

# NEXA



# ***FRONX***

## **SUPPLEMENTARY OWNER'S MANUAL FOR VEHICLE FITTED WITH CNG FUEL SYSTEM**

Use this Supplementary Owner's manual  
along with Owner's manual and Service booklet

- Refer for vehicle usage at all times
- Contains Important Information On Safety, Operation & Maintenance

Part No. 99011M74TC0-74E  
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**ENG**

***NOTE:***

**As per Government regulation, CNG cylinder needs to be checked and certified every THREE (3) YEARS from the date of initial testing as mentioned on the CNG cylinder identification plate. Customer has to present the vehicle to a government approved testing agency.**

**As per Government regulation, CNG cylinder has to be discarded at 20 YEARS from the date of initial testing as mentioned in the CNG cylinder identification plate. Customer has to discard the cylinder at his / her expense through government approved scrap agencies.**

**DO NOT reuse the cylinder valve, once it is replaced / removed from cylinder assembly.**

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### INTRODUCTION TO CNG:

CNG (Compressed Natural Gas) mainly contains methane. CNG is considered as a clean burning fuel. Due to low density of CNG, it is compressed at a pressure of around 200 bars to enhance the vehicle on-board storage capacity.

#### CAUTION

**In case of any symptom of CNG leakage or releasing noise or any external damage to CNG piping or during accident, do not panic.**

- **Stop the vehicle and switch off the engine, roll down the windows and open all the doors**
- **Ensure to close manual shut off valve.**
- **Contact Maruti Suzuki authorized workshop immediately for further assistance.**

### SAFETY PRECAUTIONS (Do's)

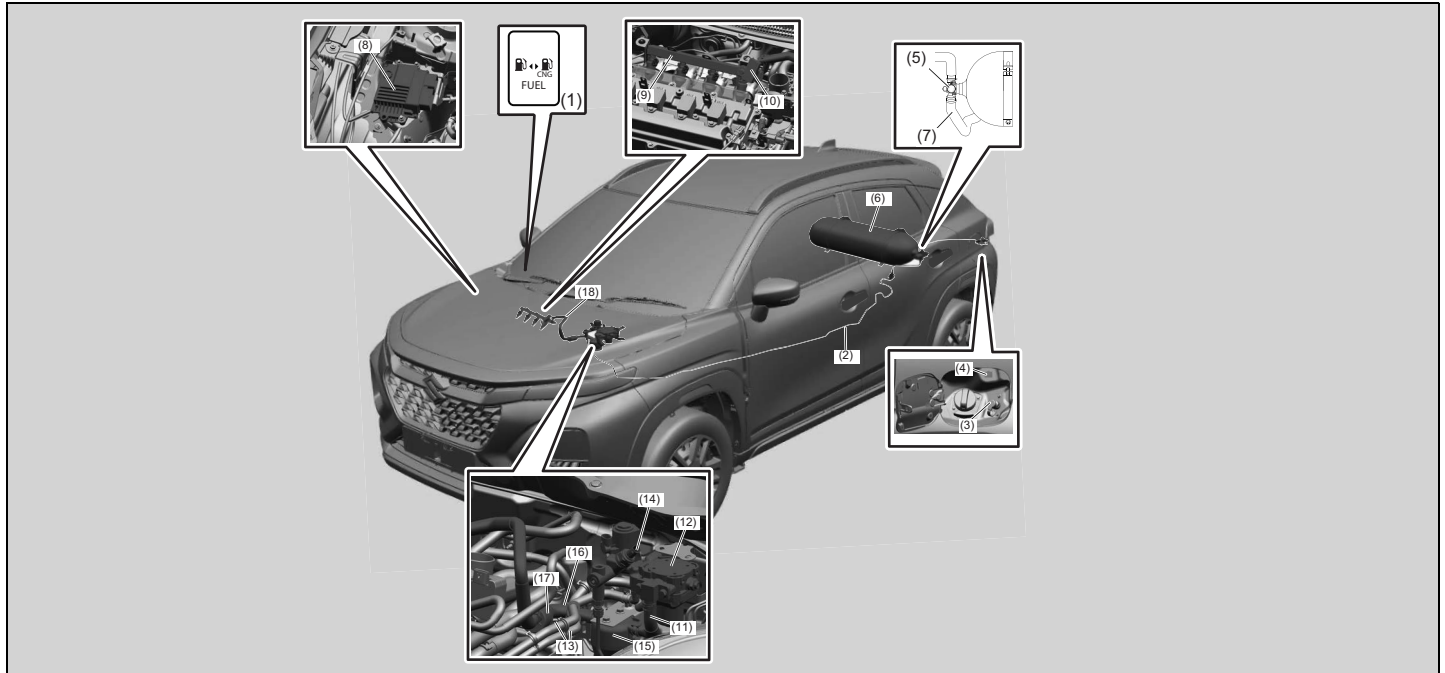
1. If any service or body repair is to be carried out, turn the manual shut off valve on CNG cylinder valve to close position prior to commencement of the repair work.
2. Get the CNG cylinder checked every three (3) years from the date of last testing / retesting of cylinder by government authorized CNG cylinder testing agency.
3. If the vehicle does not changeover to CNG in AUTO MODE, then have your vehicle checked by Maruti Suzuki authorized workshop at the earliest.
4. Switch "OFF" engine while filling the fuel (CNG/Petrol).
5. After refueling CNG or Petrol, ensure that the fuel filler lid is closed. (Otherwise vehicle cannot be started)
6. In AUTO MODE, the system is programmed to start the vehicle in petrol and automatically shift to CNG based on engine temperature & other parameters. Do not press the accelerator pedal to change from petrol to CNG mode.

### SAFETY PRECAUTIONS (Don'ts):

1. Do not change/modify the configuration, settings or the components of CNG system.
2. The CNG cylinder should not be repaired under any circumstances. In case of any problem, consult with Maruti Suzuki authorized workshop.
3. Do not adjust setting of CNG system.
4. Never install LPG or any other gas cylinder in place of CNG cylinder.
5. Avoid carrying inflammable material near the CNG cylinder.
6. Do not fill any gas other than CNG.
7. Do not press the accelerator pedal to change from petrol to CNG MODE.

## FOR VEHICLES FITTED WITH CNG FUEL SYSTEM

### LAYOUT OF THE CNG SYSTEM



74TBC0001

- |                                   |  |  |
|-----------------------------------|--|--|
| (1) Changeover / Selector switch  | (8) CNG controller                               | (14) High pressure sensor                      |
| (2) High pressure pipe            | (9) CNG injectors                                | (15) CNG filter                                |
| (3) CNG Receptacle / Filler valve | (10) Low pressure & temperature sensor           | (16) Low pressure CNG hose (filter to chamber) |
| (4) Fuel lid switch               | (11) Low pressure CNG hose (Regulator to filter) | (17) CNG Chamber                               |
| (5) CNG cylinder valve            | (12) Pressure regulator                          | (18) Low pressure CNG hose (chamber to rail)   |
| (6) CNG cylinder                  | (13) Water hoses                                 |  |

## FUEL MODES

There are three fuel modes in the vehicle (Petrol, Auto and Forced CNG) which are selectable by pressing the changeover / selector switch (1) located on the right side of the steering wheel on the dashboard.

### ⚠ WARNING

Make sure that the parking brake is applied fully and the transmission is in Neutral before attempting to start the engine.

### NOTICE

- For protection of a lead-acid battery and a starter motor, if you use the starter motor by turning the key to "START" for more than 12 seconds at a time, the starter motor stops automatically. Turn the key to "LOCK" position or press the engine switch to select LOCK (OFF) mode and wait for more than 30 seconds before trying again. If the engine does not start after several attempts, check the fuel and ignition system or consult a Maruti Suzuki authorized workshop.
- If the engine starts, the starter motor stops automatically.

### NOTE:

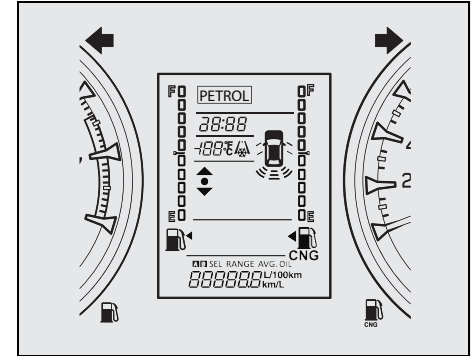
- Do not press the accelerator pedal to changeover from petrol to CNG mode.
- With ignition switch "ON" and engine not running, blinking of CNG malfunction warning lamp indicates that fuel lid is open. Vehicle will not start in this condition. For details on CNG malfunction warning lamp, refer to "Instrument cluster" section in this manual.

## SELECTOR SWITCH POSITION



74TBC0009

## PETROL MODE

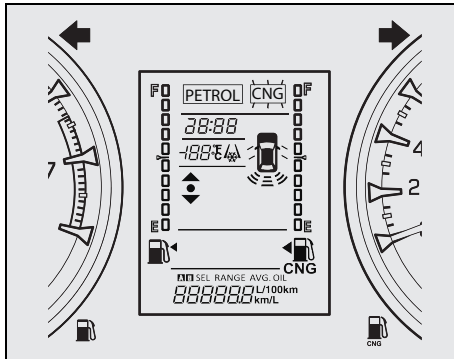


74TBC0003

In this mode vehicle starts in petrol and continues to run in petrol mode. In this mode, petrol indication is continuously displayed in instrument cluster and CNG indication will remain off.

## FOR VEHICLES FITTED WITH CNG FUEL SYSTEM

### AUTO MODE



74TBC0004

In this mode, engine starts in petrol mode and then automatically changes to CNG mode after reaching programmed warming up condition.

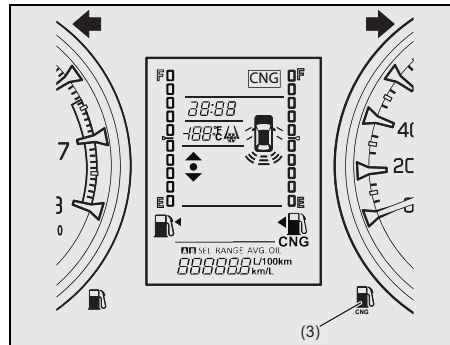
With ignition switch ON and vehicle started in "AUTO MODE", CNG indicator blinks on the display and PETROL indicator is displayed. After changeover to CNG, CNG indicator will be displayed and PETROL indicator will switch OFF automatically.

#### NOTE:

- It is always recommended to start the vehicle in AUTO MODE or PETROL MODE to enhance the engine life.
- The fuel changeover to CNG may not happen if the vehicle is started when the ambient / engine temperature is below

Zero Degree Celsius. In such a case, run the engine in PETROL MODE till it warms up and then try restarting the engine to changeover to CNG.

### FORCED CNG MODE



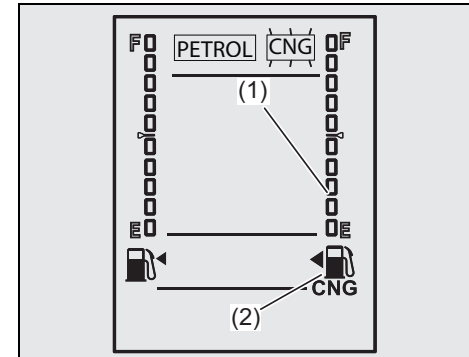
74TBC0005

This is an emergency mode and may be used in cases where there is no petrol in the petrol tank. In this mode, vehicle starts in CNG mode and continues running in CNG mode. With ignition "ON" and engine not running, press and hold the change-over switch till only CNG indicator is displayed. In this mode, CNG indicator is displayed and PETROL indicator remains "OFF".

#### NOTE:

- It is recommended to keep sufficient amount of petrol in the petrol tank.
- The vehicle may not start in Forced CNG mode if the ambient / engine temperature is below Zero Degree Celsius. It is recommended to start the vehicle in Auto mode.

### CNG LEVEL INDICATOR



74TBC0006

CNG level indicator (1) is built into the display.

When the ignition switch is in the "ON" position, this gauge gives an approximate indication of the quantity of CNG fuel in the CNG tank. "F" stands for full and "E" stands for empty.



If the CNG level indicator shows only one segment to “E”, refill the CNG tank as soon as possible.

**NOTE:**

- If the CNG low fuel warning light (3) comes on, fill the CNG tank immediately.
- The mark (2) indicates that the fuel filler door is located on the left side of the vehicle.
- For Type A - If the last segment blinks, it means that the fuel is almost empty.

### AUTOMATIC CHANGEOVER FROM CNG MODE TO PETROL MODE

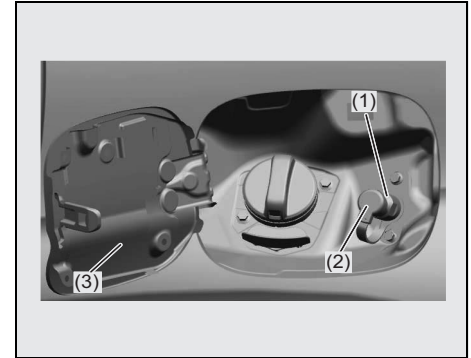
If CNG is finished while the engine is running, vehicle will automatically changeover from CNG mode to Petrol mode & CNG malfunction warning lamp will start blinking. Petrol indicator will be displayed continuously and CNG indicator will switch OFF automatically.

To acknowledge this information, press the changeover switch once. The CNG malfunction warning lamp will stop blinking after the changeover switch is pressed and petrol indicator will be displayed continuously. However the CNG malfunction indicator lamp will continue to blink after every subsequent Ignition ON - Ignition OFF condition until the vehicle is refilled with CNG.

**NOTE:**

- It is recommended to keep sufficient amount of petrol in the petrol tank to prevent engine stalling while automatic changeover from CNG mode to Petrol mode.
- In case the CNG malfunction warning lamp does not stop blinking after pressing the changeover switch, take the vehicle to the nearest Maruti Suzuki authorized workshop.

### CNG FILLER VALVE



74TBC0042

The CNG filler valve is integrated in fuel box next to petrol fuel filler cap.

CNG filler valve (1) can be uncovered by pulling out the filler valve cover (2) and it can be covered by simply pushing it back.

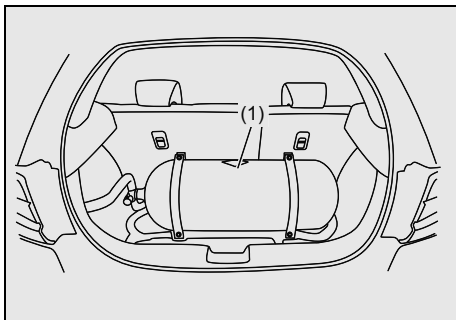
Filling automatically gets cut off when the cylinder pressure becomes equal to dispenser pressure. After CNG filling, ensure that the filler valve cover (2) and fuel filler lid (3) is closed.

**NOTE:**

- If the fuel filler lid (3) is kept open, you will not be able to start the vehicle.
- Engine will stop if the fuel filler lid (3) is opened in vehicle stationary condition.

## FOR VEHICLES FITTED WITH CNG FUEL SYSTEM

### CNG CYLINDER



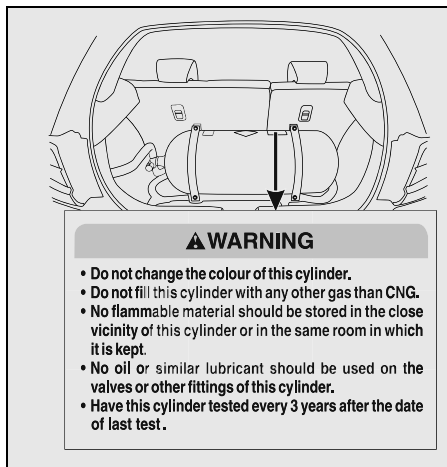
74TBC0007

CNG cylinder (1) is installed in the luggage compartment.

#### CAUTION

**Do not place any luggage or load over cylinder as it may damage the cylinder, pipe, hose, valve etc.**

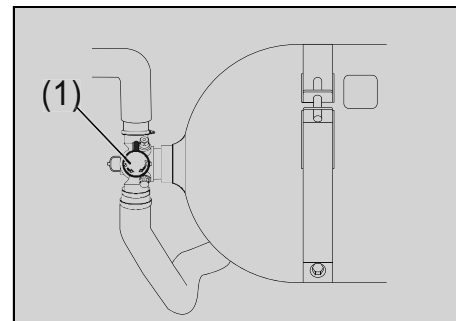
### CNG CYLINDER WARNING LABEL



74TBC0008

You may find this label on the CNG cylinder.

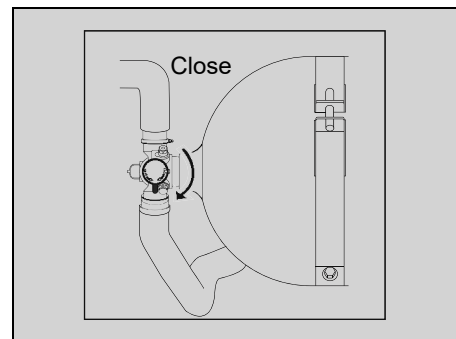
### MANUAL SHUT-OFF VALVE



74TBC0037

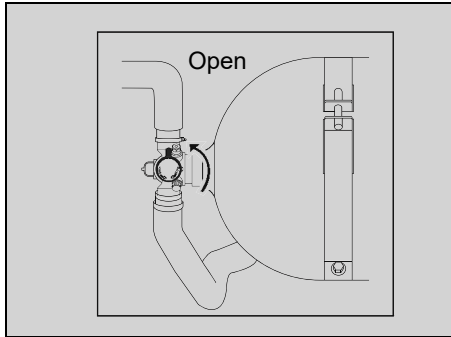
Manual shut-off valve (1) is located on the left hand side of the CNG cylinder.

### MANUAL SHUT-OFF VALVE OPERATION

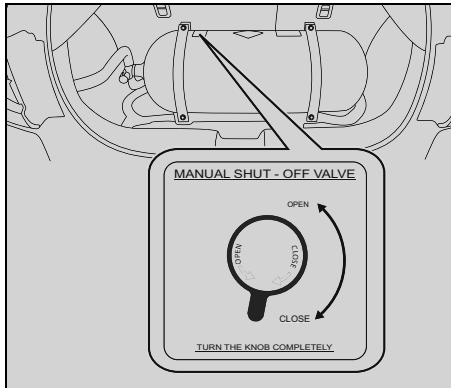


74TBC0038

## FOR VEHICLES FITTED WITH CNG FUEL SYSTEM



74TBC0039



74TBC0040

CNG supply can be switched off by closing the manual shut-off valve.

**Valve closing:** Turn the knob completely in clockwise direction to close the CNG supply to Engine.

**Valve opening:** Turn the knob completely in anticlockwise direction to open the CNG supply to Engine.

**NOTE:**

- If the manual shut-off valve is not opened fully, then the engine may not run properly.
- If the manual shut-off valve is in closed condition, it is not possible to fill CNG into the cylinder.

**NOTE:**

- As per Government regulation, CNG cylinder needs to be checked and certified every 3 years from the date of initial testing as mentioned on the CNG cylinder identification plate.  
For details on CNG cylinder identification plate, refer to "KIT IDENTIFICATION" section in this manual.
- Customer has to present the vehicle to a government approved testing agency.
- Failure to test the cylinder may result in denying of CNG filling by the CNG dispensing stations or may result in confiscation of the vehicle by enforcement authorities.
- All the expenses for CNG cylinder testing has to be borne by the customer.
- As per Government regulation, CNG cylinder has to be discarded at 20 years from the date of initial testing as mentioned in the CNG cylinder identification plate.
- Customer has to discard the cylinder at his / her expense through government approved scrap agencies.
- No person shall refill any cylinder, which has been repaired under sub-rule (2) with any gas unless a full report on the repairs and test carried out on the cylinder, accompanied by the repairer's certificate of testing are furnished to the Chief Controller and his permission is obtained for its refilling.

## FOR VEHICLES FITTED WITH CNG FUEL SYSTEM

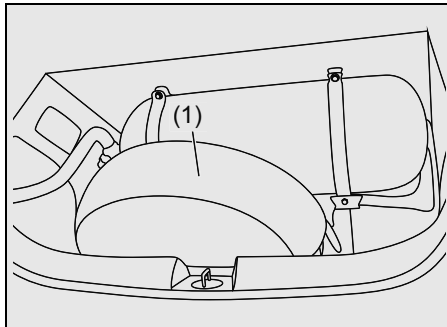
### WARNING

- Never remove the cylinder valve from the cylinder assembly. For any assistance, consult Maruti Suzuki authorised workshop.
- Never try to clean the cylinder. In case of any problem, contact Maruti Suzuki authorised workshop.
- Do not reuse the cylinder valve, once it is replaced / removed from cylinder assembly.
- Even if the CNG from the cylinder is consumed till engine stops, some amount of CNG will be left out in the tank under pressure.

### LIST OF GOVERNMENT APPROVED CNG CYLINDER TESTING STATIONS

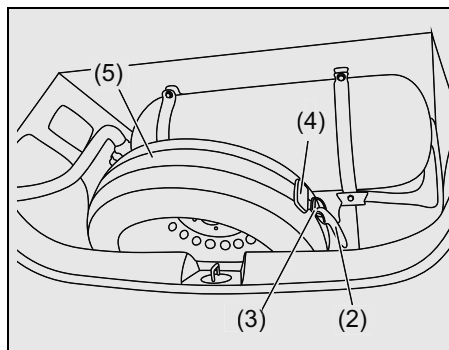
To obtain testing stations information visit the following internet website address "[www.peso.gov.in](http://www.peso.gov.in)"

### SPARE TYRE REMOVAL PROCEDURE



74TBC0041

- 1) For removal of spare tyre, remove spare tyre cover (1) in luggage compartment.



55TMC0009

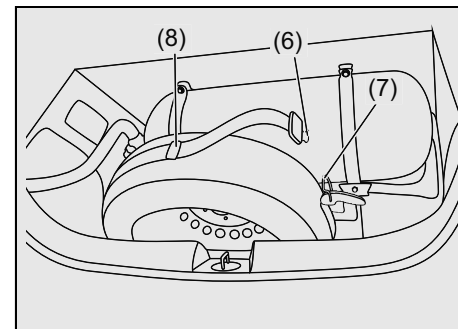
- 2) Pull the handle (2) and separate the connecting link (3) to unfasten the belt holder hook (4).
- 3) Then gently shake the tyre in vehicle's forward & rearward direction and take out the spare tyre.

#### NOTE:

- During Spare tyre removal, Belt Spare Tyre (5) "Hook end" can be kept on Parcel Tray or Rear Seat for ease of use.

### SPARE TYRE INSTALLATION PROCEDURE

- 1) For installing spare tyre, place the spare tyre in luggage compartment as shown.



55TMC0010

#### NOTE:

- It is suggested that air filling nozzle is facing towards rear of the vehicle while placing the tyre inside the car. In case of

## FOR VEHICLES FITTED WITH CNG FUEL SYSTEM

any problem during fitment, air filling nozzle can be placed facing towards front.

- 2) Verify that the spare tyre is stored securely. Connect hook (6) to link (7) while handle is in unlock position,
- 3) Slide belt holder (8) to left to remove any slack in the belt and finally press the handle downwards to lock the spare wheel securely.
- 4) If force while locking handle is high, then belt holder (8) can be adjusted towards right side to reduce the force.
- 5) Fit the spare tyre cover.

### NOTE:

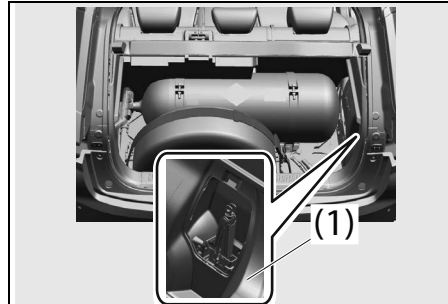
- During belt tightening, ensure belt to be in the centre of spare tyre.
- In case customer chooses not to fit spare tyre in the luggage compartment at all, while running vehicle, metallic noise may arise in the luggage area.

### CAUTION

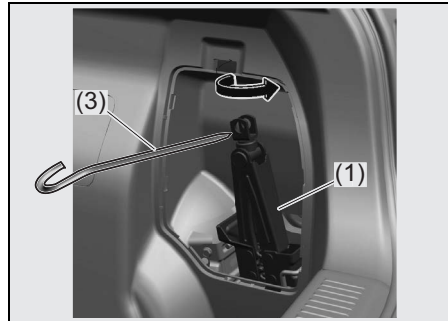
**Do not place any luggage or load over spare tyre as it may damage the Carrier Spare tire or other parts.**

## JACK REMOVAL PROCEDURE

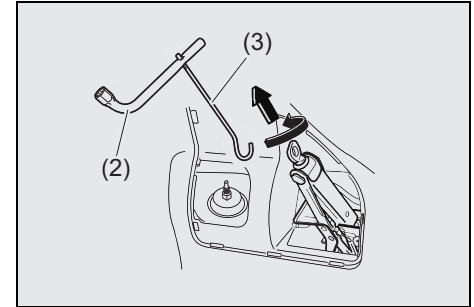
To remove the luggage compartment board easily, lift the board from the hole provided on the board and pull it out.



Jack (1) is located in the luggage compartment, inside carrier spare tire as shown in illustration.



To remove the jack (1), turn its shaft counterclockwise by using jack handle (3) and pull the jack out of the storage bracket.



### NOTE:

*If you are facing difficulty to use the jack handle (3) alone, use jack handle (3) and wheel wrench (2) together as shown in the illustration for removal of jack.*

To stow the jack (1), place it in the storage bracket and turn the shaft clockwise until the jack is securely held in place.

### NOTICE

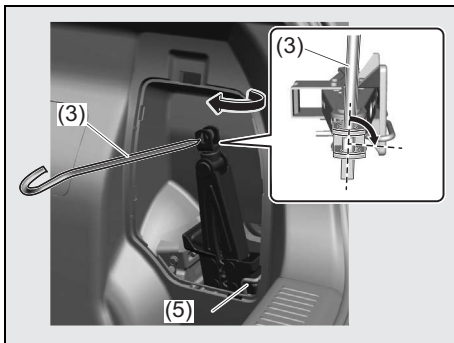
**To avoid damaging the storage bracket, do not expand the jack excessively.**

## FOR VEHICLES FITTED WITH CNG FUEL SYSTEM



55TB1007

To stow the jack (1), place it in the storage bracket (5) and turn the shaft clockwise with the hand.



74TB07013

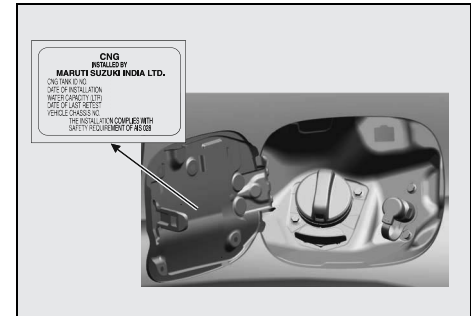
After temporarily tightening the jack till it contacts the jacket holder bracket, turn the shaft approximately 90° to 180° by using

jack handle (3) to securely hold the jack in place.

### NOTE:

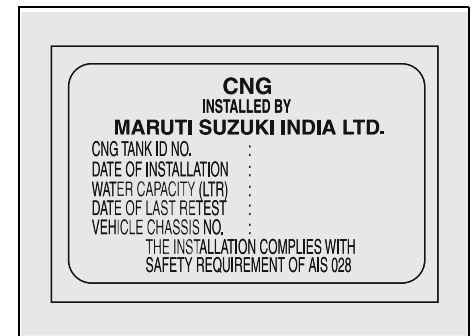
*To avoid damaging the storage bracket, do not expand the jack excessively.*

## KIT IDENTIFICATION



74TBC0028

CNG cylinder identification number and CNG kit installation date is mentioned on the CNG cylinder identification plate located inside fuel filler lid.



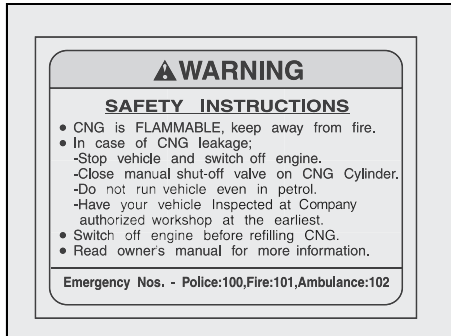
74TBC0029

## CNG WARNING LABEL

### Front Driver Door



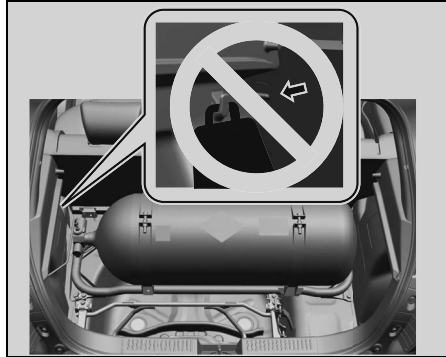
74TBC0030



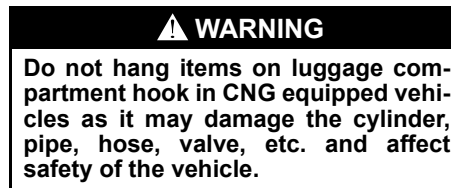
74TBC0031

CNG warning label is located on front right door.

## LUGGAGE COMPARTMENT HOOK



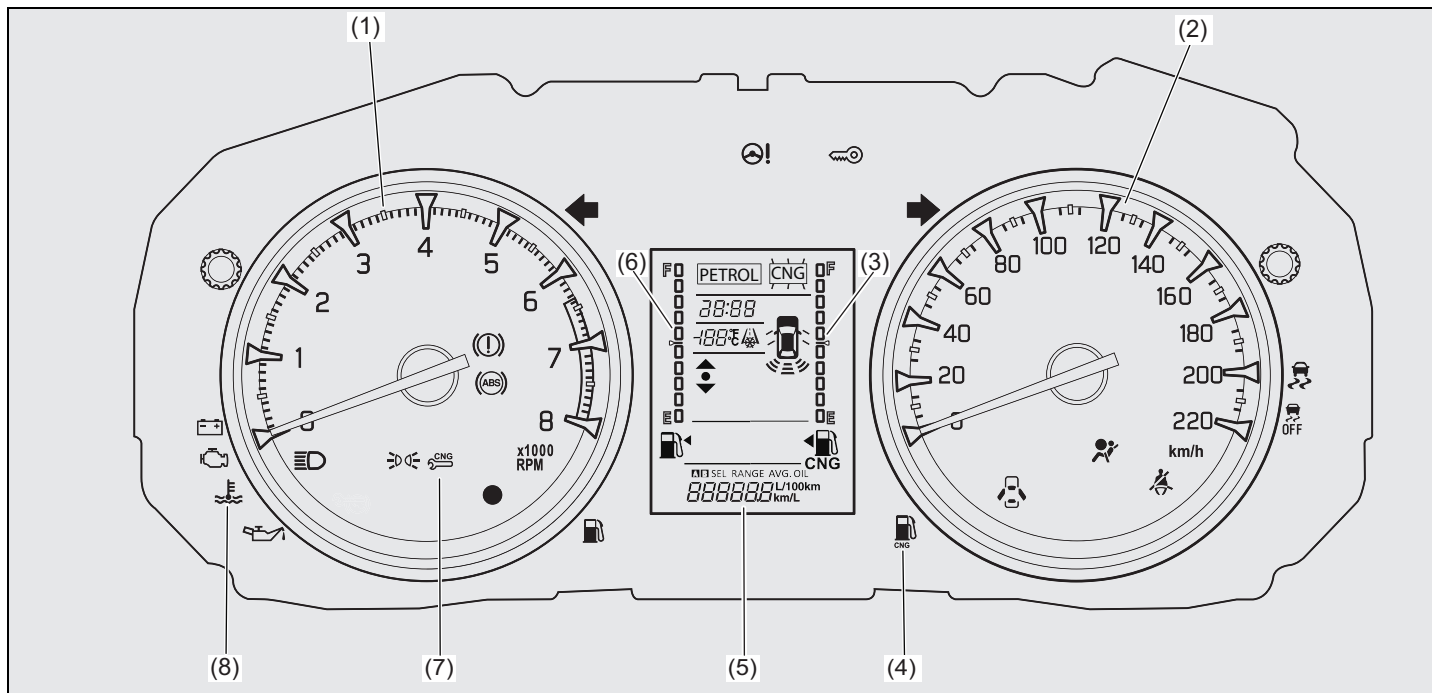
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## FOR VEHICLES FITTED WITH CNG FUEL SYSTEM

### INSTRUMENT CLUSTER (Type A)

- (1) Tachometer
- (2) Speedometer
- (3) Fuel indicator (CNG)
- (4) CNG low fuel warning light
- (5) Odometer/ Tripmeter
- (6) Fuel indicator (Petrol)
- (7) CNG malfunction warning indicator lamp
- (8) Other warning and indicator lamps (If equipped)



74TBC0002



## CNG MALFUNCTION WARNING LAMP



53MHMC015

When the ignition switch is turned "ON", this CNG malfunction warning lamp comes on briefly, to check that the CNG malfunction lamp is trouble free.

- If CNG malfunction warning lamp glows continuously, with ignition "ON" there is some problem with the CNG system. Immediately get your vehicle checked by Maruti Suzuki authorized workshop.
- If CNG malfunction warning lamp blinks during engine running, it means there is some problem in CNG system in which vehicle cannot continue running in CNG-MODE and automatically switches over to petrol mode. Have your vehicle checked at a Maruti Suzuki authorized workshop.

### NOTE:

With ignition switch "ON" and engine not running, blinking of CNG lamp indicates that fuel lid is open. Vehicle will not start in this condition. Close the lid in order to start the vehicle.

## CNG LOW FUEL WARNING LIGHT



74TBC0017

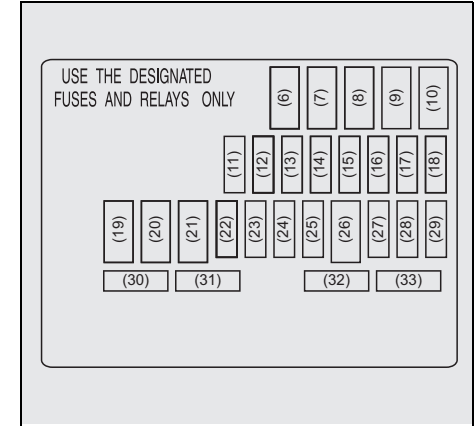
If this light comes on, fill the CNG tank immediately.

When this light comes on, a ding sounds once to remind you to fill the fuel.

If you do not fill the fuel, a ding sounds every time when the ignition switch is turned to "ON" position.

## FUSES

### Fuses in engine compartment



56RS00705

(22)	7.5A	CNG VLV
(31)	5A	CNG IG1
(33)	7.5A	CNG

For other fuses, refer "Inspection and maintenance" section in the main owner's manual.

## FOR VEHICLES FITTED WITH CNG FUEL SYSTEM

### PERIODIC MAINTENANCE SCHEDULE

Kms (1 x 1000) Month	1 1	5 6	10 12	20 24	30 36	40 48	50 60	60 72	70 84	80 96	90 108	100 120
Spark Plug (CNG)	Replace every 50,000 Kms or 48 months whichever comes first											
All Joints (Gas leakage)	I	I	I	I	I	I	I	I	I	I	I	I
Coolant Hoses (Leakage, Damage)	I	I	I	I	I	I	I	I	I	I	I	I
All Fasteners Torque values	T	T	T	T	T	T	T	T	T	T	T	T
CNG low pressure filter cartridge with O-Ring	-	-	-	R	-	R	-	R	-	R	-	R
CNG cylinder leak testing and certification	Every 3 years from the date of initial testing by govt. approved testing agency											
CNG filler receptacle O-Ring	Replace every 4 years or 300,000 Km, whichever comes earlier											

T .....Tighten to Specified Torque

I ..... Inspect and correct or replace if necessary

R ..... Replace

#### NOTE:

- This table includes services as scheduled up to 100,000 km mileage. Beyond 100,000 km, carry out the same services at the same intervals respectively.
- For other maintenance details refer "Inspection & Maintenance" section in main Owner's Manual.

## FOR VEHICLES FITTED WITH CNG FUEL SYSTEM

### SPECIFICATIONS

Mass (Weight) (Kg)		
Curb mass (weight)		1220-1255
Gross vehicle mass (weight)		1680
Permissible maximum Axle Weight	Front	890
	Rear	900
Seating Capacity		5 persons
Fuel Capacity (litre)		
Petrol		37L
CNG (Water Filling Capacity)		55L

**NOTE:**

*Specifications are subject to change without notice.*

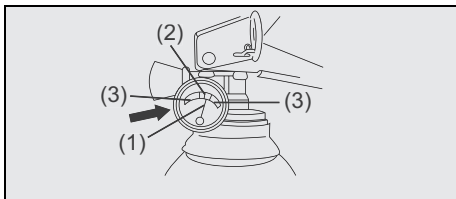
**NOTE:**

- 1) *It is recommended to run the vehicle on petrol mode for 5~10 km after every 300~500 km run in CNG mode to keep fuel system in good condition.*
- 2) *Always keep minimum 5 litre of petrol in your petrol tank.*

## FOR VEHICLES FITTED WITH CNG FUEL SYSTEM

### FIRE EXTINGUISHER

#### Do's and Don'ts



74TBC0018

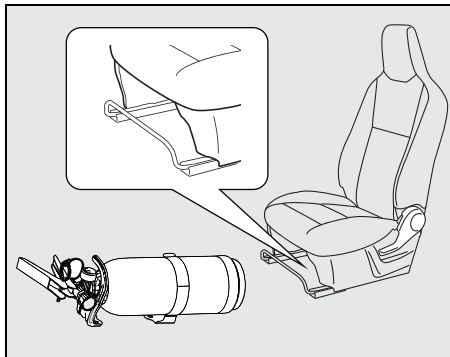
#### Do's

- Check pressure gauge periodically. Max charging pressure is 15Kgf/cm<sup>2</sup> (in green zone (2)).
- When pressure drops, indicator needle(1) will shift to the red zone (3).Immediately contact the fire extinguisher manufacturer as per the information provided on the fire extinguisher.
- Get the fire extinguisher serviced only through the manufacturer service centre.Refer the information provided on the fire extinguisher to locate the nearest service centre.
- Ensure that the Fire extinguisher is always kept at its prescribed position in the vehicle.
- Refill the fire extinguisher immediately after use.

#### Don't

- Do not use water for cleaning fire extinguisher. (Use clean cloth for removing dust)
- Do not rely on used or discharged fire extinguisher.

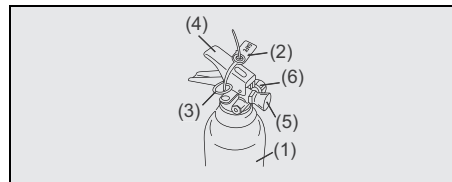
#### Location



74TBC0019

Fire extinguisher is located below front passenger seat.

#### Parts Description



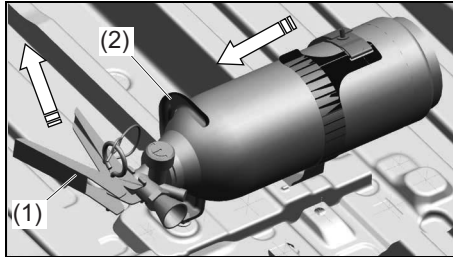
74TBC0020

- (1) Fire extinguisher cylinder
- (2) Seal
- (3) Safety Pin
- (4) Lever
- (5) Nozzle
- (6) Pressure gauge

## Removal Procedure

### Removing from front of co-passenger's seat:

- 1) Pull up the co-passenger's seat position adjustment lever and slide the seat backward to the last position.

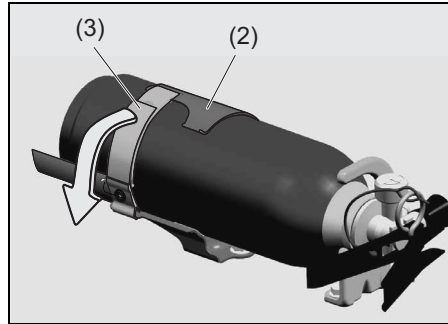


76TMC025

- 2) Lift Lever (1) of fire extinguisher slightly upwards and pull the fire extinguisher in the direction as shown in the figure, in order to disengage it from clamps (2).

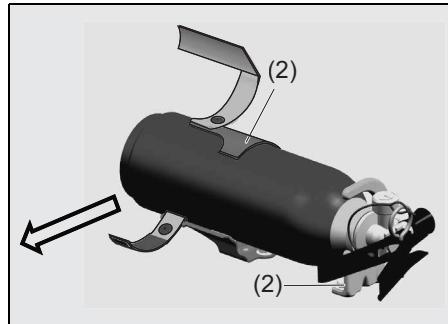
### Removing from back side of co-passenger's seat:

- 1) Pull strap (3) in arrow direction as shown in figure to untie the clamp (2).



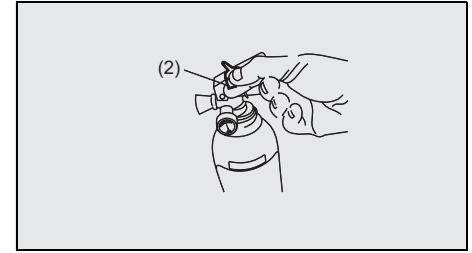
72RMC022

- 2) Remove the fire extinguisher from clamps (2) in the direction as shown in the figure.



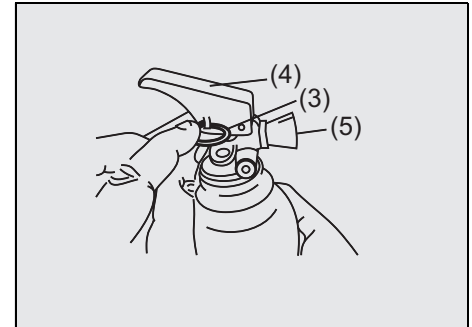
72RMC023

## Procedure of Operation



53MHMC025

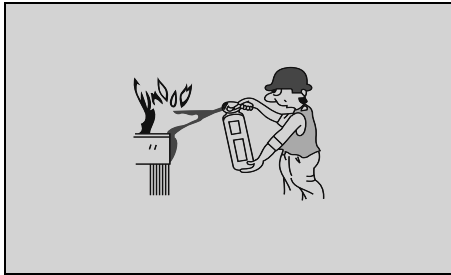
1. Hold the fire extinguisher (1) upright.
2. Break seal (2) by rotating the safety pin (3).



53MHMC026

3. Pull Safety pin (3).
4. Squeeze lever (4) and direct the jet from nozzle (5) towards the near edge of the fire with a rapid (fast) sweeping motion.

## FOR VEHICLES FITTED WITH CNG FUEL SYSTEM



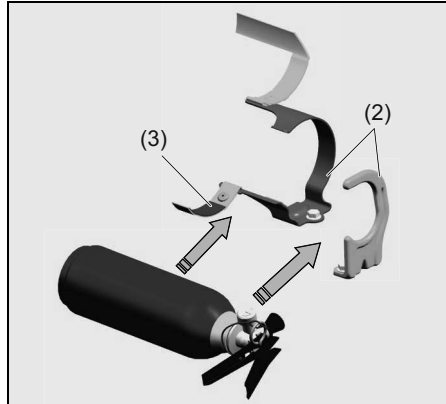
53MHMC027

5. Drive the fire towards the far edge until flames are extinguished.

### NOTE:

Fire extinguisher is only meant for small fire caused in vehicle by external source only.

### Fitment Procedure



69RM0009

- 1) If the fire extinguisher is removed without untying rear clamp (2), pull strap (3) to untie rear clamp as mentioned in Step 1) of removing the fire extinguisher from the back side of co-passenger's seat.
- 2) Insert the fire extinguisher carefully into both clamps in the direction as shown in the figure.
- 3) Tie the strap (3) and ensure that fire extinguisher is fixed securely.

### ⚠ WARNING

Ensure that fire extinguisher is securely fixed into both the clamps. Otherwise, it may come from the clamps inadvertently that may cause injury.

### NOTE:

Ensure that the nozzle of fire extinguisher is properly seated on the clamp.

### Refilling Schedules

1. Refilling is necessary after every use.
2. Fire extinguisher needs refilling after every 3 years even if it is not used.
3. Get the fire extinguisher inspected every 6 months through the authorized service center of fire extinguisher manufacturer.

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Service Division  
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**For 24 X 7 assistance, contact Toll Free number 1800 102 6392# / 1800 200 6392#**  
**(NEXA)**

*# No STD code to be prefixed.*

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