to drive on any obstacle or bump, do it slowly and perpendicularly to prevent the tires from being worn.
- When skidding, the vehicle may be out of control. Sharp turns and

slippery road surface may lead to the vehicle skidding. Try to reduce the vehicle speed according to the actual situation. When braking the skidding, the wheels will not turn. When skidding due to the braking, release the brake pedal so as to resume the rotation as well as the turning control.

- To prevent vehicle from skidding, never drive with worn tires. Maintain the recommended pressure and slow down when driving on wet surfaces.
- Maintaining the recommended pressure (refer to the vehicle performance, structure and specification form in Chapter 9) is crucial to the tire care and travel safety.

Liquid and lubricant for the vehicle

The use of liquid and lubricant shall be according to the specified cycle and specification. If not, the vehicle can be damaged and even personal injury can be caused.

Please read relevant chapters carefully.

Replace the engine oil as specified

Replace with approved engine oil according to the specified interval and mileage. This will extend your engine life.

Use appropriate engine oil according to the ambient operating temperature, otherwise, serious damage to the engine may result, which may not be included in the warranty.

To avoid future troubles, change the engine oil at SAIC GM Wuling Automobile Aftersales Service Center

to ensure that oil specification and quantity meet the requirements.

Warning

Do not add unidentified oil or oil in open container.

Inspect the coolant level

Inspect the engine coolant level every week in order to keep your vehicle under the best driving conditions. (For details, refer to Cooling System in Chapter 6).

Parts, options and accessories

The publishing time of this manual is on the first page. The manual includes all the vehicle parts and options information provided by SAIC GM Wuling. Therefore, all the information, illustrations and specifications are provided for the

vehicle assembled under these conditions.

If repair is needed, contact the Aftersales Service Center in order to ensure all the assembled parts on your vehicle are genuine ones.

Warning

Never install any devices not recommended by our company (especially electrical devices, such as alarm devices, power devices, vehicle telephone, ignition devices, etc.) in the vehicle to avoid short circuit and inflammation due to the failure.

The vehicle damage and personal injury due to vehicle modification are not within the scope of the warranty.

Repair & Inspection

Submit your vehicle to SAIC GM Wuling After-sales Service Center for repair.

Warning

- People who received no special training shall not repair, debug, or inspect important parts of the vehicle.
- Improper repair may result in injury or even more serious failure for the vehicle.
- A claim for improper repair may be rejected.

Driving tips

Warning

Before entering your vehicle:

- Inspect tires for damage or correct inflation pressure.
- Inspect the vehicle underbody for leakage or flammable materials.

After entering your vehicle:

- Remove loose articles on the dashboard for fear that they may impair your vision. These articles may bump around and hit passengers during emergency braking or collision, causing personal injuries and vehicle damage.
- Adjust your seat, the inside and outside rearview mirrors.
- Make sure all occupants inside your vehicle wear safety belts well.

Before driving:

- Inspect the warning lamps for good work condition when the ignition switch is turned on.
- Inspect whether the shift lever is neutral.

Drive during the first 2,000 km

During the first 2,000 kilometers while driving your new vehicle, observe the following notices in order to improve your vehicle performance and service life.

- Do not make quick start, sudden acceleration, and high-speed driving for a long time, in order to avoid the damage to your engine and save the fuel as well.
- Avoid a sudden braking except in an emergency. This will be helpful to proper break-in for your brakes.
- Do not drive at low speeds with a high gear.
- Do not drive on an uneven road.
- Do not tow any other vehicle.

After the running-in, please go to the After-Sales Service Center for repair and maintenance according to "Chapter 6 Preventive Maintenance Plan".

How to save fuel

A good driving habit can be conducive to the extension of operation life and fuel consumption of vehicle.

In order to decrease the oil consumption as much as possible, we recommended that:

- Start with a low gear and at steady speeds with a proper position to match the vehicle speed with the engine RPM. Avoid a sudden starting, abrupt acceleration.
- Adjust gear according to the vehicle speed in time. Driving at a high speed with a low gear or at a low speed with a high gear can

lead to high fuel consumption.

- Keep a relative safe distance with other vehicles to avoid braking frequently when in emergency. Release the accelerator pedal to reduce the vehicle speed in advance according to the traffic condition when speed decrease is required. Try to avoid a sudden braking except in an emergent situation.
- When unnecessary, turn off the air-conditioner and other electric appliances.
- If you are to drive on any obstacle or bump, slow down the driving speed.
- Always inspect the tire pressure and maintain it under recommended pressure to avoid higher or lower tire pressure.
- Take care not to overload and

unnecessary weight in the vehicle shall be reduced.

- Long-time idling shall be avoided and acceleration shall be made after the vehicle is heated (the vehicle shall be heated under idle state for 2~5 minutes to fully lubricate the engine when in winter with lower temperature)
- Do not rest the foot on the brake pedal or clutch pedal while driving (if not necessary), or it will result in engine and clutch system damage and fuel consumption increase.
- At high speeds when fuel consumption increases, properly release the accelerator pedal. This may save the fuel when the vehicle speed decreases a little.
- According to the provisions in Maintenance and Service Manual, regularly go to the After-Sales

Service Center for repair and maintenance.

Driving tips

Curve driving

It is important to drive through a curve at a reasonable speed. Many vehicle accidents occur on the curves when the driver loses control of vehicle.

The friction force depends on the condition of the tires as well as the road surface, the angle at which the curve is banked, and the vehicle speed.

When driving along the curve, the vehicle speed is the only factor that can be controlled.

Suppose you are steering through a sharp curve, the sudden brake may make you lose control of the vehicle. If it ever happens to you, release the brake pedal, drive through the curve at a slower speed.

The speed limit signs close to turns indicate the need to adjust the speed. However, the speed limits are

based on optimum weather and road conditions. When the condition is worse, you're your vehicle at a lower speed.

If a deceleration is needed close to the curve, slow down your vehicle before entering the curve.

Passing

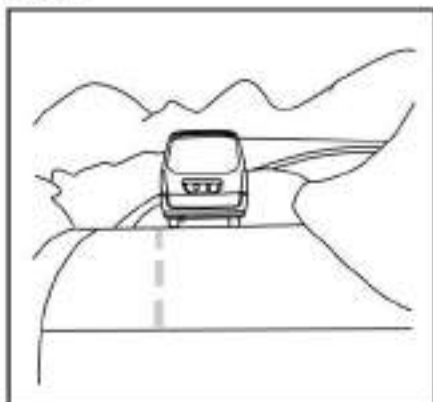
Passing is dangerous, we hope that you could refer to our suggestions, and choose whether to pass and how to pass according to the real situation. Anyway, safety always comes first. So here are some tips for passing:

- Observe the road condition, to the sides and to crossroads for situations that might affect your passing patterns. If you have any doubt whatsoever about making a successful pass, wait for a better chance.
- Watch for the traffic signs, pavement markings, and lines. If there is a sign ahead that might indicate a turn or an intersection, postpone your pass.
- If the driver of the car you are

trying to pass has not noticed you, sound the horn before pass.

- Do not get too close to the vehicle you intend to pass while you are awaiting for an opportunity. For one thing, following too closely reduces your field of vision, especially when you are following a large vehicle. Also, you will not have adequate space if the vehicle ahead suddenly slows down or stops. Please keep reasonable distance.
- Check your rearview mirrors before pass. Remember that the outside rearview mirror is convex mirror. As a result, the vehicle passed may seem to be farther than real distance.
- If you are being passed, make it easy for the following driver to get ahead of you. Better turn right a little bit and slow down.

Driving on hill and mountain roads



Driving on steep hills or mountains is different from driving in smooth or city roads .If you drive regularly in steep hills, or if you are planning to visit such places, please pay attention to the following items:

- Ensure that all the repair and daily maintenance have been completed, and the fuel is sufficient, the spare tire is properly inflated.
- There might be warning signs on mountains road. For example:

long slopes, passing or no-passing zones, a falling rocks area, or winding roads. Be alert to these and take appropriate action.

- Keep alert when driving on roads around the hill. There may be barrier on the lane and you may not be able to notice it in time as your field of view might be covered by the hill.
- Shift to a low gear when driving up slope. Thus, the engine won't be overheated under the condition that the necessary speed is kept.
- More distance is needed for pass on up hill road. If you are being passed, take it easy for the following driver to get ahead of you.
- When driving down the hill or on long slope, shift to low Gear. Thus you will slow down to avoid braking excessively.

Danger

- If you do not use the engine brake, your brakes could get so hot that they would not work well. Shift down to let your engine assist your brakes on a steep downhill slope. Coasting downhill in neutral or with the ignition off is dangerous. Your brakes will have to do all the work of slowing down. They could get so hot that they would not work well.

Driving in dangerous areas

Driving over mud or sand

When you drive over mud or sand, the tires have poor adhesion. At this time the acceleration is slow, the steering is hard, and when a braking is applied, a longer distance is needed.

It's best to use a low gear when you are in mud. The deeper the mud, the lower the gear is. In really deep

mud, the idea is to keep your vehicle moving you will not get stuck.

If the vehicle gets stuck in sand, mud, ice or snow, do NOT spin the wheels. You may drive your vehicle out by swaying, but be careful to take actions.

Swaying the Vehicle to get it out

First, turn the steering wheel left and right. That will clear the area around the front wheels. Then shift back and forth between 1st or 2nd gear and reverse, spinning the wheels as little as possible. Release the accelerator pedal while you shift, and press lightly on the accelerator pedal when the transmission is in gear. If that does not get your vehicle out after several tries, it needs to be towed out. If so, see [Towing Your Vehicle](#) in Chapter 6.

Warning

- Avoid high speed spinning of the tires when the vehicle was stuck. Otherwise, they may explode, you or other passengers could be injured, and the transmission or other components could be damaged.

Driving through deep standing water

Avoid deep puddles even when you are driving on the city pavement road. Driving in deep puddles may impair the driver's ability in estimating the road ahead the vehicle, thus incurring a serious damage to the vehicle.

As a basic rule, you should not try to pass the water pool if it is over the wheel center.

If you cannot avoid deep puddles or standing water, turn off the air-conditioner first and then drive through them very slowly using 1st gear at a constant speed. It is necessary to be attentive to bigger

vehicles around, because big waves can be created, increasing damage possibilities.

Danger

- The most serious problem when passing through flooded areas is the possibility of water entering the engine through the air intake system. When this happens, there is the "hydraulic shim", when water obstructs the piston displacement. In that case, the engine will be seriously damaged and the vehicle stops immediately. **Do not try to restart the engine;** it will only damage your vehicle more severely. Such damages are not covered by the Warranty.
- Driving through a water stream could be dangerous. Even a stream of several centimeters deep may impair the contact between tire and the ground, causing loss of traction and vehicle roll over.

Before long trips

If you are intended to make along trip, the following suggestion may be helpful to you.

- Ensure that all the daily maintenance and inspection have been completed. Make sure that there is sufficient fuel, and the spare wheel has been properly charged.
- If you are not the only driver, drive alternately to reduce fatigue.
- There will be the same scenery and inanimate sound during long trips that will make you sleepy. Such "Highway Hypnosis" is quite dangerous. If you feel sleepy, drive to a rest site for a nap or to do some physical exercises, after which, you may resume your trip.

Driving in rain

The traction shall reduce due to wet ground. It is always wise to drive slower and try to keep a greater distance.

It is wise to keep your windshield

wiping equipment under good condition and keep your windshield washer fluid reservoir filled. Replace your windshield wiper blades when the wiping parts worn or there is area on the windshield untouched by the wiper, or when strips of rubber start to separate from the blades.

Water may affect the performance of the brake. Try to avoid puddles, but if its inevitably, try to drive through the water as slow as possible.

After driving through a large puddle of water or after a car wash, apply your brake pedal lightly until your brakes work normally.

Warning

- Wet brakes can cause accidents. They may not work under a quick stop and may cause the vehicle swaying to one side. You could lose control of the vehicle.
- While driving in rain, defogger may be used as necessity.

Driving in fog

Driving in fog may affect your vision. Please decelerate and turn on the front and rear fog lamp when driving in fog.

Defogged should be used in time when necessary to ensure a clear driver's vision, for details, see Front windshield glass and front door glass defogging.

If your visibility is close to zero, you must stop.

Driving in winter

Warning
<ul style="list-style-type: none">• Do not open frozen windows or wipers by force. Use warm water to melt frozen parts first and dry them immediately in case of freezing.• Use anti-skid chains according to the road condition and maintain a stable speed and drive as slowly as possible.

Driving at night

More risk exists when driving at night than in day time. Here are some tips for driving at night.

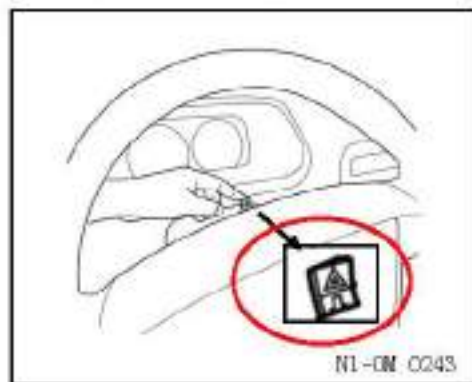
- Use the headlamp to provide a good visibility, meanwhile, to keep a larger distance.
- Keep the windshield and all glasses clean - inside and outside. Dirt on the glass may cause more serious effects on eyes and vision caused by the dazzling lights at night.
- Remember that the illuminating distance of headlamps light is shorter when taking a turn than driving straightly.
- When you are faced with severe glare, (for example, from a driver who does not turn off the high beams, or a vehicle with misaimed headlamps) you should slow down. Avoid staring directly into the approaching headlamps. If the strong light disappears, accelerate only after the eyes have been adapted to it.
- Have your low beams on when you are following another vehicle

on a highway or freeway. High beam glare from the rear can disturb other drivers.

Chapter 5 In Case of Emergency

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Jump starting	5-2
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Emergency handling



When your vehicle is parking in emergency, put on the parking brake and turn off the engine, press the hazard warning lamp switch, put the triangle warning board in a proper position of the rear of vehicle. When the hazard warning lamp is ON, all the turn signal lamps flash; when pressing again, all the turn signal lamps will be off.

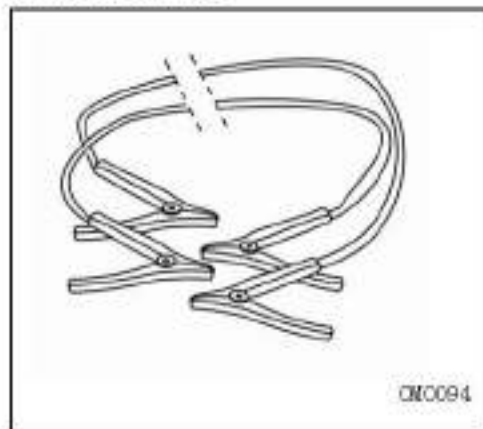
Note: When the ignition switch is at OFF position, the hazard warning lamp may still be operative.

Warning

To avoid the battery running out:

- When the engine is not operating and the hazard warning lamp is not needed, turn off the engine.

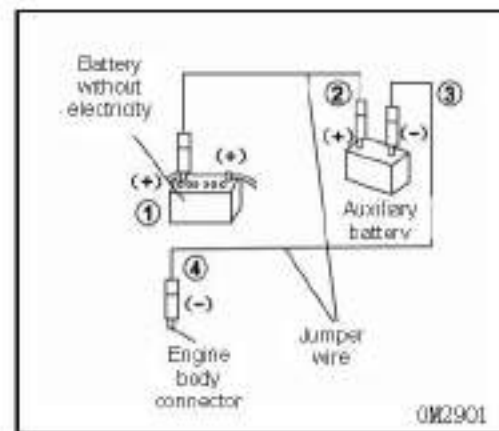
Jumper starting



If there is no electricity in the battery on the vehicle, please contact SAIC GM Wuling Automobile Aftersales Service Center.

If there are jumper wires on your vehicle, you may start the engine by means of jumper starting.

The procedures of jump starting:



Operate according to the following procedures:

1. The auxiliary battery must have the same nominal voltage as the discharged battery. If the battery has been frozen, never start the vehicle by means of the method of jumper starting. Otherwise, it will cause the battery explosion or breakdown.
2. Do not get close to the battery during the starting procedure.
3. If the auxiliary battery is installed in another vehicle, make sure the vehicles do not touch each other.
4. Check whether the jumper wire is loose or the insulator is damaged.
5. Do not allow the jumper wire terminals to touch each other or touch the vehicle metal parts.
6. Shut off the ignition device as well as the electric circuits which do not need to remain on.
7. Ensure that the parking brake is fully operative and that the transmission is at neutral position.
8. Locate the positive and negative poles of each battery.
9. Connect the jumper wires in the following sequence:
 - (1) Connect the first wire to the positive terminal ("+" is marked on the housing or terminal of battery) of battery.
 - (2) Connect the other end of wire to the positive terminal (marked with "+") of battery without electricity.
 - (3) Connect the first end of another wire to the negative terminal (The battery shows "-") of battery.
 - (4) Connect the other end of the second wire to the body earth of vehicle without electricity. For example, the connecting bolts are suspended on the engine body or the engine. Do not

connect the wire to the negative terminal of battery without electricity. This connection point shall be far away from the battery without electricity as much as possible. Remove the wire so as to prevent it from getting caught on the rotating mechanical elements of engine.

(5) During the jumper starting, vehicle engine is allowed to provide the jump starting power supply to run. Try to start the engine of vehicle without electricity within one minute and open the ignition key no more than 5 seconds each time. After the starting, keep it running at the rotational speed of 2000 r/min for several minutes.

(6) Carefully remove the jumper wire according to the reverse sequence.

Remove the ambush wire and then the positive wire.

Warning

- Do not start the vehicle by pushing, pulling or dragging, or it may severely damage the

three-way catalytic converter.

- Do not connect the wire to the negative terminal of battery without electricity.
- Ensure the jumper wires do not contact with the rotating mechanical elements.
- Do not turn on any electrical appliances before removing the wire.

Warning

To avoid battery running out:

- Turn off the headlamp and audio system after stalling of engine.
- Turn off all unnecessary electrical facilities when the vehicle is running in low speed for a long time (during a crowded traffic).

Warning

To avoid the battery cell on fire or explode:

The battery may release inflammable gas, please strictly observe the following instructions to avoid igniting the inflammable gas by accident:

- Make sure the jumper wires are properly connected, and do not contact with other parts (other than the correct terminal) accidentally.
- Do not let the jumper wires contact with the "+" terminal and the "-" terminal at the same time.
- Do not use any open fire, smoke cigarettes or use matches or lighters near the battery cells.

Warning

Please turn off the vehicle audio system. Otherwise, it will be seriously damaged. If the audio system is damaged due to this reason, its repairs will not be covered by the warranty.

Warning

Notes on battery:

- Do not bend over the battery cells.
- If battery acid contacts eyes or skin, wash the area in clean water only, and seek immediate medical advice.
- Don't allow children to approach the battery cell.

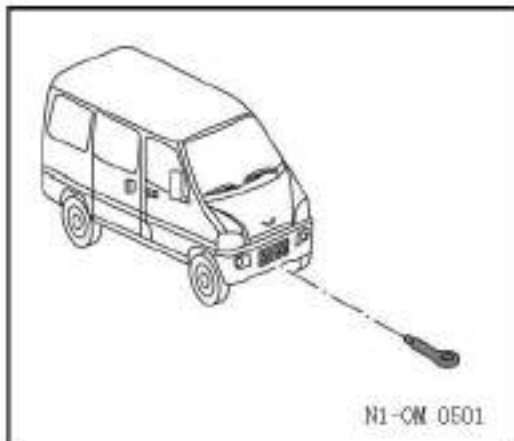
Towing your vehicle

If it is necessary to tow your vehicle, we suggest that it shall be performed by Aftersales Service Center or the towing service agency.

The vehicle can not be used to tow other vehicles.

Emergent towing

The towing wire is connected to the front towing hook welded on the longitudinal beam of the vehicle; The position of towing hook is as follows:



Warning

When in emergent towing, the following instructions should be observed:

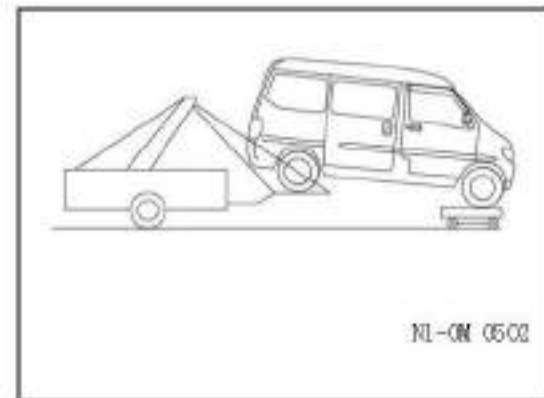
- Turn on the hazard warning lamps.
- Turn the ignition key to position ACC to unlock the steering wheel, so as to use brake lights, horn and wipers.
- Place the shift lever to the Neutral position, and release the hand brake.
- Avoid hard steering and drive slowly.
- Driver must control the steering wheel and brake pedal inside the vehicle. Wheels, transmission system, steering wheel and brake shall be kept in good condition. Apply more efforts in braking

because the auxiliary vacuum booster does not work when the engine is off.

- After installing the towing hook on the vehicle, the tightening of towing hook shall be ensured, or the hook will loosen during the towing. It may cause serious injury or death due to the accident.

Emergent towing

If the tire or the axle is damaged, the bracket shall be used.

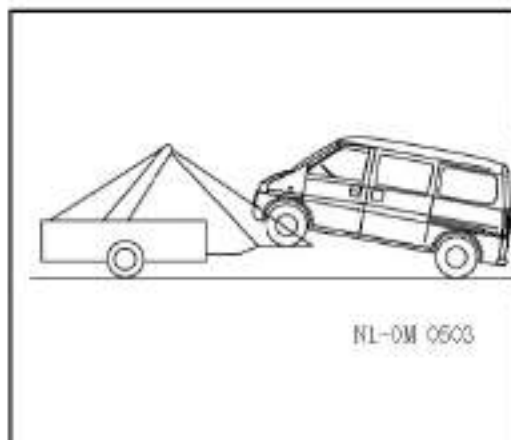


Towing your vehicle with front wheels on the ground

It is recommended to use a dolly. If the dolly is not used, it is necessary to place the gear shift lever to the neutral position and the ignition switch to position ACC.

Towing your vehicle with rear wheels on the ground

Release the parking brake and place the gear shift lever to the Neutral.

**Warning**

- No person is allowed to stay in the vehicle during the towing with two wheels on the ground.
- When lifting up the vehicle, enough ground clearance from the touchdown end to the ground shall be ensured, or the vehicle can be damaged during towing.

Breakdown of Vehicle

If vehicle breaks down in the sand, sludge or ice and snow, please immediately contact the repair station or the towing service agency.

Stop the operation of engine, place the gear shift lever to the Neutral and put on the parking brake.

Remove sand, mud, ice or snow around the stuck tire.

Place wooden block, stone or other articles to increase the traction of tire.

Restart the engine.

Place the gear shift lever to the 1st gear or reverse gear and carefully depress the accelerating pedal to help the vehicle out.

If you still can not drive the vehicle out, we suggest that it shall be performed by Aftersales Service Center or the towing service agency.

Danger

If you use a method of forward/backward moving to drive the vehicle out of the pit, a spacious and clear peripheral region shall be ensured to avoid the collision with other vehicles, articles or persons. When the vehicle is about to drive out of the pit, it will rush forward or backward, so you shall take care about it.

Idling of wheel shall be avoided and not to operate the engine at high speed.

Tire blowout**Warning**

- In case of tire blowout during the driving, do not suddenly brake; otherwise, the vehicle will be out of control. Please hold the steering wheel firmly and slowly step on the brake pedal so as to slow down the vehicle speed and stop the vehicle near the curb.
- If possible, please avoid the replacement of tire on the slope or the soft ground as much as possible.
- When there is any air leakage of the tire during driving, do not keep on driving with a flat tire, or it (even in a very short distance) may result damage beyond repair.

Replacement of Tire**Spare Tire, Jack and Tools**

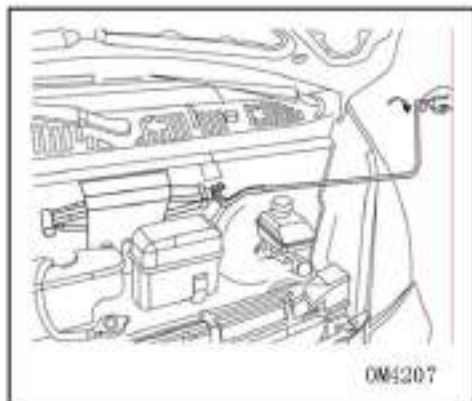
The spare tire is placed on the underbody spare tire bracket, and the jack and rocking lever are fixed under the vehicle engine hood. The vehicle tool kit and warning triangle are placed under the rear seat.

Danger

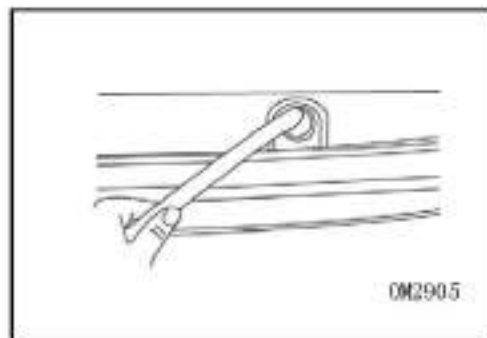
- Never get beneath the vehicle supported by the jack.
- While replacing a tire, do not keep the engine running or start it.
- Use the jack only when replacing tires or installing/dismantling the anti-skid chain of tire.

Procedures for replacement of tire:

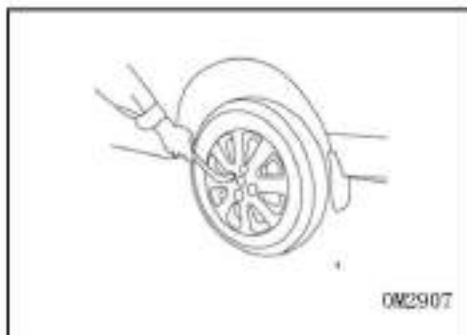
1. Park the vehicle on the level road surface as much as possible.
2. Turn on the hazard warning lights and apply the hand brake.
3. Place the gear shift lever of transmission to the 1st gear or reverse gear position.
4. Place the warning triangle at a proper position at the rear of vehicle.
5. Use a wood block or stone to block the wheel diagonally opposite to the tire to be replaced.
6. Open the engine hood and remove the jack lever. Rotate the jack lever counterclockwise and remove the jack.



7. Open the rear lift gate, loosen the spare tire hook nut with a sleeve and remove the spare tire.

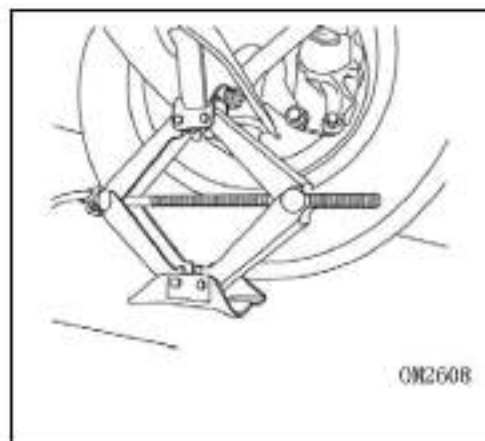


8. Loosen the wheel nut with a wheel nut wrench. Never completely loosen it.



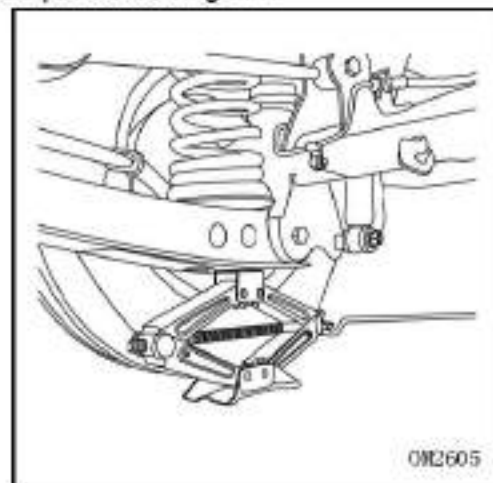
8. There are the places for placing the jack on the front and rear underbody.

Front axle: As shown in the illustration, set the jack against the underside of the lower swing arm and place the jack supporting surface between the retaining nuts and V-type slices.



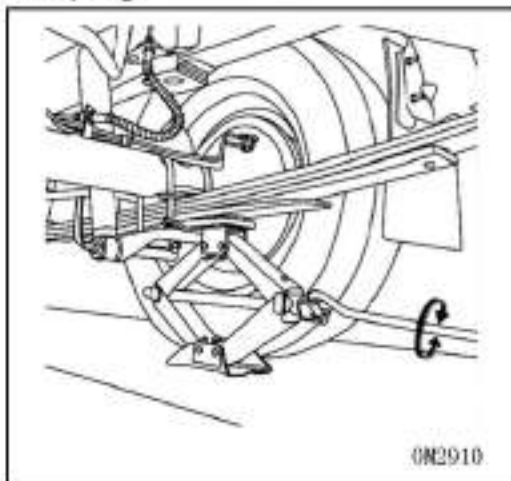
Rear axle (coil spring):

As shown in the illustration, set the jack against the underside of the rear suspension swing arm.



Rear axle (leaf spring):

As shown in the illustration, set the jack against the underside of the leaf spring.



10. Turn the jack lever clockwise until the tire is fully away from the ground (approximately 3 cm). Do not raise the vehicle too high.
11. Fully loosen the wheel nuts.
12. Remove the wheel trim cover with a screwdriver.
13. Replace the tire.
14. Reinstall the tire nuts and perform preliminary tightening.
15. Lower the vehicle.
16. Tighten the bolts in a criss-cross sequence (according to 1-2-3-4 sequence as follows) and install the wheel trim cover.
Tightening torque: 88N.m ~ 108N.m



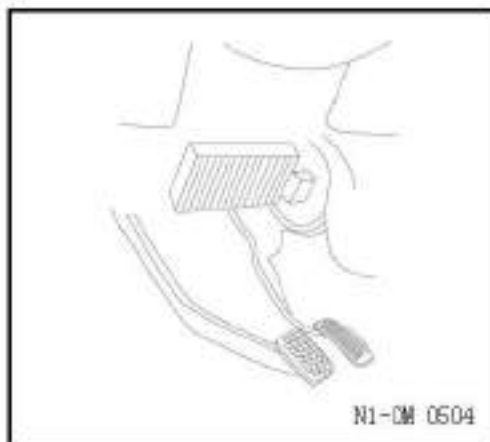
17. Put back the replaced tire, tools and jack.

Warning

To avoid vehicle damage and serious personal injury:

- Do not place the jack in places other than the above designated location.
- Before the vehicle is lifted, all the passengers must leave the vehicle and stand at the safe places far from the roads and the vehicle.
- Use the correct wheel nuts and ensure that they have been secured.
- Use the block to fix the diagonal wheel of the replaced one.
- Make sure that there is no lubricating oil and engine oil on wheel nut or wheel bolt.
- Whether the tightening torque is in the specified range shall be

made clear as soon as possible after the replacement of tire, or the loosening of nut will lead to the coming off of wheel to cause serious injury.

Replacement of fuse

The fuse box is located at the lower left side of steering column. Inspect whether the fuse socket has loosened, whether the fuse

inserted on the socket has been secured, whether the capacity on the fuse piece on each circuit is correct.

When replacing a fuse, the circuits related to the ignition switch shall be OFF.

Procedures for replacement of fuse:

1. Open the box cover and the fuses of the relative circuits are visible inside.
2. Do not replace the burnt fuse that can be recognized by its appearance until the cause for burning is identified (overload, short circuit, etc.). During the replacement, a fuse of the same specifications shall be used.
3. Install the new fuse at its fixed position. Insert and install the box cover.

In the fuse box, there is a place to

store spare fuses. It is recommended to have the fuse kit equipped, which is available at the Aftersales Service Center.

Note

The detailed specifications of the fuses are as follows:

- Red: 10 A
- Blue: 15 A
- Yellow: 20 A
- Green: 30 A

Replacement of bulb

When you need to replace a bulb, turn off the relative circuits firstly.

The replacement bulbs shall have the same specifications as of the original component.

Warning

- The bulb may be very hot when the lamp was just turned off after illumination. Be careful not to be scalded.
- Halogen lamps have pressurized halogen gas inside and may blow out if you scratch or drop them to the ground. Be careful during the

replacement.

- If a bulb is burnt frequently which indicates that a fault exists in the circuit, please contact the Aftersales Service Center.

Determination of whether it is mist or water leakage

If the water is found condensing inside the lampshade, please follow the below steps to determine if there is water leakage from the lamp, if this is the case, please go to SAIC SGM Wuling Aftersales Service Center for repair.

Under the normal circumstances, during rainy days or washing of the vehicle, temperature on the lens surface will decrease sharply and vapor in the air will condense on the lens surface, thus resulting in "mist". This is a normal physical phenomenon and may occur repeatedly, as the mist will vanish ultimately each time after formation.

During the drive (or with the engine running), turn on the lamp for 30 minutes. If the mist within the effective illuminated area by the lamp in front of

the vehicle vanishes, it indicates that it is mist and is not faulty; or if the mist doesn't vanish, it indicates that it is water leakage from the lamp.

Warning

- If there is water leakage from the lamps, please go to SAIC GM Wuling Aftersales Service Center for repair.
- Avoid replacing the bulbs by yourself or non-professionals. If the standard operation procedures are not observed, it may lead to a poor bulb contact, short circuit of lamp-socket or water leakage from headlamps.
- It is inevitable that the lens surface will absorb pollutants during using and long time lighting may lead to high temperature inside the bulb and result a distorted lens, thus impair the translucency. To extend the lifespan of the lamps and secure your driving, please clean your lens regularly.

Chapter 6 Service and Maintenance

Exterior cleaning	6-2
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This chapter provides the requirements related to the periodical appearance care of your vehicle. Observing them is a prerequisite for serving interior and exterior trimming and painting claims under warranty. The recommendations presented in this chapter will prevent damage resulting from the environmental effects your vehicle is exposed to.

Exterior cleaning

The best way to maintain your vehicle finish is to keep it clean by washing it frequently.

Washing

- Move the windshield wipers away first.
- Then, to remove dusts, spray a lot of rinsing all over the body.
- Do not spray the water directly on the radiator during washing. Never

damage the radiator core (fins). Otherwise, it will cause the loss of system efficiency.

- If desired, apply mild detergent or shampoo and use the sponge or soft cloth to rub while flushing the area. Remove all detergent or shampoo before it dries.
- Use different brushes or cloths to clean windows so as to prevent them from becoming oily.
- Using plenty of rinsing and mild detergent while cleaning the rubber trim of wiper blades.
- Oil, asphalt or road dirt spot may be removed with solvent. It had better not fully wash the body with solvent.
- After washing, dry it well.

Warning

- Do not use corrosive, abrasive or organic cleaning agent (such as acetone, paint thinner, bleaching agent, etc.). This cleaning agent will damage the finish paint or the vehicle exterior surface.
- Do not wipe vehicle with brush or hard cloth. Otherwise, it will damage the finish paint or the vehicle exterior surface.
- In case of the body scratches or stripes, please go to SAIC GM Wuling After-sales Service Center for replacement without any delay, otherwise, the bare metal will be rapidly corroded and become more and more serious.
- The vehicle body is covered with asphalt, the night soils of birds and insects, mine dust, ferrous powder, gasoline, soot or other chemical substances;

- The vehicle drove on saline - alkali roads, heavy dusted roads, mud roads or chemically polluted roads.

Waxing

In order to protect the finish, wax the external surface of vehicle. Before waxing, wash and air the vehicle. In case that the finish is heated, the vehicle shall be placed at the shady and cool place before waxing for cooling of external surface.

Warning

- The waxing may damage the lamp lens. Do not wax before the vehicle lamp.

Polishing

As most polishing products are corrosive, this service shall be performed by the Aftersales Service Center.

Vehicle's interior cleaning

Interior trim:

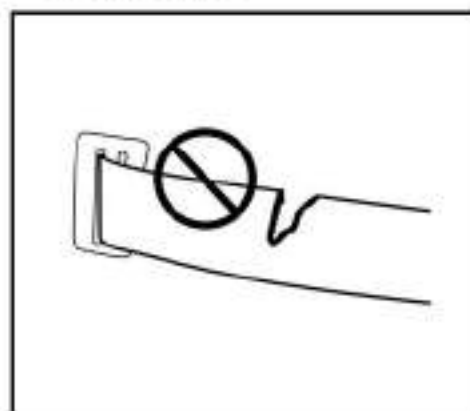
- A good cleaning effect can be obtained by use of a dust collector or a cloth.
- To remove the spot or dust of head lamp, use a brush or sponge dipped with water and mild soap.
- Remove the excessive grease or oil stains first. Then wipe with a cloth dipped with phenyl solvent.
- Never apply too much cleaning solvent so as to prevent it from infiltrating into the interior trimming material and causing damage.

Seat safety belts

- Check the safety belts, buckles and anchorages periodically. If there are dusts, wash with mild soap and lukewarm water. Keep belts clean and dry. Do not dry it

by heating.

- Do not allow a few drops to fall into the retractor, which may cause functional damages.
- Be sure to keep the safety belts away from the objects with blades or sharp edges.



Warning

The upper part of dashboard and the components of glove box may reach the temperatures close to 100°C when being exposed to the sun for a long time. Therefore, do not place the lighters, tapes, computer diskettes, CDs and sun glasses, etc. in such area for they may be deformed or burnt under the high temperature, which could cause damages not only to the objects, but also to the vehicle.

Warning

- Do not use chemical solvents to clean the instrument display screen to avoid causing damages.
- Do not clean the rear interior window with glass cleaner. Otherwise, the heating wire on the rear vehicle window may be damaged. Gently wipe with wet cloth towards the direction parallel to the heating wires.
- Do not spray oil on the underbody. In addition to the collection of dusts, the sprayed oil may damage the installation parts, gaskets, hoses, etc.

Warning

- The parts of safety belts shall be inspected periodically to replace the damaged parts.
- If the safety belt has been torn or worn, it can not provide protection and will be torn apart by collision force when accident happens. In this case, the belt shall be replaced.
- If safety belt has been under pressure in an accident, it shall be replaced for a new one even though it has not been damaged.

Note

The openings at the bottom of door may allow the washer fluid and water to drain, so they shall be frequently cleaned so as to prevent the long-term moisture accumulation causing the corrosion.

Preventive maintenance plan

To improve the vehicle's fuel economy, driving safety and its resale value, it is very important that all maintenance services be performed at the recommended frequency.

The time interval for maintenance and the mileage determine when the vehicle shall be inspected again. (Please refer to the "Preventive Maintenance Plan" in Section 10 of this manual for the recommended inspection intervals.)

Never perform any repairs on the engine, chassis or relevant safety components by yourself. Due to lack of related knowledge on repairs, improper repairs may affect the safety performance of the vehicle, causing personal injuries, endangering other drivers and passengers, and directly result in the loss of warranty claim for

your vehicle.

SAIC GM Wuling Aftersales Service Center knows your vehicle state best and wants you to have happy driving. We hope you will go to SAIC GM Wuling Aftersales Service Center for all necessary repairs. You will obtain genuine parts and good services from the service technicians trained and technically supported by the SAIC GM Wuling Vehicle.

Time Intervals or Mileages

According to the preventive maintenance plan, the time intervals, mileages and inspection contents of preventive maintenance may be understood. But, if the vehicle is little used and drives less than this limit in a year, then maintenance services shall be performed on a yearly basis rather than on mileage.

Maintenance record

Please see the details in Service and Maintenance Manual. It is an important document recording your vehicle regular maintenance. After the maintenance, be sure to let our after-sales service center sign and seal on the maintenance record.

Engine**Inspection procedures of engine oil**

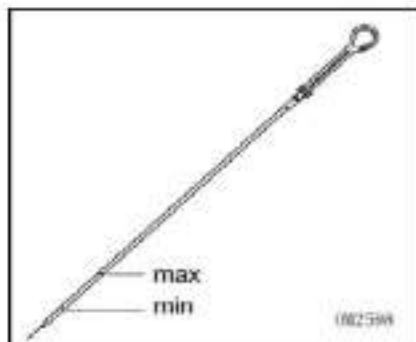
The engine oil must keep at the normal oil level so that the engine can obtain the enough lubrication. The fact that the engine will consume some oil is normal. The vehicle owner shall regularly check the change of oil level. (It is possible to observe it when adding the oil for each time.)

When checking the oil, please place the vehicle on the flat ground, then wait for several minutes after the engine stops working and check the oil level

after making the oil drain back into the oil can. If the engine is cold, please warm up the engine for 3 to 5 minutes and then check after the oil drains back into the oil pan.

When checking the oil level, please pull out the dipstick and wipe it clean with lint-free cloth for reinsertion. Then, pull out the dipstick. At this time, the oil level shall be indicated between MAX and MIN. Meanwhile, check the contamination conditions of oil on the dipstick.

If the oil level is lower than the MIN mark, add the sufficient oil till the MAX mark. If the oil level is higher than the MAX mark, it may increase the consumption rate of oil, raise the carbon deposit and lead to the damage of spark plug.



Warning

- The damage of engine due to insufficient oil is not within the warranty scope.
- The engine oil level shall be inspected periodically to prevent engine from serious damage.

Replacement of engine oil and oil filter

If the vehicle mainly drives under relatively good conditions, replace the engine oil and oil filter according to the

preventive maintenance plan and add the oil as needed.

If the vehicle is driving under severe conditions, replace the engine oil and oil filter every 4,000 to 5,000 km or 3 months (whichever comes first) and add the oil as needed. Driving under severe conditions refers to:

- Most trips involve excessive idle speed or driving at a low speed (such as frequent driving in stop-and-go traffic).
- Most trips are less than 6 km and the engine does not reach the normal operation temperature.
- Most trips are through dusty and sandy areas.

Change the oil as per the recommended intervals, since oils deteriorate due to loss and aging. All engines consume oil, so check the oil level weekly or before you leave on a long trip.

Change of engine oil

The oil shall be drained immediately after the driving of vehicle (that is to say, the engine is hot) to ensure the drain of dirty oil. Tighten the drain plug according to the stipulated torque.

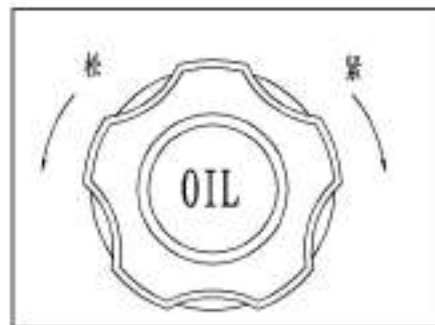
The tightening torque of drain plug is 35~35 N·m.

Warning

- Avoid over adding the oil. If the oil level is higher than the MAX mark, it may increase the consumption rate of oil, raise the carbon deposit and lead to the damage of spark plug.
- Avoid spilling the oil against the vehicle parts or the body finish paint.
- To avoid severely damaging the engine, inspect the engine oil level regularly.

- The used engine oil and its container are harmful to health and environment. Do not throw the used engine oil in the general household rubbish.

Unscrew the fuel filler cap on the cylinder head cover, wipe the filler hole clean and slowly fill in the engine oil through the filler hole until the oil is located between the up-and-down calibration tails of oil level indicator which is appropriate. After the completion of filling, start up the engine and run at the idle speed for 3 minutes. Then, stop running and recheck the oil level after 3 minutes. Tighten the fuel filler cap after the oil level is correct.



Replacement of engine oil filter

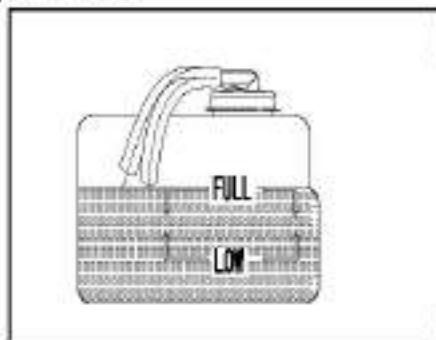
When changing the engine oil each time, replace the oil filter at the same time. Please go to SAIC GM Wuling Aftersales Service Center for maintenance, since it requires the use of special equipment.

Inspection and replacement of coolant

The coolant of Ethylene Glycol Base is added into the cooling system. The coolant with proper concentration provides excellent anti-corrosive and

anti-freezing protection for the cooling and heating systems of engine. Therefore, even if in spring, the coolant shall not be replaced by the ordinary purified water. When the engine is cold, the coolant level shall be between the marks of "FULL" and "LOW" of expansion tank.

The liquid level will rise with the rising of engine temperature and vice versa. If the liquid level is reduced to be lower than the mark of "LOW", add the solution with the proportion of water to Ethylene Glycol to provide the anti-freezing and anti-anti-corrosive protection.



Change of Coolant

The time for change of coolant shall follow the preventive maintenance plan. The coolant shall be changed in advance in the dusty areas.

Warning

- Never detach expansion tank when engine and water tank is hot.

Warning

- Pay more attention to prevent the anti-freezing agent from contacting the skin and eyes.
- In case of any contact, please wash the affected part with a large amount of water.
- In the event of continuous discomfort, please immediately seek medical advice.

Warning

- The damage of engine due to the use of coolant not recommended is not covered by the warranty.
- Avoid spilling the coolant against the vehicle parts or the body finish paint. To avoid damaging the body and parts from suddenly being spilled, please wash the affected part water promptly.
- Generally, there is no need for frequent addition. If there is need for frequent addition, or the liquid level drops down soon after the latest addition, there must be a leak, please go to SAIC GM Wuling After-sales Service Center for maintenance without any delay.

Overheating

If the thermometer shows overheating conditions or the engine is suspected to be overheating for other reasons, please stop the vehicle and make the engine stop working. Shut off the air

conditioner at the same time. Keep the engine at the idle speed for several minutes and check whether the cooling fan works.

If the fan fails to work, please rotate the ignition switch to the turn-off position and immediately consult your repair station.

If fan works and steam does not come from the engine room, please open the engine cover and keep the engine running at the idle speed until the engine has been cooled.

If the fan works, but the temperature is not reduced, stop the engine from running and cool it. Then, check the coolant level. If the level is low, please check whether the water tank hose and connector, the heater hose and connector and the water tank and water pump are leaking.

If you find any leakage or other

damages, or if the coolant is still leaking, do not let the engine run again and then immediately consult the repair station before these problems are correctly solved.

Warning

- The steam from the overheated engine may cause the serious burn.
- If the steam is visible, do not go to the front of vehicle. Keep each passenger far from this vehicle.
- Shut off the engine and cool it. When the steam is invisible any longer, open the engine hood.
- Do not disassemble the expansion tank before the cooling of engine and water tank.

Fuel tank

Please pay attention to the warning

label when filling gasoline, since using the unleaded fuel which meets the standard requirements may reduce the vehicle's emission level of pollution and extend the service life of spark plug and exhaust system.

Warning

- Do not use leaded gasoline; Otherwise, the catalytic converter may be damaged.

Brake system

Brake fluid level inspection

The brake fluid is corrosive and may damage the paint finish of the vehicle if being too much. The brake fluid level should not get above the highest level MAX or below the lowest level MIN.

If the brake fluid level is too low, the indicator (ⓘ) on the instrument cluster will go off.

The addition of brake fluid shall be in accordance with the brake fluid

specification specified in Chapter 7 *Specification and Capacity of Vehicle Fuel, Lubricating oil, Coolant and Brake Fluid* and brake fluids with different specifications cannot be mixed.

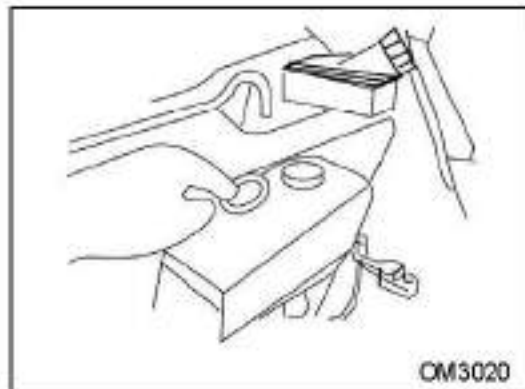
The change of brake fluid shall be performed at intervals as specified in the "Preventive Maintenance Plan".

When adding the brake fluid, open the reservoir cap first, add to near the highest level (MAX) mark, and then secure the cap.

Warning

- The damage of engine due to the use of coolant not recommended is not covered by the warranty.
- Avoid spilling the coolant against the vehicle parts or the body finish paint. To avoid damaging the body and parts from suddenly being spilled, please wash the affected part water promptly.

- Generally, there is no need for frequent addition. If there is need for frequent addition, or the liquid level drops down soon after the latest addition, there must be a leak, please go to SAIC GM Wuling After-sales Service Center for maintenance without any delay.



Windshield wipers and washers Inspection and maintenance

Keeping the windshield wiper blades in good condition and a clear driver's view are necessary for safe driving. Blades shall be checked frequently. They could be cleaned with rinsing and mild soap water.

The addition of washing fluid shall be in accordance with the requirements in Chapter 7 *Specification and Capacity of Vehicle Fuel, Lubricating oil, Coolant and Brake Fluid* and brake fluids with different specifications cannot be mixed.

Windshield wiper

In case of any rubber stiff parts or cracks, scratches left by the wipers or certain places hard to be wiped clean, please go to SAIC GM Wuling After-sales Service Center for the

replacement of the wipers without any delay.

In the cold winter, if the wipers freeze, apply warm water first, and use the wipers after the removal of the snow and ice on the wipers and windshield. Otherwise, the wipers may be damaged.

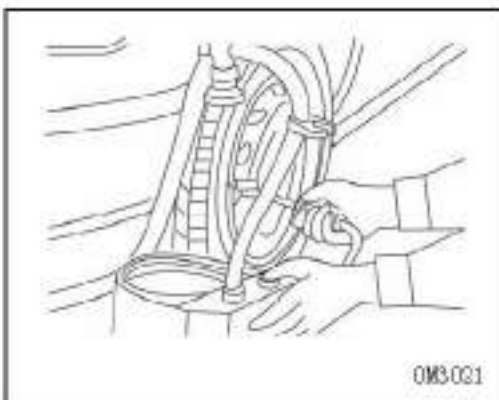
Warning

- Please do not run the wiper if there is no water in the washer. Otherwise, the adhesive tape and motor may be damaged.
- Please use the qualified washing liquid.

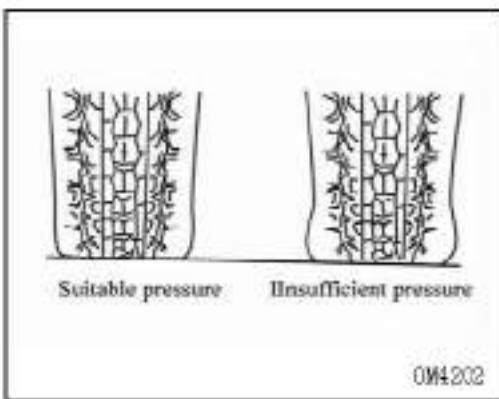
Wheels and tires

To drive safely, a tire in good condition is the first vital matter concerned. Do inspect the tire pressure and wear conditions; and timely inflate and replace the tires when necessary.

Tire pressure



OM3.031



OM4.202

Check the tire inflation pressure monthly (including the spare tire). Also check before leaving on a long trip or carrying a heavy load.

The tire pressure shall be checked when the tires are cold with the designated pressure gauge.

The inflation of tire shall be in accordance with the recommended pressure in Chapter 7 *Performance, Structure and Specification Table of the Vehicle*.

The tire pressure shall not drop after a ride and it is normal that the pressure will increase when the tires are hot.

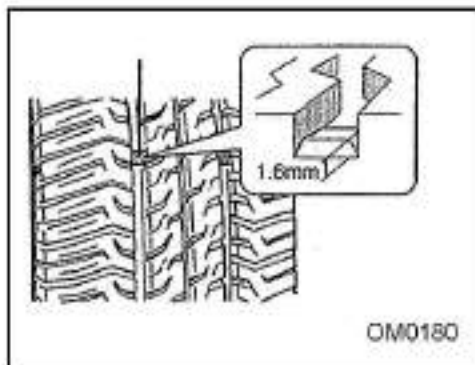
Note

- After checking the tire pressure, install the protection caps in the filling nozzle valves.

Consequential adverse effects resulting from the use of the improperly pressure inflated tires

- Increase of the fuel consumption;
- Reduction of the tire service life;
- Adverse effects on the driving comfort;
- Adverse effects on the driving safety;
- Damages caused to related components.

Inspect the tire wear conditions



Warning

- The minimum depth for the tread pattern is 1.6 mm. For safety reasons, it is recommended to replace the tires when the depth of the tire tread pattern is close to 3 mm.

Do inspect the tire tread depth regularly. To remind you of replacing a tire, a tire wear limiting mark is indicated on the tire sidewall.

Replace the tires if any of the following conditions exists: cuts, side bulge or any other deformation types.

When replacing tires, tires of the same type shall be used and replacement shall be preferably done as a whole in the same axle.

The replacement of tire shall be in accordance with the specification in Chapter 7 *Performance, Structure and Specification Table of the Vehicle*.

Tire rotation

The front and rear tires perform a different work and so they can present different scuffing depending on types of road surfaces, driving habits, wheel alignment of suspension system, wheel balance, tire pressure, etc.

The tire rotation shall be performed after the vehicle drives a certain mileage. For details, please refer to the "Preventive maintenance plan". The tire rotation could coordinate the tread wear of the tires so as to extend the service life of tires.

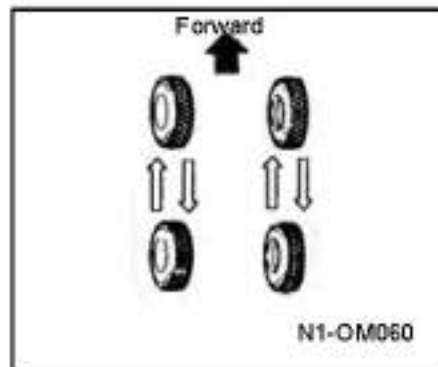
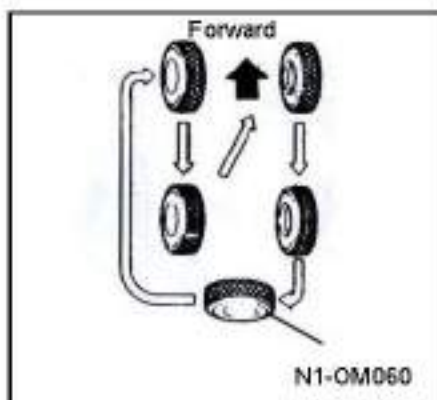
Warning

The damage caused by installing the non-recommended wheels and tires is not covered by the warranty.

Note

To avoid the vibration during the tire replacement, the balance shall be performed for the vehicle wheel so as to improve the driving comfort and safety. Please go to SAIC GM Wuling After-sales Service Center for replacement without any delay.

The radial tire rotation shall be performed as shown in the following illustration.

**With spare tires**

The tire condition is an inspection item during the protective maintenance which shall be performed by the After-sales Service Center that is qualified for diagnosing the evidence of abnormal scuffing or any other damage conditions affecting the driving of vehicle.

Warning

- The decline of height of tread pattern will increase the possibility of skidding.
- The degree of tire aging is relevant to the travel distance. The spare tire that has not been used for a long time shall only be used in case of emergency. Drive at a low speed when using such tire.

After the tire rotation, it is recommended to inspect the wheel/tire assembly balance conditions.

Preventive maintenance plan

Note: For symbols in the table, "J": inspection, "J.T": inspection or adjustment, replace if necessary, "J.B": inspection and refill the liquid to required level, "N": tighten to the required torque, "R": lubrication, "G": replacement, "Q": cleaning, "H": welding, ※: Replace frequently or clean at any time for the areas that have gritty dust.

Engine LAQ, LXA, L2Y, LFK, LC5

Item	Time of use (month)		Mileage of use (km)							
	Break-in	4.5	9	13.5	18	22.5	27	31.5	36	
	2000	7500	15000	22500	30000	37500	45000	52500	60000	
Engine	Fan belt: tightness and damage	J.T		J.T		J.T		J.T		J.T
	Cylinder head, connecting bolt of air intake pipe and exhaust pipe, suspension bolts of engine: fastening	N	N	N	N	N	N	N	N	N
	Oil filter	G	Change every 7500km							
	Oil	G	Change every 7500km							
	Fuel filter		G		G		G			
	Element of air filter	Q	Q	Q	Q.G	Q	Q	Q.G	Q	Q
	Coolant	J.B	J.B	J.B	J.B	J.B	J.B	G	J.B	J.B
	Hose and connection of cooling system: leakage, distort and damage	J.T	J.T	J.T	J.T	J.T	J.T	J.T	J.T	J.T
	Fuel pipe and connections: leak and damage	J.T	J.T	J.T	J.T	J.T	J.T	J.T	J.T	J.T
	Fuel pipe and connectors of crankcase: leak and damage	J.T	J.T	J.T	J.T	J.T	J.T	J.T	J.T	J.T
	High voltage damper: loose, damage	J	J		J		J		J	
	Spark plug: cleaning and adjustment of gap	J.T	J.T		J.T		J.T			
	Discharge depositions in the fuel tank						J.T			
	Radiator, water pump	J.Q		J.Q		J.Q		J.Q		J.Q
	Fuel vapor storage jar	Inspect frequently in harsh environment. Replace promptly when blockage or liquid fuel submerged is found.								
Electronic fuel injection system	Determined by the display of trouble light									

Engine other than LAQ, LXA, L2Y,
LFK, LC5

Item		Interval time of use (month)					
		Break-in	3	6	12	18	24
		Mileage of use (kilometer)					
		2000	5000	10000	20000	30000	40000
Engine	Intake valve and exhaust valve: gapping	J. T			J. T		
	Idle speed and emission: inspection and adjustment	J. T			J. T		
	Injector: cleaning				Q		
	Discharge depositions in the fuel tank			Q			
	Cooling jacket, radiator, water pump and thermostat: inspection and cleaning					J. Q	
	Fuel vapor storage system, piping and connections: inspection				J. T. G		
	Fuel vapor canister	Replace every 50000km. Inspect frequently in harsh environment. Replace promptly when blockage or liquid fuel submerged is found.					
	Engine management system (EMS)	Determined by the display of trouble lamp					
Steering	Accelerator, clutch, steering cables and axis of gearbox: inspection, adjustment, lubrication and change			J. T. R. G			
Transmission	Free travel of clutch pedal (15 - 25mm) adjustment	J. T	Every 5000 km J. T (the period can be shortened or extended according to needs)				
	Lubricant for gearbox	G		J.B			G
	Driveshaft: inspection			J			J. G ⁹⁵
	Lubricant for retardant	G		J. B			G
	Connecting bolt: fastening	N	N				

Item		Interval time of use (month)					
		Break-in	3	6	12	18	24
		Mileage of use (kilometer)					
		2000	5000	10000	20000	30000	40000
Wheel	Wheel nut: tightness (with the specified torque and integrity in quantity)	J. N	N				
	Inspect wheel hub and torque of front wheel				J. T		J. T
	Adjust toe-in	J. T	J. T				
	Tire rotation			T			
Steering	Inspect and adjust free travel of steering wheel	J. T			J. T		
	Wear or aging and crack of rubber of buffer connected with steering shaft and steering gear, connection of horizontal and vertical tie rod ends, left and right steering arms etc.;				J. T. G		
	Backlash of steering gear and rack: inspection, adjustment and change				T. G		
	Connecting bolt: fastening	N	N				
Braking	Inspect brake piping. Inspect, adjust, and lubricate the performance of hand and foot brakes (including vacuum booster). Inspect and adjust free travel of brake pedal	J. T	J. T. R				
	Inspect, replenish and replace brake fluid	J. B	J. B				G
	Master cylinder and wheel cylinder cup: change						G
	Inspect friction disk of drum brake					J. T. G	
	Connecting bolt: fastening	N	N				

Item		Interval time of use (month)					
		Break-in	3	6	12	18	24
		Mileage of use (kilometer)					
		2000	5000	10000	20000	30000	40000
Suspension	Inspect the working performance of front and rear absorber				J		
	Lower arm bush, ball pin; bracket bushing, sealing parts of inside strake of steel plate spring hanger, U bolt, rubber lining, rubber cushion assembly; rubber cushion of front suspension, plane bearing, and dust guard etc. and inspection of crack. Inspect cracks and aging of rubber elements.			J	J, G		
	Inspect and lubricate steel plate spring. Spiral springs: inspection			J, R			
	Connecting bolt: fastening	N	N				
Frame	Frame and cabin: calibration and welding					J, T, H	
Electrical	Inspect electrolyte of battery. Replenish distilled water if necessary	J, B	J, B				
	Inspect the specific gravity of battery electrolyte and charging. Apply grease to the pile end and make the air hole work normally.			J			
	Inspect, adjust and maintain the working performance of engine and starting motor			J, T, R			
	Inspect the performance of cable line and connector				J		
	Check the intactness of lighting device, all kinds of signal lamps, indicator lamps, instrument cluster and switch etc.		J, G				

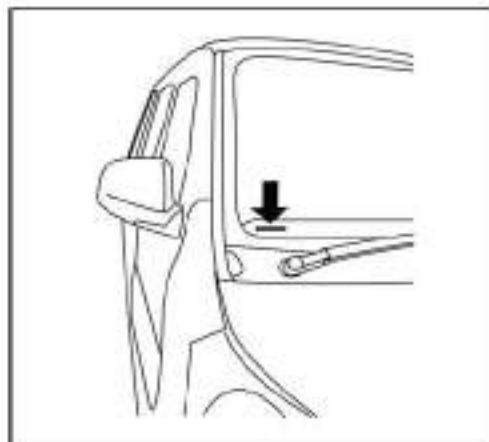
Item		Interval time of use (month)	Break-in	3	6	12	18	24
		Mileage of use (kilometer)	2000	5000	10000	20000	30000	40000
Air-conditioning (refrigeration system)	Refrigerant	Replenish at any time						
	Refrigeration system			J. T	J. T	J. T. G	J. T	
	Compressor						J. T. G. R	
	Condenser	Check and clean at any time						
	Evaporator							J. T
	Liquid dryer							G
	Tighten the refrigerating pipes						N	N

Chapter 7 Specifications

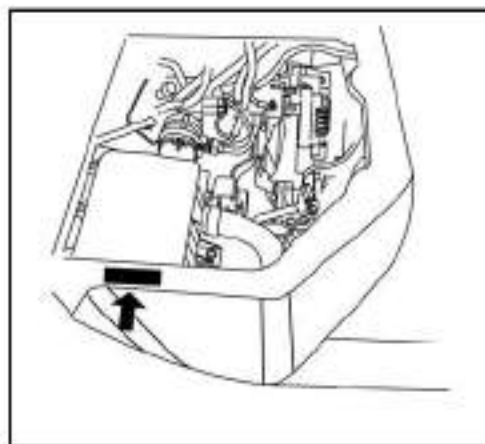
Vehicle identification number (VIN).....	7-2
Vehicle serial number (VSN).....	7-2
Engine number	7-2
Vehicle nameplate	7-3
Table for performance, structure and specifications of complete Vehicle	7-4
Specifications of engine, clutch and gearbox assembly.....	7-8
Specifications and capacities of fuel, lubricating oil, coolant and brake fluid	7-9

Vehicle identification number (VIN)

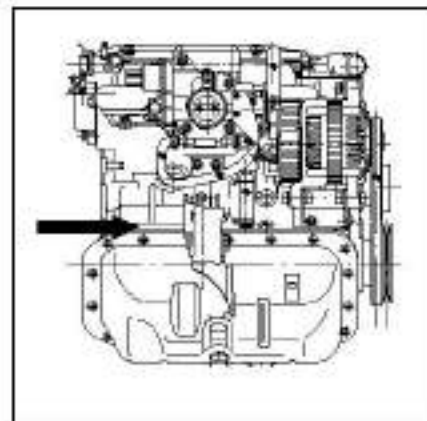
The vehicle identification number (VIN) is printed on the instrument panel at the side of driver seat (for Wuling Sunshine, VIN is printed on the instrument panel at the side of passenger seat, as shown in following figure), lower frame of passenger seat and vehicle nameplate.

**Vehicle serial number (VSN)**

1. VSN, the complete vehicle serial number, is recorded in the computer and the files with vehicle for management, inquiry and service.
2. VSN is printed on the special nameplate and riveted under the driving seat.
3. The first two digits of VSN are the model number.

**Engine number**

Engine (Liuzhou Wuling) number
The engine number is printed at the side surface of crankcase.



The stamped engine (1.0L/1.1L/1.2L) number is located at the right side of the exhaust pipe on the cylinder body as illustrated by the arrow in the below figure.



Vehicle nameplate

The VIN is marked on the vehicle nameplate which is riveted on the supporting column in the driving cabin.

The sign of vehicle type is marked on the vehicle body surface.



Performance, structure and specification list of complete vehicle

1. Performance, structure and specification list of complete vehicle

(1) Minivan

Item		LZW6376A3 LZW6376AV3 LZW6386A3 LZW6386AV3 LZW6386AF LZW6386AVF	LZW6376B LZW6376BV LZW6376B3 LZW6376BV3 LZW6386B3 LZW6386BV3 LZW6386BF LZW6386BVF	LZW6376C LZW6376CV LZW6376CV3 LZW6376CV3Q LZW6376C3 LZW6376C3Q LZW6386C3 LZW6386C3Q LZW6386CV3 LZW6386CV3Q	LZW6376D LZW6376DV LZW6376D3 LZW6376D3Q LZW6376DV3 LZW6376DV3Q	LZW6376E LZW6376EV LZW6376E3 LZW6376E3Q LZW6376EV3 LZW6376EV3Q LZW6376QF LZW6376QVF	LZW6376N3 LZW6376N3Q LZW6376NV3Q LZW6376NF LZW6376NVF	LZW6390A3 LZW6390AF LZW6390AFA LZW6390AVF LZW6390QF LZW6390B3 LZW6390BF LZW6390BFA LZW6390BVF LZW6390QVF
Dimension parameters, mm	Exterior dimensions	Length	3730 / 3760/3780/3800					3885/3920
		Width	1510					1600
		Height (unloaded)	1860					
	Wheel base	2500						
	Tread	Front wheel	1280					1290
Rear wheel		1290						
Mass Parameters, kg	Kerb mass	1030					985	1000/1050
	Maximum overall mass	1550						1620
	Rated seating capacity (driver included)	7-8						
Traffic ability parameters	Minimum turning radius, m	9.9						
	Minimum ground clearance mm (fully loaded)	147						145

Item		LZW6376A3 LZW6376AV3 LZW6386A3 LZW6386AV3 LZW6386AF LZW6386AVF	LZW6376B LZW6376BV LZW6376B3 LZW6376BV3 LZW6386B3 LZW6386BV3 LZW6386BF LZW6386BVF	LZW6376C LZW6376C3 LZW6376CV LZW6376CV3 LZW6376C3Q LZW6376CV3Q LZW6386C3 LZW6386C3Q LZW6386CV3 LZW6386CV3Q	LZW6376D LZW6376DV LZW6376D3 LZW6376D3Q LZW6376DV3 LZW6376DV3Q	LZW6376E LZW6376EV LZW6376E3 LZW6376E3Q LZW6376EV3 LZW6376EV3Q LZW6376QF LZW6376QVF	LZW6376N3 LZW6376N3Q LZW6376NV3Q LZW6376NF LZW6376NVF	LZW6390A3 LZW6390AF LZW6390AFA LZW6390AVF LZW6390QF LZW6390B3 LZW6390BF LZW6390BFA LZW6390BVF LZW6390QVF
Main performance parameters	Maximum speed, km/h	120	135	105	130	102/120	105	130
	Maximum climbing ability	16°						
	Direct clutch 50km/h constant velocity fuel consumption/hundred kilometer (air-conditioner not included), L	5.0		7.0	5.5	7.0/4.8	6.5	5.0
Suspension	Front suspension	Mcpherson independent suspension of coil spring						
	Rear suspension	Longitudinal semi-elliptical leaf spring non-independent or trailing arm coil spring semi-independence, rear suspension						
Steering	Steering gear	Rack and pinion type						
	Steering column	Safety energy absorbing type						
Braking	Service brake	Dual-circuit hydraulic braking system						
	Parking brake	Mechanical cable type, act on rear wheel						
Wheel	Tire specification		155R13LT or 165/70R13C or 165/70R13LT					
	Rim type		13×4.5B					
	Tire pressure	Front wheel, kPa	155R13LT or 165/70R13 C: 230; 165/70R13LT: (unloaded: 200, fully loaded: 250)					
		Rear wheel, kPa	155R13LT or 165/70R13 C: unloaded: 230, fully loaded: 340; 165/70R13LT: (unloaded:200, fully loaded:450)					
Electrical equipment	Battery		12V/ 45Ah					
	Starter		12 V/0.9 kw	12 V/0.8 kw				12 V/0.9 kw
	Generator		14 V/70 A	12V65A	14 V/65 A 14 V/70 A	14 V/65 A	14 V/70 A	

(2) Minivan, kingsized

Item		LZW6400C LZW6400C3 LZW6400C3Q	LZW6400D LZW6400D3	LZW6400B3 LZW6400BF	LZW6400A3 LZW6400AF	LZW6400N3 LZW6400N3Q	LZW6400QF	LZW6435A3 LZW6435AF LZW6435B3 LZW6435BF LZW6435QF	LZW6435AVF LZW6435BVF LZW6435QVF	
		LZW 6400CV LZW6400CV3 LZW6400CV3Q	LZW6400DV LZW6400DV3	LZW6400BV3 LZW6400BVF	LZW6400AV3 LZW6400AVF	LZW6400NV3Q	LZW6400QVF			
		Passenger car	Passenger car	Passenger car	Passenger car	Passenger car	Passenger car	Passenger car	Passenger car	
Dimensional Parameters mm	Exterior dimensions	Length	3995, 4035						4 265	
		Width	1510						1 615	
		Height	1860							
	Wheel base		2750							
	Tread	Front wheel	1280						1290	
		Rear wheel	1290						1290	
Mass parameters kg	Kerb mass	1050	1050	1050	1060	1 030	1090	1070		
		1030	1030	1030	1030	1010	1070	1050		
	Maximal overall mass	1780						1800		
	Rated seating capacity (driver included)	7~8	7~8	7~8	7~8	7~8	7~8	7~8	5	
5		5	5	5	5	5				
Traffic ability parameters	Minimum turning diameter, m	10.9						11.0		
	Minimum ground clearance (fully loaded), mm	129						135		

Item		LZW6400C LZW6400C3 LZW6400C3Q	LZW6400D LZW6400D3	LZW6400B3 LZW6400BF	LZW6400A3 LZW6400AF	LZW6400N3 LZW6400N3Q	LZW6400QF	LZW6435A3 LZW6435AF LZW6435B3 LZW6435BF LZW6435QF
		LZW 6400CV LZW6400CV3 LZW6400CV3Q	LZW6400DV LZW6400DV3	LZW6400BV3 LZW6400BVF	LZW6400AV3 LZW6400AVF	LZW6400NV3Q	LZW6400QVF	LZW6435AVF LZW6435BVF LZW6435QVF
		Passenger car	Passenger car	Passenger car	Passenger car	Passenger car	Passenger car	Passenger car
Main performance parameters	Maximum speed, km/h	105	130	135	120	105	120	120
	Maximum climbing ability	16°						
	Direct clutch 50km/h constant velocity fuel consumption/hundred kilometer (air-conditioner not included), L	7.0	5.5 (40km/h)	5.0	5.0	6.5	4.8	5.5
Suspension	Front suspension	Mcpherson independent suspension for coil spring						
	Rear suspension	Longitudinal semi-elliptical leaf spring non-independent (4 leaf spring) or trailing arm coil spring semi-independence, rear suspension						Leaf spring non-independent suspension
Steering	Steering gear	Rack and pinion type						
	Steering column	Safety energy absorbing type						Uncrumplable non-energy absorbing type
Braking	Service brake	Dual-circuit hydraulic braking system						
	Parking brake	Mechanical cable type, act on rear wheel						
Wheel	Tire type	Radial tire						
	Tire specification	155R13LT or 165/70R13 C						155R13LT or 165/70R13LT
	Rim type	13x4 5B						
	Tire pressure	Front wheel, kPa	155R13LT or 165/70R13 C:230; 165/70R13LT: (unloaded: 200, fully loaded: 250)					
Rear wheel, kPa		155R13LT or 165/70R13 C: unloaded: 230, fully loaded: 340; 165/70R13LT: (unloaded: 200, fully loaded: 450)						
Electrical equipment	Battery	12V/48Ah						
	Starter	12V/0.8kW	12V/0.8kW	12 V/0.9 kw	12 V/0.8 kW	12 V/0.9kW	12 V/0.9kW	
	Generator	14 V/70 A	14 V/70 A	14 V/70 A	14 V/65 A	14V/70A	14V/70A	

(3) Special minivan

Item			Special minivan				Special minivan, kingsized						
			LZW5026XY2A3 LZW5027XY2AF	LZW5026XYA3 LZW5027XYAF	LZW5026XA3 LZW5027XAF		LZW5026XK0QF	LZW5026XYA3 LZW5026XYAF	LZW5026XYZ A3 LZW5026XYZ AF				
Item			LZW5026XY2B LZW5026XY2B3 LZW5027XY2BF	LZW5026XYB LZW5026XYB3 LZW5027XYBF	LZW5026XB LZW5026XB3 LZW5027XBF		LZW5026XC B3 LZW5027XC B3 LZW5027XC BF	LZW5026XYB3 LZW5026XYBF	LZW5026XYZ B3 LZW5026XYZ BF				
			LZW5026XY2C LZW5026XY2C3 LZW5026XY2C3Q	LZW5026XYC LZW5026XYC3 LZW5026XYC3Q	LZW5026XC3 LZW5026XC3Q	LZW5026XC C LZW5026XC C3 LZW5026XC C3Q	LZW5026XC C3 LZW5027XC C3 LZW5027XC C3Q	LZW5026XYC LZW5026XYC3 LZW5026XYC3Q	LZW5026XYZ C LZW5026XYZ C3 LZW5026XYZ C3Q				
			LZW5026XY2D LZW5026XY2D3	LZW5026XYD LZW5026XYD3		LZW5026XC D LZW5026XC D3 LZW5026XC D3Q		LZW5026XYD LZW5026XYD3	LZW5026XYZ D LZW5026XYZ D3				
			LZW5026XY2E LZW5026XY2DF	LZW5026XYE LZW5026XYE3 LZW5026XYE3Q	LZW5026XE3 LZW5026XE3Q				LZW5026XYZ E LZW5026XYZ E3				
			LZW5026XY2N3 LZW5026XY2N3Q LZW5026XY2NF	LZW5026XYN3 LZW5026XYN3Q LZW5026XYNF	LZW5026XN3 LZW5026XN3Q LZW5026XNF	LZW5026XC N3 LZW5026XC N3Q LZW5026XC NF	LZW5026XC N3 LZW5026XC N3Q LZW5026XC NF	LZW5026XYN3 LZW5026XYN3Q LZW5026XYNF	LZW5026XYZ N3 LZW5026XYZ N3Q LZW5026XYZ NF	LZW5026XC N3 LZW5026XC N3Q			
				Mailcar	Delivery van	Van	Prison van	Reconnaissance van	Delivery van	Mailcar	Reconnaissance van		
			Dimensional parameters mm	Exterior dimensions	Length	3730/3780/3760	3730/3760	3730/3760	3730/3780/3760	3730/3760/3800	3995/4035		
					Width	1510							
Height (unloaded)	2100	1860			1860			2000	2100	2100			
	2100	1860			1860			2000	1860	2100			
	2100	1860			1860	2000	2000	1860	2100				
	2100	1860				2000		1860	2100				
	1860/2100	1860		1860				2100					
2100	1860	1860	2000	2000	1860	2100		2000					
	Wheelbase	2500					2750						
Tread	Front wheel	1280					1290						
	Rear wheel	1290					1290						
Mass parameters kg	Kerb mass		950		1030 985 (5026XCOCN3/Q)		1030 985 5026XCOCN3/Q)		1000 970		1030		
	Maximum overall mass		1550								1780		
	Rated seating capacity (driver included)		2	4-5	2	7-8	7-8	5	2	7-8			

Item		Special minivan					Special minivan, kingsized		
		LZW5026XYZA3 LZW5027XYZAF	LZW5026XXYA3 LZW5027XXYAF	LZW5026XA3 LZW5027XAF		LZW5026XKCOF	LZW5029XXY A3 LZW5029XXY AF	LZW5029XYZ A3 LZW5029XYZ AF	
		LZW5026XYZB LZW5026XYZB3 LZW5027XYZBF	LZW5026XXYB LZW5026XXYB3 LZW5027XXYBF	LZW5026XB LZW5026XB3 LZW5027XBF		LZW5026XKCB3 LZW5027XKCB3 LZW5027XKCBF	LZW5029XXYB3 LZW5029XXYBF	LZW5029XYZB3 LZW5029XYZBF	
		LZW5026XYZC LZW5026XYZC3 LZW5026XYZC3Q	LZW5026XXYC LZW5026XXYC3 LZW5026XXYC3Q	LZW5026XC3 LZW5026XC3Q	LZW5026XQCC LZW5026XQCC3 LZW5026XQCC3Q	LZW5026XKCC3 LZW5026XKCC3Q LZW5027XKCC3 LZW5027XKCC3Q	LZW5029XXYC LZW5029XXYC3 LZW5029XXYC3Q	LZW5029XYZC LZW5029XYZC3 LZW5029XYZC3Q	
		LZW5026XYZD LZW5026XYZD3	LZW5026XXYQF		LZW5026XQCD LZW5026XQCD3 LZW5026XQCD3Q		LZW5029XXYQF	LZW5029XYZD LZW5029XYZD3	
		LZW5026XYZE LZW5026XYZQF	LZW5026XXYE LZW5026XXYE3 LZW5026XXYE3Q	LZW5026XE3 LZW5026XE3Q				LZW5029XYZOF	
		LZW5026XYZN3 LZW5026XYZN3Q LZW5026XYZNF	LZW5026XXYN3 LZW5026XXYN3Q LZW5026XXYNF	LZW5026XN3 LZW5026XN3Q LZW5026XNF	LZW5026XQCN3 LZW5026XQCN3Q LZW5026XQCNF	LZW5026XKCN3 LZW5026XKCN3Q LZW5026XKCNF	LZW5029XXYN3 LZW5029XXYN3Q	LZW5029XYZN3 LZW5029XYZN3Q	LZW5029XKCN3 LZW5029XKCN3Q
		Mailcar	Delivery van	Van	Prison van	Reconnaissance van	Delivery van	Mailcar	Reconnaissance van
Traffic ability parameters	Minimum turning diameter, m	9.9					10.9		
	Minimum ground clearance (fully loaded), mm	147	147	147		147	129		
		147	147	147		147			
		147	147	147	147	147			
		158	147		158				
		110	147	147					
147	147	147	147	147					

Main performance parameters	Maximum speed km/h	120	120	120		120	120	120		
		135	135	135		135	135	135		
		105	105	105	105	105	105	105		
		130	120		130		120	130		
		102/120	102	102				120		
		105	105	105	105	105	105	105	105	
	Maximum climbing ability	16°								
	Direct clutch 40km/h constant velocity fuel consumption /hundred kilometer (air-conditioner not included) L	5.0 (50 km/h)	5.0 (50 km/h)	5.0 (50 km/h)		4.8 (50 km/h)	5.0 (50 km/h)	5.0 (50 km/h)		
		5.0 (50 km/h)	5.0 (50 km/h)	5.0 (50 km/h)		5.0 (50 km/h)	5.0 (50 km/h)	5.0 (50 km/h)		
		7.0 (50 km/h)	7.0 (50 km/h)	7.0 (50 km/h)	7.0 (50 km/h)	7.0 (50 km/h)	7.0 (50 km/h)	5.8		
		5.5	4.8 (50 km/h)		5.5 (50 km/h)		4.8 (50 km/h)	5.5		
		5.5/4.8	7.0 (50 km/h)	7.0 (50 km/h)				4.8 (50 km/h)		
6.5 (50 km/h)		6.5 (50 km/h)	6.5 (50 km/h)	6.5 (50 km/h)	6.5 (50 km/h)	6.5 (50 km/h)	6.5 (50 km/h)	6.5 (50 km/h)		

Item		Special minivan				Special minivan, kingsized				
		LZW5026XYZA3 LZW5027XYZAF	LZW5026XXYA3 LZW5027XXYAF	LZW5026XA3 LZW5027XAF		LZW5026XKCCQF	LZW5029XXY A3 LZW5029XXY AF	LZW5029XYZ A3 LZW5029XYZ AF		
		LZW5026XYZB LZW5026XYZB3 LZW5027XYZBF	LZW5026XXYB LZW5026XXYB3 LZW5027XXYBF	LZW5026XB LZW5026XB3 LZW5027XBF		LZW5026XKCB3 LZW5027XKCB3 LZW5027XKCBF	LZW5029XXYB3 LZW5029XXYBF	LZW5029XYZB3 LZW5029XYZBF		
		LZW5026XYZC LZW5026XYZC3 LZW5026XYZC3Q	LZW5026XXYC LZW5026XXYC3 LZW5026XXYC3Q	LZW5026XC3 LZW5026XC3Q	LZW5026XQCC LZW5026XQCC3 LZW5026XQCC3Q	LZW5026XKCC3 LZW5026XKCC3Q LZW5027XKCC3Q	LZW5029XXYC LZW5029XXYC3 LZW5029XXYC3Q	LZW5029XYZC LZW5029XYZC3 LZW5029XYZC3Q		
		LZW5026XYZD LZW5026XYZD3	LZW5026XXYQF		LZW5026XQCD LZW5026XQCD3 LZW5026XQCD3Q		LZW5029XXYQF	LZW5029XYZD LZW5029XYZD3		
		LZW5026XYZE LZW5026XYZQF	LZW5026XXYE LZW5026XXYE3 LZW5026XXYE3Q	LZW5026XE3 LZW5026XE3Q				LZW5029XYZQF		
		LZW5026XYZN3 LZW5026XYZN3Q LZW 5026XYZNF	LZW5026XXYN3 LZW5026XXYN3Q LZW 5026XXYNF	LZW5026XN3 LZW5026XN3Q LZW 5026XNF	LZW5026XQN3 LZW5026XQN3Q LZW 5026XQNF	LZW 5026XKN3 LZW5026XKN3Q LZW 5026XKNF	LZW5029XXYN3 LZW5029XXYN3Q	LZW5029XYZN3 LZW5029XYZN3Q	LZW5029XKN3 LZW5029XKN3Q	
		Mailcar	Delivery van	Van	Prison van	Reconnaissance van	Delivery van	Mailcar	Reconnaissance van	
Suspension	Front suspension	Mcpherson independent suspension								
	Rear suspension	Longitudinal semi-elliptical leaf spring non-independent (4 leaf spring)								
Steering	Steering gear	Rack and pinion type								
	Steering column	Safety energy absorbing type								
Braking	Service brake	Dual-circuit hydraulic braking system								
	Parking brake	Mechanical cable type, act on rear wheel								
Wheel	Tire type		Radial tire							
	Tire specification		155R13LT or 165/70R13 C							
	Rim type		13×4.5B							
	Tire pressure	Front wheel, kPa	200					230		
Rear wheel, kPa		Unloaded: 200, fully loaded: 300					Unloaded: 230, fully loaded: 340			

Item	Special minivan					Special minivan, kingsized		
	LZW5026XYZA3 LZW5027XYZAF	LZW5026XYA3 LZW5027XXYAF	LZW5026XA3 LZW5027XAF		LZW5026XKQF	LZW5029XXY A3 LZW5029XXY AF	LZW5029XYZ A3 LZW5029XYZ AF	
	LZW5026XYZB LZW5026XYZB3 LZW5027XYZBF	LZW5026XXYB LZW5026XXYB3 LZW5027XXYBF	LZW5026XB LZW5026XB3 LZW5027XBF		LZW5026XKCB3 LZW5027XKCB3 LZW5027XKCBF	LZW5029XXYB3 LZW5029XXYBF	LZW5029XYZB3 LZW5029XYZBF	
	LZW5026XYZC LZW5026XYZC3 LZW5026XYZC3Q	LZW5026XXYC LZW5026XXYC3 LZW5026XXYC3Q	LZW5026XC3 LZW5026XC3Q	LZW5026XQCC LZW5026XQCC3 LZW5026XQCC3Q	LZW5026XKCC3 LZW5026XKCC3Q LZW5027XKCC3 LZW5027XKCC3Q	LZW5029XXYC LZW5029XXYC3 LZW5029XXYC3Q	LZW5029XYZC LZW5029XYZC3 LZW5029XYZC3Q	
	LZW5026XYZD LZW5026XYZD3	LZW5026XXYQF		LZW5026XQCD LZW5026XQCD3 LZW5026XQCD3Q		LZW5029XXYQF	LZW5029XYZD LZW5029XYZD3	
	LZW5026XYZE LZW5026XYZEF	LZW5026XXYE3 LZW5026XXYE3Q	LZW5026XE3 LZW5026XE3Q				LZW5029XYZQF	
	LZW5026XYZN3 LZW5026XYZN3Q LZW5026XYZNF	LZW5026XXYN3 LZW5026XXYN3Q LZW5026XXYNF	LZW5026XN3 LZW5026XN3Q LZW5026XNF	LZW5026XQCN3 LZW5026XQCN3Q LZW5026XQCNF	LZW5026XKCN3 LZW5026XKCN3Q LZW5026XKCNF	LZW5029XXYN3 LZW5029XXYN3Q	LZW5029XYZN3 LZW5029XYZN3Q	LZW5029XKCN3 LZW5029XKCN3Q
	Mailcar	Delivery van	Van	Prison van	Reconnaissance van	Delivery van	Mailcar	Reconnaissance van
Electrical equipment	Battery	12V/48Ah						
	Starter	12 V/0.9 kW	12 V/0.9 kW	12 V/0.9 kW		12 V/0.9 kW	12 V/0.9 kW	12 V/0.9 kW
		12 V/0.9 kW	12 V/0.9 kW	12 V/0.9 kW		12 V/0.9 kW	12 V/0.9 kW	12 V/0.9 kW
		12V/0.8kW	12V/0.8kW	12V/0.8kW	12V/0.8kW	12V/0.8kW	12 V/0.8 kW	12 V/0.8 kW
		12V/0.8kW	12 V/0.9 kW		12V/0.8kW		12 V/0.9 kW	12V/0.8kW
		12V/0.8kW 12 V/0.9 kW	12V/0.8kW	12V/0.8kW				12 V/0.9 kW
	Generator	12V/0.8kW	12V/0.8kW	12V/0.8kW	12V/0.8kW	12V/0.8kW	12V/0.8kW	12V/0.8kW
		12V/0.8kW	12V/0.8kW	12V/0.8kW	12V/0.8kW	12V/0.8kW	12V/0.8kW	12V/0.8kW
		14 V/70A	14 V/70A	14 V/70A		14 V/70 A	14V/70A	14 V/70A
		14 V/70 A	14 V/70 A	14 V/70 A		14 V/70 A	14 V/70A	14 V/70A
14 V/70A		14 V/70A	14 V/70A	14 V/70 A	14 V/70 A	14V/70A	14 V/70A	
12V/65A		14 V/70 A		12V/65A, 14 V/70 A		14 V/70 A	12V/65A	
12V/65A 14 V/70 A		14 V/65 A	14 V/65 A				14 W70 A	
14 V/65 A	14 V/65 A	14 V/65 A	14 V/65 A	14 V/65 A	14 V/65 A	14 V/65 A		

(4) Van

Item		Van			
		LZW1026C	LZW1026D	LZW1026E	
Dimensional parameters mm	Exterior dimensions	Length	3730		
		Width	1510		
		Height	1860		
	Wheelbase		2500		
	Tread	Front wheel	1280		
		Rear wheel	1290		
Mass parameter kg	Kerb mass		960		
	Maximum overall mass		1650		
	Rated seating capacity (driver included)		2		
Traffic ability parameters	Minimum turning diameter, m		9.9		
	Minimum ground clearance (fully loaded), mm		158	158	110
Main performance parameters	Maximum speed km/h		102	130	102

Item		Van		
		LZW1026C	LZW1026D	LZW1026E
Main performance parameters	Maximum climbing ability	16°		
	Direct clutch 40km/h constant velocity fuel consumption/hundred kilometer (air-conditioner not included) L	5.5		
Suspension	Front suspension	Mcpherson independent suspension		
	Rear suspension	Longitudinal semi-elliptical leaf spring non-independent (4 leaf springs)		
Steering	Steering gear	Rack and pinion type		
	Steering column	Safety energy absorbing type		
Braking	Service brake	Dual-circuit hydraulic braking system		
	Parking brake	Mechanical cable type, act on rear wheel		
Wheel	Tire type	Radial tire		
	Tire specification	155R13LT or 165/70R13 C		
	Rim type	13×4.5B		
	Allowable maximum speed	140		
	Tire pressure	Front wheel, kPa	200	
Rear wheel, kPa		Unloaded: 200, fully loaded: 300		
Electrical equipment	Battery	12V/48Ah		
	Starter	12V/0.8kW		
	Generator	12V/65A		

(5) Minivan

Item			Minivan		
			LZW1027B LZW1027B3	LZW1027C LZW1027C3 LZW1027C3Q	LZW1027N3 LZW1027N3Q LZW 1027NF
Dimensional parameters mm	Exterior dimensions	Overall length	4250		
		Overall width	1510		
		Overall weight (unloaded)	1760		
	Box contour dimensions	Length	2500		
		Width	1430		
		Height	340		
	Wheel base		2750		
	Tread	Front wheel	1280		
Rear wheel		1290			
Mass parameters kg	Kerb mass		920		
	Full-load quality		1850		
	Rated passenger (driver included)		2		
Traffic ability parameters	Minimum turning diameter, m		10. 9		
	Minimum ground clearance, mm (fully loaded)		160 (Radial tire)		

Item		Minivan		
		LZW1027B LZW1027B3	LZW1027C LZW1027C3 LZW1027C3Q	LZW1027N3 LZW1027N3Q LZW 1027NF
Main performance parameters	Maximum speed km/h	125	105	105
	Maximum climbing ability	16°		
	Direct clutch fuel consumption/hundred kilometer (air conditioner not included) L	5.5 (50km/h)	6.5 (40km/h)	6.5 (50km/h)
Suspension	Front suspension	Mcpherson independent suspension		
	Rear suspension	Longitudinal semi-elliptical leaf spring non-independent (5 leaf springs)		
Steering	Steering gear	Rack and pinion type		
	Steering column	Safety energy absorbing type		
Braking	Service brake	Dual-circuit hydraulic braking system		
	Parking brake	Mechanical cable type, act on rear wheel		
Wheel	Tire specification	165/70R13LT-8PR		
	Rim type	13×4.5B		
	Tire pressure	Front wheel, kPa	Unloaded: 200, fully loaded: 250	
		Rear wheel, kPa	Unloaded: 200, fully loaded: 450	
Electrical equipment	Battery	12V/48Ah		
	Starter	12V/0.9kW	12V/0.8kW	12 V/0.8 kW
	Generator	14V/70A	12V/65A 14V/65A 14V/65A	14 V/65 A

2. Assembly specification of engine, clutch, gearbox

(1) The engine configurations of minivan

Vehicle model	Minivan						
	LZW6376C3 LZW6376CV3 LZW6376C3Q LZW6376CV3Q LZW6386C3 LZW6386C3Q LZW6386CV3 LZW6386CV3Q	LZW6376E LZW6376EV	LZW6376E3 LZW6376E3Q LZW6376EV3 LZW6376EV3Q LZW6376QF LZW6376QVF	LZW6376D3 LZW6376D3Q LZW6376DV3 LZW6376DV3Q	LZW6376C LZW6376CV	LZW6376D LZW6376DV	LZW6376N3 LZW6376N3Q LZW6376NV3Q LZW6376NF LZW6376NVF LZW6390NF LZW6390NVF
	Minivan, kingsized						
LZW6400C3 LZW6400CV3 LZW6400C3Q LZW6400CV3Q		LZW6400QF LZW6400QVF	LZW6400D3 LZW6400DV3	LZW6400C LZW6400CV	LZW6400D LZW6400DV	LZW6400N3 LZW6400N3Q LZW6400NV3Q LZW6400NF LZW6400NVF	
Engine model	LJ465Q3-1AE	LJ465QE5 (Delphi EFI system) LJ465QE6 (Siemens EFI system)	LJ465Q3E2	LJ474Q3E2 (UAES EFI system)	LJ465Q-1AE6 (Siemens EFI system) LJ465Q-1AE2 (UAES EFI system)	LJ474QE2 (UAES EFI system) QA474QE2 (UAES EFI system)	LJ465QR1E6

Vehicle model	Minivan				
	LZW6376A3 LZW6376AV3 LZW6386A3 LZW6386AV3 LZW6386AF LZW6386AVF LZW6390A3 LZW6390AF LZW6390AV3 LZW6390AVF LZW6390AFA	LZW6376B LZW6376BV LZW6376B3 LZW6376BV3 LZW6386B3 LZW6386BV3 LZW6386BF LZW6386BFV LZW6390B3 LZW6390BF LZW6390BV3 LZW6390BVF LZW6390BFA	LZW6376E3 LZW6376EQ LZW6376EV3 LZW6376EV3Q LZW6376QF LZW6376QVF LZW 6390QF LZW 6390QVF	LZW 6376QF LZW 6376QVF LZW 6390QF LZW 6390QVF	LZW 6376A3 LZW 6386AF LZW 6386AVF LZW 6386A3 LZW 6390A3 LZW 6390AF LZW 6390AFA LZW 6390AVF
	Minivan, kingsized				
LZW6400A3 LZW6400AF LZW6400AV3 LZW6400AVF LZW6435A3 LZW6435AF LZW6435AVF	LZW6400B3 LZW6400BF LZW6400BV3 LZW6400BVF LZW6435B3 LZW6435BF LZW6435BVF	LZW6400QF LZW6400QVF LZW 6435QF LZW 6435QVF	LZW 6400QF LZW 6400QVF LZW 6435QF LZW 6435QVF	LZW 6400A3 LZW 6400AF LZW 6400AVF LZW 6435A3 LZW 6435AF LZW 6435AVF	
Engine model	LXA	LAQ	LZY	LFK	LC5

(2) The engine configurations of special minivan

Vehicle model	Special minivan					
	Prison van	Reconnaissance van	Delivery van	Van	Mail car	
		LZW5023XKCA3 LZW5023XKCAF	LZW5026XXYA3 LZW5027XXYAF LZW5023XXYA3 LZW5023XXYAF	LZW5026XA3 LZW5027XAF	LZW5026XYZA3 LZW5027XYZAF LZW5023XYZA3 LZW5023XYZAF	LZW5026XYZQF LZW5023XYZQF
		LZW5026XKCB3 LZW5027XKCB3 LZW5027XKCBF	LZW5026XXYB3 LZW5026XXYBF	LZW5026XB3 LZW5027XBF	LZW5026XYZB3 LZW5026XYZBF	
	LZW5026XQCC		LZW5026XXYC		LZW5026XYZC	
	LZW5026XQCC3 LZW5026XQCC3Q	LZW5026XKCC3 LZW5027XKCC3Q LZW5027XKCC3Q	LZW5026XXYC3 LZW5026XXYC3Q	LZW5026XC3 LZW5026XC3Q	LZW5026XYZC3 LZW5026XYZC3Q	
	LZW5026XQCD	LZW5026XKQF LZW5023XKQF	LZW5026XXYQF LZW5023XXYQF		LZW5026XYZD	
	LZW5026XQCD3 LZW5026XQCD3Q				LZW5026XYZD3	
			LZW5026XXYE	LZW5026XE3 LZW5026XE3Q	LZW5026XYZE	
	LZW5026XQCN3 LZW5026XQCN3Q LZW5026XQCNF	LZW5026XKCN3 LZW5026XKCN3Q LZW5026XKCNF	LZW5026XXYN3 LZW5026XXYN3Q LZW5026XXYNF	LZW5026XN3 LZW5026XN3Q LZW5026XNF	LZW5026XYZN3 LZW5026XYZN3Q LZW5026XYZNF	
Engine model		LXA LC5	LXA LC5	LXA LC5	LXA LC5	LZY LFX
		LAQ	LAQ	LAQ	LAQ	
	LJ465Q-1AE6 (Siemens EFI system) LJ465Q-1AE2 (UAES EFI system)		LJ465Q-1AE6 (Siemens EFI system) LJ465Q-1AE2 (UAES EFI system)		LJ465Q-1AE6 (Siemens EFI system) LJ465Q-1AE2 (UAES EFI system)	

	LJ465Q3-1AE	LJ465Q3-1AE	LJ465Q3-1AE	LJ465Q3-1AE	LJ465Q3-1AE
	LJ474QE2 (UAES EFI system)	L2Y LFK	L2Y LFK		LJ474QE2 (UAES EFI system)
	LJ474Q3E2 (UAES EFI system)				LJ474Q3E2 (UAES EFI system)
			LJ465QE5 (Delphi EFI system)	LJ465Q3E2	LJ465QE5 (Delphi EFI system) LJ465QE6 (Siemens EFI system)
	LJ465QR1E8	LJ465QR1E8	LJ465QR1E8	LJ465QR1E8	LJ465QR1E8

Vehicle model	Minivan, kingsized		
	Delivery van	Mail car	
LZW5029XXY A3 LZW5029XXY AF LZW5023XXYA3L LZW5023XXYAFL	LZW5029XYZ A3 LZW5029XYZ AF LZW5023XYZA3L LZW5023XYZAFL	LZW5029XXYQF LZW5029XYZQF LZW5023XXYQFL LZW5023XYZQFL	LZW 5023XKCQFL LZW5023XKCA3L LZW5023XKCAFL
LZW5029XXYB3 LZW5029XXYBF	LZW5029XYZB3 LZW5029XYZBF		
LZW5029XXYC	LZW5029XYZC		
LZW5029XXYC3 LZW5029XXYC3Q	LZW5029XYZC3 LZW5029XYZC3Q		
	LZW5029XYZD LZW5029XYZD3		
LZW5029XXYN3 LZW5029XXYN3Q	LZW5029XYZN3 LZW5029XYZN3Q		LZW5029XKCN3 LZW5029XKCN3Q
LXA LC5	LXA LC5	L2Y LFK	L2Y LFK
LAQ	LAQ		
LJ465Q-1AE6 (Siemens EFI system) LJ465Q-1AE2 (UAES EFI system)	LJ465Q-1AE6 (Siemens EFI system) LJ465Q-1AE2 (UAES EFI system)		
LJ465Q3-1AE	LJ465Q3-1AE		
	LJ474QE2 (UAES EFI system) LJ474Q3E2 (UAES EFI system)		
LJ465QR1E6	LJ465QR1E6		LJ465QR1E6

(3) The engine configurations of van

Vehicle model	LZW1026C	LZW1026D	LZW1026E
Engine model	LJ465Q-1AE6 (Siemens EFI system) LJ465Q-1AE2 (UAES EFI system)	LJ474QE2 (UAES EFI system)	LJ465QE5 (Delphi EFI system)

(4) The engine configurations of minivan:

Vehicle model	LZW1027B LZW1027B3	LZW1027C LZW1027C3 LZW1027C3Q	LZW1027N3 LZW1027N3Q LZW 1027NF
Engine model	LAQ	LJ465Q3-1AE6 (Siemens EFI system)	LJ465QR1E6

(5) Assembly specification of engine, clutch, gearbox:

Engine model	LJ465Q-1AE6 LJ465Q-1AB6 LJ465Q-1AE2 LJ465Q3-1AE2 LJ465Q3-1AE	LJ474QE2 QA474QE2 LJ474Q3E2	LJ465QE5 LJ465QE6 LJ465Q3E2	LJ465QR1E6	LAQ	LXA LFX	L2Y LC5	
Type	4 in-line cylinders, water cooling, SOHC, intake air passage and multi-port fuel electric injection, 4-stroke gasoline engine				4 in-line cylinders, water cooling, DOHC (16 valves), intake air passage and multi-port fuel electric injection, 4-stroke gasoline engine			
Cylinder bore×stroke, mm×mm	65.5×78	74×78	65.5×72	65.5×74	69.7×79	69.7×75.3	68.5×67.5	
Total displacement, L	1.051	1.310	0.97	0.998	1.208	1.149	0.995	
Compression ratio	9.0:1	9.5:1	8.8:1	9.5:1	9.8:1			
Maximum power/rotational speed, kW(rpm)	38.5/5200	60.5/6000	34.7/5300	45/5600	63/6000	60/6000	50/5600	
Maximum torque/rotational speed, Nm(rpm)	83/3000-3500	102/3000	71/3000-3500	85/3500-4000	108/4000	103/4000	90/4200	
Idle rotational speed, r/min	850±50	750±50	850±50	800 ± 50	750±50			
Clutch		Single sheet, dry and diaphragm spring						
Type		5 gear shifts of forward and 1 gear shift for reverse, synchronizing manual gear box						
Gear box	Gear ratio			Equipped with gear box MR508B	Equipped with gear box 465A			
		1 st gear	3.652	4.101	3.348	3.644	3.652	3.857
		2 nd gear	1.948	2.293	2.094	1.938	1.948	2.045
		3 rd gear	1.424	1.663	1.363	1.421	1.424	1.419
		4 th gear	1.000	1.220	1.000	1.000	1.000	1.000
		5 th gear	0.795	1	0.831	0.771	0.778	0.808
Reverse	3.466	4.722	3.567	3.466	3.466	4.128		

(6) Specifications and capacity of fuel, lubricant, coolant and brake fluid

Item	Specifications (recommended)	Capacity (L)				Remark
		LJ465Q-1AE6 LJ465Q3-1AE6 LJ465Q-1AE2 LJ465Q3-1AE2 LJ465Q3-1AE LJ465QR1E6	LJ474QE2 QA474QE2 LJ474Q3E2	LJ465QE5 LJ465QE6 LJ465Q3E2	LAQ LXA L2Y LFX LCS	
Gasoline	According to the instructions of oil label	40				
Engine Lubricant	SF 15W40 (-15°C~40°C) SF 10W40 (used for cold area) SF 5W30 (used for extremely cold area, -35°C or below)	Engine oil filter changed: 3.2 Engine oil filter not changed: 3.0	Engine oil filter changed: 4.7 Engine oil filter not changed: 4.5	Engine oil filter changed: 3.5 Engine oil filter not changed: 3.0		
	SL 5W/30				Engine oil filter changed: 2.7 Engine oil filter not changed: 2.5	
Gearbox Lubricant	GL-4 90 (used for south China and north China in summer) GL-4 75W90 (used for extremely cold area or north China in winter)	1.3	1.5	1.2	1.3	
Rear axle lubricant	GL-5 90 (used for south China and north China in summer) GL-5 80W90 (used for extremely cold area or north China in winter, -35°C or below)	1.2				
Coolant	Zhangjiagang TEEC Engine Coolant	4.6				
Brake fluid	Zhangjiagang TEEC Brake Fluid DOT4	0.5				Fill brake fluid according to the notes on the cover. Mixing of two braking fluids is prohibited.
Use Instructions for washing solution	Anti-freezing Washing Solution shall be used when the surrounding temperature in winter is below 0°C.					

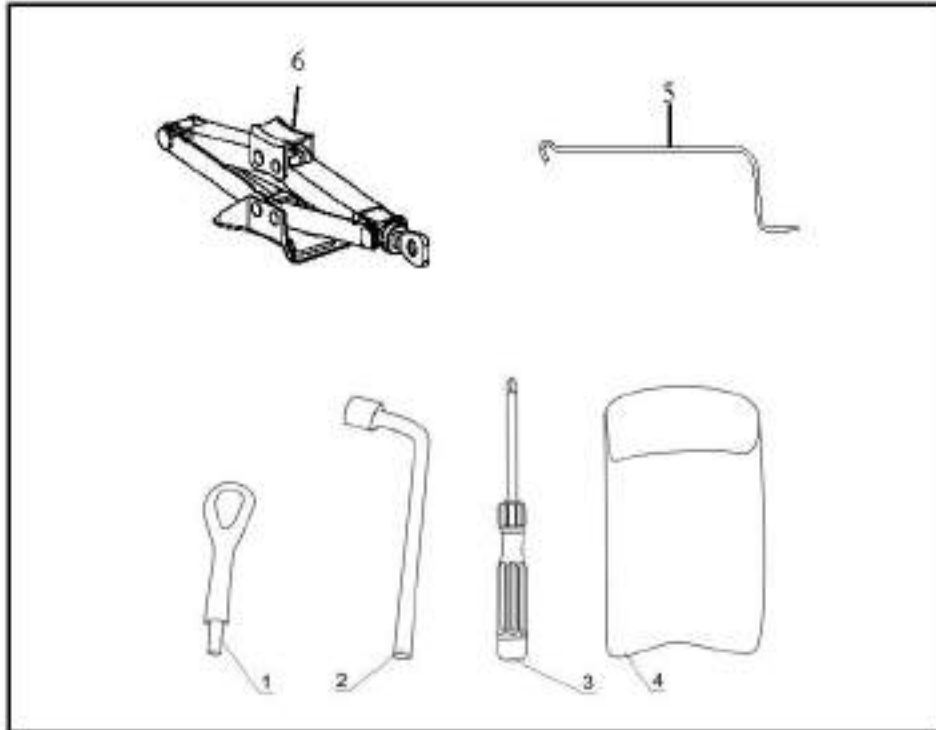
Chapter 8 List of Articles Provided with Vehicle

List of articles provided with vehicles	8-2
Tools with vehicle	8-3

List of articles provided with vehicles

No.	Description	Qty	Remarks
1	Certificate for vehicle	1	
2	List of technical parameters of vehicle for registration purpose	1	
3	Vehicle kit (including Owner Manual, Maintenance and Service Manual)	1	According to different vehicle configuration requirements
4	Tool kit with vehicles assembly	1	According to different vehicle configuration requirements
5	Triangle warning board	1	For all types of vehicles

Tools with vehicle



1. Towing hook
2. Wheel nut wrench
3. Dual-purpose combined screwdriver
4. Tool bag
5. Jack rocker
6. Jack