

# How to Guide - Zion Models

## Propane System



## HOW TO: Propane System

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If you have the propane option, your vehicle is equipped with a propane system which, when properly handled and maintained, will provide trouble- and worry-free operation of your propane fueled appliances. With the propane option, you get a propane furnace and a propane cooktop.

### Regulatory Concerns

Many jurisdictions place restrictions on propane on highways, in tunnels, on ferries, and on bridges. Please follow all local restrictions in all the jurisdictions along your trip. Some bridges/tunnels/ferries require you to have your main tank valve closed. This valve must be closed whenever the vehicle is in motion in any case, not just in certain areas. Other bridge/tunnels/ferries ban vehicles with propane tanks entirely. Plan and take an alternate route if passing through areas where vehicles with propane are prohibited.

## Propane Tank Location

The propane tank is located on the passenger side, rear of the sliding door.

## Main Shutoff valve



Propane Tank



Propane tank main shutoff valve

**✖** You must close the tank shutoff valve when the vehicle is not in daily use. Further, you must close the shutoff valve when the vehicle is traveling. Never operate any propane appliance while the vehicle is in motion.

If you close the main valve for an extended period it is possible for the distribution lines to fill with air. It may take a while for propane to fill the lines again. Turn on one of the propane cooktop burners and light it until the air is purged and the burner lights.

## Propane Tank Filling



Propane fill valve



Propane bleed

To fill the tank, first turn off all propane appliances, then turn off the tank shutoff valve.

We recommend that you find a qualified LPG technician to fill the tank. The following is an outline of the process to help you understand and not intended to be complete, nor to substitute for formal training or instruction.

**❌** Do not attempt to fill the tank unless you have had appropriate training. Reading this manual does not constitute sufficient training to safely fill propane. If you overfill the tank, propane will vent uncontrollably out of the relief valve.

Attach the fill hose to the fill valve, open the bleeder valve slightly, and fill the tank to 80% capacity. The stop-fill valve should automatically stop the filling process. You may also see liquid propane spit out of the bleeder valve. Stop filling immediately and close the bleeder valve.

We recommend that you use only propane from certified LPG retailers.

## Propane relief valve

There is a pressure relief valve on the tank. It is not easily visible on the Zion.

Under no circumstances should anyone fill the tank to more than 80% capacity; doing so can cause liquid propane to flow into the regulators. If this happens the regulators will have to be replaced. The relief valve with the blue plastic cover will automatically vent propane if the tank is overfilled or overheats. This is not a user-serviceable item; never attempt to remove the cover, test, or otherwise interfere with the operation of this valve. Sometimes an overfilled tank will not start venting until the temperature rises. If this valve should open, it is best to remove all sources of ignition and expeditiously leave the area until propane odor is no longer detectable. Venting unburned propane is a slightly more advantageous situation than a tank explosion, which is what this valve is designed to prevent.



Propane relief valve

## Propane Sender

The propane tank has a level indicator with a remote sender to the Monitor Panel. Both the three-light system on the monitor panel and the gauge on the tank will give you a rough idea of your propane level; you will get a more accurate indication when you fill up. Note the amount it takes to fill your tank. The seven-gallon tank in your Roadtrek will hold 5.9 gallons / 22 liters when completely empty and filled to the correct 80% full level. Subtract the amount you buy from this number, and you'll know how much was in the tank when you filled it. You may find that the gauge will read one light when you still have a considerable reserve, or you may find that empty means empty, and you'd be wise to refill as soon as it goes down to one light. It depends on the characteristics of your individual propane system.

## Slam shut valve

The propane system is equipped with a slam-shut valve. If this valve detects a sudden increase in flow (as if from a ruptured line) or a shock (as if from an accident) the valve will shut down the propane system. The slam shut valve can also be triggered by a sudden high demand, for example turning on both burners and the furnace. If you detect weak or no propane flow, and you have checked that you have propane in the tank, shut off all appliances and the main valve.

Turn on one burner on the stove and light it. Let it burn out completely.

Slowly turn on the propane, turning the main valve very slowly, until the valve is open. Check for propane smell as you turn on the valve. You may hear a click as the slam shut valve resets.

Once the valve is open, turn on the stove and try to light it. If air entered the line, it may take a short time to purge the air out of the line.

It may take a few tries to reset the slam shut valve.

If you still have no propane at the stove, and you detect no propane smell, have a qualified technician check the system.

## About Propane

Propane fuel is colorless, heavier than air and smells like garlic or rotten eggs. The odor is added by the distributor so propane may smell differently as you travel and purchase propane from various distributors. Being heavier than air it will collect in low spots and along the floor of your vehicle.

If you smell propane or your propane detector sounds, immediately get all occupants out of the vehicle, and turn the manual shutoff valve off. Wait for the propane to dissipate. Once the smell is gone, take the vehicle to a qualified repair facility to find and fix the problem before using the propane system again. If closing the manual shutoff valve does not stop the propane leak and you still smell propane, do not attempt to start, drive, occupy or otherwise use the vehicle in the presence of a propane smell.



Propane tanks must not be placed or stored inside your vehicle. Propane tanks are equipped with safety devices which relieve excessive pressure by discharging gas to the atmosphere. The Roadtrek's propane tank is mounted outside the vehicle and will vent propane where it can dissipate; any tank inside the vehicle will vent into the passenger compartment, creating an explosive propane-air mixture inside the enclosed space, which also contains many potential sources of ignition.



To reduce the danger of fire or explosion do not store gasoline or other flammable liquids inside your vehicle. In a moving vehicle, containers get tipped over or jostled and leak, and flammable vapors will create an explosive air-vapor mixture inside your passenger compartment, which also contains many potential sources of ignition.



Purchase propane from a reputable propane facility. Contaminated propane is a common cause of system failure.