

Owner's Manual

2016 E-trek



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HOWTO: Monitor Panel

Location

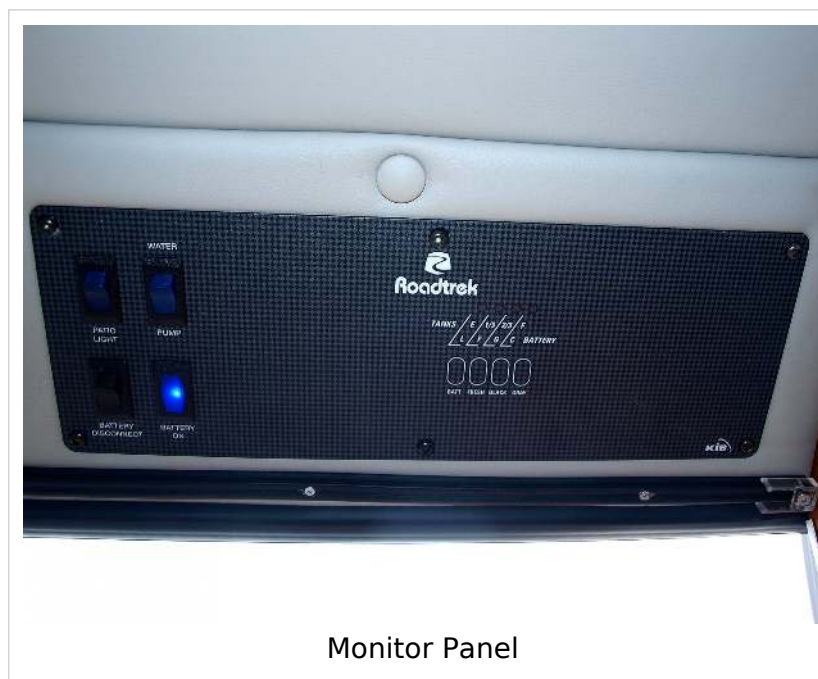
The monitor panel is located inside the side door, above the rear captain's seat. To the left of the main monitor panel is the inverter switch.

Power Sources

The monitor panel controls two separate power sources; 12 volt DC power from the batteries, solar panels, and engine generator, and 120 volt AC power from the inverter and shore power.

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.



Monitor Panel

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, etc. - all 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 to show you that your batteries are supplying power to the coach.

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, such as starting the vehicle engine, and try again after building the batteries up to a charge level where they will power the relay.



Battery disconnect switch

Inverter



Inverter Switch



Inverter power indicator light location

The inverter provides 120 volt AC (household current) to the 120 volt appliances and wall outlets.

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.

On the right side of the inverter switch are three lights. There is a shore power indicator light to show you the system that is receiving shore power. There is also a battery charging indicator light to tell you when the batteries are being charged by shore power. The third light will alert you to any inverter error messages, which are displayed on the inverter display panel.

Your refrigerator will run on either 12 volt battery power or 120 volt inverter power, but will use less electricity if the inverter switch is off because of the conversion loss. If all you're running is your refrigerator, such as when you retire at night, turn the inverter off and save battery 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. Both of these switches light up to let you know they are on.

Tank Levels and Battery Charge Indicators

To the right of the control switches are the indicator lights for 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.

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.



Tank indicators

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 to take advantage of the E-Trek's extended boondocking capability. You can stay out there until you run out of groceries if you want.

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 at 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.



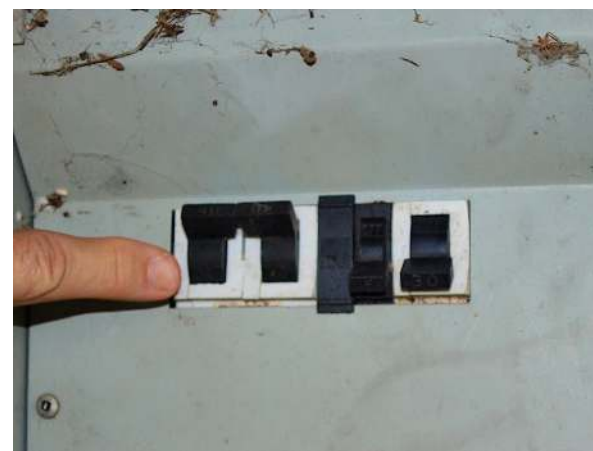
50A outlet



30A outlet



15A 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 driver's side center access bay, to the right of the sheet metal housing for the gray and black valve handles and TV connection. Unscrew the white plastic protective cap and connect your clean hose to the water faucet and to the city connection. Turn the faucet on and check for leaks, tightening the connections as necessary.



Campgrounds and municipalities vary greatly in supplied water pressure. If you're unsure of the water supply, test it first.

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 (Owner supplied)



City water fill location



Built-in pressure regulator

❗ If you have the words "Pressure Regulator" stamped on your city water connection, you do not need an external pressure regulator. If in doubt, use an external 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 center driver's side compartment, to the right of the sheet metal housing for the gray and black tank handles and TV connection

⚠ 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.



Access to the city water valve, side door



City water valve in closed, across-the-line position

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

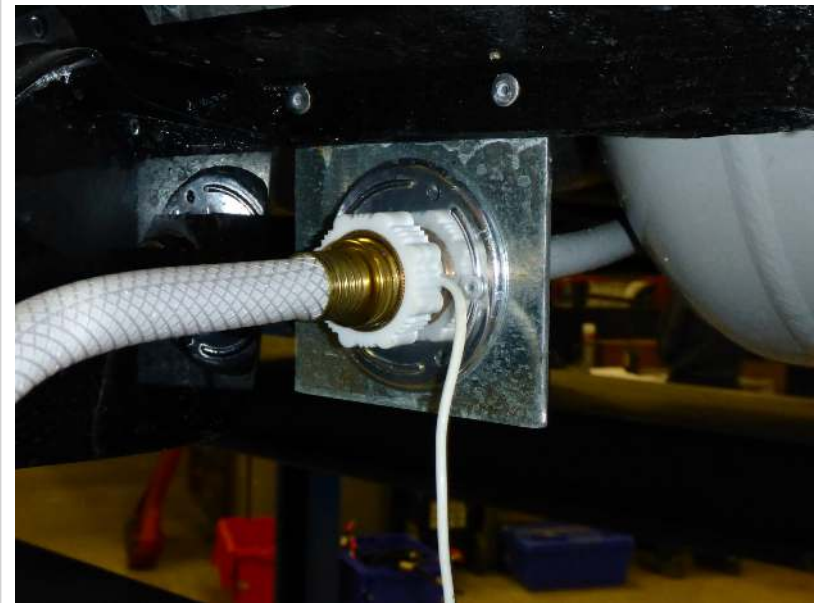
- Turn the water pump off.
- To run the pump, close the city water valve. To do this, remove the wood access panel with the round hole in it on the left side of the side door step. The city water valve is inside the exposed opening. Turn the handle vertically to the across-the-line position (see photos 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 fresh water hose to the city water connection.
- 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. Leave your water pump turned off when connected to city water.

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. Go inside and use the galley sink faucet.
- Make sure the the city water 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 vehicle. 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 (across) the water line when your water system is in self-contained mode.



Hose connected

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



Sprinter side compartments



210 Popular side compartment

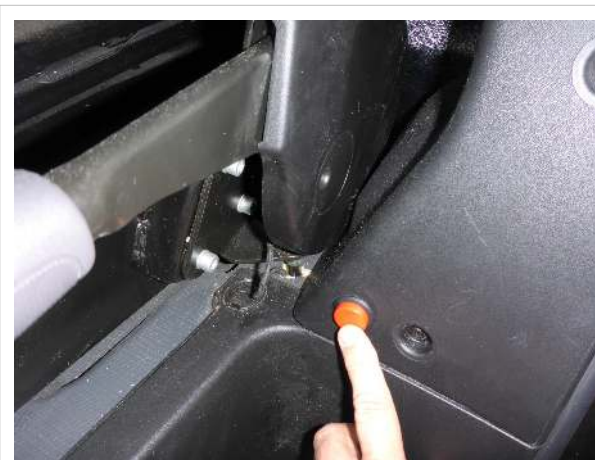
- Open the compartment doors or drawer behind the driver. This will expose the green waste water discharge hose and controls.

⚠ Depending on your model, your hose and dump valve location may look a bit different. Take the time to identify all of the components before you start.

- Open the driver's door and locate the waste water pump switch. It is a red pushbutton located on the driver's seat base or on the B pillar.



Macerator button on base of driver's seat



Macerator button on the B pillar behind driver

- Remove the waste water discharge hose from storage by pulling it straight out far enough to reach the dump.
- Insert the waste water discharge hose outlet into the dump station waste receptacle.
- Open the valve on the end of the sewage discharge hose by turning the black plastic handle to align with the hose.



Extending the hose



Open the dump hose valve

- 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.



Rubber doughnut installed on nozzle



Rock used as weight to hold the hose

- Push the jogger handle in and turn it to loosen any materials in the macerator. Pull the jogger handle out.
- 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.
- 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 discharge valve on the end of the waste water hose.
- Rinse off the dump area and the dump hose.
- Return the waste water hose to its storage compartment by pushing the green hose back onto the reel.
- Add about $\frac{1}{2}$ 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.

 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.

Jammed waste water pump



Sprinter macerator manual crank knob



Chevy macerator manual crank knob

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.
- 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.

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 injector 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 120 volt AC 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



TV in stowed position, with cover

Over-the-air TV



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

To watch TV using the Roadtrek rooftop antenna:

- Have 120 volt AC power available (inverter on OR shore power plugged in)
- Turn on TV and home theatre system
- Set the speaker selector to "SURROUND"
- Set the antenna/cable TV switch to Antenna by pressing small white button on the panel

DVD

To watch a DVD:

- Have 120 volt AC power available (inverter on OR shore power plugged in)
- 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 even in your driveway, first locate the Roadtrek's cable TV connection. It is behind the middle utility bay door on the bottom of the driver's side of the vehicle, just to the right of the waste water hose and handles, and has a 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 hooks to.



Cable TV connection location



Coaxial TV connecting wire with screw-on end

You need a length of coaxial TV cable to reach from the cable TV outlet to your Roadtrek's connection point. These are sold in electronic supply and camping supply stores and come in lengths of 25, 50, and 100 feet. 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



Rear speaker switch

Push the white button on the panel to switch between cable and antenna.

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.

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.

Winterizing the E-Trek



Typical non-toxic RV antifreeze



Fresh water tank drain valve

You will need:

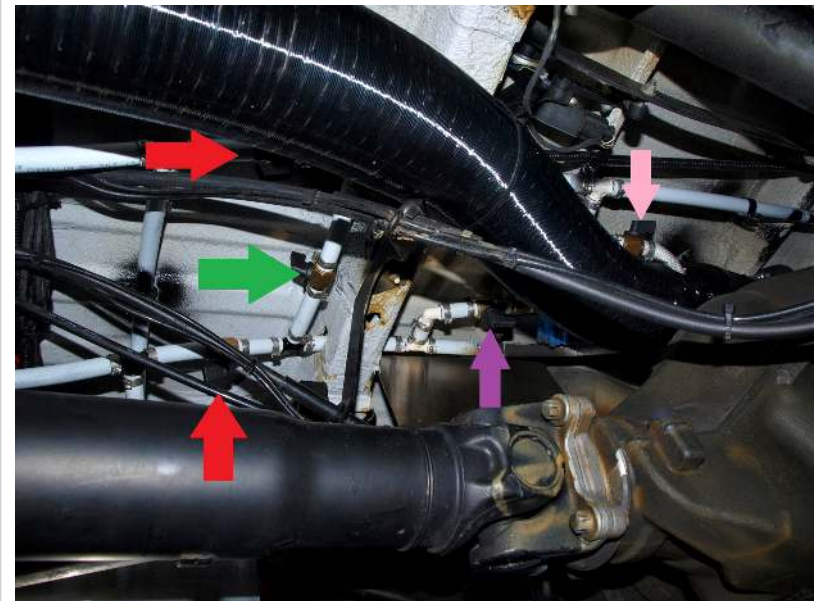
1. four gallons of pink RV antifreeze
 2. Replacement filter for the hot water dispenser
 3. A place to dump a small amount of water and non-toxic antifreeze
- Take your vehicle to a wastewater dump location, and dump and rinse your black and gray water tanks completely.
 - Turn off the water pump.
 - Empty the fresh water tanks by opening the locating the valve under the passenger side front door running board, just behind the front wheel. This valve is not visible from the side of the E-Trek, and will require you to get down and look underneath the front passenger door step. The valve has a black plastic handle which points across the water line when closed, and along the line when open. Open this valve and allow the fresh water in the tank to drain out onto the ground.

- Open the sliding side door, remove the wood panel, and open the city water valve. Turn this valve so that the black plastic handle is pointed in the same direction as the water line.
- Allow air to enter the system by opening the galley faucet and the hot and cold bathroom sink faucets. This will drain the lines from these faucets to the water pump.
- Press and hold the hot and cold handles on the instant hot water dispenser until no more water comes out.
- Close the city water valve by turning it 90 degrees so that the black plastic handle is across the water line.
- Close the galley sink and bathroom sink faucets.
- Close the fresh water tanks drain under the passenger side front door running board (black handle should be perpendicular to water line).

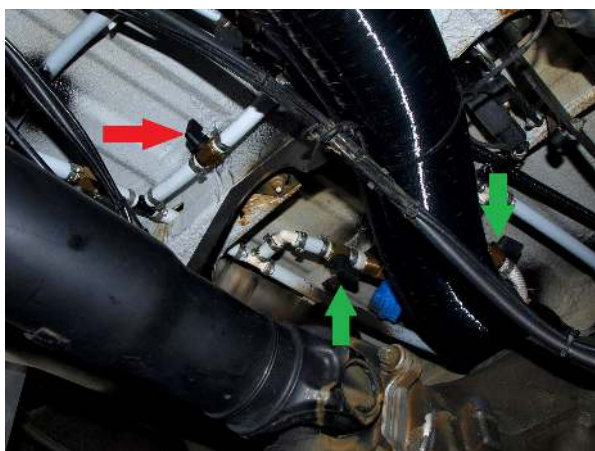


City water valve (shown closed)

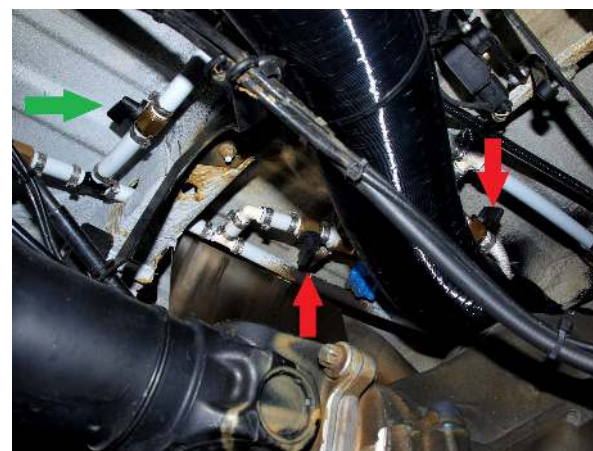
- Locate the Webasto diesel-fueled hot water unit underneath the vehicle. It is immediately behind the center of the rear axle (the differential). There are two air ducts on the front side of the unit, near the top. There are also two white water lines coming rearward from the front of the Roadtrek, one on each side of the centerline. Just before these lines get to the Webasto unit, there is a transverse white hose connecting them, with a valve on it. This is the shunt valve. To winterize, you open the shunt valve, and close the two valves on the hot and cold lines going into the Webasto BETWEEN THE SHUNT (TRANSVERSE) LINE AND THE WEBASTO UNIT. There may be other valves on the hot and cold lines forward of the transverse white hose connecting the two water lines - DO NOT TURN THESE VALVES. (see photos right and below). The valve on the line between the transverse line and the Webasto unit leading to the blue overpressure relief valve is the cold side bypass valve. Turn all three valves 90 degrees so the shunt valve handle is pointed along the water line (open) and the cold and hot line valve handles are across the line (closed).



Wide view of the valves on the water lines forward of the Webasto unit in normal, non-winterized mode. The two valves (red arrows) forward (left) of the shunt valve (green arrow) are to be left open whether the system is winterized or not. The hot (pink arrow) and cold (purple arrow) valves between the transverse shunt line and the Webasto unit are open normally, closed when winterized. The shunt valve is closed normally, open when winterized.



Webasto line valves in normal operating position. Green arrow means valve is open, red closed.



Webasto line valves in bypass position. Green arrow means valve is open, red closed. Front of vehicle is to the upper left.

- Open the passenger side front door, remove the orange plug from the fresh water fill in the doorsill, and pour two and a half gallons of RV water system antifreeze into the fill port, using a funnel. You will need a the remaining antifreeze for the drains and wastewater system, so purchase four to complete the winterization process.

- Turn off the breaker in the 120 volt circuit breaker box which powers the instant hot water heater.
- Turn on the water pump.
- Turn on the cold water in the galley sink until pink RV antifreeze emerges from the faucet. Close the faucet.
- Press the toilet flush pedal until pink antifreeze comes out.
- Turn on the bathroom sink cold water faucet until pink RV antifreeze emerges from the faucet. Close the faucet.
- Press and hold the cold handle on the instant hot water dispenser until undiluted pink RV antifreeze emerges from the faucet. Then do the same thing with the hot handle. You will be filling the hot water reservoir with antifreeze, which takes approximately a gallon, so this may take some time.
- Open the city water valve for about 60 seconds to flush the water fill line with antifreeze.
- Turn the water pump off. Open a faucet to relieve pressure.
- In the cabinet under the convection oven there is a water filter for the instant hot water dispenser. After running antifreeze through the system, twist and remove this filter. Empty the contents of this filter into the sink, then reinstall the old filter. Buy a new filter to have on hand for dewinterizing in the spring, but do NOT install it until you have purged all the antifreeze from the system. This filter should be replaced annually, so it's most convenient to replace it at the time of dewinterizing.



Water tank fill location



Webasto control



Instant hot water filter

- Locate the Webasto unit control on the cabinet face behind the television. Turn the left knob to the dump position (all the way counterclockwise). Open the galley sink hot water faucet to allow air into the hot water system. It will take approximately 10 to 15 minutes for the unit to drain completely. The Webasto unit will reset after 90 minutes to close the dump valve.
- Turn on the water pump. Open the galley sink hot water faucet until antifreeze emerges. Do the same for the bathroom sink.
- Pour a half gallon of antifreeze down the sink into the gray water tank. This will be used to winterize the waste water disposal pump.
- Empty the black water tank by flipping up the front and middle flaps along the bottom of the driver's side, extending and weighting down the waste water discharge hose, opening the valve at the end of the waste water discharge hose, opening the black water tank valve by pulling the black handle, pressing the red button on the side of the driver's seat pedestal until no more water is discharged from the waste water discharge hose, and closing the black water tank valve. Either do this at a dump station or catch the discharge and dispose of it properly - it may contain debris from the black water tank.
- Open the gray water tank valve, press the red button again until no more water is discharged from the waste water discharge hose, close the gray water tank valve, and replace the waste water discharge hose. If you have emptied your gray and black water tanks before starting the winterization process, you should only get a small amount of water and antifreeze out of the hose.

- Divide the remaining antifreeze equally between the shower drain, the bathroom sink drain, and the galley sink drain.
- Open the fresh water tank drain line briefly until antifreeze flows out.
- Turn the water pump off.

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.)

- Mix up two gallons of water and one cup of chlorine bleach. Add to the fresh water fill. Allow a few minutes to drain into exterior tank.
- 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.
- Open drain valve and drain both tanks.

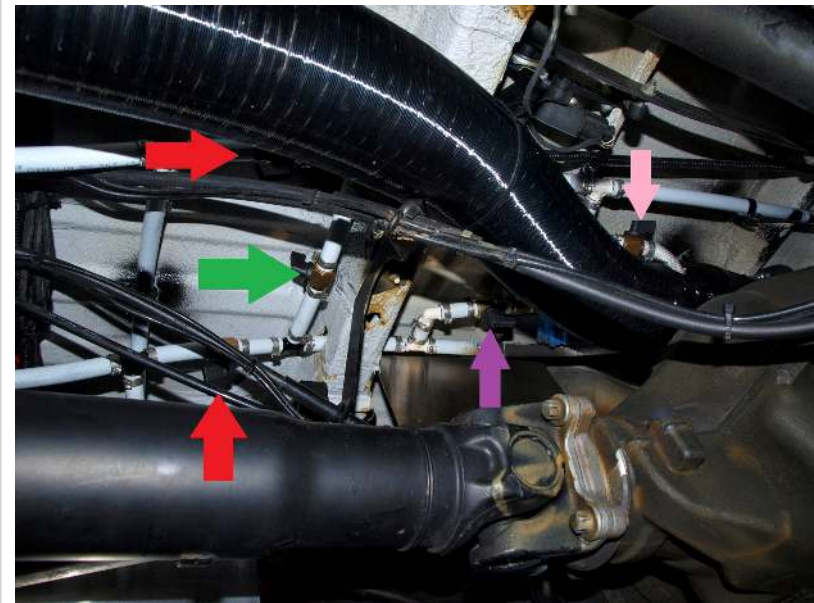
This kills any bacteria in the tanks before you distribute them through the entire water system.

Second step

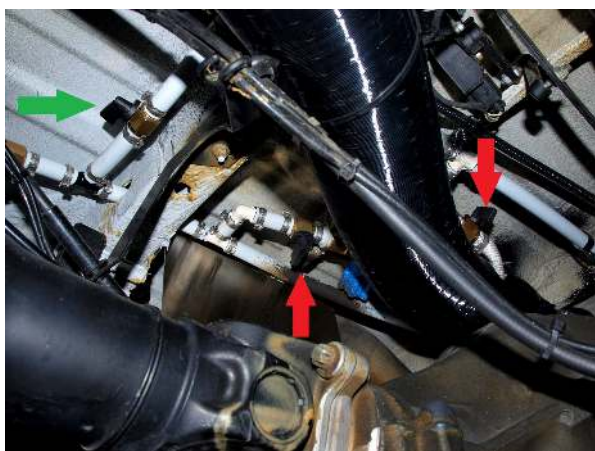
You will need a good supply of fresh water and a cup of chlorine.

- Mix 1/2 cup of chlorine with 2 gallons of water and pour into fresh water fill.
- Fill fresh water tank about 1/2 full.
- Add 1/2 cup of chlorine and fill fresh water tank about 3/4 full.
- Turn on water pump, circulate through entire system. The water heater is still winterized.
 - Run water out of every faucet and shower head 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.

- Take the Webasto out of bypass mode. Locate the Webasto diesel-fueled hot water unit underneath the vehicle. It is immediately behind the center of the rear axle (the differential). There are two air ducts on the front side of the unit, near the top. There are also two white water lines coming rearward from the front of the Roadtrek, one on each side of the centerline. Just before these lines get to the Webasto unit, there is a transverse white hose connecting them, with a valve on it. This is the shunt valve. To de-winterize, you close the shunt valve, and open the two valves on the hot and cold lines going into the Webasto BETWEEN THE SHUNT (TRANSVERSE) LINE AND THE WEBASTO UNIT. There may be other valves on the hot and cold lines forward of the transverse white hose connecting the two water lines - DO NOT TURN THESE VALVES. (see photos right and below). The valve on the line between the transverse line and the Webasto unit leading to the blue overpressure relief valve is the cold side bypass valve. Turn all three valves 90 degrees so the shunt valve handle is across the water line (closed) and the cold and hot line valve handles are along the line (open).



Wide view of the valves on the water lines forward of the Webasto unit. The two valves (red arrows) forward (left) of the shunt valve (green arrow) are to be left open whether the system is winterized or not. The hot (pink arrow) and cold (purple arrow) valves between the transverse shunt line and the Webasto unit are open normally, closed when winterized.



Webasto line valves in bypass position. Green arrow means valve is open, red closed. Front of vehicle is to the upper left.



Webasto line valves in normal operating position. Green arrow means valve is open, red closed.

- Run water pump until water flows from hot water tap at sink and you smell chlorine. The Webasto has a capacity of 11 liters (almost 3 gallons) so it will be a few minutes before water starts to flow.
- Leave system overnight.

- Run the galley faucet for several minutes. If you smell chlorine, your system is safe to use. If you do not smell chlorine or your water is foamy, or has a pungent odor, repeat this step.
- Drain completely, fill fresh water tank with clean water, run all faucets for 2-3 minutes each.
- Hold the instant hot water dispenser taps, both hot and cold, open for several minutes until the water runs clear and smells like chlorine. The hot water reservoir has a capacity of about a gallon, so this will take some time. After all the antifreeze is out of the system, remove the old water filter cartridge in the cabinet under the microwave, and replace with a fresh filter cartridge.
- 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 the faucets for a minute or so apiece, drain the tank to ground, and refill with fresh water.



Instant hot water dispenser filter