

# Service Tips from the Pros



## New Technology The Truma Combi™

“Necessity is the Mother of Invention”... perhaps you've heard the phrase? A quick Wikipedia search dates this phrase to the early 1500s and it couldn't be more applicable than what we are witnessing in the RV industry. Load managements systems interfacing with auto-gen start and inverters, 4k resolution TVs, and collision avoidance systems that warn you when leaving your lane of traffic...it's safe to say it's a challenge to keep up with things!

The load-carrying capacity of the larger Class A gas and diesel motorhomes usually allows customers to take the lions-share of their favorite gear along for the trip. Class C owners must be a bit more frugal with their required gear list...but the increased popularity of the Class B market and their limited cargo capacity is driving the technology engine to a whole new level.

**Learning Curves with New Equipment –** Operator manuals usually provide sufficient information to canvass basic operation, but sometimes a good YouTube video...or an online testimonial from someone that's been there and done that can provide the necessary insights regarding normal use and a few tips regarding optimizing performance. In this case, Mr. Daniel Senie has authored an article regarding the usage of the Truma Combi – a 'new to the U.S. market' combination water heater and forced-air heating unit in his new coach, a 2015 Winnebago Travato® / Model BU259G. His thoughts are based on his personal hard knocks experience using this new equipment and we thought readers would appreciate some of his insights...because we did!

Welcome. So you've bought a Winnebago Travato equipped with the Truma Combi and don't want a cold shower? Then you're in the right place. Read on and learn from those who've gone before.



### Introductions:

Your Truma Combi is a pretty neat piece of technology. Let's review the components first:

- The Truma Combi unit is located under the dinette seat in the 59G model and under the driver's side bed in the 59K.
- The control panel is located above the dinette seat along with a few other control panels on the 59G and above the aft-end of the passenger's side bed in the 59K.
- The Air-Temp Sensor is located next to the control panel. It's the small dark-colored plastic round thing that senses the in-door air temperature.
- Plumbing extras include the water pressure regulator, pressure relief valve, and drain valve.

These are all Truma supplied components located near the Combi unit.

### Let's Talk Fuel Sources:

- **120V Electric:** The Combi has a pair of 850-watt (@ 120V) heating elements. While this may sound impressive, the average electric water heater in your home is in the 4,500- watt (@ 240V) range. The Truma can operate one element at a time (i.e., 850 watts with one element (EL-1) or 1,700 watts with both elements heating (EL-2).
- **Propane Gas:** The burner produces 7,500 BTU/hr. on low burner and 14,300 BTU/hr. running full tilt. You do not have control over this...the Truma will determine the output it needs. Note: For an approximate comparison, 7,500 BTU/hr. = 2,200 watts and 14,300 BTU/hr. = 4,200 watts.
- **Combined Electric and Propane:** In Mixed Mode, the Combi will alternate/cycle the electric heating element(s) and the gas burner for several minutes at a time. Not only does this conserve propane, it allows the Combi to determine which fuel source is required to continue heating the vehicle sufficiently.

NOTE: While the Travato has a fairly small LP tank capacity, you'll be able to get several nights of heat without emptying the tank. The Truma-Combi is amazingly efficient, running in the 90 percent range on propane.

### Getting Started...

First things first – Power up the 12V electrical system. Even if the coach is plugged into shore power, make sure your battery disconnect switch (located near the sliding door) is set to ON and its LED light is illuminated. Everything will operate on shore power just fine, but any interruptions in shore power would result in the Combi shutting off. Also worth remembering, when you power down the coach 12V system, the system resets all functions back to initial settings.



Let's take a look at that control panel. There are two buttons. The round knob spins to select a function and is pressed to confirm. The rectangular button on the left functions as a back or return button.

Practice – let's set the clock. If the display is blank, wake the panel by pressing/holding the round knob. Rotate the knob to the right - to the clock symbol. No, not that one, that's the alarm symbol...the clock symbol is farther to the right. Press the button and set the time. This doesn't really affect the basic operation of the Combi, but you will be happier if you chose to use the timer feature.

Let's turn on the heat – Its cold in here! Remember you have Choices! How cold is it outside/inside? What "source" do I chose – electricity or gas? Since it's really cold, let's start with propane.

### Using Propane Gas:

1. Do you have sufficient propane in the tank? Press the Tank Level Indicator button on the OnePlace® monitor. It will give you some idea if there's propane in the tank.
2. Locate the Propane switch near the control panel. When switched on, you should hear a clunking sound from the shut-off valve mounted to the propane tank. If you didn't, locate the on/off switch next to the propane tanks fill valve on the driver's side of your Travato and confirm this switch is also turned on. Both switches must be ON to energize the solenoid valve and allow gas to flow. Go inside and try lighting a burner on the stove. A simple method to ensure gas is flowing is to light a burner on the stove. If the burner ignites and stays burning, you have gas!

3. On the control panel, press the round knob and spin over to the fuel source icon. It looks like several lightning bolts and a bottle. Once there, press the knob to select.
4. Now spin to the left and the display should say GAS. Select by pressing the button again and then press the return button.
5. Now spin the knob to the first icon at the top left – the one that looks like a camper with a small thermometer inside and press to select.
6. The display will change from displaying OFF to showing the temperature. Turn the knob to adjust to the desired temperature and press the knob again to confirm.

Assuming the inside temperature is colder than the value you've set, you will hear the fans on the Combi start up and the igniter will begin to cycle shortly thereafter lighting the burner. The air ducts will be blowing very warm air at you shortly thereafter. Congratulations. You won't freeze tonight.

### Using 120V Electricity

So you want to conserve propane? Remember the icon for selecting a fuel source? Well, there are choices other than GAS for heating the coach interior and for heating water. These include EL1 and EL2 and MIX1 and MIX2.

*Quick Note: The author assumes the coach shore cord is plugged into a 30A/120V outlet at a campground and not adapted down to a lesser service. A Low-Voltage condition can also effect the performance of the Combi.*



More comfort on the move

### EL1 and EL2 – Electric Modes Only

1. If you select EL1, a single heating element is used to produce heat. This setting works fine for those cool summer evenings.
2. Should the temperature be closer to freezing, select EL2. The Combi will do a better job by using both heating elements, but you will be consuming approximately 14 amps. – nearly half of your 30-amp. electrical system's capacity.

### MIX1 and MIX2 – Uses Either 120V or Propane Gas

If you recall, the Combi monitors the interior air temperature with the small, dark-colored sensor near the control panel and also has sensors monitoring water temperature in the hot water tank. These inputs help the Combi determine what energy source is required to satisfy your needs.

1. Selecting MIX1 allows usage of '1' heating element...or' propane gas as the heat source.
2. Selecting MIX2 allows usage of '2' heating elements...or' propane gas as the heat source.

*NOTE: That word 'or' is important! The Combi does not tag team both sources simultaneously.*

### There's No Hot Water – Setting Up the Water Heater

Are you hooked up to a campground water supply...do you have water in the freshwater tank? Is the water pump on? Either way, a steady stream of water from a hot water faucet will confirm the tank on the Combi is full and the unit can be switched on.

1. Press the round knob on the control panel and select the hot water icon. It looks like a thermometer in waves of water. Press the knob to select and then rotate to the right.

2. You will see several choices including: OFF, 104, 140, and BOOST. Let's begin with 104, which is a good temperature for doing dishes and washing hands. Press the knob to select.
3. The icon will begin to flash indicating the Combi is heating water and will stop flashing when those 2.64 gallons in the water container has reached the set point.

*Important: The Combi should not be confused with a demand water heater. Managing the water temperature and how the water is heated is a new concept to many seasoned RV owners, too!*

### Your First Shower

Some preplanning is required here, especially for your first shower. Many of us have learned this lesson the hard way!

1. Select Gas – It's the best heat source for your shower.
2. Set the water temperature to 140 degrees and allow time for the Combi to raise the water temperature to this set point.
3. Once you have managed to get a good shower in, stop wasting energy! Revisit the Truma control panel and turn the temperature setting down to 104. You can switch back to EL1 or EL2 if plugged into shore power, or consider turning the unit OFF if you don't need water the rest of the day.

Truma's website has several resources for those wishing to dig a bit deeper. The operator's manual is available online: [http://www.truma.net/downloadcenter/truma\\_cp\\_plus\\_operating\\_installation\\_us.pdf](http://www.truma.net/downloadcenter/truma_cp_plus_operating_installation_us.pdf). If demonstrations are a better tutor, try this link: <http://www.truma.net/us/en/heating/videos.php>.