

Owner's Manual

SS Agile



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Introduction

Congratulations on the purchase of your Roadtrek and welcome to the Roadtreking family. The information included in this manual is meant to help and guide you through the use of your vehicle so that you know how to properly use the many functions your Roadtrek has to offer.

Please keep this manual in your vehicle as a reference for when you are travelling. If you have any questions or comments on information found in this document please contact us at manuals@roadtrek.com^[1] or 1-888-ROADTREK.

References

[1] <mailto:manuals@roadtrek.com>

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References

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Do's and Don'ts

Symbol Legend



For your information. May be useful information to know.



Warning. Not following this can lead to bad results.



Caution. You really should follow this to avoid bad results.



Don't do it. Doing this can result in injury, severe damage, or death.

Information, cautions, and warnings

This table highlights some of the do's and don'ts of your Roadtrek. This list is by no means complete. Please refer to the individual sections in the manual for more details.

Level	Item	Comment
	SEAT BELTS	Use only forward facing seats equipped with factory installed seat belts while the vehicle is in motion. All passengers must be seated in these seats only, with the seat belts fastened while the vehicle is in motion.
	TV	Turn the TV off and stow it while the vehicle is in motion.
	TV	The flat screen TV should not be stored inside the Roadtrek in cold temperatures. Remove it to reduce the chance of damage from the cold. Check the Owner's Manual for the TV for storage and operating temperatures.
	TV	To remove the TV, remove the four mounting bolts on the back of the TV mounting bracket and remove the RCA cables, power supply cable and antenna cable.

	PROPANE	Do not store propane tanks inside your vehicle. Propane tanks are equipped with safety devices which relieve excessive pressure by discharging gas to the atmosphere.
	PROPANE	Do not refuel the propane tank to more than 80% of its capacity.
	PROPANE	The propane tank valve must be closed and ALL PILOT LIGHTS, APPLIANCES, AND THEIR IGNITERS, MUST BE TURNED OFF during refueling of the motor fuel tank and/or the propane fuel tank. Only qualified personnel should refuel your propane tank.
	PROPANE	Purchase propane from a reputable propane facility. Contaminated propane is a common cause of system failure and is not covered under any warranty.
	PROPANE	The BBQ quick disconnect is regulated to 15 P.S.I. Please ensure that all devices connected to this are either rated for "high pressure" or have their own regulator. Many grills sold in the United States are "low pressure" (1/2 P.S.I.) and will require an additional regulator to step the pressure down to a useable level. If hooked directly to the BBQ quick disconnect they will be a severe fire hazard.
	FLAMMABLE LIQUIDS AND GASSES	Do not store gasoline or other flammable liquids inside your vehicle.
	HEATING	Never use cooking appliances or unvented propane heaters for space heating purposes. They need fresh air for safe operation.
	HEATING	The heating furnace provides its own outside combustion air and exhausts to the outside.
	HEATING	Portable fuel burning equipment, including wood, charcoal, and liquid fuel grills and stoves, should not be used inside your vehicle. Use of this type of equipment inside your vehicle may cause a fire or asphyxiation.
	PROPANE LEAK DETECTOR	Do not block the air circulation in the area where the Propane Leak Detector is located.
	PROPANE LEAK DETECTOR	Battery disconnect switch must be in the "ON" position for the propane detector to function.

	CARBON MONOXIDE LEAK DETECTOR	Do not block the air circulation in the area where the Carbon Monoxide Leak Detector is located
	CARBON MONOXIDE LEAK DETECTOR	Battery disconnect switch must be in the "ON" position for the Carbon Monoxide Leak Detector to function.
	110 VOLT ELECTRICAL SERVICING	Prior to servicing the 110 volt Galley GFCI & Audio/Video cabinet interior receptacles, unplug the output lead from the power inverter.
	EXTERIOR ACCESS DOORS	Ensure the shore power cord and city water supply lines are disconnected and in their stored positions before the vehicle is put in motion.
	AWNINGS	Close the sliding side door prior to opening or closing the awning.
	CLOVERLEAF DINING TABLE	The cloverleaf dining table is heavy. Use proper lifting techniques.
	EXTRA COUNTER SPACE	Make sure the stove is off and has cooled prior to lowering the stove cover.
	AUXILIARY BATTERY	Battery acid can burn your skin and damage clothing. Protective eye wear and gloves should be worn while handling batteries. Effective June 2010 all Roadtrek installed batteries are sealed AGM batteries that do no require the addition of water.
	REPLACING THE AUXILIARY BATTERY	Disconnect the inverter/charger prior to disconnecting the auxiliary battery. Always replace the batteries with AGM batteries.
	GENERATOR	Never submerge the generator. Use a spotter when launching a boat or crossing streams.
	GENERATOR	When using the generator as the main power source to run the appliances, refer to the generator owner's manual for proper use and maintenance.
	GENERATOR	The generator cannot run all the appliances at the same time.
	WASTE WATER STORAGE AND DUMPING SYSTEM	Close both the black and gray water gate valves before using the waste water system.

	FREEZING	Under moderate subfreezing conditions, antifreeze is required in the exterior fresh water tank, black and gray waste water tanks. Use RV antifreeze in accordance with the manufacturer's instructions.
	ELECTRICAL SERVICING	This unit has 12 volt, 110 volt and potentially a solar system that can generate as much as 60 volts. These systems need to be disconnected before working on them.
	BATTERY	Never jump the under-hood battery. Use the jump points provided on the engine. See Owner's manual for proper jumping instructions. The engine battery is located under the driver's floorboards. The underhood battery is the coach battery. You may cause severe damage to the coach, batteries, and on-board electronics if you jump start the coach battery.
	LUG NUTS	Sprinters with the optional alloy wheels have a set of lug nuts in the toolbox in the passenger footwell. These lug nuts must be used when mouting the steel-rim spare.

Before You Head Out

Your new Roadtrek is ready to go with just a little bit of preparation.

To prepare for your first trip, you should:

- Read this manual.
- Contact your dealer with any questions.
- Plan your trip.

Then use this quick checklist.

- The day before your trip:
 - charge your batteries by plugging in overnight
 - cool your refrigerator by turning it on
 - chill any beverages in your home refrigerator
 - fill your fresh water tank with clean tap water
- The day of the trip:
 - Load the refrigerator with cold food (from your home refrigerator)

Coming Home

When you come home, there are a few maintenance tasks you should do to get your Roadtrek ready to go for next time.

Refer to other sections in this manual for the procedures listed here.

- On your way home, dump the gray and black tanks at a convenient facility. See the HOWTO: Waste Water Dumping section for a concise description of the procedure to do this. Some RV parks and gas stations will let you dump for a fee, some city wastewater plants will let you dump for free, but there is no real pattern, so local knowledge is vital in locating dump stations. The website <http://www.sanidumps.com> is a good resource. The maps for each state and province are especially helpful: <http://www.sanidumps.com/maps/help.php>
- At home, flush the water tank and fill it with fresh chlorinated water if you will be using it in the next few days. Otherwise, drain the tank. Don't let water you are planning to use sit in your tanks for more than a week or so, and don't let ANY water sit in your tanks for more than two weeks, whether you plan on using it or not. Over time, the chlorine goes away, and the microbes come out to play.

To flush the tank, fill it using the gravity fill in the passenger's doorframe, and open the fresh water tank drain under the rear of the passenger doorstep.



Gravity fill in passenger doorframe

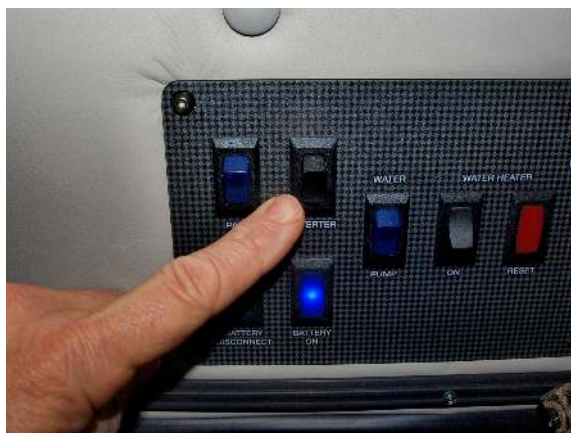


Drain for fresh water tank, under the passenger door step

- Plug in overnight to fully charge batteries.
- Turn off and clean out the refrigerator and prop the door open to let it air out
- Turn off two important switches to keep from draining your batteries
 - the battery disconnect switch on your monitor panel
 - the inverter switch, either on the monitor panel with the standard inverter, or just to the left of it with the 2500 watt inverter



Battery disconnect switch



Standard inverter switch



2500 watt inverter switch

- If you turn everything off and you have solar panels, the panels will keep your coach batteries topped up while your Roadtrek is parked outdoors. If you don't have solar panels or if you park under a shelter, it would be prudent to check your coach battery state of charge every month or so and charge them if necessary. If you don't turn everything off, even with solar panels, you will probably come back to dead batteries.

That's it! You're ready for the next trip.

Interior Living Space

Cabinets



Pushbutton Latch closed



Pushbutton latch open

Your Roadtrek is equipped with cabinet latches which prevent the door from opening out while the vehicle is in motion. The pushbuttons on the cabinet latches toggle from latched (button in) to unlatched (button out) by pressing the button.

To open a cabinet, press the button to pop the latch, pull gently on the latch, and the cabinet door will open.

To close a cabinet, make sure the latch is still open (button out), then close the door. Once the cabinet door is closed, press the latch button in to lock the cabinet.



Do not attempt to close the cabinet doors while the latch button is pressed in. This will break the latch. Always make sure the button is out before attempting to close a cabinet door.



Do not keep large, round, and/or heavy objects in a cabinet unsecured - they will roll around and apply excessive pressure to the inside of the cabinet doors as you drive. Even if the force of such objects doesn't break the latch, they can shift position with vehicle motion and be leaning against the inside of the cabinet door, waiting to fall when you open

the cabinet. For this reason, Roadtrek recommends that you not store anything in the overhead cabinets that you wouldn't want to get hit over the head with.

If you load a large amount of weight into a cabinet, experience large swings in temperature or humidity, or ride on bumpy roads at high speeds frequently, or sometimes as part of normal wear and tear, the cabinet hinges may go out of adjustment. You will know the cabinet is out of adjustment when it will not open with the button out, or not latch with the button in.



Apply moderate upward pressure and GENTLE outward pressure with both thumbs on the bottom corners of the door to open a stuck cabinet



Turn screw clockwise to lower cabinet face (if it won't latch), counterclockwise to raise it (if it won't open)

To open a cabinet stuck shut with the button out, apply pressure UPWARD with your thumbs on both bottom corners of the cabinet door while simultaneously applying gentle pressure to open it, as shown above left.



DO NOT FORCE THE DOOR OPEN BY PULLING OR PRYING ON IT - you will break the latch.

The screw in the top part of the hinge nearest the pivot point adjusts the vertical location of the door, as shown above right. Screw out to raise the door and fix stuck doors; screw in to lower the door and fix doors that won't stay shut when latched.

Galley Drawers

 The center panel between the top drawers and beneath the countertop is fixed and is NOT a drawer; do not attempt to open it.

Beneath the galley countertop there are drawers to the left and right of the food preparation surface. Below these there is a shallow drawer below the left top drawer. The spice rack is the tall narrow drawer below these and between the refrigerator and the convection oven. All these drawers have conventional non-locking knobs, and a friction closure mechanism to secure them while the Roadtrek is in motion. Make sure they are completely closed before driving.

Tables

Your Roadtrek is equipped with two tables for your use, one for the front and one for the rear of the vehicle.



Galley drawers, with spice rack opened



Rear table set up



Front table set up

Rear Table



Table leg storage



Table leg floor socket

The rear table is stored under the bench seat on the driver's side. The table leg is stored behind the driver's seat.

To install the table, place the leg into the existing floor socket. Rotate the leg to ensure it is securely in place and then place the table top on top of the table leg. Make sure the table leg is seated firmly in the table top socket.

Front Table



Front table support



Front table being set up



Fully extended

Pull the table out from its drawer-like storage in the galley cabinet. Flip the support bracket out from behind the driver's seat. Fold the table top leaf over so it rests on the support bracket.

Captain's Seats



Outboard front seat adjustments



Lumbar support adjustment on inboard side of seat

To move the front seats to their desired fore and aft position, pull up on the bar located under the front of the seat. Release the bar to lock the seat in place.

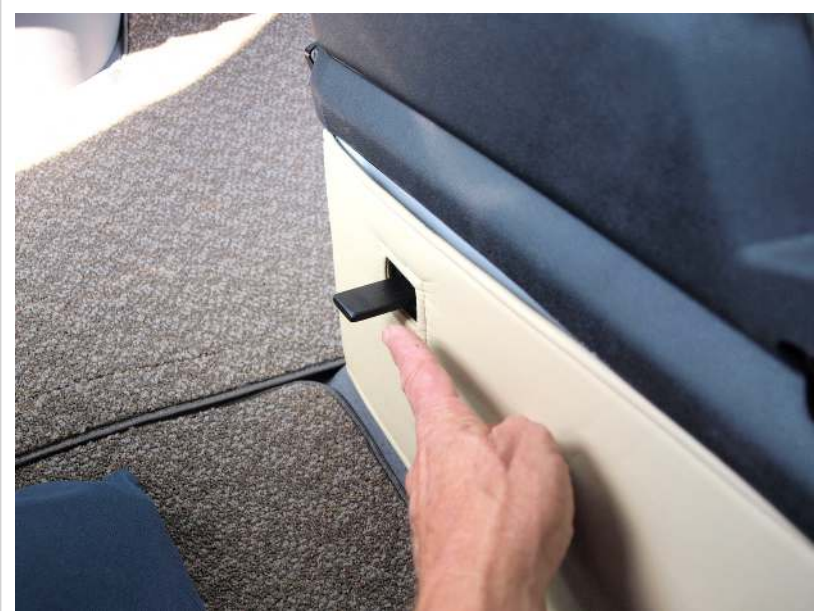
To swivel the front seats, locate the swivel bar positioned on the inboard side of the chair base and move it downward against its spring to release the lock and swivel the chair.

⚠ Always return the seats to the forward facing position when the vehicle is in motion - the seats will lock in place as you swivel them to face forward.

There are three adjustments on the outboard side of each front seat: the knob in front raises and lowers the front of the seat, the lever where the back and base of the seat join raises and lowers the back of the seat, and the knob above that on the seat back reclines the seat back. The lumbar support adjustment is on the inboard side of the seat. For the full range of adjustments on the front seats, please refer to the Mercedes Sprinter manual.

To create a front lounge area, first bring the backs of the seats to their upright position. Do not attempt to pivot a reclined seat. Use the fore-and-aft adjustment while pivoting the seats to allow the sides of the chairs to clear the armrests on the vehicle doors and other obstructions. Do not force the seats around. Swiveling the seats is easier if you open the doors and loosen the tilt steering wheel adjustment and move the steering wheel as far forward and up as possible.

The rear seat fore and aft adjustment is a lever extending forward at the front right corner of the seat base. Push this lever to the left (driver's) side of vehicle, and slide the seat. The swivel lever for the rear seat is on the right (passenger) side of the base. Push it backward to release the lock and swivel the seat.



Front seat swivel

Lights

Your Roadtrek is equipped with several interior fluorescent lighting designed to give you control based on your requirements. There are three lights down the length of the aisle, and one more over the galley. Before attempting to turn on any interior lights, you **MUST** ensure the battery disconnect switch is turned on. The battery disconnect switch can be located on the bottom left corner of the control panel, which is above the vehicle's sliding door.

To use the rectangular florescent lights, press the switch located at one end.



Fluorescent light switch

Blinds



Shades drawn



Blinds drawn

The blinds are equipped with two layers depending on your preference and need, the first layer is used for shading the inside of the vehicle and the second layer is used for privacy.

To use the blinds, gently pull from the center of the blind in a downward motion, this will bring the first “shade” level down to cover the window. To bring the “privacy” level down, simply pull the bar located at the top of the blind down to your desired position.

The blind located above the galley area is a metal blind which can be closed for total privacy.

Ventilation

 Make sure that the fan is off and the cover completely closed before driving. The cover will rattle if you drive with it open.

Your Roadtrek is equipped with a ceiling mounted ventilation fan.

The fan has a cover that must be raised by turning the large knurled knob. Raise the cover, then use the remote to set the desired speed.

There is also a fuse in the body of the fan, in addition to the fuse in the distribution panel. Check both this fuse and the one on the 12 volt fuse panel if your fan stops working.

For more details, please refer to the fan manual.



Sleeping Facilities

Your Roadtrek has sleeping capacity for two people on the rear bed.

Sofa Bed



Sofa switch



Sofa upright

You can configure the rear bed as a King or Twin bed depending on your preference or requirements. You begin by lowering the sofa.

- Remove any heavy or bulky objects from the sofa
- Clear the space in front of the sofa.
- Check underneath the sofa for objects that may be caught in the sofa as it moves.
- Push the center seatbelts back through the sofa, between the seat and the back cushions, so the seat belts end up underneath the sofa.
- Locate the power sofa switch under the television on the passenger side rear cabinet face.
- Push down and hold the bottom part of the switch until the sofa is completely flat.



Make sure that there are no obstructions in the travel path both above and below the sofa.



Do not ride the sofa while it is moving.



Twin beds



Full bed



When you raise the sofa put the seat belts back in position. To do this, open the back door of the vehicle and push the seatbelts through the sofa between the seat and back cushions. NEVER use the rear seats for passengers without seatbelts.

Twin Beds

You create two twin beds by lowering the sofa. The sofa makes a continuous sleeping surface with the two bench seats, leaving the center aisle clear.

King Bed

You create the king bed by lowering the sofa as above, then adding the center section.



Center panel being moved into position from its stowed location



Center panel in place

- Locate the center support board under the bench cushions on the passenger's side
- Slide it out into the open space between the two side bench seats. It should fit securely into the notches on the inner surface of both bench seat bases.
- Leave the bench seat bottom cushions where they are on the side bench seats. They are different sizes and cannot be interchanged.
- Place the long thin bench seat cushions on top of the support board between the bench seats and the seat bottom cushions.



Always put the seatbelts back when you raise the sofa. To do this, open the back door of the vehicle and push the seatbelts through the sofa between the seat and back cushions. NEVER use the rear seats for passengers without seatbelts.

Bathroom Facilities

Your Roadtrek is equipped with a permanently enclosed bathroom which includes a sink and a stand up or sit down shower.

Securing Bathroom Door



Door pin



Door latch

The bathroom doors are secured by a latch and pin system. To open the doors

- Loosen the thumbscrew and flip the latch open.
- Pull the retaining pin up so it clears the lip at the front of the bathroom floor.
- Open the right hand door first, followed by the left.



You must close this door securely before driving. Make sure both the pin and the thumbscrew latch are closed as a part of your pre-trip checklist.

Using the Toilet



Toilet



Toilet pedal

The bathroom in your Roadtrek contains a marine type toilet. To flush the toilet, use your foot to press the foot pedal located at the bottom of the toilet. When finished, release the foot pedal. Do not use toilet paper which will clog your black water tank and waste water pump - use only paper which will disintegrate easily when it gets wet.

Sink



Sink stowed



Sink extended for use

The bathroom sink is stowed under the showerhead. The sink slides out when needed, and will retract into the wall when using the shower or toilet.

Shower



Shower hose ready for use



Shower hose extending from its storage location

Using the Shower

- Unscrew the floor drain plug in the center of the bathroom floor
- Extend the shower hose from its storage location above the sink
- Release the hook and loop fastener straps retaining the shower curtain
- Slide the shower curtain along its track to enclose the shower space
- Adjust the water temperature as needed using the lever on the shower faucet



Shower curtain



Shower floor drain plug

After Showering

- Turn off the water using the lever on the shower faucet
- Push the shower hose head back into the faucet
- Refasten the drain plug in the center of the bathroom floor (this is important as it stops the content of the grey water from entering back into the shower area while the vehicle is in motion)
- Dry the shower curtain with a towel or cloth, or allow it to air dry, before storing it

Appliances

TV and Home Theater System

Your Roadtrek is equipped with a 120 volt TV and home theatre system with remote control for your enjoyment and viewing pleasure. To power to these appliances, you must turn on the inverter or connect to shore power.

The TV is an ordinary TV that works the way all TVs do. It may take a minute or two to boot up after you turn on the inverter.

Antenna and Cable Connections

There are two antenna connections in the cabinet above the DVD player. One is labeled for the antenna, the other for cable TV. Connect the cable to the appropriate jack.

Refer to HOWTO: Cable and TV Reception for the location of the cable TV connection and how to hook up to cable.



TV antenna and cable connections



Rear speaker control switch

Controlling the Rear Speakers

The surround sound system offered in your Roadtrek allows you to control the rear speaker sound in your vehicle. The speaker switch is located in the cabinet above the home theater system.

- Surround Setting: Allows back speakers to function as part of the TV/home theater system
- Off Setting: Turns the rear speakers off
- Automotive Setting: Connects the rear speakers to the front dash radio



 Check to see if the blue indicator light on the antenna is lit.

Refrigerator

The refrigerator in your Roadtrek is a 12 volt DC / 120 volt AC compressor refrigerator that switches automatically between voltages. It uses 12 volt battery power except when 120 volt current when available.

The temperature control for the refrigerator is located to the right of the freezer.

The battery disconnect switch must be on for the refrigerator to operate, regardless of power source.

To open the refrigerator, gently push down on the latch located on the upper right hand corner of the unit to release the retaining pin and pull the door towards you.

 Check the refrigerator Owner's Manual for more details of operation and maintenance.



Refrigerator



Do not block the vent between the galley cabinet top and the window. This vent must be unobstructed for the refrigerator to cool properly.

Microwave Convection Oven

This is a standard microwave convection oven operating on 120 volt AC. To draw power for the microwave for use, you **MUST** be plugged into shore power. The standard inverter does not power the microwave convection oven.

Microwave Convection Oven (Big Inverter Version)

The microwave oven is a standard microwave convection oven operating on 120 volt AC. To draw power for the microwave for use, you **MUST** be plugged into shore power, have the generator running, or have the inverter on. The oven uses over a thousand watts. Don't operate the oven and the air conditioning simultaneously on inverter power. Plug in or have the engine running to recharge the batteries if you wish to operate it for longer periods of time.

Cooktop Stove

❗ The propane stove requires ventilation while in use. Make sure you have a window open and the ceiling fan cover open slightly.

❌ Do not use the propane cooktop for heating the interior of the Roadtrek - carbon monoxide poisoning will result.

The main valve on the propane tank must be open for the cooktop to work. The battery disconnect switch must be on for the burner igniters to work - they use 12 volt electrical power. The igniters light both burners.

❗ For instructions on how to use this appliance, please refer to the cooktop stove manual.



Propane stove

Hot Water

Your water heater requires both propane for heat, and 12 volt power for controls. Please refer to the Monitor Panel section for the location of the water heater controls.

To use the heater:

- Turn the battery disconnect switch on.
- Check you have propane in your tank and the main valve on the propane tank is on before turning the water heater on at the control panel.
- The red indicator light will be on briefly until the burner lights.

❗ Check the water heater Owner's Manual for more details of operation and maintenance.

⚠ If the red light comes on repeatedly, either the unit is not functioning correctly or is not being supplied with propane.

The water heater can heat the six gallons to a useable temperature in fifteen minutes or so, depending on the water temperature in the fresh water tank.

❗ Always turn the water heater off when the vehicle is in motion - the airflow will interfere with the proper functioning of the burner, and create an unsafe condition.



Outside view of the water heater

Outside your Roadtrek

Awning



Power awning



Power awning switch above front passenger seat

Your Roadtrek is equipped with an easy to use power roll up awning.



Please read the awning manual before you start. You need to know how the supports are attached and how to secure the awning. The steps here are meant as an indication of what is needed.

To use the awning please follow these steps:

- Check the area and make sure the awning has room to open without hitting anything.
- Locate the power awning switch inside the passenger side front door, above the doorframe.
- Press the switch to extend the awning and lower the supports on each side.
- Once extended, secure the supports to the two attachment points on the side of the vehicle.

To stow the awning:

- Detach the supports from the attachment points
- Retract the awning using the power switch

Refer to the awning manual for proper methods of deploying and securing the awning.



Never leave your awning extended when you are away from your vehicle. Awnings are susceptible to damage from heavy rain and wind. Stow awning when bad weather is approaching.



The awning is only powered when the ignition switch is off. To use the awning, turn off the ignition.

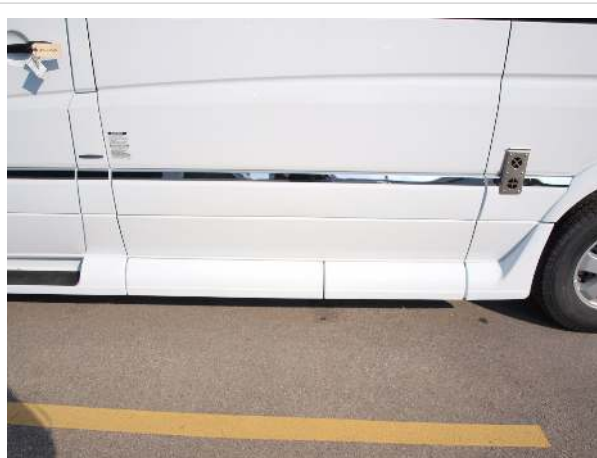
Exterior Step

Your Roadtrek is equipped with a step that automatically extends when the side door is opened for easy entry and exit out of your vehicle. To lock the step in the extended position or to keep it from extending, find the switch just inside the door frame and push it to the “off” position.



For safety reasons, the step will automatically retract when the ignition is turned on, even when the step is in the locked position. This is to prevent damage caused by driving with the step extended.

Utility Bays



Driver's side bays



Lid support



Propane tank



Shore power connection

There are two exterior access doors along the bottom between the wheels on the driver's side of the vehicle.

The compartment behind the front door houses the city water connection point and propane tank. You can find more information in the HOWTO: Propane System section.

The compartment behind the second door contains (left to right) the waste water disposal hose, the gray water valve handle, the black water valve handle, the waste water disposal pump cleaning knob, and the cable TV connection point.



Wastewater hose, dump valves, pump cleaning knob, and CATV connection



Fuel fill

Fuel Fill

The fuel fill door is located directly behind the driver on the outside of the vehicle. To fill your Roadtrek with fuel:

- Open the driver side door
- Swing open the fuel fill cover
- Shut the driver's door (to prevent fumes from entering the car)
- Remove the fuel cap
- Fill the tank with DIESEL FUEL ONLY
- After fueling, replace the fuel cap
- Re-open the driver's side door
- Shut the fuel fill cover

For DEF fill, refer to the Sprinter owner's manual

! Refer to the Sprinter Owner's Manual for detailed instructions.

Rear Doors



Rear door retaining strap



Rear door magnetic stop

The Rear doors of your Roadtrek have the ability to open all the way so they fold against the sides of the vehicle. To open the doors to their fullest extent;

- Open the door to 90 degrees
- Close them slightly to relieve some of the tension on the door strap
- Pull out the curved door strap by the tail light assembly and fold it back against the door (see photo)
- To close the door, flip the door strap around and it will automatically engage as you close the door

! There are magnetic door stops on the back of the door and on the side of the vehicle which hold the door against the side to the Roadtrek and prevent it from swinging shut from its own weight.

Rear Door Screen

As an option, some Roadtreks have a rear screen which will allow you to open the rear doors and get fresh air without bugs coming in or pets going out. It attaches to the rear door frame with a zipper and hook-and-loop fasteners.

Open the screen and locate the two tabs on one edge. This edge is the bottom, and the tabs snap onto the rear seat belt anchors. Fasten these two snaps on each anchor and use the hook-and-loop strips on the screen to attach it across the bottom of the door opening.



Rear screen tabs



Rear screen lower hook-and-loop fastener

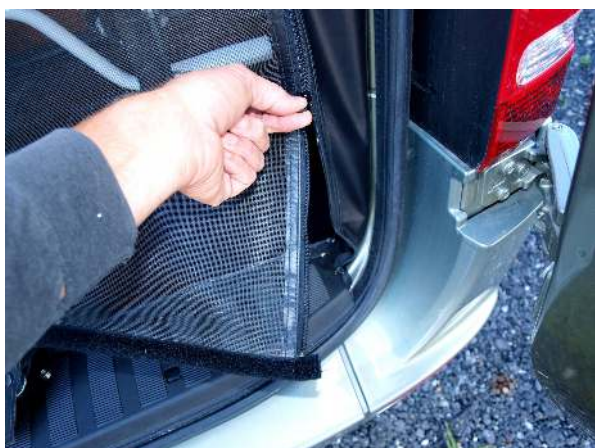
Start the zipper at each bottom corner by pushing the bottom stop (the metal end) of the zipper into the two back-to-back zipper sliders, and zipping the top slider upward. Where they meet at the top, there is a flap which will close with a hook-and-loop fastener strip.



Rear door screen zipper



Top hook-and-loop fastener



Rear door screen storage opening



Rear door screen in place

The double slider zipper arrangement allows the bottom of the screen to be unzipped to access the underbed storage area in the back of the E-Trek without disturbing the top section.

To remove and stow the screen, unzip it from the top down. Unzipping it from the bottom will not allow you to remove it from the doorframe surround.

 While sturdy enough to keep insects out, this screen is not designed to resist repeated and persistent attempts by pets to get out of the vehicle. Do not leave your pets unattended with the screen in place and the doors open. They may take themselves for a walk.

Outside Shower

On the driver's side near the rear, there is a rectangular compartment which houses the outside shower. Like the inside shower, this will provide hot and cold running water should you choose to shower outside. Use the brass auxiliary key supplied with your Roadtrek to unlock the compartment door. When finished, coil the hose back up so that it and the shower head fit inside the compartment.



Outside shower compartment open, showing hose, faucet, and showerhead

Utilities

Just like your house, your Roadtrek has fresh water, electricity, waste water disposal, heating, and cooling systems. In the Roadtrek, these systems are self contained and travel with you.

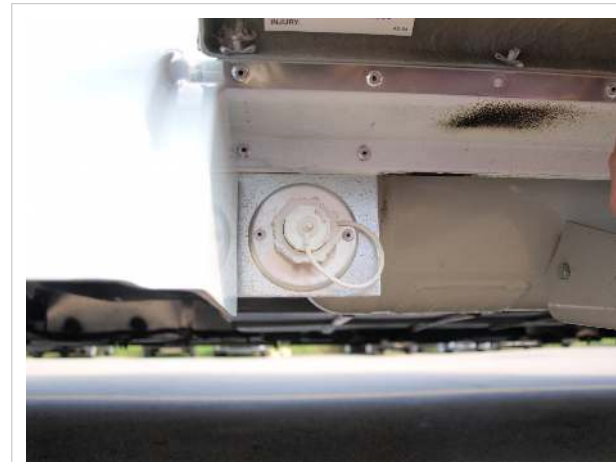
Fresh Water

Fresh water is contained in two connected tanks, one underneath the front passenger seat, and the other underneath the vehicle directly below it. The two tanks are filled and the water is used as a single tank. You do not have to switch anything to fill the tanks or use the water in them.

The gravity fill is located on the front passenger door post, near the door handle. Open the door and look for the orange plug. Remove this plug, fill with a hose from any safe water source until it overflows out the fill opening. There is also an overflow tube attached to the top tank which will vent excess water out underneath the front passenger side of the vehicle as the tank reaches capacity.



Fresh water gravity fill



City water connection

City Water

Your Roadtrek can operate in either fully self-contained mode, or can be connected to a water supply such as a campsite's faucet.



Campgrounds and municipalities vary greatly in supplied water pressure. Before connecting to external water supplies, install a pressure regulator inline with the water connection.



If you have any doubts about water pressure or don't have a regulator with you, you can always just fill your fresh water tank using the gravity fill, and use your water pump to supply water.

The city water connection is on the left of the front compartment at the bottom along the driver's side of the vehicle. Unscrew the white plastic plug and use your pressure regulator and hose to connect your Roadtrek to the water source. Remember to disconnect and store the hose before driving.



Roadtrek recommends that you use a dedicated single purpose potable-water hose. These are usually white in color. Buy a new one and use it only for filling your tanks and connecting to city water. View any hose lying around a campground with extreme skepticism, especially if there's a wastewater dump nearby. Large RVs use hoses to flush their wastewater system.



The city water valve is behind this access panel to the left of the side door opening



Closed city water valve (handle across line)

To connect the Roadtrek's water system to an outside source:

- Turn the water pump off.
- Close the city tank fill valve by turning the handle to the vertical position.
- Close all interior faucets.
- Flush old water and any contaminants out of the water supply faucet.
- Connect your fresh water hose to the faucet.
- Attach your pressure regulator to the Roadtrek's city water connection.
- Attach a fresh water hose to the the pressure regulator.
- Slowly open the faucet of the city water source.
- The city water connection by-passes the water pump and fresh water tank. Therefore, the use of these items is not necessary when connected directly to an external water source.

To disconnect the city water connection:

- Turn off the external water source.
- Open a faucet to relieve the pressure in the system. Failure to do so will not damage your vehicle, but may result in an unexpected shower. The outside shower faucet next to the city water connection is a convenient place to do this.
- Close the city tank fill valve (handle will be vertical).

- Remove the hose from the city water connection, and replace the cap on the fill connection.

❗ If you hear your pump running and water pressure is low inside the vehicle after disconnecting from an external water source, it may be because you have not properly positioned the city water valve. Make sure the black plastic handle is vertical, and perpendicular to the water line when your water system is in self-contained mode.

See HOWTO: Potable Water Use for a concise summary of how to operate your fresh water system.



Drain plug

Waste Water

Sink and shower drain water drains into the gray water tank; the black water tanks contains the material flushed down the toilet. The shower and sink have traps to prevent tank odors from entering the living space. Be sure to replace the screw-in plug in the shower floor after use to prevent gray water from sloshing up into the shower pan from the gray water tank while driving.

The gray and black water tank level indicators on the control panel will give you an approximate indicator of your tank levels. See HOWTO: Monitor Panel for more information on indicators. When the gray water tanks is full to capacity, water will no longer drain down the shower and sink drains, and you need to dump the tanks before running any more water. If you see fluid below the toilet valve in the bowl of the toilet, your black water tank is full and also needs to be emptied before further use.

⚠ Do not throw paper towels, personal wipes, rags, baby wipes, feminine hygiene products, hairballs, etc. into the toilet. The waste water pump is not capable of handling these types of solids and may jam or be damaged. Use toilet paper intended for RVs or septic systems.



If in doubt, take a tissue, and leave it in a glass of water. Stir with a spoon a couple of times. If it falls apart into a gooey slurry after a few minutes it's safe for your tank. If it stays together, swells up, or clumps into a solid mass, it's not safe and should be disposed of in the trash and not down the toilet.

See HOWTO: Waste Water Dumping for a concise summary of how to operate your waste water system.

Heating and Cooling

Heating

Your Roadtrek is heated with a Suburban propane furnace, located on the passenger side of the aisle beneath the side bench. The furnace is controlled by the thermostat, above the rear side window. Select "Furnace" and the desired temperature. The fan on the furnace will continue to run for a minute or two after the furnace is turned off - this is controlled by a heat sensor on the combustion chamber in the heater, and is normal.

If your air conditioner is equipped with a heat strip, the setting "Heat" will also appear on your thermostat, along with "Furnace". This heating strip will heat the coach when power is supplied either through a generator or shore power. It will not function off the coach batteries.



Furnace location



Thermostat

Cooling

The roof-mounted air conditioner in your Roadtrek will provide cool air while camping. It is controlled by the thermostat. Refer to the air conditioner manual for details of use.

Thermostat

The thermostat controls the air conditioning unit. Set the thermostat on "cool" and set the desired temperature.

Some models also have a small heat strip in the air conditioning which will blow warm air, but this produces heat directly from electricity and is not recommended for heating the cabin for extended periods of time unless you are attached to shore power or running the engine. For all other circumstances, use the regular heating system to heat the cabin. If your unit has the heat strip option, you can operate it by turning the thermostat to "furnace" and setting the desired temperature.

The third setting, "fan", recirculates cabin air using the fan inside the air conditioning unit.

Electrical System

Refer to Monitor Panel for locations of the controls referred to in this article.

Batteries

The batteries in your Roadtrek are sealed AGM batteries.



Do not add water to the batteries. Do not attempt to open them. There is no user maintenance possible on these batteries except keeping them charged.



Battery maintenance, i.e. keeping the batteries charged, is the responsibility of the dealer while the vehicle is unsold, and the responsibility of the owner once sold. Roadtrek does not cover warranty replacement of the batteries for lack of maintenance.

Roadtrek places the coach batteries under the hood. The chassis battery that powers all the automotive functions is under the driver's floor. Mercedes has created booster cable connection points under the hood in case you have to boost your battery to start your engine. Use these. They will start your engine - jumping the coach batteries won't, and will damage electronic components in your Roadtrek.

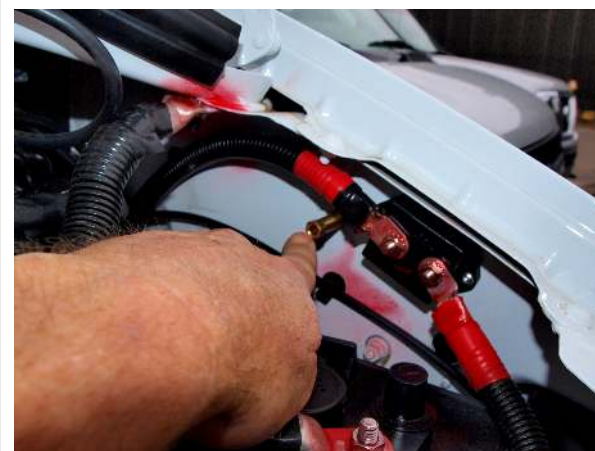


Do NOT attach jumper cables to the 6 volt coach batteries under the hood on the driver's side. Attaching a high amperage 12 volt power supply to a 6 volt battery is very dangerous. Use the Mercedes jumper attachment points instead.

To use jumper cables, refer to the Mercedes owner's manual for the procedure.



Positive jumper point, on passenger's side of the engine. Push the red disc in to expose the contact.



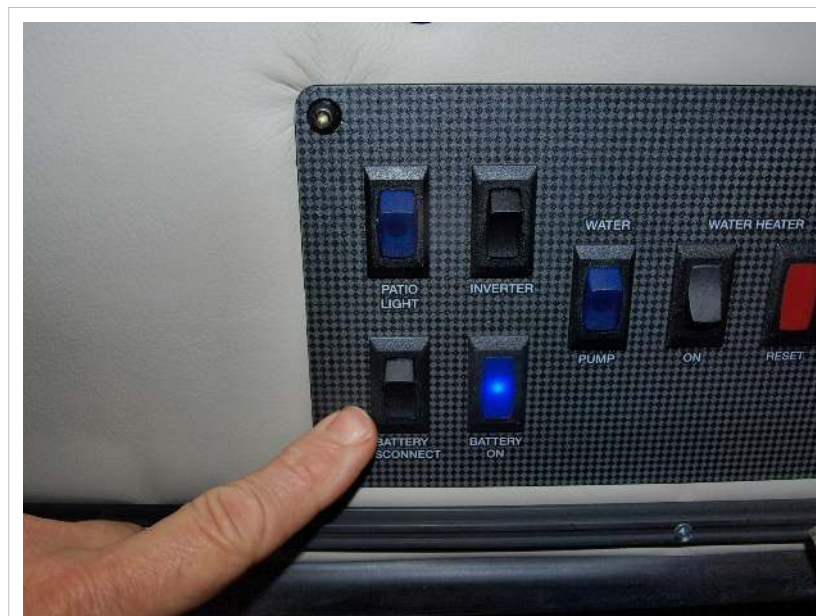
Coach batteries and negative jumper attachment point - brass stud protruding from side wall of engine compartment



Do not make contact between the automotive ground lug and the positive terminal on the breaker.

Battery Disconnect switch

The auxiliary battery disconnect switch provides power to all the motorhome 12 volt appliances, such as the water pump, refrigerator, etc. This battery disconnect should be off when you are not using your Roadtrek, and on whenever you are driving or camping. This is operated by a momentary switch on the montior panel. Pressing and releasing the switch cycles the auxiliary battery disconnect on and off as indicated by the "Battery On" light next to it .



Battery disconnect switch

Inverter

The inverter switch turns on the inverter, which produces 120 volt household current from the battery bank. Turn this switch on whenever you wish to use any 120 volt appliance, such as the television or DVD player, or want to plug one of your appliances into an electrical receptacle. Turn this switch off upon retiring at night or when the system is not in use, since the inverter produces a small but steady drain on the batteries even though none of the 120 volt electricity is being used.

This switch only controls the inverter when there is no 120V power supplied. If you are connected to shore power or have the generator running, the inverter turns off and the battery charger turns on.

The inverter is rated for 750 watts maximum, and will not power the microwave or the air conditioner. To run these appliances, connect to shore power or start your generator.

The inverter is configured at the factory for the batteries and power sources in the Roadtrek. Please do not change any settings without consulting the factory.

 See the inverter owner's manual for detailed instructions.



Inverter switch

Solar Panels

The solar panels operate automatically and the charger and controller are configured at the factory. Please do not change the settings on the controller. The controller is located in the cabinet above the galley. It will display either system voltage or current amperage being produced.



Solar controller



Shore power connection point

Shore Power

The shore power connector is located on the driver's side, just in front of the rear wheel. See HOWTO: Shore Power for location of this connection point, and a concise description of how to connect to shore power. The switchover from shore power to inverter is automatic - the inverter will sense the incoming shore power as soon as you plug it in.

To connect to external (shore) power, open the rear doors and remove the power cord from underneath the sofa bed. The connection point is on the left of the front compartment on the bottom of the driver's side. First connect the cord to the Roadtrek and then plug the power cord into the 30A power source.

If you do not have access to a 30A connection but still wish to plug in, such as at your house, a 15 to 30 amp adapter may be used. Note that the source of electricity you are connecting to may be as low as 10 amps. For this reason, check the rating on the circuit you are connecting to, and do not exceed this or the 15 to 30 amp connector's amperage rating. You should not

run your air conditioner and microwave at the same time as this will create an overload and trip the circuit breaker.

Electrical Outlets

The outlets are powered either from the inverter or from shore power when connected. The outlets are protected by GFCI (ground fault circuit interrupters).

All receptacles are powered when connected to shore power or when the generator is running. When using the inverter only the galley and home theater cabinet are powered.

The electrical outlets above the galley and behind the rear captain's seat have ground fault circuitry (GFCI) - the button in the middle of the outlet pops out when they sense an anomaly or sometimes when the circuit undergoes transitional load conditions. If you are not getting power from an outlet, check and reset this button if needed by pushing it in. The one over the galley provides protection for outlets on the driver's side of the Roadtrek. The outlet behind the rear captain's chair provides GFCI protection for the TV and DVD player, so check it if your TV is not receiving power. Lift the access panel in front of the side step at the base of the back of the bathroom enclosure to access this outlet.



GFCI outlet behind rear seat

Optional Propane Generator

Your Roadtrek may be equipped with a 2500 watt propane generator. This generator, when running, will power your air conditioner, microwave, and all other electrical appliances, plus charge your batteries.

Refer to the Onan manual for the proper priming, starting, and stopping sequence.

The hour meter to the right of the generator switch measures accumulated generator use in hours. Consult your generator manual for required maintenance. There is a break-in oil change scheduled fairly early in the generator's use.



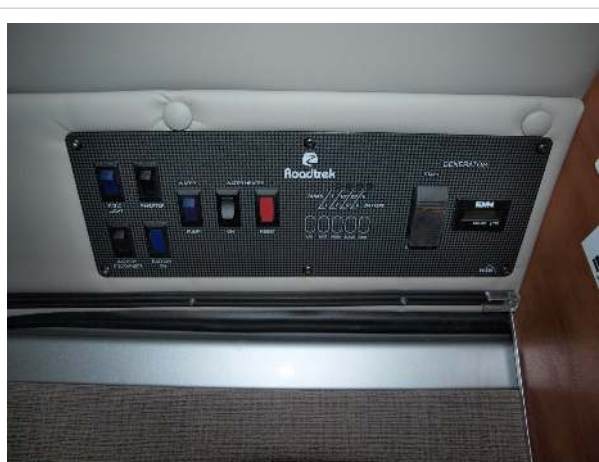
Propane generator control

Monitor Panel

Location

The control panel is located inside, above the sliding side door.

Power Sources



Monitor Panel



Battery disconnect switch

The monitor panel controls two separate power sources; the 12 volt DC power and the 120 volt AC power via the inverter.

12 Volt DC Power

The power to the 12 volt DC outlets and appliances is controlled by the battery disconnect switch to the lower left.

On the bottom left is the battery disconnect switch, which supplies 12 volt battery power to the 12 volt lights, fans, and other cabin appliances. This switch must be on for any of the 12 volt electrical devices to work. Remember to turn off the battery disconnect switch (plus the optional 2500 watt inverter switch, if supplied) when your Roadtrek is not being used to avoid discharging the batteries.

The battery disconnect switch has a blue indicator light to the right of it to show you that the battery power is on.

Standard 750 Watt Inverter

The inverter provides 120 volt AC (household current) to the outlet for the television and DVD player. It will not power the convection oven, toasters, or other large loads for extended periods.



Standard inverter switch



2500 watt inverter switch

Optional 2500 Watt Inverter

If you have the optional 2500 watt inverter, the switch to the left of the monitor panel. This inverter provides 120 volt AC (household current) to all 120 volt appliances and wall outlets.

Press the top of the toggle switch to select "Power Save Auto". In this setting, when you're not drawing 120 volt power, the inverter will shut itself off. If you turn on a 120 volt appliance it senses a load and will come back on in about 20 seconds. If you select "Power Save Auto" you'll avoid using the electricity it takes to keep the inverter powered, and your batteries will require less recharging.

The middle position of the inverter switch is off, and pressing the bottom of the switch selects "Power Save Off". When this setting is selected the inverter will be on continuously.

There is a shore power indicator light to the right of the 2500 watt inverter switch to show you that the system is receiving shore power. There is also a battery charging indicator light to tell you when the batteries are being charged by shore power.

Your refrigerator will run on either 12 volt battery power or 120 volt inverter power, but because of the conversion loss in the 12 volt to 120 volt transformation it will use less electricity if the inverter is off and it is running on 12 volt power.

Other Switches

Patio Light

On the control panel, the top left switch is the patio lights switch. Press the top of the button to turn the lights on, and the bottom to turn them off. These are LED lights and use very little power.



Patio light switch



Water pump switch

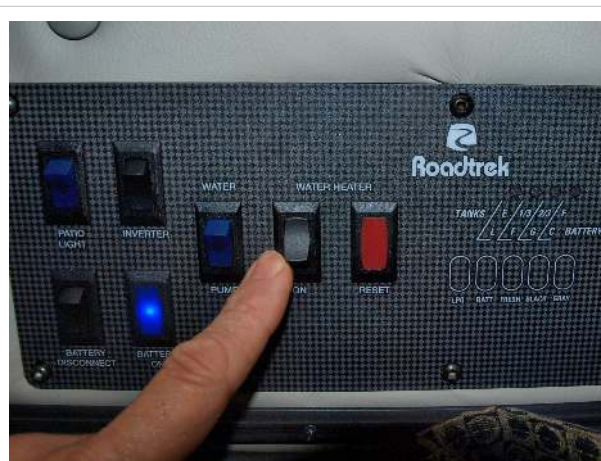
Water Pump Switch

The button to the right of the patio light switch is the water pump switch. It should be on only when you have water in the fresh water tanks and wish to use the sinks, showers, or toilet. The pump should not be run without water. As with the patio light switch, pressing the top of the button turns the pump on, and pressing the bottom turns it off.

Water Heater Switch

The button to the right of the water pump switch is the water heater switch. It should be on only when you have water in the hot water heater. The hot water heater is powered by propane, so be sure you have propane in your propane tank and the

main propane valve is turned on before attempting to use the water heater. The red light to the right of the switch will illuminate for a few seconds during the automatic lighting process, and go out once the water heater lights. Do not operate the water heater while the Roadtrek is in motion.



Water heater switch



Tank indicators

Tank and charge indicators

At the center of the control panel are the indicator lights for the the battery charge level, the fresh water tank level, and the black and gray water tank levels. Press the button for each to see the display. These will give you an approximate reading, to the nearest third, of how much is in each tank. The four indicator lights for the battery are low, fair, good, and charging.

Optional Propane Generator

 Refer to the Onan manual for complete instructions.

To start the generator, push the generator toggle switch on the top end (START). Allow the generator to run for a couple of minutes before turning on heavy loads such as the air conditioner. The hour meter to the right of the generator start switch measures hours of generator operation.

To stop the generator, first shut down all heavy loads, let the generator run for a few minutes to cool down, then press the bottom (STOP) end of the rocker switch.

To see a concise guide to how to operate the controls on the monitor panel, go to HOWTO: Monitor Panel.



Generator switch and hour meter

Distribution Panel

AC Breaker and 12 Volt Fuse Panel



Agile power distribution panel location



Agile AC breakers and
12 volt fuses

The electrical power distribution center is located on the driver's side above the galley in the rightmost cabinet, behind a black plastic cover. Open the cabinet, remove the cover, and note the label on the cover identifying information for each breaker and fuse, as to what appliance or light each one supplies power to. When storing the Roadtrek for extended periods of time, turn off the battery disconnect switch, your inverter, and the main 30A circuit breaker in this panel.

Alarms and Warnings

CO Monitor

Your vehicle has been equipped with a combination propane leak and carbon monoxide detection device for your protection. The Carbon Monoxide and Propane Leak detector is located on the passenger side, near the floor under the TV.

Be sure the detector is operating while using your vehicle. Do not block air circulation in the area where the propane leak detector is located. The detector runs on 12 volt power supplied by the coach batteries, and is operational whenever the battery disconnect switch is on. For this reason, whenever the vehicle is occupied, especially when sleeping, the battery disconnect switch should be in the "on" position.



Coach power on the Monitor Panel must be on for detector operation. Make sure your battery disconnect switch is on.



Do not disable, unplug, or otherwise hinder the operation of this detector or the smoke detector.



The detector has a useful service life, beyond which it needs to be replaced. See Manufacturer's Owner's Manual for other operating instructions, or look for the sticker which is sometimes placed on the detector to see the replacement date.



The detector may chirp every 15 second if the coach batteries are running low.



Propane and Carbon Monoxide alarm



Smoke Detector

Smoke Detector

The smoke detector is located panel above the front passenger seat. It is powered by a commonly available 9 volt battery and needs periodic replacement. Refer to the Owner's Manual for the smoke detector for the replacement interval both for the battery and the detector itself.

Fire Extinguisher

Your Roadtrek comes equipped with a dry chemical fire extinguisher suitable for all fires. Before every trip, check to see that the needle on the dial is in the green range. If not, replace the fire extinguisher. DO NOT test your fire extinguisher by discharging it - total discharge time is 8 to 12 seconds, so it will become rapidly depleted if you test it this way. Service life on fire extinguishers currently supplied is 12 years; replace the fire extinguisher if it is more than 12 years past the year of manufacture stamped on the base of the cylinder.



Fire extinguisher located under front passenger seat

Maintenance

Tires

See the automotive chassis manufacturer's owner's manual and documents for tire warranty information. Inflation pressure information is on the sticker inside the galley cabinet door. The current Mercedes Sprinter manual recommends checking tire pressures regularly - at least every other week, and definitely before a long trip. Tire rotation intervals depend on wear and other factors, but tires should be rotated at least every maintenance interval - every 40,000 km/24,000 miles. Follow the tire rotation pattern in your owner's manual.

Cargo Carrying Capacity

See the information labels attached to the driver door post, and the inside of the lower galley cabinet door.

Owner Maintenance Checks

Listed below are vehicle maintenance checks and inspections that should be performed by the owner or qualified service technician at the indicated intervals. Any adverse conditions should be brought to the attention of your dealer or qualified service technician for expert service advice as soon as possible. The owner maintenance checks are generally not covered by warranties and you may be charged for labor, parts and supplies used.

When You Stop for Fuel, or Weekly

Check engine oil level.

Look for low or underinflated tires.

Every Other Week

Check tire pressure on all tires and your spare.

At Least Monthly

Check coolant level in the coolant recovery reservoir.

Check windshield washer fluid, brake fluid and power steering fluid levels.

Check operation of all exterior lamps, including brake lamps, turn signals and hazard warning flashers.

At Least Every Three Months

Flush black water holding tank. Use a hose or bucket to fill the tank through the toilet, and dump.

Flush grey water holding tank. Use a hose or bucket to fill the tank through the galley sink, and dump.

Flush and sanitize fresh water tank. To flush the tank, fill it completely using the gravity fill, and drain using the freshwater tank drain underneath the passenger side door sill. Sanitize by adding 1/2 cup chlorine bleach to the tank, fill with water, let sit for at least two hours, and drain. 1/2 cup vinegar added to the next tankful, which will also be drained before filling with fresh water for use, will help dissipate the chlorine smell.



Gravity fill on passenger doorframe



Drain for freshwater tank, beneath passenger doorstep

At Least Twice A Year

Check windshield wiper operation. Clean wiper blades with clean cloth dampened with washer fluid. Wiper blades should be replaced at least once a year.

Check radiator, heater and air-conditioning hoses for leaks or damage.

Check for worn tires and loose wheel lug nuts.

Check parking brake system - put the brake on and see if it will hold on a moderate hill. If not, get it repaired.

Check head lamp alignment - shine your low beam headlights on a wall. The light patterns should be the same height. Measure headlight height at the vehicle with a yardstick - the light patterns should be the almost same height or slightly less with your vehicle level. If not, get the headlights aligned.

Check lap and shoulder belts for wear and function. Replace any belts with frayed spots or that do not smoothly retract into their holders.

Inspect appliance vents to ensure they are free from dirt, insects, spider webs and/or nests.

Inspect black water tank vent and remove any debris or other obstructions. The black water tank vent is located on the roof, on the passenger side, in the bathroom area.

Clean air conditioner filter. See air conditioner manual for details.

Thoroughly clean and wax the roof of the van. To wash the solar panel, use a garden hose to rinse dirt off the panel. Do not scrub it with a brush or otherwise apply any abrasive material to the solar panel surface. Rinsing the panel two or three times a year to remove excess dirt is all you need to do to keep the panel operating at full output.

At Least Once a Year

Lubricate all door hinges, locks and latches, especially the exposed hinges on exterior doors. These will seize up and cause damage to the doors if neglected.

Have appliances tested and cleaned.

Wax & polish and protect exterior surfaces. The wheels are coated aluminum - there is no bare aluminum on the vehicle, so do not use aluminum polish on any surface of your Roadtrek. The wheel center caps are chrome.

To prevent water from entering your vehicle, avoid spraying water directly into exterior vents or grills. Do not use a power washer to clean your Roadtrek - damage to the paint, removal of decals, and water leaks will result. Hand washing or commercial car washes accommodating large vehicles are the best way to keep your Roadtrek clean and shiny.

Grease power step sliders.

Spare Tire Storage



Retaining pin for spare tire carrier



Pull up on the latch to restore the wheel carrier to the upright position

! Supplied with your new Roadtrek are two sets of small keys. One set unlocks the outside shower; the other unlocks the chrome surround on your spare tire. Find both sets of keys and put one of each on your key ring. Carry them with you whenever you drive your Roadtrek. If you ever need to change a tire, you will need this key.

! If your new Roadtrek still has the blue coating on the chrome spare tire cover, remove it as soon as you can. If left on for an extended period of time, particularly in the hot sun, it will become very difficult to remove.

To lower the continental kit spare tire and gain access to the driver's side rear door of the Roadtrek, unlatch the retaining spring and pull the pin out while supporting the top of the tire with your other hand. It helps to wiggle the tire back and forth to allow the pin to slide out. Place the pin where you won't lose it, and grasp the top of the tire with both hands. Lower it into a horizontal position to allow the driver's side rear door to open freely. The tire will latch when horizontal.

! While the tire is spring loaded it is still fairly heavy. Use proper lifting technique or get help.

To raise the spare tire back into position, lift the guard over the cable mechanism enough for the catch to clear and allow the tire to be raised. Raise the tire back up into position, and insert the pin. Flip the retaining spring over the end of the pin to secure it.

To use the spare tire, unlock the chrome surround with the key supplied with your Roadtrek, lower the tire, unbolt the tire from the carrier with your lug wrench, and lift the tire off the carrier. Follow the Sprinter manual for instructions on the use of the jack and other tire change procedures. Install the flat tire on the spare tire carrier and reattach the chrome surround.



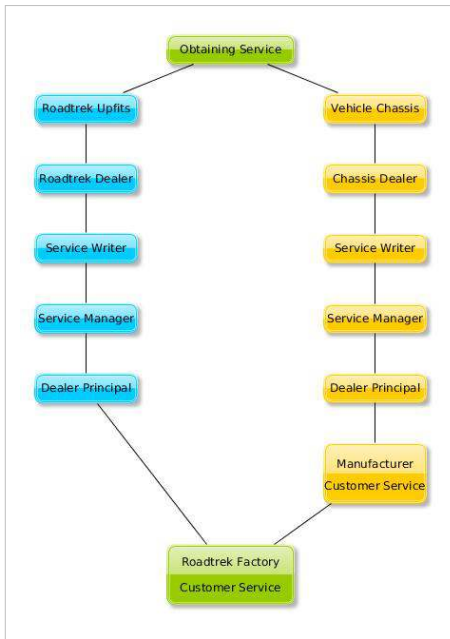
Do not attempt to raise an empty tire carrier - if you change the tire, put the flat on the carrier before attempting to raise it. NEVER release the latch on a tire carrier without a tire on it. The spring will move the arm of the carrier upward with great force and speed.

Obtaining Service

When your Roadtrek needs service, determine if the issue is with the Roadtrek upfits or the Sprinter Chassis.

For Roadtrek upfits, contact your Roadtrek dealer.

For chassis-related issues, contact Mercedes service. Advise the service writer that you have a Sprinter 2500 van, rather than a "motorhome". Some dealerships do not want to work on motorhomes, but most can service a 3/4 ton van.



Specifications

For general chassis specifications, please refer to the Mercedes manual. For specifications relating to your vehicle, including occupancy, weight rating, tire size, inflation, and so on refer to the sticker on the driver's side B pillar (right side of the door frame, near the latch). This specification refers to the Roadtrek upfits.

Roadtrek upfits only

Total fresh water capacity (includes water heater)	36 gallons/ 136 liters
Fresh water tank capacity	30 gallons/ 113 liters
Gray water tank capacity	21 gallons/ 79 liters
Black water tank capacity	10 gallons/ 38 liters
Battery type	AGM, maintenance free
Battery Capacity	220 amp hours (standard) 440 amp hours (optional)
Propane tank size	16 gallons/ 61 liters
Propane tank capacity at 80%	12.8 gallons/ 48 liters
Water heater capacity	6 gallons/ 23 liters
Furnace	16,000 BTUs/hour
Refrigerator	2-way (12VDC, 120VAC)
Air Conditioner	11,000 BTUs/hour

Warranty

Chassis Manufacturer's Warranty

The automotive chassis is warranted by Mercedes Benz of North America. Please refer to the Mercedes Warranty Information booklet for details.

All automotive service, maintenance and repairs are to be performed by any Mercedes dealer. See the Mercedes Warranty Information booklet for details. Such items are not warranted by Roadtrek. Roadtrek will pay for the removal and reinstallation of motorhome components necessary to perform automotive recalls and warranty for the duration of the original Manufacturer's warranty. After this period such costs are considered to be inherent in the ownership of such a vehicle and Roadtrek will not pay for the removal and reinstallation of motorhome components necessary to perform automotive service or maintenance.

Roadtrek Motorhomes 5 Year Upfit Warranty

Roadtrek Motorhomes warrants to the Purchaser that the Vehicle is free from defects in material and workmanship on the portion manufactured by Roadtrek Motorhomes, under normal use and service, for five (5) years, from date of purchase by the first Purchaser or the date the Vehicle was first put into service (for example, as a demo or rental), whichever is earlier.

This warranty shall be fulfilled at a Roadtrek Motorhomes Dealer or authorized Roadtrek repair facility. For in transit emergency repairs, you may choose to deal with a non-authorized RV service facility. However all warranty repairs at non-authorized RV service facilities must be preauthorized by Roadtrek Motorhomes. Roadtrek Motorhomes will, at its option, replace or repair free of charge (including related labor) any defective part, about which the Purchaser shall notify their Roadtrek Dealer within the warranty period. The obligation of Roadtrek Motorhomes under this warranty is expressly limited to such replacement or repair.

The provisions of this limited warranty shall not apply to the following:

1. Accident.
2. Unauthorized repairs or alterations.
3. Normal maintenance.
4. Changes made to other units manufactured after this Vehicle was manufactured. (This is not an engineer upgrade warranty.)

5. Incidental damages connected with the failure of the Vehicle such as lost time, inconvenience, loss of use of the Vehicle, cost of rental cars, gasoline, telephone, travel or lodging.
6. Damages caused by environmental factors including, but not limited to, hailstorms, tornadoes, sandstorms, stone chips, lightning, floods, earthquakes, airborne fallout, chemicals, tree sap, ocean spray, road hazards.
7. Vehicle that has been declared a total loss by an insurance company (demolished) or a Vehicle whose title indicates that it is designated as "salvage", "junk", or "rebuilt" or words of similar impact.
8. Exterior side storage compartments may not be moisture free. It is advised that you store items accordingly. Roadtrek Motorhomes is not responsible for goods damaged while stored in exterior storage compartments.
9. There will be no allowance for emergency road repair, towing, labor, meals accommodations, etc. Such will not be accepted if claimed under warranty.
10. Aluminum wheels are not warranted against corrosion that is a result of road salt, sea salt, cleaning chemicals or harsh driving conditions.

The provisions of this limited warranty shall not apply to deterioration due to wear and exposure beyond the following limitations:

1. For ninety (90) days after the "QualityCare" Pre-Delivery Report is completed by the dealer for appliance adjustments, door latch adjustments, light bulbs, fuses, battery in the smoke detector and window screens. After 90 days these items are considered part of normal maintenance.
2. For one (1) year from the date of original purchase sewage hose, curtain fabric, seating fabric, carpet, cup holders, exterior stripping and decals, running board trim, propane regulators and black and grey water tank valves. After one year, these items are considered part of normal wear and tear, and maintenance.

Roadtrek Motorhomes Limited Motorhome Warranty is void unless the following conditions are adhered to:

1. Warranty Card on Vehicle must be completed by the Dealer and faxed to Roadtrek Motorhomes within 48 hours of date of retail delivery. When warranty applications are made and Warranty Card is not on file at Roadtrek Motorhomes, reimbursement of claim will be delayed until proof of original purchase is submitted to Roadtrek Motorhomes.
2. Warranty claims and authorization requests should be submitted using the Electronic Warranty Management system found on the Dealer Website. Including the last 8 digits of the Vehicle Identification Number (V.I.N.) and odometer reading. All claims must be submitted within 30 days of the date of repair.
3. Warranty work that will exceed \$200 must first be authorized by Roadtrek Motorhomes before proceeding with such work. The authorization number issued by Roadtrek Motorhomes must be noted on the warranty claim. See item #2 above.
4. Roadtrek Motorhomes reserves the right to inspect defective parts that have been replaced under warranty. Dealer is expected to hold selected parts for a period of not to exceed 60 days. (See below).

5. Only parts and accessories and other material, available through Roadtrek Motorhomes are to be used in the performance of warranty service. Express shipping costs are not covered by this warranty policy.
6. Warranty repairs performed a second time by a Dealer (due to incorrect or inadequate diagnosis, improper assembly or repair, or lack of proper testing when the original warranty repair was performed) are considered as shop comebacks and are not reimbursable. Costs of such repairs must be adsorbed by the Dealer.
7. Purchasers are responsible for presenting their vehicle to a Roadtrek Dealer as soon as problem exists. The warranty repairs should be completed in a reasonable amount of time from date of authorization.

This limited warranty is expressly in lieu of any other expressed or implied warranty, including any implied warranty of merchantability or fitness for a particular purpose and of any other obligations or liabilities on Roadtrek Motorhomes which neither assumes nor authorizes any other person to assume for it any other liability in connection with Vehicle manufactured by it.

Appliance Warranty

The following are not warranted by Roadtrek Motorhomes, but are covered by individual warranties offered by their respective manufacturers to which terms both Purchaser and Dealer must comply:

- air conditioner
- electrical inverter/charger
- electronic equipment (TV, DVD player, in-dash radio, etc.)
- furnace or other heating system
- hydronic heating system
- microwave oven
- refrigerator
- stove
- toilet
- water pump
- macerator
- water heater.

While still within the terms of the appliance warranty Purchaser and/or Dealer are required to deal directly with the nearest service center for such manufactured components and abide by the warranty policy as allowed by such component manufacturers.

Propane or Gasoline Generator

The generator is covered by the manufacturer's warranty.

1. The generator warranty may be voided if the manufacturer's maintenance and run requirements are not met.

AGM Battery Warranty

Batteries are warranted by the battery manufacturer for one year from the "In Service Date" of the Roadtrek.

1. Warranty is voided if AGM batteries are tampered with, topped off with distilled water or allowed to sulfate or freeze due to lack of charge.

Diesel Particle Filter Warranty

For diesel vehicles equipped with the underhood generator (GU Option) Roadtrek will warranty the performance of the Diesel Particle Filter for 5 years.

1. Should the filter need servicing, contact Roadtrek directly for servicing instructions.

Warranty Intent

The intent of this extended warranty is to assure the new owner of a Roadtrek that it is worry free from manufacturer caused defects for the first five (5) years of use. The first owners of this unit can feel comfortable that Roadtrek is behind them for five (5) years.

Registration

Please send this form in or email the information to sales@roadtrek.com ^[1] when you purchase your Roadtrek.

CHANGE OF OWNER NAME OR ADDRESS FORM

IMPORTANT - To owner with New Address or Used-Vehicle Buyer -
complete and mail for accuracy of recall mailing records.

PLEASE TYPE OR PRINT LEGIBLY:

1. VEHICLE IDENTIFICATION NUMBER (17 character number found on top left of instrument panel)

2. PRINT Last Name (including Jr., Sr., etc.)

3. PRINT First Name (or Initial) and Middle Name (or Initial)

4. PRINT NEW mailing Address: House/Building Number and Street Name (including St., Ave., Rd., Ct., etc.)

Apt./Suite No.

or

P.O. Box No.

or ☐RR/☐HCR (check one)

☐RR/☐HCR Box No.

City

State

ZIP Code

ZIP + 4

Area Code

Phone No.

Prov.

Postal Code

Month

Day

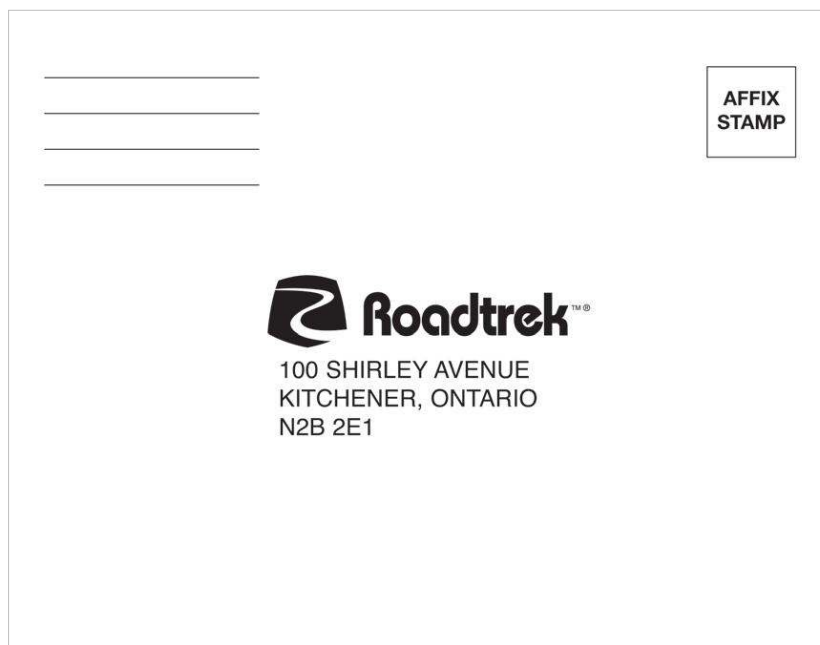
Year

Current Date

Email Address



Form 2, February 1999
M196204



References

[1] <mailto:sales@roadtrek.com>

Regulatory Notices

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration, (NHTSA) in addition to notifying Roadtrek Motorhomes.

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, and/or Roadtrek Motor Homes.

To contact NHTSA, you may call the Auto Safety Hotline toll-free at 1-888-327-4236, (or 366-0123 in Washington, DC area) or write to:

NHTSA
U.S. Department of Transportation
Washington, DC 20590

You can also obtain other information about motor vehicle safety from the Hotline.

HOWTO: Monitor Panel

The monitor panel is located inside the side door, above the rear captain's seat. Depending on the options you have, there may be an inverter panel to the left of the main control panel and there may be a gasoline generator starter switch and hour run meter to the right.

The monitor panel monitors your battery and tank status, and provides controls for all of the on-board utilities.



Monitor Panel

Battery Disconnect Switch

The battery disconnect switch turns the coach battery power off and on. When off, it prevents your coach batteries from being drained while the Roadtrek is not in use. The lights, the water pump, the fan, the refrigerator control board, even the igniters for the propane cooktop need 12 volt power from the batteries. If something electrical in your Roadtrek doesn't work, the first thing to check is to make sure the battery disconnect switch is on.

The battery disconnect switch is on the bottom left corner of the monitor panel. To its immediate right is a blue indicator light which illuminates when the switch is on.

You will hear a "clunk" as the battery disconnect switch is pressed - this is a big relay connecting the coach batteries to the electrical loads.

If you hear a clunk-clunk, or nothing at all, it's possible that your batteries are depleted to the point where they cannot drive the relay. Take steps to charge your batteries.



Battery disconnect switch on

Inverter Switch with 750 Watt Inverter

Just as the battery disconnect switch powers the lights, fan, and other 12 volt electrical loads, the inverter powers some of the 120 volt alternating current loads. This is the regular electricity you have in your house.

The inverter takes 12 volt power from your coach batteries and changes it into 120 volt electricity. It powers the television and home theatre system, plus some other outlet or outlets, depending on model. With this inverter, you can watch television or play a DVD while you are camping, without the need to plug into shore power or run your generator.

The inverter is rated for 750 watts maximum output, larger loads such as the air conditioner or microwave are too big to run on the power produced by the inverter, and will not operate unless you plug in or start your generator. The inverter will shut off if you try to draw too much power through it.

The inverter switch is on the left side of the monitor panel, above and to the right of the battery disconnect switch. It has an indicator light inside it that comes on to let you it's on. If you are not using any 120 volt electricity, turn the inverter off to conserve battery power, since it uses a small amount of electricity even when it's not powering any appliances.

The inverter will shut off if the battery voltage falls below a certain level. This is to protect your batteries, wiring, and the inverter itself from damage. Battery voltage drops under load, so it is possible to have the inverter cut off under high load when the battery voltage is normal with no load.



750 watt inverter switch



2500 watt inverter switch

Inverter Switch with 2500 Watt Inverter

If your Roadtrek has the engine generator and 2500 watt inverter option, your inverter switch will be on its own smaller panel to the left of the main monitor panel. The switch has three positions: off in the middle position, power save auto in the top position, and power save off in the bottom position.

In the power save auto setting, when you're not using anything with 120 volt power, the inverter will put itself to sleep. In this mode, it still uses a small amount of power. If you turn on a 120 volt appliance, it senses a load and will come back on in about 20 seconds. If you select power save auto you'll reduce the electricity it takes to keep the inverter powered, and your batteries will require less recharging.

Pressing the bottom of the switch selects power save off. When this setting is selected, the inverter will be on continuously.

There is a shore power indicator light to the right of the switch to tell you the system is receiving shore power. There is also a battery charging indicator light to tell you when the batteries are being charged by shore power.

Your refrigerator will run on either 12 volt battery power or 120 volt inverter power.

Patio Light

On the control panel, the top left switch is the patio light switch. Press the top of the button to turn the lights on, and the bottom to turn them off. These are LED lights and use very little power.



Water pump switch



Water heater switch and red indicator light



Tank level indicators

Water Pump Switch

The button to the right of the patio light switch is the water pump switch. It should be on only when you have water in the fresh water tanks and wish to use the sinks, showers, or toilet. The pump should not be run without water. As with the patio light switch, pressing the top of the button turns the pump on, and pressing the bottom turns it off.

Water Heater Switch

The water heater switch is to the right of the water pump switch. As with all the other switches on the monitor panel, the battery disconnect switch must be on for the water heater to work. Even though the water heater uses propane to heat the water, all the igniters and controls are electrical. Be sure that the water heater is full of water before turning it on - if water comes out of the hot water faucets when they are opened, the water heater has water in it. After turning it on, the red light to the right of the switch will come on for a few seconds, then go off as the burner ignites. If the light keeps going off and on, your burner is not lighting. Make sure that you have propane in your propane tank and that the main valve is open. If the stove burners light, your propane supply is good.

Tank Level and Battery Charge Indicators

To the right of the control switches are the indicator lights for the battery charge level, the propane tank level, the fresh water tank level, and the black and gray water tank levels. Press the button for each to see the display. These will give you an approximate reading, to the nearest third, of how much is in each tank.

Roadtrek recommends that you keep a small amount of water in your gray and black tanks at all times. This will reduce the likelihood of material sticking to the inside of the tank.

The four indicator lights for the battery are low, fair, good, and charging. Battery voltage dips under load; the greater the load the greater the voltage dip. A battery under heavy load will show much lower state than one at rest.

The propane indicators will show full when the tank is at its maximum capacity. Due to the nature of propane, the maximum fill capacity is 80% of the volume of the tank.

Generator Switch and Hour Meter

To start the generator push START. Allow the generator to run for a couple of minutes before turning on heavy loads such as the air conditioner.

To stop the generator, first shut down all heavy loads, let the generator run for 5 minutes to cool down, then press the STOP side of the rocker switch.

The hour meter keeps track of how many hours your generator has been running. This is important for servicing intervals such as oil changes, etc. See your Cummings/Onan generator service manual for details. There is a break-in oil change after the first 20 to 50 hours of use.



Generator switch and hour meter

HOWTO: Setting Up Your Campsite

What Do You Need To Hook Up?

In a Roadtrek, the answer to this question is - a lot less than you think. Rather than slog through the setup ordeal that Class As and fifth wheels and other trailers go through, Class Bs are much more nimble. We travel light and can set up and pack up in minutes. Let's look at the differences in these different types of units and see why.

Most big rigs and trailers don't really have a self-contained philosophy - they're basically like sticks and bricks homes on wheels, which require what campgrounds call "full hookups" (electricity, water, and sewer connections at each campsite) to function. Roadtreks have big fresh water and holding tanks that the other types of RVs lack, so it's usually easier just to plug into the electricity, and not bother with the water and sewer hookups. This makes your hookup procedure a five minute process - park in a level spot and plug in. Maybe hook up the cable TV, too, if they have it at the campsite, but that's about it.

It's a different philosophy because most large RVs plunk down and don't move once they get to a campsite. They have a towed vehicle - or the truck they haul their trailer with - to take short trips around the area. Since you don't have a tow vehicle like the big rigs, you need to be able to head out to the store or go sightseeing in your Roadtrek, so the less elaborate the set-up and pack-up procedures, the better.



Full hookups - electric, water, and sewer - plus lots of company

Connected Fresh Water vs. Using your Tanks

There's no real advantage to leaving the water hooked up all the time - it's easier just to get your hose out and fill your tanks, and then put the hose away. No leaks, no hose to trip over, no need to disassemble and store all that stuff when it's time to hit the road again. In a campground with shower facilities, your water supply will last for days, and when it runs out you just get the hose back out, fill it up again, and you're ready for another few days.

Sewer Hookup vs. Dumping

The advantage of using your tanks for fresh water over a more permanent water hookup is that you're automatically reminded of when your waste water tanks are full. When you're close to running out of fresh water, that means it's time to dump your wastewater tanks. With a more permanent hookup, the reminder may be waste water backing up in your sink or toilet, which is not nearly as pleasant. The tank level indicators only tell you to the nearest third what your tank levels are.

Since you have a waste water discharge pump, the big rig's semi-permanent giant sewer hose on an inclined pathway to the dump won't work for you - you have to run the pump anyway, so why not just dispense with all that unsightly and potentially hazardous plumbing? Full hookup sites have a handy sewer dump right at your campsite. When your fresh water runs low, refill your fresh water tanks, dump your waste water holding tanks, and you're good to go, plus you can drive off anytime merely by stowing your electrical cord.



Filling your tanks

Simplify, Simplify

Campgrounds capitalize on the helplessness of non-self-contained RVs by charging a premium for full hookup sites. You aren't helpless. With an electric-only hookup, you drive a short distance to the campground's fresh water source and waste water dump every few days. Do it on the way to the store or other trip that you're going to take anyway, and it's no bother. In addition to saving money, you'll also have a choice of more campsites, since not all of them have full hookups, or the even better choice of no campsite at all if you have extra batteries and solar or generator capability, or are just careful about your electricity use.

Freedom from hookups also opens up a whole range of national and provincial forest campgrounds with limited or no hookups to you. There is also dispersed camping in national forests and crown lands and other boondocking options, where you find your own campsite. There are rules for where you can and can't boondock, so check the forest websites or drop in the ranger station for information. Once you're out there, don't look around for those big rigs who are dependent on hookups - they're all back in town. It's just you and nature, with the occasional backpacker.



Why drive all the way back to town just to smell someone else's woodsmoke? Camp where you are.

Leveling your Roadtrek

Roadtreks don't have or need the built-in leveling jacks and stands large RVs have - it's usually easy enough to move back and forth in your campsite until you're reasonably level. However, many Roadtrek owners buy and carry leveling blocks for those places where finding a level spot is difficult. These are available in most camping supply stores or can be ordered online. They go under your tires, and can be stacked in various combinations to lift the low corner or end of your vehicle enough to get comfortable. Many Roadtrek owners install a small bubble level in an inconspicuous place visible from the driver's seat to assist with the leveling process.

How level is level? In general, if it's level enough to be comfortable for you, it's probably good enough for your plumbing. If you have a choice, it's better to have the front of the Roadtrek very slightly higher than the back for air conditioner condensate drainage. If you're not running your air conditioner, it doesn't matter.



Leveling blocks

HOWTO: Shore Power

Connecting To Shore Power

Your Roadtrek has a shore power cord, which is stored beneath the sofa. Plug the large yellow end of this cord into your shore power connection point directly in front of the driver's side rear wheel in the rear utility bay.

This plug goes in only one way - find the prong with the right angle (L-shaped) on the cord end and on the socket, and align them. Once the plug is pushed in all the way, turn it slightly clockwise to lock it into place and tighten the black plastic threaded ring around the outside of the socket.



Power cord stored under sofa



L-shaped prong on plug, and corresponding L-shaped hole in cord end



Attached shore power cord

To disconnect, unthread the black plastic ring and rotate the plug slightly counterclockwise to pull it out.

Campsite Power Connections

Most RV parks and campgrounds have AC power of various voltages and amperages available at each site. The power will typically be in a pedestal with a cover that flips up. If you cannot find your power pedestal or you're not sure how to open it, ask the campground personnel.



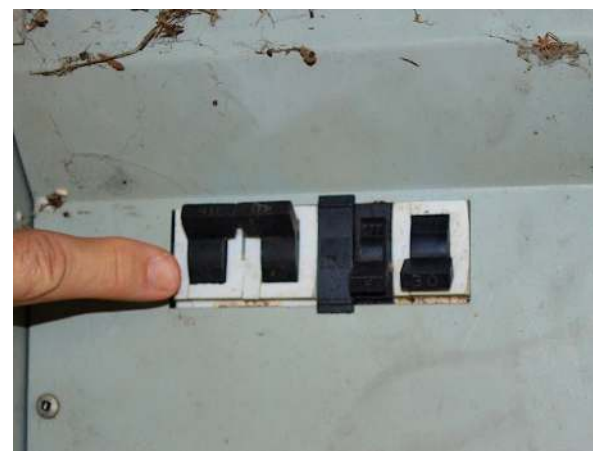
50A / 240VAC outlet



30A / 120 VAC outlet



15A / 120 VAC outlet



Breakers

A typical campsite's power pedestal will have three types of plug-in receptacles: 15 amp, 30 amp and 50 amp. The 15A receptacle is typically the same as you would find in your home. The 30A and 50A receptacles are specific to the RV industry. Other receptacles look similar but may not be wired the same. If in doubt, check with campground personnel.

The pedestal will also typically have individual breakers for the 15A, 30A, and 50A services. Many campgrounds turn off unused breakers so check that the breaker for the plug you will be using is turned on.

Your Roadtrek is equipped with a 30 Amp cord. Most power pedestals have a 30 amp receptacle.



15A to 30A adapter



50A to 30A adapter

It is possible that a campground (or perhaps a friend's driveway) will not have a 30A receptacle available for your use. You can purchase a 15A to 30A adapter and connect to an ordinary 15A household outlet.

Be aware that in those situations, you will have limited power compared to a 30A circuit. You will be able to run a single large appliance at a time; you may need to turn off your air conditioner if you want to use the microwave, for example.

If you exceed the current capacity of the receptacle you may pop the breakers in the pedestal. If this happens, turn off some appliances and reset the breaker.

It is also possible that you will find a 50A receptacle. Again, you can purchase a 50A to 30A adapter. In this case your power should not be limited as you will have the full 30 amps available. Although you are connected to a 50A service, you can only draw 30A; there is no advantage to connecting to a 50A service if a 30A service is available.

HOWTO: Potable Water Use

Your Roadtrek can operate in either fully self-contained mode, or can be connected to a water supply such as a campsite's faucet.

The city water connection is in the front driver's side utility bay, to the left of the propane tank. Unscrew the white plastic protective cap and connect your clean hose to the water faucet and to a water pressure regulator attached to this connection point. Turn the faucet on and check for leaks, tightening the connections as necessary.

 Campgrounds and municipalities vary greatly in supplied water pressure. Before connecting to external water supplies, install a pressure regulator inline with the water connection.

In a typical campground you may see the faucet with a backflow preventer attached. These look similar to a pressure regulator but do not affect the pressure. The backflow preventer is there to protect the campground. You need the pressure regulator to protect yourself from excess pressure.



Backflow preventer



Typical water pressure regulator)

 If you have any doubts about a water supply pressure situation, you can always fill your tanks from the water source using the gravity fill, and use the water pump to supply water from the tanks.

The city water inlet connection is located in the front driver's side utility bay, just to the left of the propane tank.

 Roadtrek recommends that you use a dedicated single purpose potable-water hose. These are usually white in color. Buy a new one and use it only for filling your tanks and connecting to city water. View any hose lying around a campground with extreme skepticism, especially if there's a wastewater dump nearby. Large RVs use hoses to flush their wastewater system.



City water fill location

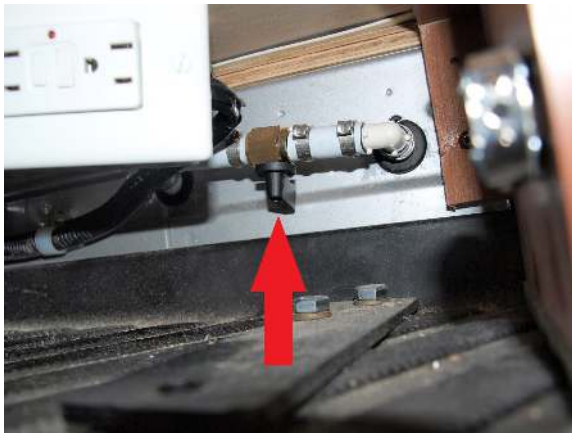


Access to the city water valve, side door area

To connect the Roadtrek's water system to an outside source:

- Turn the water pump off.
- Close the city tank fill valve by turning the handle to the across-the-line position. The city water valve is at the base of the back of the bathroom, to the left of the side door opening (see photo above).
- Close all interior faucets.
- Flush old water and any contaminants out of the water supply faucet.
- Connect your fresh water hose to the faucet.
- Attach your pressure regulator to the Roadtrek's city water connection.
- Attach a fresh water hose to the pressure regulator.
- Slowly open the faucet of the city water source.

- The city water connection by-passes the water pump and fresh water tank. Therefore, the use of these items is not necessary when connected directly to an external water source. Turn your water pump off when connected to city water.



City water valve in closed (handle across the line) position



Attaching pressure regulator to city water fill location



Hose connected

To disconnect the city water connection:

- Turn off the external water source.
- Open a faucet to relieve the pressure in the system. Failure to do so will not damage your vehicle, but may result in an unexpected shower when you disconnect the hose. The galley sink is a convenient place to do this.
- Make sure the the city tank fill valve is closed (handle across the line).
- Remove the hose from the city water connection, and replace the cap on the fill connection.
- Disconnect the hose from the supply faucet and stow it inside your Roadtrek. Connecting the ends is a handy way to prevent dirt or other contaminants from entering the hose while stored, and residual water from leaking out.

⚠ If you hear your pump running constantly and water pressure is low inside the vehicle after disconnecting from an external water source, it is because you have not properly positioned the city water valve. Make sure the black plastic handle is perpendicular to the water line when your water system is in self-contained mode.

HOWTO: Waste Water Dumping

Wastewater storage and dumping

Your house is permanently connected to your septic system or a municipal sewer; you don't have to worry about the wastewater you generate because gravity takes it away. Your Roadtrek doesn't have that connection, and has to hold any wastewater until you have the opportunity to dump it at an approved dump station.



Most municipalities have severe penalties for improper disposal of human waste, especially into a watershed - fines can be several thousand dollars, and it's often a felony. Even if it's "just gray water", it will still flunk a coliform bacteria test because of the common discharge hose, which is difficult to explain to a judge. Never dispose of wastewater unless you're sure you are at an approved dump station.

Tanks

Your vehicle is equipped with a gray holding tank and a black holding tank. The gray tank holds the sink and shower water. The black tank holds the toilet waste. As a result the black tank is a lot nastier than the gray tank.

Waste Water Discharge Pump

Your Roadtrek is equipped with a waste water disposal pump to make dumping your tanks easier and cleaner. The macerator in this pump grinds up any solids in the system and pumps the resulting wastewater out to the dump station.



Do not throw any paper towels, personal wipes, rags, baby wipes, tampons, hairballs, etc. into the toilet. The macerator is not capable of handling these types of solids and will jam or be damaged. Use toilet paper intended for RVs or septic systems.



If in doubt, take a tissue, and leave it in a glass of water. Stir with a spoon a couple of times. If it falls apart into a goeey slurry after a few minutes it's safe for your tank. If it stays together, swells up, or clumps into a solid mass, it's not safe and should be disposed of in the trash and not down the toilet.

- ❗ If possible, you want to dump the tanks after driving as the movement of the vehicle will have sloshed the water in the tanks, loosening any solids.
- ❗ Make sure the tanks are as full as possible before dumping - you may wish to use a hose or bucket to add water to the black water tank through the toilet if it is less than 1/2 full.
- ❗ You should dump the black tank first, then the gray tank. The water in the gray tank is considerably cleaner, and will rinse any remaining solids from the hose and the macerator. You should dump both tanks in sequence if possible.

Dumping the tanks



Side compartments



Swivel the support to prop the access bay door open

- Open both compartment doors behind the driver. This will expose the green waste water discharge hose. Support the doors in the open position by swiveling the support so that the long end points toward the Roadtrek's body.
- Open the driver's door and locate the waste water pump switch. It is a red pushbutton located on the driver's seat base.



Rear compartment contents



Extending the hose

- Remove the waste water discharge hose from storage by pulling it straight out far enough to reach the dump.



Waste water pump button on base of driver's seat



Open the dump hose valve

- Insert the waste water discharge hose outlet into the dump station waste receptacle.

- Open the valve on the end of the waste water discharge hose by turning the black plastic handle to line up with the length of the hose.



Doughnut installed on nozzle



Rock used to weigh the hose down

- There are two ways to secure the hose in the dump station waste receptacle four inch pipe. In the white box that came with your Roadtrek there is a rubber doughnut, which goes over the discharge nozzle and can be wedged into the waste receptacle to hold the waste water discharge hose in place. Some RV parks require you to use a doughnut. If you trust gravity more than friction, or don't want to store the doughnut between uses, use a rock to weight the hose down. Either way, make sure the hose doesn't get loose when you turn the pump on.



The discharge stream is forceful and will knock the hose out of the drain if you do not weight it down or secure it in the drain with the doughnut. It is much easier and more sanitary to secure it before turning the pump on than it is to chase it around afterwards.

- Open the black water tank gate valve by pulling the black handle out. It will come out approximately three inches (8 cm) and stop.
- Press and hold the waste water pump button until the tank is empty.



The waste water discharge pump will be damaged if allowed to operate dry for any length of time. Turn off the pump as soon as the solid stream of liquid begins to sputter, and the pump's sound changes.

- Close the black water tank valve by pushing in on the handle.
- Open the grey water tank gate valve by pulling the grey handle out. It will come out approximately 1 1/2 inches (4 cm) and stop.
- Press and hold the waste water pump red button until the grey waste tank is empty.
- Close the gray tank valve by pushing it back in to the original position.



Open the black valve



Open the gray valve

 Always dump the black tank first and the gray tank second. The graywater will help flush any remaining solids from the dump hose. If you wish to rinse the system, pour water down the toilet and sink, and dump again.

- Close the valve on the end of the hose by turning the handle so that it is across the hose.
- Rinse off the dump area and the dump hose.
- Return the hose to its storage compartment by pushing the green hose back onto the reel.
- Add about ½ gallon of fresh water to the black tank. While you're doing this, add a packet of black holding tank chemicals to the tank.

 Do not toss the packet into the toilet, even if it claims to be `dissolvable`. It may not be dissolvable enough for the macerator. Tear open the packet and pour the contents into the black tank, and dispose of the packet in the trash. The contents of the powder packets can be irritating to your eyes and nose, so hold the packet low to the bowl and try to pour directly into the tank.

Jammed waste water pump

If the waste water discharge pump stops while you are pushing the button, it's jammed. Something has gotten caught up in the blades. Release the button to stop the pump.

- Locate the manual waste water pump knob just to the right of the gray and black valve handles.
- Push in on the knob and turn clockwise; you will feel the knob engage the pump shaft.
- Turn the knob first in one direction and then the other to loosen the obstruction.
- Once the obstruction is loose, continue dumping by pressing the discharge pump button again.



Waste water pump manual crank knob

HOWTO: Cable and TV Reception

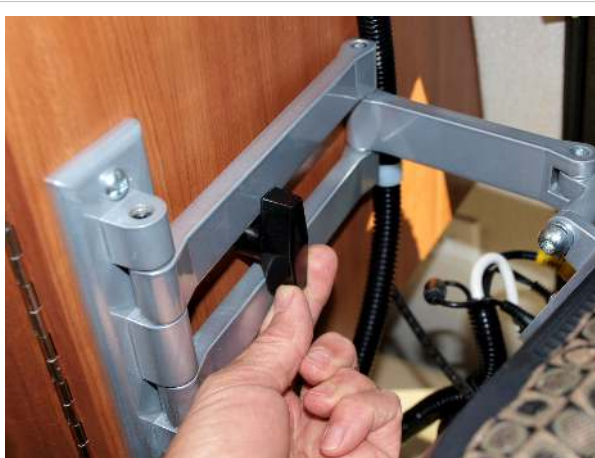
Your Roadtrek comes with a home theatre system. This consists of a TV, a DVD player, the speaker system and the radio in the dash, along with a rooftop TV antenna and a cable TV connection.

The TV and home theatre system are located in the rear on the passenger side. The Cable TV/Antenna switch and power amplifier for the built-in antenna are in the cabinet just above the DVD player.

The TV and the home theatre system must be on to use the system. Both the television and the DVD player use 120 volt current, so the inverter, generator, or shore power must be used. Refer to the Electrical System for instructions on 120VAC power.

The TV and DVD are supplied with remote controls.

The home theatre system has inputs for media devices. Read the Owner's manual for full details.



TV Bracket release



DVD player

The TV is stowed against the wall on a hinged bracket. The bracket is secured with a large thumbscrew. Turn the thumbscrew horizontally to release the bracket and vertically to secure the bracket to the wall.

Once released, you can swing the TV to a comfortable viewing position.



Always stow the TV with the bracket secured to the wall for travel.



TV antenna switch and power injector



Rear speaker switch

Over-the-air TV



Antenna/cable AB switch set for antenna
(top button)



Antenna booster/power injector
connection

To watch TV using the Roadtrek rooftop antenna:

- Have 120 volt AC power available (inverter on OR shore power plugged in OR generator running)
- Turn on TV and home theatre system
- Make sure the power amplifier is on
- Set the speaker selector to "SURROUND"
- Set the antenna/cable TV switch to Antenna by pressing the top button on the amplifier switch

DVD

To watch a DVD:

- Have 120VAC power available
- Turn on TV and home theatre system
- Set the speaker selector to "SURROUND"

Cable TV

To connect your Roadtrek to cable TV at a campsite or at home, locate the Roadtrek's cable TV connection, behind the rear utility bay door on the bottom of the driver's side of the vehicle. It is the square gray plastic cover about 3 cm on each side which is hinged at the side, which opens to expose the barrel connector the cable connects to.



Cable TV connection location



Coaxial TV connecting wire with screw-on end

You will need a length of coaxial TV cable to reach from the cable TV outlet to your Roadtrek's connection point. These are available at most electronic supply and camping supply stores and come in various lengths. The cable is typically sold as RG-59U or RG-6 with F-type connectors. The RG-6 is preferable but either will work.

Screw the cable onto the barrel connectors at each end.



TV cable connected



AB switch selected for cable (bottom button)

Push the bottom button on the A-B switch in the cabinet above the TV. The bottom button connects your TV to the cable connection, and the top button connects it to the over-the-air signals from your rooftop antenna.

Rear Speaker Switch

The speaker switch is located in the same cabinet as the Cable/Antenna switch. You can select Surround, Off, or Automotive.

In the Surround position, the rear speakers (the speakers above the bed) will work with the TV/home theatre system. In the Off position the speakers are off. In the Automotive position, the speakers are connected to the dash radio.



Rear speaker switch

HOWTO: Propane System

Your vehicle is equipped with a propane system which, when properly operated and maintained, will provide trouble and worry free operation of your propane fueled appliances.

Regulatory Concerns



The main shutoff valve must be closed whenever the vehicle is in motion.

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 shutoff valve closed. Other bridges/tunnels/ferries ban vehicles with propane tanks entirely. Plan ahead and take an alternate route if passing through areas where vehicles with propane are prohibited.

Propane Tank Location

The propane tank is located behind the front utility access door along the bottom driver's side of the vehicle. To access the tank for filling and to turn the manual tank shutoff valve off and on, pull the door up and secure it with the rotating tab.

Main Shutoff valve



Propane tank



Support for side compartment cover



Main valve

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

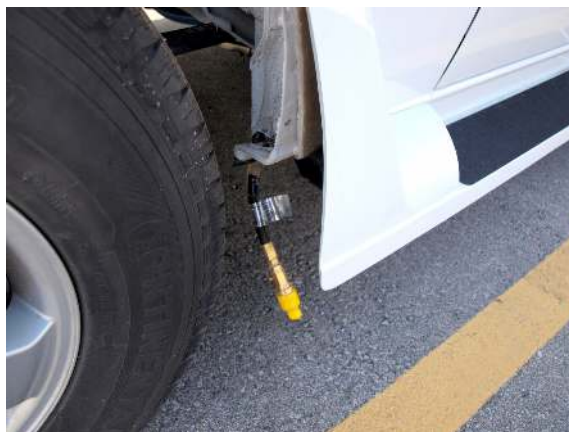
The propane valve has arrows on it indicating which way to turn it - clockwise is closed and counterclockwise is open.

If you close the main valve for an extended period of time it is possible for the distribution lines to fill with air. It may take a while for propane to fill the lines again. The furnace and water heater handle this automatically; for the stove you can smell the difference between propane and air.

BBQ connection



High pressure BBQ connection, in stowed position in front of passenger rear tire



Propane connection with dustcap



Valve in open position

The propane system has a high-pressure auxiliary BBQ connection. The hose is located in front of the rear passenger tire and pull it out of the channel it is stowed in. The hose has a yellow dustcap, and an integral cutoff valve which is closed when the brass handle is across the line, and open when the handle is parallel to the line. This connection provides 15PSI regulated propane to appliances that have their own regulators or are built to use high-pressure propane. Many grills in North America are low pressure (.5 PSI) and cannot use this connection without an additional regulator. The auxiliary BBQ male connector is Cast Products part # 829000 or 829120. The hose assembly in varying lengths is available as MB Sturgis part no. 100476.

Propane Tank Filling

✗ 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.

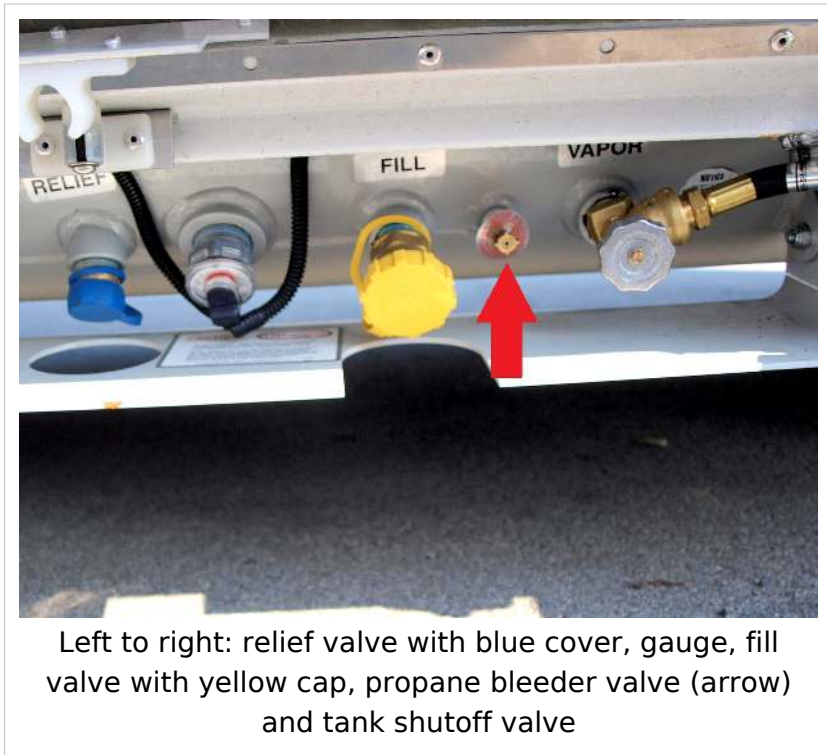
To fill the tank, first turn off all propane appliances, then turn off the tank shutoff valve.

We recommend that you find a licensed dispenser 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.

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.

Under no circumstances should the tank be filled 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.



Left to right: relief valve with blue cover, gauge, fill valve with yellow cap, propane bleeder valve (arrow) and tank shutoff valve

Propane Level Gauge Sender

The propane tank has a level indicator with a remote sender to the Monitor Panel. The black wire you see of this gauge connects to the monitor panel, and allows you to check your propane level while inside the Roadtrek.

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 16 gallon tank in your Roadtrek will hold 12.8 gallons / 48 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. If you detect no propane flow, and you have checked that you have propane in the tank, turn off all appliances, shut off the main valve, and wait 10 minutes.

Slowly turn on the propane, turning the main valve 1/4 turn a minute until the valve is open. Check for propane smell as you turn on the valve.

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.

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 colourless, 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, **do not operate any switches**, 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.



The auxiliary BBQ connection is regulated to 15 P.S.I. If you are using an external grill with this hookup, ensure that the appliance is rated for that pressure or has its own regulator for lower pressure.

HOWTO: Water System Winterizing

Do you really need to winterize?



If your Roadtrek is going to remain heated to comfortable temperatures, and the temperatures during the day are well above freezing (above 40 deg. F or above 4 deg. C) and the forecast is for temperatures just below freezing for a few hours at night with calm winds, then you don't need to winterize. The heat in your Roadtrek is enough to keep the lines from freezing.



If the forecast is for extended cold periods, with daytime temperatures at or below freezing, if you're not heating your Roadtrek, or if you expect sustained winds and the roads and ground is already frozen, you need to winterize.



As always, you are final judge and you need to do what is comfortable and makes you feel good. If you are not comfortable with leaving water in your lines when it gets cold, and you will sleep better, go ahead and winterize.

How to winterize using anti-freeze



Typical non-toxic RV antifreeze



Water heater enclosure, under sofa and behind drivers side rear door

This procedure can be done in less an hour with only one specialized tool, a 1-1/16 inch (27 mm) socket and a ratchet or breaker bar.

- Get 2-3 gallons of RV antifreeze.



DO NOT use automotive antifreeze. RV antifreeze is non-toxic and safe for potable water lines.

- Dump and rinse the gray and black tanks if they are not already empty.
- Turn off the water pump and open your single lever galley faucet, putting it in the middle halfway between the hot and cold settings.

- Drain the fresh water tanks by opening the fresh water tank drain valve, located under the passenger front door step. Let this drain for at least 10 minutes. Close the drain for the exterior tank.
- Turn the water pump back on. Put the galley faucet in the cold position, and open it. If the fresh water tank is empty, the open galley sink faucet should sputter. If it emits a steady stream of water, the tank is not empty. You will need to run the water until it is empty, either catching it in a container and throwing it outside, or running it down the sink and re-dumping the gray water tank. Do so if necessary, and then turn the water pump off. Return the galley sink lever to its open position halfway between hot and cold.



Freshwater tank drain valve



Water heater cover removal (turn tab vertically to remove cover)



Water heater pressure relief valve

- Make sure the water heater is turned off on the control panel switch. Go outside and take the cover off the water heater. Pop open the pressure relief valve at the top of the water heater. A small amount of water might flow out.

✖ If water is gushing out continuously, STOP! Go back to the beginning of this guide. DO NOT remove the anode rod until you figure out what's going on. You either left the water pump on, or you are connected to city water.



Water Heater Anode

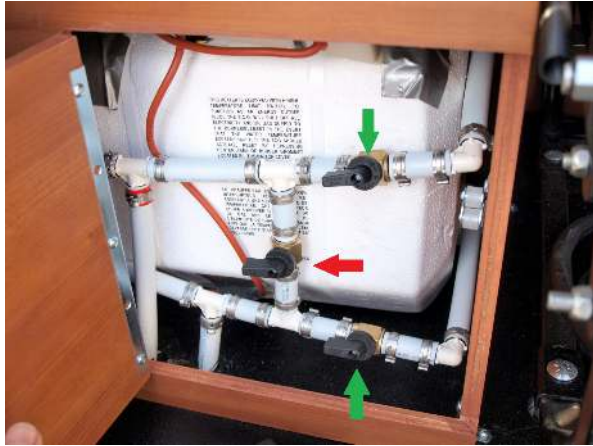


Water heater anode with some corrosion, but probably cleanable and usable for another year.

- Drain the water heater by removing the anode rod. You will need a 1-1/16" socket and a ratchet or breaker bar.



This is a good time to rinse out the water heater and inspect the anode rod. If the anode rod looks spongy or all that is left is a rusty iron rod, discard and replace with a new anode rod. Use teflon tape on the threads to reinstall the anode rod. Do not overtighten.

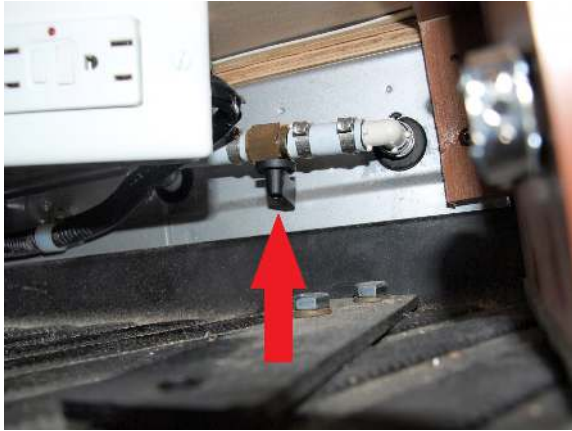


Water heater bypass valves in the normal position, all pointing to the left. Green means open, red closed.



Water heater bypass valves in the bypass position, all handles vertical. Green means open, red closed.

- Set the valves at the water heater to the by-pass position (at right angles to the water lines). The “middle valve” (the one on the water line connecting the line at the top of the water heater to the inlet at the bottom of the heater) should be turned in line with the tubing. Turn each one 90 degrees to achieve the bypass position.
- Check to be sure that the drain on the fresh water tank and the black and and gray waste water tank valves are all closed. Move the single lever galley faucet all the way to the cold side, and leave it open.
- Add 2 gallons of non-toxic RV approved antifreeze to the fresh water tank gravity fill using a spout or funnel, and wash any spillage off the paint.
- Turn the water pump on and allow to prime. Close cold galley sink faucet once you see pink antifreeze coming out.
- Move the single lever galley faucet to the hot side, and run until you see pink antifreeze come out. Open both hot and cold faucets in the bathroom sink. Open the toilet valve. Open the hot and cold faucets on the outside shower. Observe the antifreeze flow through all fixtures, then close each fixture. Ensure antifreeze flows into all P-traps (galley sink, washroom sink, and shower drain). Add antifreeze any extra antifreeze to the galley, bathroom sink, and shower drains.
- If the water pump loses its prime in this process, add more antifreeze to the fresh water tank.
- Open the grey and black waste tank valves, and operate the waste water discharge pump for about 10 seconds. You should see pink antifreeze coming out of the waste water discharge hose.



City water connection valve, shown closed



Water pump access inside passenger side bench enclosure



Water pump filter

- Open the city water valve. This valve is behind the access panel to the left of the side door step, under the back of the bathroom. The water pump will operate. Allow it to run about 20 seconds. Turn city water valve off.
- Turn the water pump off and open a galley sink faucet to release back pressure.
- Open the fresh water tank drain line under the passenger front door briefly until antifreeze flows out.
- Remove and clean the water pump filter if so equipped. To access the water pump filter, remove the two screws on the lid of the passenger side bench just behind the bathroom, and lift the lid. Replace water pump filter.

Winterizing using compressed air

Roadtrek recommends against using compressed air for winterizing.

Other methods of winterizing

Roadtrek only recommends the winterizing method outlined above using RV antifreeze.

HOWTO: De-Winterizing

If you winterized only for a short time (less than a week) you can skip to the second step.

First step

You will need 2 gallons of water and 1 cup of fresh bleach. (Bleach loses its potency over time; always start with bleach that is less than 6 months old.)



Fresh water tank drain, under passenger front door step



Gravity fill on front door post

1. Check to be sure the fresh water tank drain valve is closed, then add the water/bleach mixture to the fresh water tank through the gravity fill.
2. This is a good time to get some stuff for spring cleaning of your Roadtrek, so drive around for an hour. Let it sit for a couple more hours.
3. Open the fresh water tank drain valve and let the bleach/water mixture drain to ground. This can take 10 minutes or more. This kills any bacteria in the tanks before you distribute them through the entire water system.

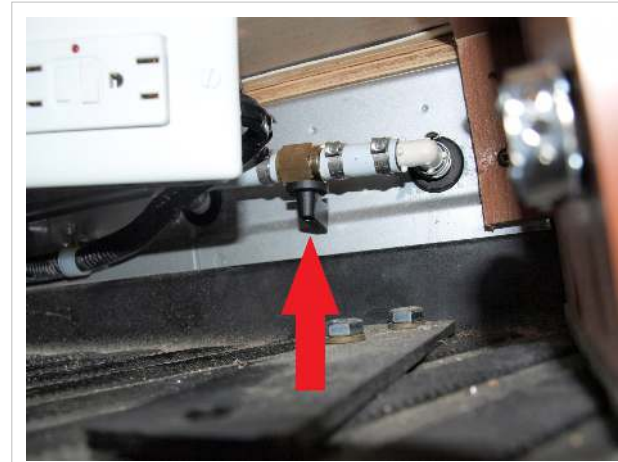
Second step

You will need a good supply of fresh water and a cup of chlorine

- Fill the fresh water tank approximately 1/2 full, adding a cup of chlorine bleach halfway through the filling process.
- Turn on the water pump, and circulate the dilute bleach solution through the entire system. The water heater is still winterized. Run water out of all three faucets (galley, washroom, and outside shower), hot and cold, until you smell chlorine. With the water pump on, open the city water valve and let the pump push water through the fill line for a minute or so. The city water valve is behind an access panel at the bottom of the back of the bathroom, to the left of the side door opening. Close the city water valve by turning the handle across the water line.



Access to city water valve



City water valve in shut position

- Pull the anode rod out of the water heater and flush out the water heater tank with a hose. Install the new anode rod using Teflon tape on the threads, and close the pressure relief valve. Take the system out of water heater bypass mode by turning the three valves on the lines in front of the water heater so that the handles all point toward the left.



Anode rod location



Water heater valves in normal position - green arrow means valve is open; red means shut. All handles point to the left.

- Open the galley sink, move the handle in the hot water direction, and run the water pump until water flows from hot water tap at sink and you smell chlorine. The water heater holds six gallons, so it will take a while for it to fill up.
- Allow the system to sit overnight.
- Drain the fresh water tank completely, fill with clean water, and run all faucets for 2-3 minutes each. To help get rid of the residual chlorine smell, pour a cup of vinegar into the fresh water tank, fill, let sit for a few hours, run each faucet for a minute or so, drain the tank to ground, and refill with fresh water.