



# **USER GUIDE**

# **Solis 2022**

**INDIE CAMPERS** 



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# **1. SAFETY INSTRUCTIONS**

# DANGER!

- When refueling the campervan, make sure all gas-fired appliances of the Wrangler are turned off. Explosion hazard!
- Avoid ignition sources and naked flames. Smoking inside the vehicle is strictly forbidden!
- IF YOU SMELL PROPANE
  - 1. Extinguish any open flames and all smoking materials.
  - 2. Shut off the propane supply at the container valve(s) or propane supply connection.
  - 3. Do not touch electrical switches.
  - 4. Open doors and other ventilating openings.
  - 5. Leave the area until the odor clears.

6. Have the propane system checked and the leakage source corrected before using it again. Ignition of flammable vapors could lead to a fire or explosion and result in death or serious injury!

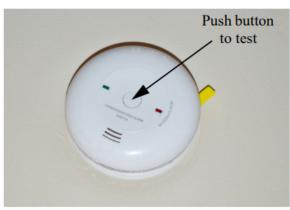
- Appliances that run on gas must not be used while refueling or in a garage!
- Never leave children unattended in the campervan!
- Keep flammable materials such as curtains, wardrobe, and front panels made of fabric away from heating and cooking appliances and lamps!



# 2. Smoke and Carbon Monoxide Alarm

## 2.1. Carbon Monoxide Detector

Your motorhome is equipped with a Carbon Monoxide (CO) Alarm, which has a sensor that is designed to detect toxic carbon monoxide gas fumes resulting from incomplete combustion of fuel. It will detect CO gas from any combustion source such as the furnace, gas range/oven, water heater, refrigerator, chassis engine, and electric generator engine. To reduce the risk of carbon monoxide poisoning, test this alarm's operation before each trip, and at least once per week during use by pressing the Test/Reset button on the alarm.



Carbon Monoxide Alarm

## 2.2. Smoke Alarm

Your motorhome is equipped with a Smoke Alarm (located on the ceiling in the lounge area.) The Smoke Alarm is powered by a 9-volt battery and has a sensor that is designed to detect smoke.



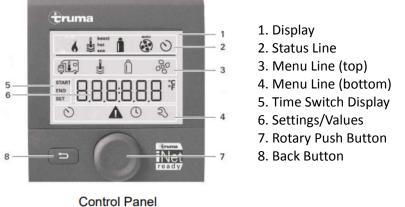
Smoke Alarm



# 3. Heating System

## 3.1. Control Panel (Heating System)

The heating system in your motorhome is a propane unit that provides warm forced air for heating and supplies hot water through an integrated boiler. The control panel controls motorhome interior heating temperature and water temperature.

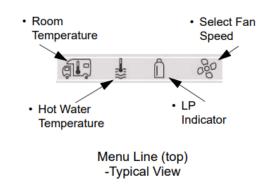


Control Panel (Located near monitor panel) -Typical View

Rotary Push Button: used to select menu items and to adjust settings.

- Turn clockwise or counterclockwise to scroll through the menu.
- Turn clockwise to increase values (+) and counterclockwise to decrease values (-).
- Tap to save a selected value.
- Press for three (3) seconds to turn the control panel on/off.

Back Button: used to go back to the previous menu or to cancel a setting.



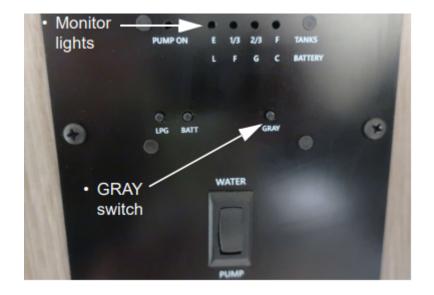


## **3.2.** Systems Monitor Panel

The Systems Monitor Panel provides a convenient central location for checking the condition of all utility systems in your motorhome. It is located on top of the seating area at the back of the bathroom.

#### 3.2.1. Holding tank level

To check your holding tank level, press and hold the GRAY switch to show the approximate level on the monitor lights. The approximate fluid level is measured by sensors on the sides of the tank. There is generally more fluid in a tank than indicated on the monitor panel. For example, if the fluid level is 1-2" below the FULL sensor, the monitor will show the level to be only 2/3 even though the tank is nearly full. If a tank is about 1/4 full, the monitor will register an empty tank because the fluid level is below the 1/3 sensor even though there is still fluid in the tank. However, when the indicator reads FULL, the tank is full.



#### 3.2.2. Propane Gas Level

To check your propane gas level, press and hold the LPG switch to show the approximate propane tank level on the monitor lights. The propane level is registered by a sending unit on the tank. The gauge mounted on the side of the tank will give a more accurate indication of the actual tank level if needed.





#### 3.2.3. Battery Charge Meter

Press and hold the BATT switch to check the level of charge (voltage) in the 12-volt house battery. To get an accurate reading:

1. Both the chassis engine and the generator engine must be shut off and the 120-volt AC shoreline unplugged. 2. An interior light should be turned on to provide a small load that draws off the battery surface charge.



L = Low, F = Fair, G = Good, C = Charge

#### 3.2.4. Additional Water Pump Switch Location

When the use of the self-contained water system is desired, turn the "Water Pump" switch on. Water will be available as soon as a faucet is opened. Refer to "Water Pump" for additional information on the water pump and initial startup. The switch has two locations, for convenience, one located on the Systems Monitor Panel, and the other on the Water Center Panel.



Water Pump switch located on Water Center Panel -Typical View

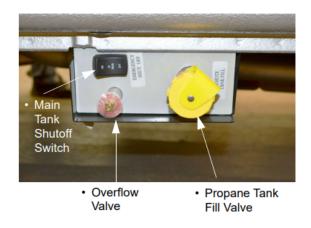
## 4. Propane Gas Supply

#### 4.1. Propane Tank System Location

The storage reservoir for the propane gas system is a horizontally mounted tank that is permanently attached to the vehicle frame. The tank is accessible only from the outside of the vehicle. The Propane Gas Tank is located under the center of the motorhome.

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Propane Gas Access (Located on passenger side of motorhome) -Typical View

The main tank valve is located out of normal reach, so a switch is provided on the front of the tank compartment and near the monitor panel when you need to open or close gas flow from the propane tank.



Main Tank Valve Switch (Located near monitor panel area) -Typical View



Main Tank Shutoff Switch (Located on passenger side of motorhome) -Typical View



# CAUTION!

- Both switches must be ON to allow propane supply to the motorhome. Propane gas flow will be stopped by turning either switch OFF. Turn the switch (inside the motorhome) OFF when the propane gas supply is not needed to conserve house battery power.
- Do not fill propane container(s) to more than 80 percent of capacity. A properly filled container contains approximately 80 percent of its volume as liquid propane. Overfilling propane container(s) can result in uncontrolled propane flow, which could lead to a fire or explosion and result in death or serious injury. NOTE: The propane tank is equipped with an automatic 80% stop-fill device.
- All pilot lights, appliances, and igniters shall be turned off before refueling motor fuel tanks and/or propane containers. It can cause the ignition of flammable vapors, which can lead to a fire or explosion and result in death or serious injury.

## 4.2. Refilling Propane Tank

Since the propane tank is permanently mounted to the frame, the motorhome must be taken to a propane dealership for filling. Do not attempt to remove the propane tank from the vehicle. The tank is equipped with a fill adapter with both internal and external threads, which allows easy filling with any propane filling equipment. The tank is full when liquid propane gas appears at the overflow valve.

PLEASE MAKE SURE: When the Propane tank is refilled, both switches (see page 8 for pictures),

1. main tank valve switch (located near the monitor panel area)

2. main tank shutoff switch (located outside of the passenger side of the motorhome) need to be **TURNED OFF**.



- The propane tank is equipped with an automatic 80% stop-fill device
- If your gas appliances do not stay lit or require frequent adjustment, even though you know the propane tank contains sufficient fuel, **the problem may be air in the propane gas tank**. Air in the tank mixes with the propane gas vapors causing them to burn poorly. This condition could linger for weeks if the air is not purged from the tank. Most propane gas dealers have equipment for purging air from propane gas tanks and will purge before refilling the tank.



The propane system is designed and built with strict adherence to national, state, and recreational vehicle industry requirements for mobile propane gas equipment. For your safety, there are many safety devices and backup systems installed, such as fill overflow valves, an interior propane gas detector/ alarm, and an interior carbon monoxide (CO) detector/alarm. Propane gas also contains an odor additive that you can smell if propane is present in the air. Here are a few precautions to observe that will help you to use the propane gas system safely:

• Exercise caution at all times. Be familiar with the distinctive odor of propane gas. If a leak is suspected, turn off the supply valve immediately. Have the propane gas system checked by your dealer or other qualified propane gas service center.



• Do not tamper with the propane gas piping system, pressure regulator, or gas appliances. Service and maintenance of propane gas system components should be performed only by your dealer or a qualified propane gas service center.

- Never attempt to connect natural gas to the propane gas system.
- Turn the propane supply valve off when not using the propane gas system.

• Never use a wrench to tighten the supply valve. It is designed to close leak-tight by hand. If a wrench is required to completely close the valve, it is defective and must be replaced.

• Be sure appliances and outside vents are open and free from obstruction when using the propane gas system.

#### **IF YOU SMELL PROPANE**

1. Extinguish any open flames and all smoking materials.

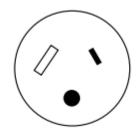
- 2. Shut off the propane supply at the container valve(s) or propane supply connection.
- 3. Do not touch electrical switches.
- 4. Open doors and other ventilating openings.
- 5. Leave the area until the odor clears.

6. Have the propane system checked and the leakage source corrected before using it again. Ignition of flammable vapors could lead to a fire or explosion and result in death or serious injury.

## 5. Electric inside the Solis

#### 5.1. Power Cord (Detachable)

The external power cord (commonly referred to as a "shoreline") is located beneath the rear bed in the left side storage cabinet. To connect to an external power source, plug the adapter end into the sidewall plug-in (located on the driver side sidewall) and the receptacle end to a suitable power outlet box.



30 Amp Receptacle



This connection is for 110/125 Volt AC, 60 Hz 30 Ampere supply. Do not exceed circuit rating. Exceeding the circuit rating may cause a fire and result in death or serious injury.

#### 5.2. House Battery

House batteries are "deep-cycle" type batteries specially designed for recreational vehicle use. They will provide longer-lasting power than standard automotive starting batteries and will withstand the frequent



drain-and recharge cycles that occur under the demanding conditions of a camping outing. The house batteries supply power to 12-volt equipment located in the living area of the motorhome. This includes the following 12-volt powered components: interior 12-volt lighting, propane furnace fan, freshwater pump, systems monitor panel, refrigerator, roof vent fans, and 120-volt electrical generator starter. The house batteries can also provide emergency power to start the engine if the chassis battery is discharged. You can find a Battery Boost Switch on the lower dash area.



Battery Boost Switch (Located on lower dash area) • Press and Hold in the ON position while turning ignition key for emergency starting power. -Typical View

Press and Hold the Battery Boost switch in the ON position while turning the ignition key for emergency starting power. House batteries are automatically charged by the chassis alternator while the engine is running and the battery disconnect switch is in the "On" position.

# NOTE!

1. Ensure that the cookware you are using is not oversized. (Rule of Thumb: Cookware size should not extend past the hole that is located on the butane canister compartment

2. Always keep an eye on the stove during operation.

3. Ensure that you are not using the stove in an enclosed area. (Portable Camp Stoves are designed for Outdoor Use Only unless otherwise stated)

4. Keep out of children's reach at all times.

# 6. Plumbing

### 6.1. Fresh Water System

The FreshWater System provides water to the galley sink, shower, bathroom lavatory, toilet, and water heater. Water may be supplied by either of two sources:

• A freshwater tank and water pump located within the motorhome, or



• Any external freshwater source to which the motorhome may be connected, known as "city water". The freshwater tank on your motorhome is filled using the Tank Fill. All three operations are explained in the following chapters:

#### 6.1.1. Fill the fresh water tank

Always fill the fresh water tank at an approved potable water filling facility or a known purified drinking water source. The tank is filled through the Tank Fill Inlet located on the Water Center Panel behind the passenger rear door (in the back of the vehicle). You will find the

Water may be supplied by either of two sources:

- A freshwater tank and water pump located within the motorhome, or
- Any external freshwater source to which the motorhome may be connected, known as "city water".

The 5 options on how to set the These two options will be explained in the following two chapters.

1. Attach the hose to the Tank Fill Inlet.



Tank Fill Inlet (Located behind the passenger rear door) -Typical View

2. Configure the levers on the panel to reflect the "Power Fill Tank" setting as indicated by the picture instructions on the Water Center Panel. Here you can find the five options to set your levers:



3. Use the level display on the passenger sink cabinet to oversee the filling of the tank, or when the tank is full, water will flow from the tank vent tube beneath the motorhome. This display can also be used as a nightlight.

4. Turn OFF the city water supply and disconnect the hose from the Tank Fill Inlet.

5. Set the Water Panel back to the "Dry Camping" setting.

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Tank water level indicator- depress button above to view water level in low light conditions. Can be left on to be used as a night light. (located on sink cabinet) -Typical View

#### 6.1.2. Dry Camping mode

After filling your tank (chapter 6.1.1) you are now ready to use the Dry Camping mode without any other water connections to the Solis. (see picture below)



This is the normal operation when you are camping. In this setting, the water pump pulls water from the fresh water tank and sends it to the fixtures.

To set this mode, make sure you have filled the water tank (chapter 6.1.1) and then turn the levers into the right position.

#### 6.1.2.1. Turn on the water pump

The Water Pump switch is located on the top right of the Water Center Panel behind the passenger rear door. While the switch is "ON", the pump will automatically supply water as it is needed. Do not leave the pump on while away from your motorhome or while driving. In time, a slow leak in a faucet could drain the water tank, fill the holding tank, and discharge the house batteries.

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Pump switch -Typical View

#### 6.1.3. Turn on City Water mode

In case you want to connect pressurized water to the port directly (at a camping site for example), this is called "city water supply". The water will be sent directly to the fixtures and will bypass the water pump and the freshwater water tank. The port to connect the city water supply is the same as the Freshwater Tank Fill Inlet.



Tank Fill Inlet (Located behind the passenger rear door) -Typical View

- 1. To start the city water configuration, turn off the water pump.
- 2. Attach the hose to the port.
- 3. Turn the valves to the correct position ("City Water")

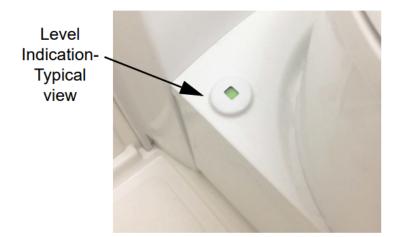


Now you can use the city water supply.

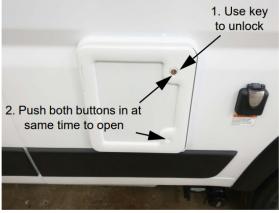
#### 6.2. Toilet

The toilet in your motorhome has a waste holding tank, which you need to empty when full. The waste holding tank is located in the left sidewall compartment. When the Level Indication slide turns from green to red, the waste holding tank is full.





To open the waste holding tank compartment, use the key (located on the key ring) to unlock the compartment door then push both buttons at the same time while pulling the door open.



Waste Holding Tank Compartment (Located on left sidewall)- Typical view

→ NOTE!

• Don't use facial tissue or regular toilet tissue in the RV toilet. These will not disintegrate sufficiently and will often cling to the sides of the holding tank. Toilet tissue made specifically for use in RV toilets and holding tanks is available at most RV supply centers.

• Don't dispose of sanitary napkins or other non-dissolving items in the toilet.

• Don't put automotive antifreeze or caustic chemicals, such as laundry bleach or heavy detergents into the toilet or holding tank. These products may damage plastic or rubber parts in the system.

### 6.3. Dumping Holding Tank (Waste Water System)

1. Remove sewage drain hose from storage compartment (located under coach passenger side compartment).





Sewage Drain Hose (Located under the sliding door area) -Typical View

2. Remove the dust cap from the sewage drain outlet and connect the sewage drain hose. Be sure it is firmly attached.

3. Place the outlet end of the sewage drain hose into the disposal opening.

4. Open the Gray Waste Tank Drain valve with a quick pull and make sure there are no sags in the hose. Move the hose gently about to dislodge any waste and ensure complete drainage. Close the Gray Waste Tank Drain valve as soon as the tank is empty.

5. Rinse sewage drain hose thoroughly with water before stowing.



When the cooler is supplied by a starter battery, select the battery protection mode "MEDIUM" or "HIGH". If the cooler is connected to a supply battery, the battery protection mode "LOW" is ideal.

# 7. Pop Top Sleep System

## 7.1. Setting up the Pop Top



**1.** Locate the retention clamps on the driver's and passenger's sides of the Pop-Top. Release the safety clip by pressing the black button

2. This will release and expose the turn knob in its folded up stored position.







3. Pull out the turn knob and rotate to the left until the latch is extended.

4. Pull down on the Pop-Top handle to create slack to release the latch. Follow these steps to release the driver's side and the passenger's side.





5. Press up firmly on the handles and lift PopTop until shocks take over and extend PopTop to the extended position shown on the left.

6. Locate the ladder stored in the cab overhead. The 2 halves of the ladder are assembled using the latch system. Connect the 2 ends making sure that the latches are in the open position.

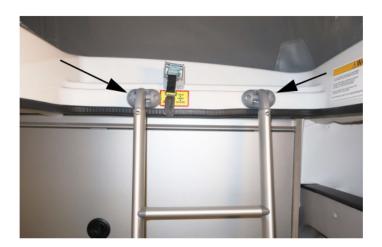






7. Attach the 2 latches and lock them down to lock the 2 halves of the ladder in place.

8. Attach the ladder to the Driver's side ladder clamps provided to hold the ladder in place.



9. Reverse the steps to collapse Pop-Top into the travel position. Use the straps attached to the handles to assist in pulling down the Pop-Top.



10. The red tabs located on the sides are designed to pull the material inward, to ensure that the pop-top does not close down and pinch the sides of the sleep system.



11. Ensure that the turn knobs are folded back up and the retention clamps are secured before travel.