Vanna
Adventure Vans

Rental User Manual

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Van Diesel

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VEHICLE INFORMATION

Please read the vehicle owner's manual and familiarize yourself with the vehicle before operating. This vehicle has several interior and exterior modifications that affect performance. These modifications have changed vehicle clearance and weight from the factory specifications.

Vehicle 2023 Mercedes Benz Sprinter 170" WB Ext. High Roof

Clearance Height: 11'

Weight: 9560

Length: 25' 6"

Fuel Type: Diesel

Fuel: Diesel

Vanna Conversions LLC, its owners, employees, are not liable or responsible in any way for all mechanical failures of the Owners Van including all problems with the engine, transmission, battery, wiring, electronics, tires, brakes, wheels, underbody, exhaust, seats, or any other mechanical component of the Owners Van. Van Owner agrees and understands Vanna Conversions LLC only performed custom van alteration requests listed in on the Purchase Agreement & Contract.

Tutorial Video

For a step by step walk through of the vans power system and working all other devices in the van, please can the QR code below to open Van Diesel's tutorial tour on our YouTube page.

MAIN CONTROL CENTER



1. **Multi-Controller** Used for charging your power system, this also provides power to all your outlets. The dial is to change the charging current based on the breaker limit of the shore power access point / outlet. For example, if you are at a camp ground and you have the dial set to 15 amps and you have your van plugged into there outlet and it trips the breaker, you can turn down the dial and ask for less amps in a attempt to not trip the breaker again. If you keep tripping the breaker you can continue to turn the dial down for less amps. The reason and purpose of this is camp grounds and RV parks don't have the best and most reliable outlets. This gives you a opportunity to take what you can. Please see included Victron manual for more information.

2. **Victron GX Touch** This is used for monitoring battery capacity, power consumption, charging, and water tank levels. For more in-depth information and operation procedures, see the Victron manuals.

3. **Eberspaecher Easy Start Pro** This sets and controls your Eberspaecher Airtronic and Hydronic Heater. This controller sets the air and water heating for your van.

4. **Utility Switches**
    a. Main Disconnect Switch
    b. LTE Extender
    c. Water pump

5. **Utility Switches**
    a. House lights
    b. Accent lights
    c. Cabinet lights

6. **Main disconnect** This switch will shut of the 65amp Battery protect device in your power system. This will shut off the 12volt power going to your ACDC panel. However this does not shut down the power system. It only shuts off the power going to the ACDC panel leaving a lot of devices in the power box still running. These devices need to stay running. Shutting off this switch only ensures the van owner knows that most things cant run while its parked or stored.

7. **AC Remote**



CABINETS

Latches and Hinges

Cabinet doors are fitted with a locking mechanism to ensure they are secure during driving. To unlock, press the latch button in until it releases and becomes a handle. Beware of any contents that may have shifted. Ensure all cabinet doors are secured before driving the vehicle.

Lagun Table

This vehicle is equipped with a Lagun adjustable table. This table is designed to be adjusted or removed from its mounting bracket. The Lagun table leg can support 50 lbs. of weight including your tabletop.

Ensure that the table is stowed or properly secured with all handles tightened before driving the vehicle.

- ALL Handles Untighten counterclockwise.
- ALL Handles Tighten clockwise.
- Pushing in the button on the handle allows you to reposition the handle and continue to tighten it.

Loosen the handle on the leg to remove the Lagun Table Leg from the permanently installed bracket. The leg, arm, and tabletop may each be separated by loosening their respective handles.

Driving, Parking, Fueling up:

- Drive cautiously. Start slow, stop slow, turn slow. Follow all DOT guidelines.
- No drive thrus. Park cautiously. Park in the back of lots. Take up two spots if needed.
- Take turns slightly wider than you would in a small car.
- Don't let fuel tank get lower than 1⁄2 tank.
- Fill up at any gas station that has diesel.
- Ensure DEF levels are topped off. Fill with BlueDEF when the notification comes up on the dashboard.
- Use diesel 1 in the winter (temps below 32 degrees Fahrenheit).
  Add 32 fl. oz. of Diesel 911 per every full tank of fuel.

ACCESSORIES

Doors

Avoid slamming doors as this can cause problems with all van types. Rear doors must be shut in proper order. Guide door with two hands (one on handle and one on door) while closing to ensure it latches in the correct manner and place to prevent damage.

HappiJac Bed Lift

Operating Precautions:

- **ALWAYS**.. Raise the bed to the FULL UP position when the van is being driven TO AVOID DAMAGE TO THE BED(s) because of bouncing.
- **NEVER**…. Operate the bed with any items other than bedding on the bed platform.
- **NEVER**…. Travel with any items other than bedding on the beds. Loose items can become projectiles.
- **NEVER**…. Operate the bed when persons are on the bed platform.
- **NEVER**…. Hang from or hang more than 20 pounds from the cross-connecting shaft.
- **ALWAYS**.. Ensure that the areas above, below and adjacent to the bed are free from obstructions before operating the bed.
- **ALWAYS**.. Check before operating the bed to ensure bedding is not over-hanging the ends of the beds where it could become entrapped.
- **ALWAYS**.. Properly secure loads in the bed area to avoid damage to the bed mechanism from shifting or falling loads.

SCA Pop Top

To use the pop top, set up the telescopic ladder in front of the second-row seating. Unclip the safety straps on each side of the opening in the ceiling. Rotate the butterfly latches 180

degrees to unclip the top of the pop top from the roof of the van. Push the ceiling of the pop top upwards until it is in the fully upwards position.
To put the pop top down, pull the long straps downwards. When the pop top is down, ensure all the canvas is tucked inside and is not sticking out the sides. Latch the butterfly latches from the pop top to the roof of the van on the inside of the ceiling opening. Clip together the safety straps.
CAUTION: Before driving the vehicle, always ensure that the pop top is down and secured.

LITHIONICS & VICTRON POWER SYSTEM

- Before charging the batteries, be sure the battery temperature is above (45° F).
- The System:
    - Lithionics 51V 165aH Smart LiFePO4 Battery Bank
      Victron 3,000-Watt Inverter/Charger
      Victron Cerbo GX + Victron Touch 50 Controller for remote diagnosis.
      300 Watts Roof Top Solar Panels
- Three ways to charge your Victron batteries:
    - Shore Power plugin on the exterior side of your van.
    - Alternator – anytime your engine is running, whether vehicle is in motion or not, your alternator will charge the batteries.
    - Solar – Anytime the sun is out, whether you are in motion or not, the solar will be charging your batteries.
- Notes:
    - The chargers in your system will automatically choose and prioritize which charger to use in order to charge the system more efficiently. Once the battery's state of charge reaches 100%, all of the chargers will stop charging in order to protect the battery from overcharging. They will automatically charge the battery appropriately depending on the state of charge percentage.

Solar

Don't put anything on top of solar panels. No hard or sharp objects. Be sure to clean solar panels regularly for optimal operation and charging.

Shore Power Charging

Before plugging into shore power, check the shore receptacle amperage rating. Ensure that the current limiter dial on the Victron Multi-Controller matches the amperage listed on the receptacle you are plugging into. Your circuit breaker will flip if the controller and

receptacle amperage do not match. Move the toggle switch to either “Charge Only” or “Inverter” to charge the house battery bank. For more information, please refer to the included Victron Multi-Controller product manual. We provide you with both a 120amp and 220amp cord.

CLIMATE CONTROL

EasyStart Pro Controller

For controlling your air heater (Airtronic) and water heater (Hydronic).



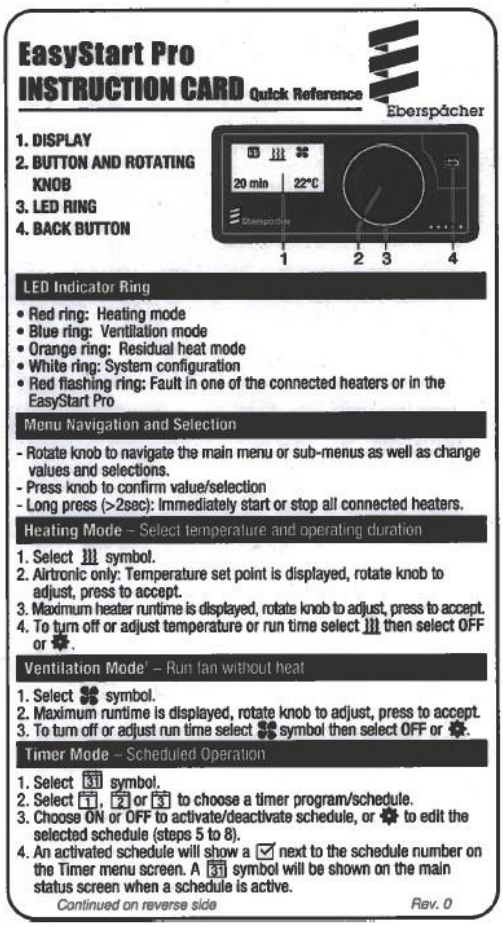
LED Indicator Ring

- **Red Ring**: Heating Mode
- **Blue Ring**: Ventilation Mode
- **Orange Ring**: Residual Heat Mode
- **White Ring**: System Configuration
- **Red Flashing Ring**: Fault in one of the connected heaters or in the EasyStart Pro.

Menu Navigation and Selection

- Rotate knob to navigate the main menu or sub-menus as well as change values and selections.
- Press knob to confirm value/selection.
- Long press (>2 sec): Immediately start or stop all connected heaters.

Please refer to the included EasyStart Pro instruction card for more details and for operation of Heating, Ventilation, Timer, and Residual Heat Mode.



EasyStart Pro
INSTRUCTION CARD Quick Reference
Eberspächer

1. DISPLAY
2. BUTTON AND ROTATING KNOB
3. LED RING
4. BACK BUTTON

LED Indicator Ring

- Red ring: Heating mode
- Blue ring: Ventilation mode
- Orange ring: Residual heat mode
- White ring: System configuration
- Red flashing ring: Fault in one of the connected heaters or in the EasyStart Pro

Menu Navigation and Selection

- Rotate knob to navigate the main menu or sub-menus as well as change values and selections.
- Press knob to confirm value/selection
- Long press (>2sec): Immediately start or stop all connected heaters.

Heating Mode – Select temperature and operating duration

1. Select symbol.
2. Airtronic only: Temperature set point is displayed, rotate knob to adjust, press to accept.
3. Maximum heater runtime is displayed, rotate knob to adjust, press to accept.
4. To turn off or adjust temperature or run time select then select OFF or .

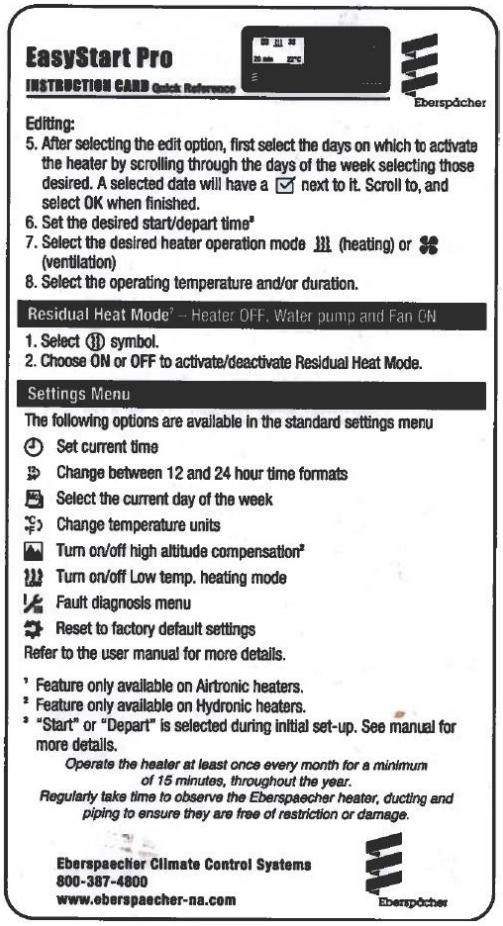
Ventilation Mode[1] – Run fan without heat

1. Select symbol.
2. Maximum runtime is displayed, rotate knob to adjust, press to accept.
3. To turn off or adjust run time select symbol then select OFF or .

Timer Mode – Scheduled Operation

1. Select symbol.
2. Select , or to choose a timer program/schedule.
3. Choose ON or OFF to activate/deactivate schedule, or to edit the selected schedule (steps 5 to 8).
4. An activated schedule will show a next to the schedule number on the Timer menu screen. A symbol will be shown on the main status screen when a schedule is active.

Continued on reverse side
Rev. 0



EasyStart Pro
INSTRUCTION CARD Quick Reference
Eberspächer

Editing:

5. After selecting the edit option, first select the days on which to activate the heater by scrolling through the days of the week selecting those desired. A selected date will have a next to it. Scroll to, and select OK when finished.
6. Set the desired start/depart time[3]
7. Select the desired heater operation mode (heating) or (ventilation)
8. Select the operating temperature and/or duration.

Residual Heat Mode[1] – Heater OFF, Water pump and Fan ON

1. Select symbol.
2. Choose ON or OFF to activate/deactivate Residual Heat Mode.

Settings Menu

The following options are available in the standard settings menu

- Set current time
- Change between 12 and 24 hour time formats
- Select the current day of the week
- Change temperature units
- Turn on/off high altitude compensation[2]
- Turn on/off Low temp. heating mode
- Fault diagnosis menu
- Reset to factory default settings

Refer to the user manual for more details.

[1] Feature only available on Airtronic heaters.
[2] Feature only available on Hydronic heaters.
[3] "Start" or "Depart" is selected during initial set-up. See manual for more details.

Operate the heater at least once every month for a minimum of 15 minutes, throughout the year.
Regularly take time to observe the Eberspaecher heater, ducting and piping to ensure they are free of restriction or damage.

Eberspaecher Climate Control Systems
800-387-4800
www.eberspaecher-na.com
Eberspächer

AIR HEATER

HOW TO TURN ON AIRTRONIC AIR HEATER

1. Rotate black knob to "1 – Air Heater", push center of knob to select.
2. Click center knob to select blinking heat symbol.
3. Rotate black knob to set temperature, push center of knob to select.
4. Rotate black knob for desired air heater run time.
    a. To turn heater on continuously, rotate knob to the "infinity symbol" and push center of knob to select.

   b. You will see the heat symbol flashing with “infinity symbol” in the bottom left corner indicating the heater is on.
   c. You will see the knob light ring will turn solid red indicating the air heater is on.
   d. Airtronic takes 4-5 minutes to completely start up.
   e. When set to “infinity symbol” heater will be on until you turn it off.
5. To turn off Air Heater, push center button to select blinking heater symbol.
6. Then push center button again to select “off,” and Air Heater will then turn off.

Eberspaecher Airtronic Heater (Air Heater)

The Eberspaecher Airtronic heater unit is located under the passenger seat. The controller is located on the Main Control Center above the kitchenette. Maintenance is due every 2,000 hours of use. Please read the Eberspaecher manual for more information. Warranty of the heater is 2,000 hours.

- Be sure all external exhausts are clear from obstructions to prevent carbon monoxide backflow.
- Don’t cover any vents inside in the van, or in the back of the van.
- Do not store anything under the passenger seat.
- Do not block the Airtronic vent intake in front of the passenger’s seat base.
- Altitude rating 9,500 feet. Above that altitude heaters may not run reliably due to how thin the air is.

WARNING: To prevent fire, the Eberspaecher air heater must be switched off while refueling the vehicle.

Ensure that the Airtronic heater is cleaned and maintained annually. Operate heater at least once every month for a minimum of 15 minutes throughout the year. Regularly take time to observe the Eberspaecher Heater, duction, and piping to ensure they are free of restriction or damage.

WATER HEATER

HOW TO TURN ON HYDRONIC WATER HEATER

1. Rotate black knob to “2 – Water Heater”, push center of knob to select.
2. Click center knob to select blinking heat symbol.
3. Rotate black knob for desired hot water heater run time.
   a. To turn heater on continuously for 12-hour max run time, rotate knob to the “infinity symbol” and push center of knob to select.
   b. The “infinity symbol” selection on the Water Heater will automatically turn off after 12 hours of run time.
4. To turn off Water Heater, push center button to select blinking heater symbol.
5. Then push center button again to select “off,” and Water Heater will then turn off. `

Eberspaecher Hydronic Heater (Water Heater)

The Eberspaecher Hydronic heater unit is located near your freshwater tank. The controller is located on the Main Control Center above the kitchenette. Please read the Eberspaecher manual for more information. Warranty of the heater is 2,000 hours.

- Be sure all external exhausts are clear from obstructions to prevent carbon monoxide backflow.
- Do not block the Airtronic vent intake in front of the passenger's seat base.
- Altitude rating 9,500 feet. Above that altitude heaters may not run reliably due to how thin the air is.

WARNING: To prevent fire, the Eberspaecher air heater must be switched off while refueling the vehicle.

Operate heater at least once every month for a minimum of 15 minutes throughout the year. Regularly take time to observe the Eberspaecher Heater, duction, and piping to ensure they are free of restriction or damage.

Nomadic Cooling – Roof A/C

The controller for your Nomadic Cooling A/C is located on the unit itself above the bed and the remote for the unit is in the glovebox.

KITCHENETTE

Cooking Use & Maintenance

Always be safe while cooking inside the van.

Vent roof fan with window open for proper air flow.

Do not have any flammable or explosive products near the heat source or cooktop.

Slide-Out Counter Extension

Attached to the kitchenette is a slide-out counter extension. When the counter is in the out position, it can be slid back in again by pushing the face of the drawer until you feel it connect and lock into the magnets.

Refrigerator

An Isotherm 130SS refrigerator is installed in the van. Power button and temperature control located inside the fridge. Turn the dial to regulate the temperature and to turn off the fridge.

Refrigerator care during storage periods:

When storing the van with the power turned off, be sure to open the fridge and place a towel at the bottom to catch all the moisture run off from the freezer. Once the interior is dry, you can then close the fridge door for storing.

Sink & Shower

To use the water:

1. Ensure all of the valves (sink and shower) are closed.
2. Turn on water pump.
3. Use sink handle to control water.
4. Turn off water pump and leave then open the sink valve until you are going to use water again.
5. Sink water drains into the underbody gray tank.

For Hot Water:

1. Turn on hot water heater. Give heater 5 minutes to provide hot water.
2. When hot water heater is on and warmed up, warm water will come out of the shower or sink when selected.
3. When done, turn off water heater.

SHOWER & TOILET

Interior Shower

- To Use:
    - Ensure there is adequate water in your freshwater tank. ○ Turn water pump on via water pump switch.
    - Turn on Hydronic water heater via the black rectangular Eberspaecher Easy Start Pro controller. Give the heater five minutes for hot water to be ready.
    - Turn on roof fan with air blowing out at 50%-80% speed to remove all steam/moisture from the hot shower/van. ○ Turn on water and shower. All water will drain into the underbody gray water tank. If in freezing temps, ensure underbody valves are open for water to drain and freeze onto the ground.
    - Keep shower as short as possible to minimize mise water use. ○ Turn off water, water pump, and water heater.
- Towels, shower curtains, or anything gathering moisture must be dried out properly. Warranty does not cover damage done by neglecting care and maintenance of the shower system and components.

Toilet (Laveo Dry Flush)

For liquids and solids. After use, push button, and cartridge seals the waste and re-loads a fresh bowl. 15 uses per cartridge. Toilet paper provided

SAFETY DEVICES

Fire Extinguisher

The fire extinguisher is near the front of the van on the driver-side wall behind the driver's seat.

Smoke Detector

Your van is equipped with a smoke detector designed to detect smoke as well as CO (carbon-monoxide). Two AA batteries are required for operation. Batteries must be replaced every two months.

Before every trip, be sure to test the alarm. The Carbon Monoxide (CO) Alarm has a sensor that is designed to detect carbon monoxide gas fumes resulting from incomplete combustion of fuel. It will detect CO gas from any combustion source such as the Eberspaecher air heater and chassis engine.

Carbon Monoxide and LP(Propane) Alarm

Located at the base of the power box. This Carbon Monoxide (CO) Alarm has a sensor that is designed to detect toxic carbon monoxide gas fumes resulting from incomplete combustion of fuel. It will detect CO gas from any combustion source such as the gas range, Eberspaecher air/water heater, and chassis engine. This alarm does not require batteries as it is wired into your electrical system.

If a propane or CO leak is detected, immediately vent the vehicle by opening all doors and windows. For more information, please refer to the included manual.

WATER SYSTEM

Fresh Water Tank

1. Your water system has a three-way valve directly behind the tank fill inlet. This valve serves two purposes.
    a. **Tank Fill:** Water or air goes directly through the UV filter (if included) and then into the tank.

b. **Winterization / City Fill:** Water or air will go directly to the water source's faucets and bypass the tank and pump. This feature is used for winterization, but a person could use this feature to also provide water directly to your water source's faucets using the water pressure provided by the city. In this mode you would have as much water as needed without needing to fill a tank.

How To Fill:

1. Confirm that your 3-way valve (Fill/ Winterization) is turned to the fill position.
2. Connect water hose to water inlet.
3. Turn on water from the source of the fill station to fill freshwater tank.
4. Once your tank is full, you will see and hear water coming out of the bottom of your van. This means your freshwater tank is full and is overflowing.
5. Turn off water from the fill station source and close your water inlet.
2. To monitor freshwater tank level, it is displayed on your Victron Touch Controller. To empty, turn three-way valve in water system area to "Empty" to drain.
3. The freshwater tank is 18 gallons.

Gray Water Tanks

- To Empty: Flip the rocker switch to open the valve that is located on the left side of the driver seat base. You will see and hear water emptying from the gray water tank. Once Empty, flip the rocker switch to "off" to close the gray tank valve.
    - Campsites usually have a designated dumping area for you to empty your gray water tank. If you are on public or private land please research how to dump gray water. Varies by state.
- Tank Information: A 9-gallon gray water tank is located underneath the bathroom in the rear.
- To Monitor: The amount of water in the tank, check the Cerbo touch display. To monitor the amount of water in each tank, the Victron GX Touch Display shows the percentage water in each tank.
- Do Not Let Grey Tank Overflow and Backflow: Be sure to check these tank levels often to prevent water backflow caused by the tanks being full.
- Gray Tank 80% Full Alarm: Once the tank reaches 80% capacity, an alarm will sound on the display. The alarm will turn off by either checking the check mark on the Victron GX Touch screen or after you empty the gray tank.

Winter Use: See Winter Use Section in this User Manual.

HOW TO TURN ON WATER PUMP

1. To use sink, shower, or rear shower, turn on your water pump.
2. Turn on by flipping the rocker switch labeled “water pump” to the on position.
3. Turn off by flipping the water pump switch to the off position.

HOW TO TURN ON HYDRONIC WATER HEATER

1. Rotate black knob to “Water Heater”, push center of knob to select.
2. Click the center knob to select the blinking heat symbol.
3. Rotate black knob for desired hot water heater run time.
    a. To turn heater on continuously for 12-hour max run time, rotate knob to the “infinity symbol” and push center of knob to select.
    b. The “infinity symbol” selection on the Water Heater will automatically turn off after 12 hours of running time.
4. To turn off Water Heater, push center button to select blinking heater symbol.
5. Then push center button again to select “off,” and Water Heater will then turn off. `

WINTER USE

Using the Van in Freezing Temperatures

If using the van in temperatures at or below freezing (less than 0° C / 32° F):

1. Van internal temperature must be well above freezing to prevent water freezing (50 degrees or higher). If not, pipes may burst or get damaged. The water system will be cooler than the main cab temperature. Open doors of water box and do not store anything in the garage in the way of air flow.
2. You can use water when temperatures are freezing, but you must first winterize the gray water tank and make sure the valves under the sink and shower are in winter mode.
    a. This includes switching the bypass valve on the driver’s seat to OPEN so if water were to go into the gray water tank, it will immediately drain onto the ground.
    b. Make sure the valves underneath the Sink and Shower (indicated by a yellow handle) are OPEN so the water will immediately drain onto the ground when in use. This can be tested by pouring a cup of water down the drains. If you see water draining onto the ground, it is in winter mode. If water does not drain onto the ground, it is in summer mode.
        i **Shower Valve: Winter Mode – Points Right (Horizontal - open). Summer Mode – Straight Up (Vertical - closed).**
        ii **Sink Valve: Winter Mode – Points Right (Horizontal - closed). Summer Mode – Straight Up (Vertical - open).**

3. Turn gray water bypass valves to the ground (under van) so water can drain directly from the drains in the van to prevent drainpipe freezing.
4. Open electric gray tank ball valve. Water freezing in gray tanks can cause damage that is not covered under warranty.
5. You MUST keep Airtronic Air Heater set to at least 70 degrees F to prevent freshwater lines/tank from freezing; if not, pipes/valves may burst. Water freezing in your tank or lines will likely cause damage that is not covered under warranty.
6. Keep the interior cab above 23° C (70° F). Lines and water tanks will be cooler than the main cab temperature.
7. Keep insulated window covers over all windows and fan(s) to keep heat inside the van and keep the cold air out.
8. Be aware of your vehicle's engine temperature. It may need to warm up before driving.
9. Keep the fuel tank as full as possible. Always stay above half a tank. Remember that your heater needs at least ¼ tank of fuel to function.

Check your Power System Instructions for operating temperatures within which the power system batter can function

WHEN TO WINTERIZE

1. If using the van in temperatures at or below freezing and CANNOT ensure the van's internal temperature will remain above 50 degrees, you MUST winterize.
2. If you are storing the van outside or in cold storage over the winter, you MUST winterize.
3. If you are in a location where you CANNOT dump gray water to the ground, you MUST winterize.

WINTERIZING INSTRUCTIONS

1. Air Pressure: Use air pressure and the provided winterization tool to remove the remaining water.
2. Take caution not to send to much PSI through the water system. Pressures exceeding 30-50 PSI could overexpand the tank while you "Burp" the tank. It could also damage faucets while you "Burp" the water lines to each water source.
3. If not done properly you could have water remaining in a plumbing line and cause damage once it freezes and expands.
4. **IF YOU NEED TO WINTERIZE THE VAN: Call Vanna's Chief Operating Officer, Chuck Rolie, at (701) 799-4202.**

Removing all water from the system:

EMPTY GRAY WATER

1. Divert the gray water to the ground with the bypass valves mounted on the underbody of the van. This allows water to drain onto the ground directly from a sink or shower. There should be one bypass valve per drain in the van.
2. Drain gray water outside on ground during the winter and drain to the tank in the summer (non-freezing months).
3. With the bypass open to divert to ground you will not have water go into the gray tank moving forward. Next step is to empty the gray tank.
4. The electric ball valve for the gray tank has a switch on the driver's seat. The switch has three positions (OPEN-OFF-CLOSE).
5. Move the switch to the OPEN position to drain the gray tank.
6. After draining, you can either close the valve via the switch after the tank is empty or you can choose to leave it open to dry out the tank quicker.

EMPTY FRESH WATER TANK

1. Open the freshwater drain valve located right next to the freshwater tank on a drain line that is coming out near the bottom. You will see the drain running from the tank through the floor of the van. This is the freshwater drain.
2. Open this valve to drain water to the ground. You can choose to add a bucket under the drain line to catch the water or let it drain to the ground.
3. Parking the van on a slight incline so the water faces the drain valve is helpful to drain the fresh tank.
4. Monitor the tank level via the gauges or use a flashlight to physically check the water in the tank. Shake the van while watching to see the water line move around. Remove as much water as possible.
5. Turn on the water pump and run water through ALL water sources such as:
    a. All Sinks
    b. Interior Shower
    c. Rear Shower
6. With the pump on. Remove as much water as possible from each water sources while rotating from hot to cold. This will "burp" water out. Get as much water out as possible.
7. Do not run the pump for too long on an empty tank, it can damage the pump.
8. Once the freshwater tank is empty, your next step is choosing how to remove excess water from all the pipes.

AIR PRESSURE WINTERIZATION GENERAL INSTRUCTIONS

Using the Winterization Tool / Air Adapter

*****CAUTION*****

1. Over-filling the tank with air will cause it to overexpand and damage the tank.
2. Operate PSI between 10-30 PSI.
3. Never exceed 50 PSI.
4. During this process of clearing the tank you need to closely monitor the tank and the gauge on the Air Adapter.

5. While adjusting or monitoring the air pressure if a faucet or valve closes it will close the water systems resulting in the air pressure climbing extremely quickly. Always have a hand on the air adapter valve to shut off the air supply quickly when PSI exceeds 30.
6. If the tank starts to expand, close the air valve quickly or disconnect. The pressure in the tank will leave by itself, because of the overflow pipe connected to the tank.
7. This process is much easier with two people. Find a friend.

BLOW OUT TANK STEPS

Removing Excess water from the Tank and Pump

1. Hook up the air adapter to the freshwater tank fill inlet.
2. The freshwater drain valve should be open at this point.
3. Slowly introduce air and monitor the PSI.
4. You should see and hear air and water going through the tank drain line.
5. Have a friend turn on the pump for just a moment while you introduce air and regulate the pressure.
6. Turn on and off the pump to “Burp” the pump a few times while moving the water sources’ hot and cold valves back and forth.
7. This step should only take a few minutes.
8. The tank and pump should now be clear of water.
9. Move the Main three-way valve from tank fill to Winterize / City Fill.
10. You are now ready to clear the plumbing lines leading to all water sources.
11. Your water system may include several sinks, an interior shower and/or rear shower.
12. Be sure to clear water from ALL water sources!
13. You can close the valve on the adapter or disconnect the air line. This blow out tank step can be repeated if needed at any time.
14. We recommend doing this step one last time after clearing the water sources plumbing lines.

CLEAR WATER SOURCE PLUMBING LINES AND FAUCETS

1. It’s best to have two people for this process. One person will watch the gauge on the blow out adapter and adjust as needed. The other person is going to rotate ALL faucets from hot to cold, purging all water out until there is a fine mist of water and air.
2. Start at any Water Source and open the faucet to either hot or cold.
3. Hook up the Air Adapter and introduce air. Be careful with the PSI as it will jump around while the faucets are moving around. For the brief moments when the faucets are closed the PSI will increase quickly. Be cautious and ready to close the air adapter valve when PSI pressures are above 30 PSI.
4. Blow air through faucets, 1-3 minutes each or whatever is necessary to empty.
5. Move your way through ALL Water Source faucets and rotate from hot to cold. Allow time for water to escape the lines.
6. Repeat the steps above, going through each water source a few times over.

7. A fine mist should come out of EVERY water source.
8. Vanna recommends repeating ALL steps to ensure a successful winterization. Better safe than sorry.

DISCONNECT AIR

1. Open sink valve to relieve remaining air pressure in water lines.
2. Leave all faucets in the open/on position in-between hot and cold.
3. Your water system is now winterized.

Supplies Provided:

Fire extinguisher | Road Side Emergency Kit | Magnetic Flash Light

Power Cord | Fresh Water Hose | Stool

Garbage Can | Broom | Dustpan
Paper Towels | Toilet Paper | Dish Drying Pan

Shower towels | Hand Towels | Wash Cloths

Sleeping linens | Pillows | Quilts

Cooking essentials | Trivets | Eating essentials

Extra Toilet Cartridges

Return the Van with:

- Full fuel tank
- Shore power cords in van
- Water hose in van
- Clean dishes
- Inspect both bug nets for rips or tears

We clean the rest!

Printed and given to you:

- Booking details
- Van insurance

Where to Stay:

- Tent Sites (private, city, state, national parks and campgrounds)
- Truck Stops
- Rest Stops
- Parking Lots that permit overnight parking
- Camper/RV sites

Contact

For questions or issues that arise with your Vanna Van, please contact us at any of the methods listed below. We appreciate your trust and confidence in Vanna Adventure Vans

Vanna Adventure Vans

Address	311 21st St NW West Fargo, ND 58078
Website	www.VannaVans.com
Phone	(701) 989-7122
Email	info@vannavans.com