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INTRODUCTION

About this Manual

Congratulations on your purchase of a Titan Van! These vehicles are designed for adventure. Whether you are a skier, biker, hiker, water enthusiast, or full-time van lifer, we hope you get the most out of your van. Before hitting the road, make sure you familiarize yourself with the operations and features of your van. While Titan Vans is always here to help, nothing replaces on-hand knowledge.

This manual is designed to aid you in the proper operation and care of the systems and components installed. This manual is intended to supplement the manuals that are included for each appliance. For more details on these appliances, please reference the relevant appliance manual.

NOTE: This manual includes photographs, illustrations, and descriptions for all Titan Vans models. Some equipment listed in this manual are optional and may not be equipped or available for your van.

The instructions included in this manual are intended as a guide and in no way extend the responsibilities of Titan Vans beyond the standard written warranty. The descriptions, illustrations, and specifications in this manual were correct at the time of printing. We reserve the right to change specifications or design without notice and without incurring obligation to install the same on products previously manufactured.

*** INDICATES NON-STANDARD EQUIPMENT**

Service and Assistance

If you need service work or have any questions, please contact us at:

Service@titanvans.com

303-975-6492 ext. 5

SAFETY AND PRECAUTIONS

General Warnings

- Only seats equipped with seat belts are to be occupied while the vehicle is moving.
- Make sure all passengers have seat belts fastened. Lap belts should fit low on the hips and upper thighs. The shoulder belt should be positioned snug over the shoulder.
- For pregnant women: Never place the shoulder belt behind your back or under your arm. Adjust the lap belt across your hips/ pelvis and below your belly. Place the shoulder belt across your chest (between your breasts) and away from your neck.
- Child restraints should be installed properly according to the manufacturer's instructions. See "Child Restraints".
- All moveable or swiveling seats should be placed and locked in the travel position while the vehicle is moving.
- Never let passengers stand or kneel on seats while the vehicle is moving.
- Sleeping facilities are not to be utilized while the vehicle is moving.

Driving Safety

- Do not attempt to adjust the driver's seat while the vehicle is moving.
- Do not adjust tilt steering in a moving vehicle.
- Do not operate the cruise control on icy or extremely wet roads, winding roads, heavy traffic, or in any other traffic situation where a constant speed cannot be maintained.
- Use care when accelerating or decelerating on a slippery surface. Abrupt speed changes can cause skidding and loss of control.
- Driving through water deep enough to wet the brakes may affect stopping distance or cause the vehicle to pull to one side. Check brake operation in a safe area to be sure they have not been affected. Never operate any vehicle if a difference in braking efficiency is noticeable.
- Adverse weather conditions and extremes in terrain may affect the handling and performance of your vehicle. Refer to the chassis manual for complete and related information on driving your vehicle.
- Doors - Verify all interior and exterior doors are shut and/or stowed, and latches are in place where provided.

Fuel

- Your vehicle may require Diesel or Gasoline. Check the fuel tank cap to ensure use of proper fuel.
- Follow all posted notices and warning labels.
- Never smoke while refilling vehicle fuel tank.
- Ensure the furnace unit is turned off prior to refueling your vehicle.

Electrical

- Careless handling of electrical components can be fatal. Never touch or use electrical components or appliances while feet are bare, while hands are wet, or while standing in water or on wet ground.
- Improper grounding of the vehicle can cause personal injury.
- Do not plug a power cord into an outlet which is not grounded and do not adapt the plug to connect to a receptacle for which it is not designed.
- Do not plug a power cord into the shore power port that is not grounded and do not adapt the plug to connect to a receptacle for which it is not designed.
- Do not use any electrical device that has had the ground pin removed.
- Avoid overloading electrical circuits. Replace fuses or circuit breakers with those of the same size and amperage rating only. Never use a higher rated fuse or breaker.
- Use caution when handling or working near electrical storage batteries. Always remove jewelry and wear protective clothing and eye covering. Avoid creating sparks

Loading

- Store or secure all loose items inside the van before traveling. Possible overlooked items such as canned goods or small appliances on the countertop, cooking pans on the range, or free-standing furniture items can become dangerous projectiles during a sudden stop.

- Ensure the bed platforms are fully secured before traveling.
- The marine table must be stowed prior to operating the vehicle.
- Be aware of GVWR, GAWR, and individual load limit on each tire or set
- Never load the van in excess of the gross vehicle weight rating or the gross axle weight rating for either axle.

Roof and Ladders *

The ladder on your van is provided for limited access to the roof. For your safety, it is recommended that you *do not* store or carry items on the roof.

Before Using the Ladder

- Inspect the ladder to make sure it is not damaged. Never use a damaged ladder.
- Keep the rungs of the ladder clean and dry while in use. Never use the ladder when it is raining, snowing, or icy. The rungs can become slippery. Do not step onto the rungs if the rungs are wet, or if your shoes are wet or carry mud or debris that could result in a loss of footing.
- Maximum Capacity: 225 lbs.
- Do not overload. Ladder is intended for one person.
- Make sure you are physically capable to safely use the ladder. Strength, flexibility, and stability are required.
- Be aware that the vehicle may sway as you climb the ladder. Do not use the ladder in high winds.

- As you climb the ladder, grasp the side rails firmly and always use both hands. Keep your body centered between the side rails. Do not over-reach.
- Never allow children on the ladder.
- Do not transport items anchored to the ladder, unless ladder is specifically designed to do so.

Jump Starting

There are two ways to jump-start your vehicle in the event that the cranking battery dies.

Vehicle to Vehicle Jump Start

If jump starting using another vehicle or booster system, see the chassis manual for connecting jumper cables to the automotive electrical system.

On Board Auxiliary Battery Jump Start

If jump starting the vehicle using the auxiliary battery installed by Titan Vans LLC.

- Locate the emergency jump start switch on the driver-side dash, which is only accessible when the driver door is open.



- Quickly Double click the emergency jump start switch
- The auxiliary battery will temporarily connect to the vehicle cranking battery for 15 seconds.
- If the auxiliary battery is in a critical state, then the manual override button will NOT function. Potential states include: high temperature, low temperature, high voltage, low voltage, or other internal errors. In this situation refer back to vehicle to vehicle jump start listed above.

ELECTRICAL

Electrical Cautions

⚠ WARNING: Do not attempt to modify, service, repair, or replace any part of the electrical system unless you are a trained service technician authorized by Titan Vans LLC. Work done without the written consent of Titan Vans LLC will void the warranty. Titan Vans LLC is not responsible

for any harm caused to an individual or individuals, property, components, or vehicle due to unauthorized work.

Always disconnect the battery prior to working on any part of the electrical system.

The electrical system is comprised of multiple systems. Be aware that disabling one part does not mitigate the risk of electrical shock or hazard of one of the other systems.

Electrical System – 12 Volt DC (12V DC)

This section will give an overview of the 12V DC system, loads, and charging.

Victron Connect App

It is recommended to download the *Victron Connect App* to enable the ability to Bluetooth into the various components in the 12V DC system. This will give you access to more data about your systems performance as well as aid in diagnosing your system in the event of an issue.

<https://www.victronenergy.com/panel-systems-remote-monitoring/victronconnect>

Overview

The 12V DC system is comprised of:

- A Lithium Iron Phosphate (Li-ion) Battery Bank
- Battery Management System (BMS)
- Battery Heating Pad

- 12V DC Fuse Block
- Battery Monitor (BMV)
- Solar Panel
- Solar Charge Controller
- Solar Breaker
- Alternator (Engine Charging)
- Backup DC Power Supply
- Backup DC Trickle Charger
- Backup AC-DC Power Supply

The heart of the 12V DC system is the Li-ion battery. All power flows into and out of the battery when charging or discharging. If power is coming out of the battery this is known as a “Load”, if power is flowing into the battery this is known as “Charge”.

Li-ion batteries have to be monitored by a BMS to ensure that loads and charging do not exceed the limits of the batteries. Additionally, Li-ion batteries can only operate within a specific temperature limit. Li-ion batteries are particularly susceptible to damage if you attempt to charge them below 32F and or discharge them below -4F.

The system is designed with a built-in thermostat and heating pads that are attached directly to the batteries. When the battery temperature drops below 40 F, the heating pads will automatically turn on to ensure that the battery temperature stays within its operating limits. This will allow for the batteries to be charged even when the ambient temperature is below freezing.

12V DC Loads

When the system is functioning properly, power comes from the Li-Ion battery bank, through the load terminal of the BMS, and into the 12V DC fuse block. The fuse block is a distribution hub that allows power to go to each component, allowing each circuit to be fused to protect the wire and the component from potential shorts or high current.

Below is a list of common 12V DC Loads:

- All lighting (Exterior and Interior)
- USB ports
- Webasto Heater
- Water Pump
- Fan
- Heater pads
- Fridge
- Air compressor
- Inverter

All of these items are powered directly by the 12V DC system. While each one of these components typically has a separate switch to turn it off and on, they do not require any additional equipment, such as the inverter, to function. For more details on these products please see the corresponding section in this manual or reference the original manufacturer manual supplied.

Keep in mind that the inverter is powered by the battery bank but creates power needed to run 120V AC appliances.

The BMV tracks key metrics of the battery and has a display on the control panel for easy viewing. The BMV tracks voltage, current, temperature (of the battery), state of charge (SOC), and wattage.

NOTE: If the battery temperature or voltage gets outside of its operating limits, loads will be disabled by the BMS. No damage has occurred to the battery or the system.

⚠ WARNING: Do not attempt to connect an auxiliary load directly to the battery terminals. If the battery is outside of its operating limits, and a load is attached it will cause permanent damage to the battery and can also cause catastrophic failure of the battery leading to injury or death.

In the event that the BMS disables the loads, there are integrated backup systems powered by the engines alternator that will automatically enable when the engine is turned on. This will allow you to power your 12V DC loads directly off the alternator. The inverter is the only 12V DC load that will not function; it requires the battery bank to operate.

Charging – Alternator and Solar

When the system is functioning properly, charging is allowed from solar panels (if sun is hitting the panels), from the alternator (if the engine is running), and by the built-in charger in the inverter (if plugged into shore power). See Charging – Shore Power section for more details on the proper use of the shore power. The power

flows from these three sources, through the charging terminal on the BMS and into the battery bank. It is possible to have all three of these charging sources working at the same time and there is no issue with one interfering with the other.

NOTE: If the battery temperature or voltage gets outside of its operating limits, charging will be disabled by the BMS. No damage has occurred to the battery or the system.

⚠ WARNING: Do not attempt to connect an auxiliary charger directly to the battery terminals. If the battery is outside of its operating limits, charging it will cause permanent damage to the battery and can also cause catastrophic failure of the battery leading to injury or death.

Cold Weather Operation

As mentioned previously, Li-Ion batteries cannot be charged when the battery temperature drops below 32 F and cannot power loads if the temperature drops below -4 F. For this reason, the system was designed with multiple layers to prevent a low temperature situation and to be able to recover the system in the event that the battery bank does get too cold.

The vans are fully insulated which will help to slow thermal transfer and keep the battery bank from getting too cold. Your vehicle is equipped with auxiliary heat provided by the Webasto unit that can help to ensure the battery bank stays warm. Each battery in the battery bank is equipped with a heating pad that

will automatically turn on if the battery temperature drops below 40 F. With only the heating pads, the system is capable of staying fully functional down to -5 F.

To ensure that the system stays operational, follow these best practices:

- Keep doors and windows closed to keep the heat in
- Install window shades to insulate the windows and keep the heat in
- Run the Webasto heater when temperatures are below 32 F outside
- Monitor the state of charge of the battery bank and if the system gets low, either start the engine, park in the sun, or plug into shore power
- In extreme cold situations, pulling the battery cover off will allow more heat from the Webasto to access the battery bank



System Recovery – Cold Weather and Low Voltage

The battery management system is designed to disable the battery system in the event that any of the batteries in the battery bank are outside of their operating parameters. Typically, this is caused by low temperature or low voltage, though could also be from high temperature or high voltage.

Cold Weather Recovery

- Open the Victron Connect App and connect to the battery (if more than one, connect to each, one at a time)
- Default Pin code is 000000 (six zeros)
- Determine the error code
- If the error code is: “A-SL11 Under voltage alarm”, skip to Low Voltage Recovery.
- If the error code is: “A-SL22 Under temperature Alarm - The battery has reached its low temperature threshold and charging is disabled.” Proceed to next steps.
- If any other code, STOP! Read the original manufacturer supplied manual to determine how to proceed
- Loads should still be functional and only charging will be disabled
- Start the Webasto furnace or turn the engine on and run the heat.
- If in extreme cold, remove the battery cover to get additional heat to the battery bank
- Battery temperature can be monitored from the app or from the battery monitor located on the control panel

Low Voltage Recovery

- Open the Victron Connect App and connect to the battery (if more than one, connect to each, one at a time)
- Default Pin code is 000000 (six zeros)
- Determine the error code
- If the error code is both an: A-SL22 Under Temperature and A-SL11 Under Voltage alarm skip to Cold Weather and Low Voltage Recovery.
- If the error code is: “A-SL11 Under voltage alarm - The voltage of one or more cells is too low and discharging has been disabled. To remedy this warning, recharge the battery as soon as possible.” Proceed to next steps
- If any other code, STOP! Read the original manufacturer supplied manual to determine how to proceed
- Loads will be disabled but charging will be allowed
- Either start the engine or plug into shore power
- The system will automatically begin recharging the battery
- The backup DC power supply will automatically enable all 12V DC loads.

NOTE: While the inverter is considered a 12V DC load, when the battery is in a low voltage state and during low voltage recovery, neither the Inverter nor any of the 120V AC appliances will be operational.

Cold Weather and Low Voltage Recovery

Since the battery bank powers the heating pad, it is likely that in a cold weather situation, if no charging occurs, the battery will eventually get to a low voltage state and shut down loads. This will disable the battery heating pad; if the cold temperatures

persist, the battery will also fall into a low-temperature state. In this case, to recover the system, follow these steps:

- Open the Victron Connect App and connect to the battery (if more than one, connect to each, one at a time)
- Default Pin code is 000000 (six zeros)
- Determine the error code
- If the error code is: “A-SL22 Under temperature Alarm - The battery has reached its low temperature threshold and charging is disabled.” AND “A-SL11 Under voltage alarm - The voltage of one or more cells is too low and discharging has been disabled. To remedy this warning, recharge the battery as soon as possible.” Proceed to next steps
- If any other code, STOP! Read the original manufacturer supplied manual to determine how to proceed
- Start the engine or plug into shore power
- The backup DC power supply will automatically enable all 12V DC loads including the battery heating pad
- Start the Webasto heater to expedite heating the battery bank
- If in extreme cold, pull the battery cover to get additional heat to the battery bank
- Battery temperature can be monitored from the app or from the battery monitor located on the control panel
- Once the battery bank temperature has risen above 32 F charging will automatically enable
- Once the battery voltage has risen within the operating limits, the battery loads will automatically enable

- Continue to charge the battery either from running the engine or from shore power to ensure there is enough power to run all of the loads off the battery directly

Electrical System – 120V AC

Overview

The 120V AC system is comprised of:

- Inverter
- Inverter Remote Control Panel
- 120V AC Breaker Panel
- Shore Power Plug

The 120V AC is generated by the inverter and is powered from the battery bank. The inverter is equipped with a built-in charger that is enabled when shore power is connected. There is also an integrated transfer switch within the inverter that will distribute the shore power up to the 120V breaker panel. This means that when shore power is connected the 120V AC appliances can run directly off the power from the extension cord, and no power is pulled from the battery bank. The inverter is controlled by the battery management system which will dictate whether or not the inverter can charge or power the 120V AC loads depending on the state of the battery bank. The inverter has built in safety features that will automatically shut down the inverter in the event of overload, overheat, or under voltage.

Operating the Inverter

The inverter is turned on by using the Victron 200/200 GX digital multi control located on the control panel.



The switch on the inverter remote control has three positions. CHARGER ONLY – OFF – ON. There is also a current limiter knob on the remote that is disabled and does not function.

The “CHARGER ONLY” position will enable the inverter to charge the batteries but does not enable the internal transfer switch and send power up to the 120V AC breaker panel. In this position no 120V AC appliance will function. This option is typically not recommended unless for very specific scenarios.

The “ON” position is what will be used the majority of the time. This option will allow the inverter to invert, generating 120V AC power, when running directly off the battery bank. If plugged into

shore power the “ON” position will allow the inverter to charge the battery bank and also enable the internal transfer switch, sending power up the 120V AC breaker panel.

Once finished using the inverter always make sure to switch the inverter remote control to the “OFF” position. Leaving the inverter in the “ON” or “CHARGER ONLY” position will continue to discharge the battery even if the battery management system has disabled the inverter, and or the main battery disconnect switch has been turned off.

NOTE: There is a small switch located on the front of the inverter. If the inverter remote control is not functioning, ensure that this switch is in the on position.

⚠ WARNING: Always switch the inverter remote control to the “OFF” position when finished using the inverter and or 120V AC loads.



120V AC Loads

Below is a list of the common 120V AC loads:

- Air conditioner
- Microwave
- Water Heater
- Induction Cook Top
- 120V Outlets

Each one of the loads is controlled by a 15A breaker. The breaker acts as current protection as well as an on/off switch for each load.

Once the inverter is turned on 120V AC power will be accessible at the 120V AC breaker panel. Simply find the breaker with the corresponding load that you wish to operate and connect the breaker by pushing on the “1” icon. A small indicator light will illuminate when on.



NOTE: While the inverter can power multiple loads at the same time, it is recommended to operate one load at a time to avoid

overloading the inverter. In the event that the inverter is overloaded, turn off all of the breakers, and turn the inverter off and back on to reset. You can then turn the load back on.

Once finished using a 120V AC load, ensure the breaker is disconnected by pushing on the “0” icon.



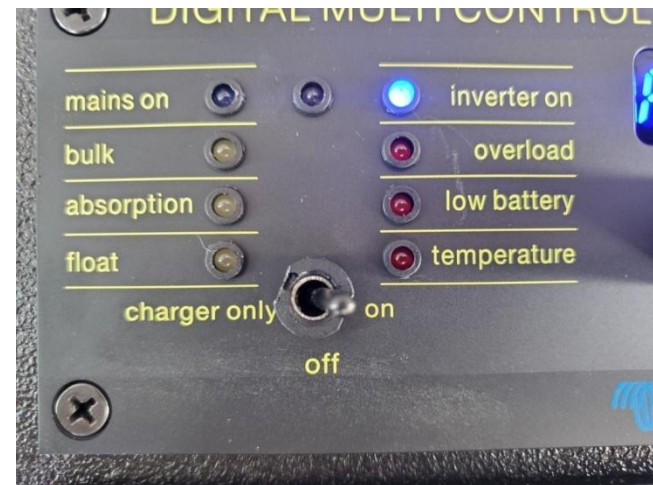
⚠ WARNING: Always switch the inverter remote control to the “OFF” position when finished using the inverter and or 120V AC loads.

Charging - Shore Power

The Shore Power Plug is located on the side of the vehicle and requires a standard 120V extension cord. No adapters required.

NOTE: It is recommended to use a large gauge extension cord, rated at 20 amps and no longer than 25 feet in length.

- To utilize the shore power, plug in the extension cord into a 20A rated power supply source.
- Then plug the other side of the extension cord into the shore power plug on the side of the vehicle.
- Switch the inverter remote control panel to the “ON” position.



- The inverter will now begin charging the battery bank and the shore power is sent directly up to the 120V breaker panel for use with any of the 120V AC loads.

⚠ WARNING: Always switch the inverter remote control to the “OFF” position once disconnected from shore power.

Shutting Down the Electrical System

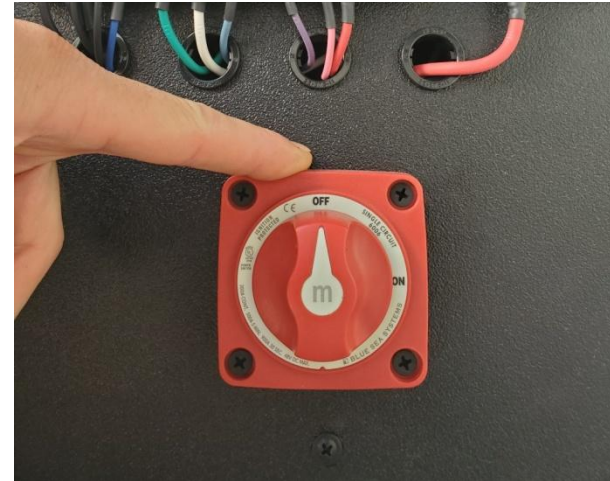
Because the 12V system is fully managed by the battery management system, it is not required to shut down the

electrical system in between uses. It is only recommended to shut down the system if the van will be parked, not plugged into shore power, and with no solar for more than 1 month. To fully de-energize the electrical system, follow the steps below:

- Locate the master battery disconnect switch, found on the electrical utility panel



- Rotate the master battery disconnect switch to the OFF position



- Locate the solar breaker, found on the electrical utility panel



- Press the breaker disconnect button to disconnect the solar system



- The auxiliary Li-ion electrical system is now fully disconnected

NOTE: *Even with the system shut down, the backup DC power supply and the backup DC trickle charger are still connected to the chassis battery. Each has a small parasitic draw that can drain the chassis battery if parked for extended period without any recharging.*

Battery Access

The batteries are accessible via the magnetic cover on the rear face of the electric wheel well cabinet. Pull on the circular cut out on the bottom of the panel to tip it out and remove. There is a small metal catch on the top.



When re-installing the cover, tilt the cover with the top edge first to clip the metal catch and then push the bottom of the panel in until the magnets fully seat.

⚠ WARNING: Electrical hazard with the cover removed. Do not attempt to remove the batteries. Do not place any metal objects or tools into the battery compartment. Do not store any additional items in the battery compartment.

Battery Care

The Li-ion batteries are designed to be used and have a high cycle life. The system is designed to manage and ensure optimal health for the battery bank. The system will automatically disconnect in the event of low voltage, high voltage, low temperature, high temperature, or other error states. Though the

system has many fail safes, there are still some best practices to follow:

- Prevent total battery discharge at all times
- Familiarize yourself with the pre-alarm feature and take action when pre-alarm is active to prevent a system shutdown
- If the pre-alarm is active, or if the BMS has disabled the loads, make sure that the batteries are recharged as soon as possible. Minimize the time the batteries spend in a far discharged state as much as possible
- The batteries need to spend at least 2 hours in absorption charge mode each month to ensure sufficient time in balancing mode. Driving, plugging into shore power, or good direct sunlight for at least 2 hours per month is sufficient
- When leaving the system unattended for several months, make sure to either keep the batteries charged during that time, or make sure the batteries are (almost) full and then shut down the electrical system following the steps in the previous section

PLUMBING

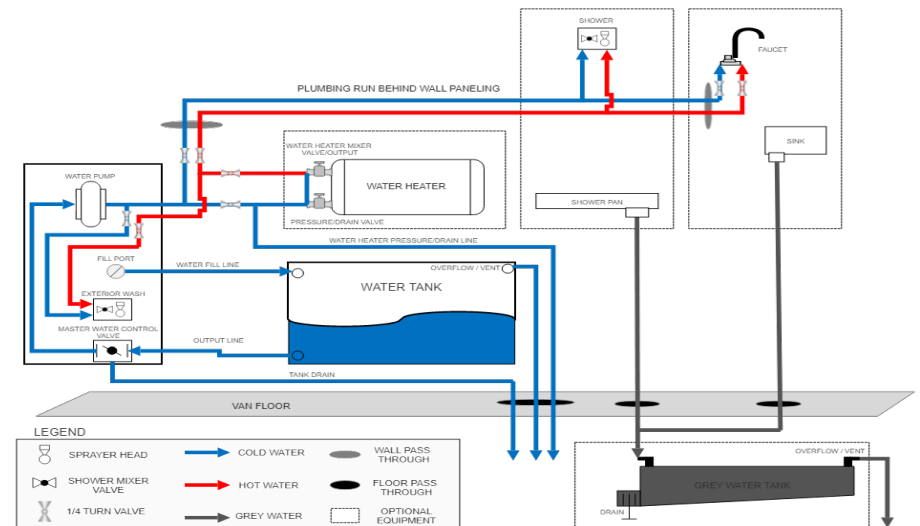
Fresh Water System

The fresh water system provides water to the sink and showers using the onboard water tank.

The fresh water system is comprised of:

- Fresh water tank

- Master water control valve
- Water pump
- Plumbing Control Valves
- Exterior Wash
- Water heater (if equipped)
- Faucet (if equipped)
- Shower Sprayer (if equipped)
- Grey water tank (if equipped)



- The first step to using your water system is to fill the fresh water tank.
- The fill port is located on the back of the wheel well cabinet and requires a standard garden hose fitting.



⚠ WARNING: Make sure to use a potable water safe hose when filling the tank.

- The fresh water tank is equipped with a breather/overflow tube that, once the tank is full, will overflow underneath the vehicle.
- There is also a third drain tube for the water heater.



- A tank level sight is viewable through the slot in the cabinet.



- To view the water level more easily a tank back light is equipped and can be turned on via the switch on the back of the wheel well cabinet.



- The master water control valve is also located on the back of the wheel well cabinet. There is an arrow indicator on the valve that dictates the flow of water.



- ON – Arrow points towards inside of vehicle



- OFF – Arrow points straight up and down



- DRAIN – Arrow points towards outside of vehicle



Draining the Fresh Water Tank

- Park on a slight hill with the front of the vehicle angled up
- Place the master water control valve into the DRAIN position
- Water will drain via the tank drain tube located under the vehicle
- Once water stops flowing place the master water control valve back into the OFF or ON position

Water Pump

To use the onboard water the water pump must be turned on. The pump has two switch locations for ease of use. Either switch can be used to turn the pump on/off regardless of the other switch orientation.

- The first switch is located on the control panel. An illuminated light will appear when the pump is on.



- The second switch is located on the back of the wheel well cabinet.



- The water pump is equipped with a pressure sensor that will automatically turn the pump off once pressure is reached.

- When a valve is open, water will flow and the pump will turn on automatically to compensate for the reduced pressure.

NOTE: Once finished using the water system it is always recommended to turn the water pump off.

The water pump is equipped with quick disconnect fitting for both the water input and output. The input has a water pump strainer with a clear cover to allow for easy viewing and ensure no debris enters the water pump. It is best to clean the screen out 1-2 times per year or as needed to ensure proper water flow through the pump.

Water Pump Quick Disconnects

- To disconnect either the input or output fittings, make sure the pump is off and locate the red tabs.



- Disengage the tab.



- Pull the fitting back away from the pump.



- To reinstall, push the fitting back in until fully seated



- Clip the red tab back in place.



- Ensure that the fitting is secure and cannot pull out easily

Cleaning the Water Pump Strainer

- Remove the clear cover off the pump strainer by rotating counterclockwise



- Remove any particulates inside the pump strainer housing
- Remove the metal mesh screen

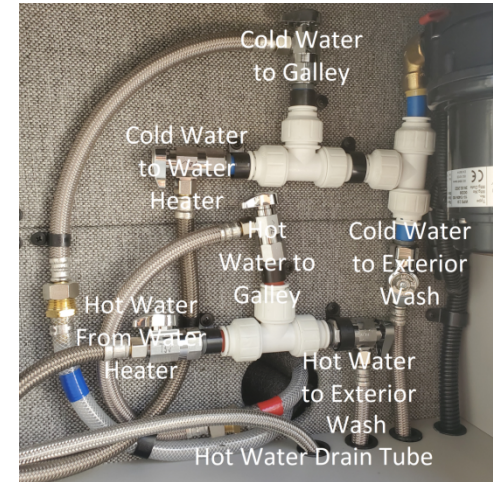


- Rinse the screen out
- Replace the screen
- Replace the clear cover
- Ensure the orange gasket is fully seated and does not pinch when installing the clear cover



Plumbing Control Valves

The system is equipped with control valves to each plumbing appliance. This allows for users to quickly isolate or control water flow if needed. Below is a picture of the plumbing control valves located in the water pump cabinet



Exterior Wash Station

The wash station sprayer and mixer valve are located on the back of the wheel well cabinet.

- To use, ensure there is water in the tank and the master water control valve is in the ON position. Indicator arrow should point towards the inside of the vehicle.



- Turn the water pump on and adjust the pressure and temperature to the desired level using the mixer valve.



- The sprayer head has a large push button on the back of the head to turn the water off and on.



- There is also a small black clip that can be engaged to lock the spray button in the on position for continuous flow.



Interior Shower *

The interior shower stall utilizes the same components as the exterior wash station; with the exception of the quick disconnect capability of the shower hose.

- To use, ensure there is water in the tank and the master water control valve is in the ON position.
- Clip the shower hose quick disconnect fitting into the wall outlet.



- Turn the water pump on.



- Adjust the pressure and temperature to the desired level using the mixer valve.



- The sprayer head has a large push button on the back of the head to turn the water off and on.



- There is also a small black clip that can be engaged to lock the spray button in the on position for continuous flow.



- The water will drain through the shower pan down into the grey water tank mounted under the vehicle.
- The grey water tank is equipped with an overflow port that will discharge outside the vehicle if it becomes full. See Grey Water Tank section for more details.

Grey Water Tank *

The grey water tank is mounted underneath the vehicle but location varies depending on make and model.

The tank is equipped with an inlet, overflow, and a drain. The tank has a 9-gallon capacity and when full the grey water will overflow out of the tank outside the vehicle.

The tank is equipped with a tank heater pad. See Tank Heater Pads section for more details.

Draining the Grey Water Tank

Always ensure that grey water is disposed of properly. Check local laws to determine how and where grey water can be disposed.

- Remove the grey water tank valve cover by rotating counterclockwise



- Attach a grey water discharge tube to the valve quick disconnect (you may also use a container to catch the grey water to be disposed of properly)
- Open the grey water gate valve by pulling back on the T-handle



- Once drained, push the T-handle back in to close the valve
- Remove the discharge tube
- Replace the grey water tank valve cover



Tank Heater Pads

The tank heater pads are installed on the fresh water tank and on the grey water tank if your vehicle is equipped.

The heater pad is temperature controlled and is enabled using the switch located on the control panel.



It will automatically turn on once the ambient temperature drops below 40 F.



If the temperature rises above 40 F, then the heater pad will automatically turn off. The heater pads should only be used to thaw the tanks in the event they freeze or to prevent the grey

water tank from freezing if temperatures will temporarily drop below freezing at night. The heater pad will not protect the water system from prolonged exposure to cold temperatures.

⚠ WARNING: The tank heater pads will not keep components from being damaged if the temperature drops below freezing. The only way to ensure that the system is protected from freeze damage is to fully winterize the vehicle.

Water Heater

To use the water heater follow these steps:

- Ensure the water tank has water (see Fresh Water System)
- Ensure the master water control valve is in the on position (see Fresh Water System)
- Turn on the water pump (see Water Pump)
- Run the faucet and/or shower in the hot position and ensure that there is a steady flow of water.
- Turn on the inverter (see 120V AC Loads)
- Flip the 120V Breaker labeled water heater (see 120V AC Loads)
- The water heater will take approximately 45min to heat the water to temperature

The water heater will heat the water in the tank to 185 F. The water heater will automatically turn off once it has reached temperature. If the temperature decreases, the water heater will automatically turn on and reheat the water. There is a pre-mixer

valve located on top of the hot water output valve that enables you to decrease the max output temperature by mixing the 185 F water with fresh cold water.



This enables the 4 gallons of hot water to be stretched further. The lower or more negative the setting of the mixer valve, the longer the hot water will last but also the lower the max hot water output will be. It is recommended to adjust the mixer valve to your desired max hot water output temperature and then only adjust if needed.

Draining the Water Heater

The water heater is also equipped with a drain/pressure relief valve. In the event that the water heater internal pressure limit is exceeded the drain/pressure relief valve will open and allow the excess pressure to release via the drain tube located underneath the vehicle. The drain/pressure relieve valve can also be manually opened to drain the water heater.



- Rotate the black knob counterclockwise until it clicks into position.
- This forces the spring valve open allowing water to pass through.
- To close rotate the valve counterclockwise again until it clicks.

Note: If the knob is loose and has play back and forth then it is closed. When rotated to the open position the knob will be tight and will not have any play.

Resetting the water heater

In the event that the water heater is run without water in it, the integrated thermal breaker will likely need to be reset.

- Start by turning off the inverter.



- Turn off all breakers on the breaker panel.



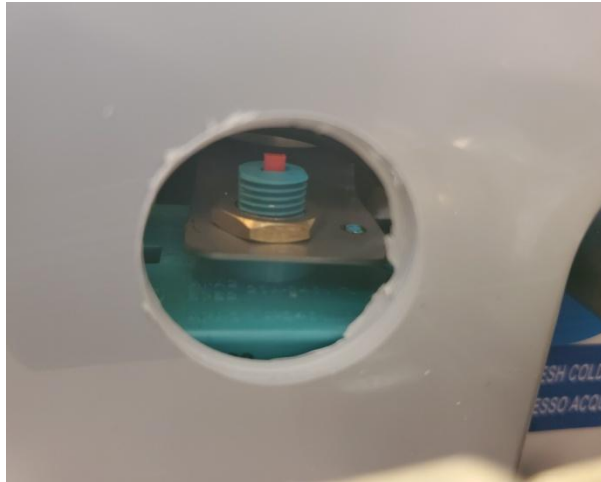
- Unplug the water heater cord from the outlet.



- Locate the red breaker button, accessible through the lower large hole on the front of the water heater grey cover.



- Verify that the red breaker button is sticking up.



- Use a small screw driver or similar tool to press the red breaker button down.



- Plug the water heater cord back into the outlet, and start the water heater as normal.



Winterizing Procedure

Winterizing your vehicle is the only proper way to ensure it is protected against freezing temperatures.

⚠ WARNING: Failure to winterize your vehicle when temperatures reach 32 F or below may result in damage to the plumbing system.

To winterize your vehicle, follow these steps:

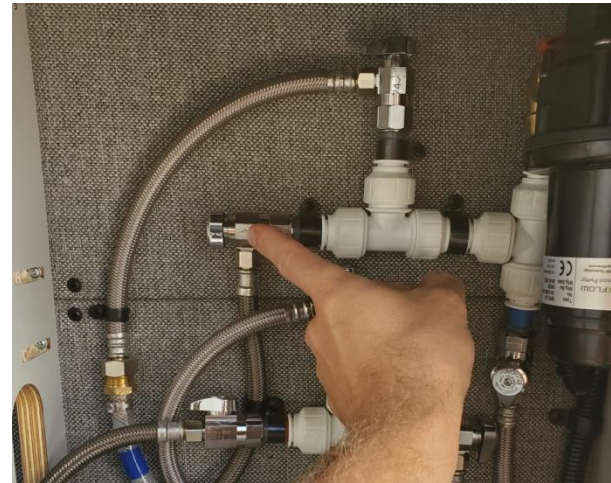
- Place the master water control valve to the DRAIN position (see Fresh Water System)
- Water will drain underneath the vehicle via the tank drain tube
- Disconnect the water filter inlet fitting (see Water Pump)
- Connect the supplied winterization adapter



- Connect an air compressor to the winterization adapter (max 55 psi)

⚠ WARNING: Air compressor output cannot exceed 55 psi. Higher pressure may result in damage to the plumbing system.

- Open up the hot water drain (see Draining the Water Heater)
- Water will drain underneath the vehicle via the water heater drain tube
- If the water coming from the water heater drain tube is sputtering, close the cold water inlet valve to expedite the draining



- Once the water heater is empty, close the water heater drain
- Open up one of the water outputs (exterior wash, interior shower, or faucet)

- Adjust the temperature output back and forth to cold and hot until only air is coming out
- Move on to the next water output and repeat
- Go through each water output two-three times until only air comes out
- Disconnect the air hose from the winterization adapter
- Remove the winterization adapter
- Unscrew the clear cover from the water pump strainer and ensure that it is dry and free of any debris
- Screw the clear cover back on and reattach the water pump strainer securing the red tab (see Water Pump)
- Open the grey water tank drain (see Grey Water Tank)
- Place the master water control valve to the OFF position (see Fresh Water System)

De-Winterizing Procedure

De-winterizing your system is required only after the system has been winterized. If you have run out of water see Fresh Water System and Water Pump. To de-winterize your system follow these steps:

- Ensure the master water control valve is in the ON position (see Fresh water System)
- Ensure the water heater pressure/drain valve is closed (see Draining the Water Heater)
- Ensure all control valves are in the on position (see Fresh Water System)
- Fill the fresh water tank using the fill port (see Fresh Water System)

- Once there is sufficient water in the tank, turn the water pump on (see Water Pump)
- Open up one of the water outputs (exterior wash, interior shower, or faucet) in the cold water position
- Once a steady stream of water is flowing switch to the hot position
- Water may take a 1-2 minutes to flow as the water heater fills
- Once a steady stream of water is flowing, close the valve and move on to the next water output
- Once a steady stream of water is flowing, through all water outputs in both the cold and hot position, the system is now fully primed and ready for use

NOTE: If this is the first use after winterizing in a cold climate, inspect all fittings for leaks. The water pump will turn off once pressure is reached and should not cycle on and off assuming there are no water leaks. A cycling water pump typically indicates that there is a leak and should be addressed immediately.

APPLIANCES AND SYSTEMS

Refrigerator *

The Refrigerator is a 12V DC fridge that pulls its power directly from the 12V electrical system and always has power as long as the battery loads are enabled. These units do not require the inverter or any 120V power to operate. To turn the unit on or off,

or to adjust the temperature, locate the temperature control knob that can be found inside the refrigerator door or freezer compartment.



Rotate the knob to the “0” position to turn the refrigerator off. There is an indent and will require a physical click to engage.



To turn on, rotate the knob to any number other than “0”.

To adjust temperature simply rotate the knob to a higher number “7” is the coldest.

Roof Top Fan

Your van may be equipped with one or two rooftop fans. Each fan operates the same. The fans are equipped with controls on the unit, and a remote control, typically wall mounted. These units are 12V DC power and are connected directly to the battery; they do not require the inverter or 120V power to function.

NOTE: In the event of power failure, the vent dome may be opened or closed manually using the manual crank knob located on the unit.



- ON/OFF – Press to turn the fan on or off. The vent lid will open automatically when the fan is turned on and close when the fan is turned off.

- IN/OUT– Press to reverse the direction of the fan. The fan will slow down and pause for two seconds before resuming operation in the opposite direction.
- AUTO – Press to enter Auto Mode. You will hear three quick beeps to confirm the fan is in Auto Mode. To exit Auto Mode, press the On/Off button.
- ARROW – In Auto Mode press the +/- arrow buttons to adjust thermostat temperature up or down. Press the +/- arrow buttons at the same time to open or close the vent lid.

NOTE: For best results, close all other roof vents, windows, and doors, then open one window the farthest distance from the roof ventilator. The fan speed selector allows you to control the amount of circulation you need at any time.

For further Information on use, care, and cleaning information see the manufacturer's operating instructions supplied.

Auxiliary Air Conditioner *

The air conditioner is 120V powered and requires the inverter to be turned on along with the circuit breaker.

- Turn the inverter on.
- On the control panel locate the breaker labeled "Air Conditioner".



- Push the switch to the "1" position.
- Once the inverter and breaker are on, the air conditioner can be controlled from the remote control. There are no controls on the unit itself.

NOTE: See Electrical System – 120V AC for details on operating the inverter and breakers.



- ON/OFF – Press to turn the AC unit on or off. The unit will automatically start in the last used mode.
- MODE – This will cycle the AC unit through its different operational mode: cooling, fan, heating (if equipped), dehumidifying, and dry.
- FAN – Press to adjust the fan speed for the different modes.
- ARROW – Use the arrow keys to adjust the set point temperature up or down to desired level.
- DISPLAY – Press to turn of the LED display located on the unit.

MAINTENANCE: Air conditioner maintenance. The most important part is the return air filter. It's vital that you keep this piece in good condition. To maintain it, check the filter weekly and wash it with warm water and a little detergent if it looks dirty. Let the filter dry and place it back into the unit. Making sure it's cleaned

will ensure that you're heating and cooling system is effective. If you only use your AC unit occasionally, turn it on every six months to keep it in working order.

NOTE: Use of the integrated heating element is not recommended as it is an extremely inefficient way to produce heat.

⚠ WARNING: The bolts holding the unit on need to be checked after the first three months. Check if they are snug and if not, tighten them. After this point, the bolts should be checked yearly.

To check the bolts follow these steps:

- From inside the van, remove the eight plastic screw covers on the edge of the AC vent shroud



- Remove the 8 countersunk screws
- Remove the center AC filter screen



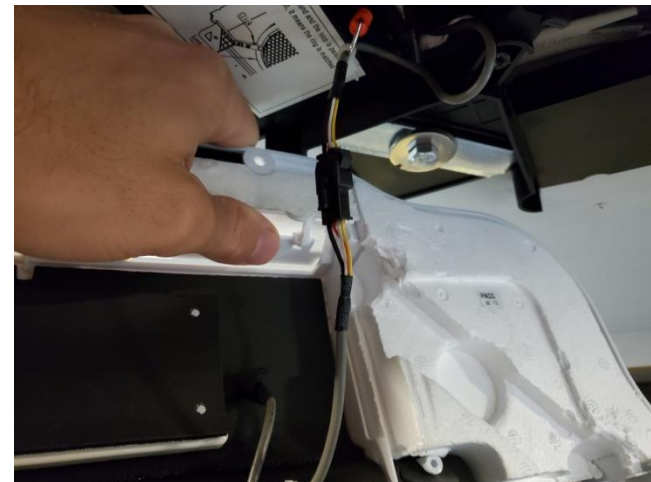
- Under the screen remove the 4 pan head screws



- Once removed press in on two of the black clips simultaneously to release the AC vent shroud



- Lower the shroud slowly and disconnect the control wire quick disconnect



- Set the shroud off to the side
- Check all four bolts found on the perimeter of the AC mounting flange



- Once tightened, reassemble the AC vent shroud

Furnace

Several furnace options are available depending on your model and selected upgrades. Each of these units functions nearly identically, but there are several key differences. The furnace is typically located under the passenger seat and can be accessed via the plastic access panel located on the right side of the passenger seat. However, these units can also be located inside cabinetry in the rear of the vehicle.



Webasto Heater

These units are connected directly to the fuel tank and require 12V power supplied from the auxiliary battery system. Two separate controllers are available with these units, the standard dial controller and the SmarTemp remote, which is an upgrade option.

NOTE: You must have a minimum of 1/4 tank of fuel in the fuel tank to operate the unit. If you attempt to run the unit with lower than a 1/4 tank of fuel, the fuel pump will loose prime and the unit will either not be able to start or will shut down due to flame failure.

Operating the furnace with Dial Control



- ON/OFF – Rotate the dial clockwise until the arrow is illuminated green. The unit is on and will not shut off until the dial is rotated back and clicked to the “0” position.



- TEMPERATURE – To adjust the set point temperature, rotate the dial clockwise, once the green light is

illuminated. At its lowest point, set point temperature is roughly 55F, midway is roughly 75F, and max position is 95F.

Operating the furnace with SmarTemp Control

Video Link: <https://www.youtube.com/watch?v=iJEWwx5yPk4>



- ON/OFF – Click on the “Webasto” button



-  - Click on the lower button with the square icon to enter into the settings and to change the operating mode.
- TEMPERATURE – To adjust the set point temperature, rotate the large main dial. The heater must be in active heat mode to adjust the temperature. You may also use this dial to adjust the fan speed if the unit is in vent mode.
- PROGRAMMING – The SmarTemp has the option to program the heater to auto start up to 24 hours into the future, set a timer for run duration, or set low voltage shut down. For more information on programming the SmarTemp see the manufacturers operating instructions.
- ERROR – If the green indicator light is flashing this indicates that the unit has thrown a code. The unit will automatically shut down no matter what the code is. To determine the code you must count the slow flashes in between the fast flashes. The light will flash 5 fast, then slow (indicating the code), and then 5 fast again. Count the

slow flashes to determine the error code number.

Reference the manufacturers operating instructions to determine error and potential remedies.

- LOCKOUT – If after several attempts to start the unit, the error persists and the heater fails to function, the heater will go into a “lockout” state. This most often occurs when fuel level in tank is low and multiple starts have been attempted. To clear the lockout follow the procedure below:
 - When remote is turned on the indicator light will be flashing immediately.
 - Leave the controller in the on position.
 - Locate the Webasto fuses located on the main 12V fuse block on the electrical utility panel.
 - Remove all fuses labeled Webasto.
 - Turn the controller to the off position (Not required if equipped with SmarTemp controller).
 - Wait 30 seconds.
 - Reinstall fuses.
 - Lockout will be cleared and unit can be started as normal.

MAINTENANCE: The Webasto unit requires maintenance! The unit must be run for 30 minutes every 30 days; even throughout the spring, summer, and fall months. Keep in mind that even with the thermostat set on max the unit will not run if ambient temperature is above 90 F. You must wait until the weather cools down to ensure the unit runs for 30 heat producing minutes.

Induction Cook Top *

The cook top is 120V powered and requires that the inverter to be turned on along with the breaker.

- Turn the inverter on.
- On the control panel locate the breaker labeled “Galley”.
- Push the switch to the “1” position.



- Once the inverter and breaker are on, the controls on the cook top can be used.

NOTE: Induction cook tops require special pans to function. If a magnet sticks to the pan that it is compatible.

NOTE: See Electrical System – 120V AC for details on operating the inverter and breakers.

⚠ WARNING: Do not operate the cook top while the vehicle is in motion. Do not allow children to operate the cook top. Cook top surface may be hot even after the pan is removed.

Microwave *

The microwave is 120V powered and requires that the inverter to be turned on along with the breaker.

- Turn the inverter on.
- On the control panel locate the breaker labeled “Microwave” or “Galley”.



- Push the switch to the “1” position.
- Once the inverter and breaker are on, the controls on the microwave can be used.

NOTE: See Electrical System – 120V AC for details on operating the inverter and breakers.

⚠ WARNING: Do not place any metal inside the microwave, damage to the unit is likely and could cause a fire hazard.

Toilet *

The toilets have a pressurizable fresh water tank reservoir and a separate holding tank for the liquid and solid waste.

- Before use, this toilet will need to be filled with water and pressurized so that waste can be drawn into the holding tank when you flush.
- The access hole in the top of the toilet lets you add water as needed.



- Use the built-in air pump to pressurize the tank.



Before pressurizing, you can also pour deodorizer (DOM62FR) directly into the holding tank to help break down waste and eliminate odors.



- When you're ready to flush, pull the release handle to open the valve. Push the flush button and the pressurized

air from the pump will draw water into the bowl, flushing waste into the holding tank.

- When all of the waste is removed, push the handle back in to close the valve.
- This valve will seal off the tank to keep any odors from escaping.



- When the indicator reads full, disconnect the bowl from the holding tank by pulling the latch on the back of the toilet



- Rotate the pivoting spout out and empty the tank into your campsite's waste disposal area. Rinse the tank out, then reattach it to the bowl.

MAINTENANCE: When winterizing, make sure to empty both the fresh water and waste water from the toilet. Failure to empty these tanks may result in damage to the toilet.

Awning *

There are two models used depending on whether or not your van is equipped with a roof rack or not. Both are operated the same.

The awning is manually operated and has two support legs that must be used when the awning is deployed.

- To open the awning, use the supplied awning crank and hook it into the crank mechanism on the awning and rotate clockwise to open.



⚠ WARNING: It is recommended to not extend the awning more than 3 ft before deploying the support legs to avoid unnecessary strain on the awning. Fully extending the awning without using the support legs may damage the awning.

- Pull the leg back from the retaining clip located near the center of the awning.
- Slide the leg back at the swivel knuckle.



- Make sure the metal should be completely clear of the plastic knuckle.



- The legs can either be staked into the ground or clipped into the wall brackets on the side of your van.



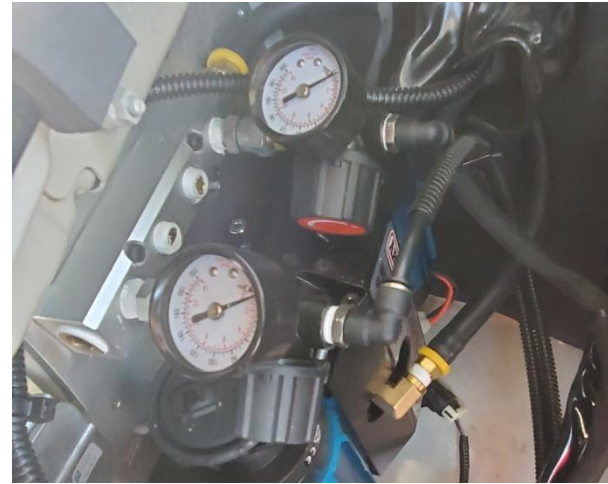
⚠ WARNING: The awning is intended as a sun awning. In the event of rain, snow, or wind, the awning must be closed to avoid damage.

Make sure that your awning is completely dry and clean before closing it. The remaining humidity could cause stains. However, if you must close the awning when it is still wet, make sure to open it for drying within 12 hours maximum. Most of the dirt is superficial and can be removed with clean water and a cloth or a brush. If the fabric is very dirty, add some light cleaning detergent.

Air Compressor *

The air compressor is mounted under the hood on the passenger inside fire wall. Two regulators are installed, one controls pressure to the rear set of air outputs, and the other controls the front set. You can adjust the regulators to set the max air

pressure output for each depending on your desired pressure setting.



⚠ WARNING: Always run the manufacturer recommended air pressure when operating the vehicle on the road. Improperly inflated tires can cause an accident, injury, or death. The tire pressure label can be found on the driver side inside door jam.

The switch to turn the air compressor off or on is located on the driver side dash and is only accessible when the door is open.



The switch may also be found on the multi-switch kit, If vehicle is equipped.



Airing down

To air down your tires use the included Staun tire deflators.

The deflators are supplied at a preset pressure however; you can adjust this pressure to your desired level. Once set, you do not need to adjust again.

Exactly how much you reduce your tire pressure depends on a variety of factors, such as, the type of tires installed, weight of your vehicle, and the softness of the surface that you are travelling on. Through trial and error, you can find your personal preference and determine what tire pressure suits you.

⚠ WARNING: Do not leave the Staun tire deflators on! Once the desired pressure has been reached remove the tire deflators to ensure that the tires do not continue to deflate. Under inflated tires can cause damage to the vehicle or loss of control.

Adjusting the Staun tire deflator

- Manually deflate a tire to the pressure you want to set your Staun Deflator to
- Screw both the lock-ring and the cap of the deflator all the way down
- Put the deflator on the valve stem
- Unscrew the deflator cap until you just hear air start to come out, then turn it back down until the air just stops coming out
- Screw up the lock ring snug against the cap – Be careful not to move the cap. Securing the lock-ring against the cap sets and locks the deflator to the pressure of the tire
- Repeat this for the other 3 deflators

Airing up

To air your tires back up use the four individual tire inflator hoses included in the kit.

- Connect each tire inflator hose into the quick disconnect fitting
- Connect the air chuck onto the wheel valve stem
- Repeat for all four tires
- Make sure the air chuck is fully seated on the valve stem and no air is leaking
- Turn the air compressor on
- Ensure that your regulators are set to the correct output pressure
- Wait until the air compressor turns off automatically, typically 10-15 minutes
- Double check the air pressure of each tire (if equipped, your vehicle can display the tire pressure in the dash)
- Remove the tire inflator hoses and store

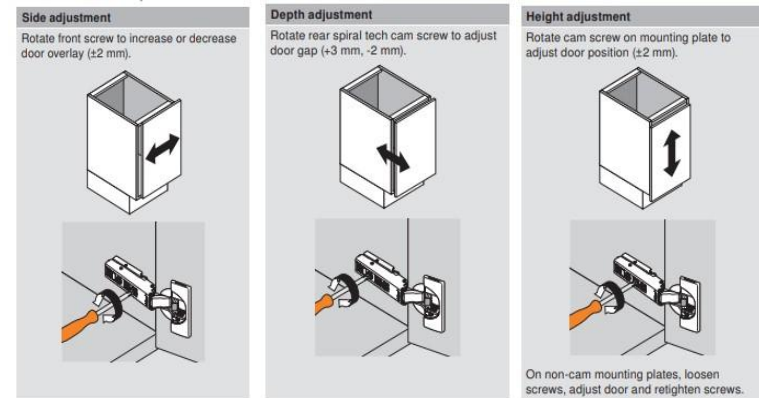
⚠ WARNING: Do not drive with the tire inflator hoses attached!

INTERIOR

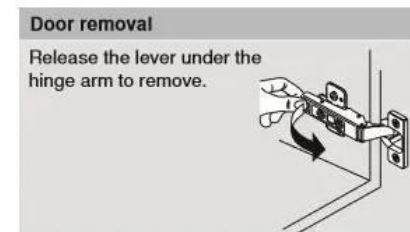
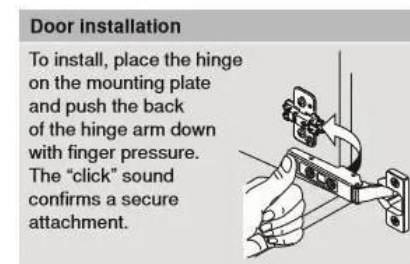
Cabinet Doors

Over time, and especially if traveling off road, the doors can become out of alignment. Most of the time this will only affect aesthetics but the misalignment may also cause the latching mechanism to not properly engage.

The door hinges have three different adjustment screws. Follow the diagrams below depending on how you wish to adjust the doors:



To remove or to reinstall the cabinet doors follow the diagrams below:



Cabinet Drawers

Over time, and especially if traveling off road, the drawers can become out of alignment. Most of the time this will only affect aesthetics but the misalignment may also cause the latching mechanism to not properly engage. If your drawer is not latching properly, adjust the drawer to ensure proper latching.

The drawer slides have a multitude of adjustments that can be made. Follow the diagrams below depending on how you wish to adjust the drawers:

New side adjustment

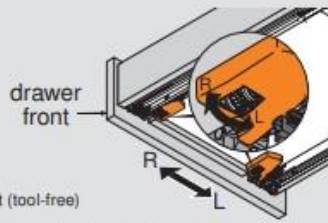
1. Rotate side adjustment left or right equally on both locking devices. Drawer front moves in the same direction as rotation.

with locking device

T51.19xx

Maximum **1.5** (1/16") to left or right (tool-free)

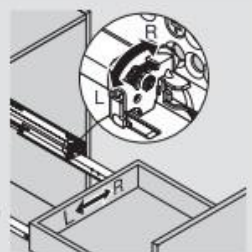
NOTE: Side adjustment not available on T51.18xx locking devices



New rear side adjustment

2. After front side adjustment is made with the locking devices, rotate the rear side adjustment left or right to re-align the back of the drawer box with the front. Drawer back moves in the same direction as rotation.

Maximum **1.5** (1/16") to left or right (tool-free)

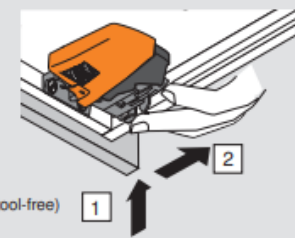


Height adjustment

1. Press up on adjustment tab
2. Push towards back of drawer

Maximum **3** (1/8") rise of drawer front (tool-free)

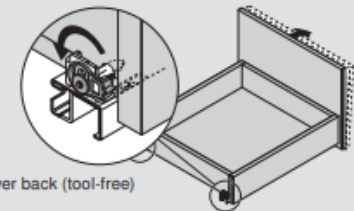
NOTE: Height adjustment available on all TANDEM locking devices



Tilt adjustment

- Rotate the tilt adjustment lever on the rear of each runner to tilt the top of the drawer front forward.

Maximum **5** (3/16") rise of drawer back (tool-free)



New depth adjustable locking device

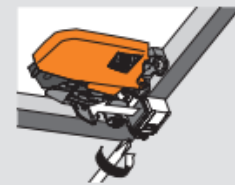
Locking device

T51.1901.PS

with side, height and depth adjustment

Turning the adjustment screw allows for up to a **2.5** (3/32") out adjustment

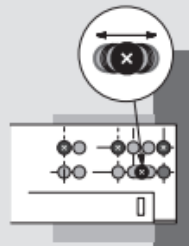
NOTE: For T51.1901.PS setback in inset applications, see the TANDEM brochure



If depth adjustment using the locking device is not sufficient then you may be able to gain more adjustability by loosening the screws that hold the runner to the cabinet. Once loose you can slide the runner in or out to gain the desired alignment. See below:

New depth adjustment on runner

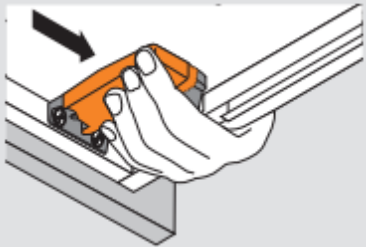
TANDEM 563 runners feature elongated holes that allow +/- 4.5 (3/16") depth adjustment.



If needed the drawer boxes can be quickly and easily removed from the runners. See diagrams below for details:

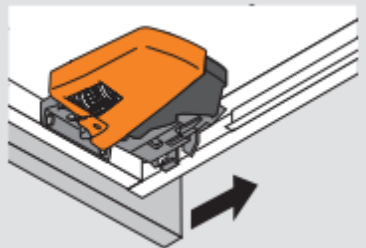
Drawer removal

1. Squeeze orange handles on locking devices
2. Pull drawer straight out and up



Drawer insertion

1. Place drawer on runners and close. Locking devices will automatically connect to runners.



Bi-Slide Bed*

The Bi-Slide is a telescoping aluminum bed platform that can be slid in to create more living space or out for full bed mode. The

Bi-slide bed weighs approximately 60 lbs and requires two people to fully remove and install. Converting between bed mode and the stowed position requires only one person.

Bed Setup

- To convert to bed mode, loosen the front bed catches.



- Rotate the catches 180 degrees and lightly tighten back down to ensure they do not interfere with sliding the bed platform.



- Grab the handles on the front kick plate, lift and pull towards the front of the vehicle. Extend fully until the stops make contact.



- Pull the top cushion down into place to form the full bed



- Rotate the catches back 180 degrees and secure them onto the bed rails



NOTE: Some cushions are two sided and have a soft and firm side. Flip the cushion over depending on your preference.

⚠ WARNING: Never operate the vehicle without all bed catches secured.

Stowing the Bed

- Take the front bed cushion and stack it on top of the rear cushion



- Loosen the front bed catches



- Rotate the catches 180 degrees and lightly tighten back down to ensure they do not interfere with sliding the bed platform.



- Grab the handles on the front kick plate and slide the bed platform back



NOTE: When fully extended the Bi-slide may be tight and difficult to slide back. Use your hip to push the bed platform at the center of the kick plate to initiate the slide.

- Once slid back fully, rotate the catches back 180 degrees and secure them onto the bed rails



NOTE: Depending on your height the bed can be used as a single person sleeper in the stowed position sleeping side to side.

⚠ WARNING: Never operate the vehicle without all bed catches secured.

Removing the Bi-Slide

- Make sure the bed platform is in its stowed position prior to attempting to remove
- Remove both cushions from the bed platform and set aside
- Loosen all four bed catches (two on the rear, two on the front)
- Rotate all catches 180 degrees and lightly tighten back down





- Position one person at the rear of the bed at the back doors, and one at the front
- With each person using the handles on the kick plates lift the platform straight up



- Once the platform is clear of the bed rails rotate the platform 90 degrees and remove the platform by carrying it vertically out of the van



Installing the Bi-Slide

- Lift the bed from the kick plate handles using two people on either end of the bed platform
- Carry the bed vertically through the rear of the vehicle into the van



- Make sure the rear of the Bi-Slide is oriented towards the rear of the vehicle (Look for the closely spaced cross members underneath)



- Lift the bed platform above the bed rails and rotate 90 degrees so that the bed platform is parallel with the floor

- Set the Bi-Slide down and ensure the rear cross members sits between the retaining tab and the rear bed rail cap



- Once in place, loosen the four bed catches (two on the rear, two on the front)
- Rotate all four 180 degrees and secure the bed catches
- Place the bed cushions back onto the Bi-Slide (make sure the cushions are oriented correctly and the side with the desired firmness is facing up)



⚠ WARNING: Never operate the vehicle without all bed catches secured.

Murphy Bed*

The Murphy bed is a two part bed platform and must be deployed in a specific order to avoid damage to the hinge and cabinet. The cushions have integrated snaps to secure them in place but can be removed if desired.

Bed Setup

- Identify the support platform



- Unhook the retaining strap from the L-track puck mount



- Stow the retaining strap to the bottom of the bed platform to avoid it dangling



- Lower the support platform and ensure that the rear strap is straight without any kinks



- The support platform is fully weight rated and can be used independently without the secondary platform deployed
- Lower the second bed platform to create the full bed



- Rotate the window cushions down and press into place using the snaps to secure



⚠ WARNING: Do not lower the secondary platform prior to fully deploying the support platform. Damage to the hinge, platform, and cabinetry is likely.

Stowing the Bed

- Release the snaps on the window cushions and rotate the cushions up vertically against the wall



- Lift the secondary platform up and secure using the retaining strap



- Lift the support platform up and secure the retaining strap

⚠ WARNING: Always secure the retaining straps on both platforms when stowed. Failure to secure the straps will cause damage to the hinge, platform, and cabinetry.

Lower Bed Platform*

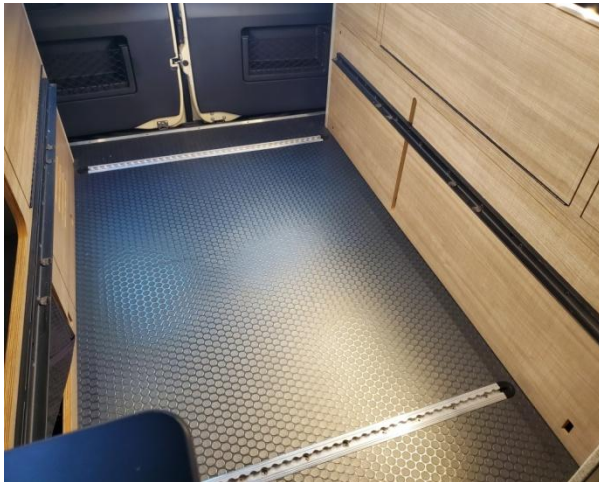
The lower bed platform is comprised of the bed mounting rails located on the face of each wheel well cabinet and a three section platform. The rear platform is a rigid platform. The front two sections form the front platform and are connected via a hinge to allow the platform to be converted to a couch.

Installing the Lower Bed Platform

- Start with the rear platform
- Pull back on the latching pin knobs and rotate 90 degrees to retain the pins



- Do this for all the pins
- Set the rear platform in towards the rear of the rails



- Line the rear latching pin up with its corresponding pin hole
- Rotate the knob 90 degrees and ensure the latching pin slots into the pin hole



- Repeat for all latching pins

- Repeat the steps above for the front platform
- When placing the front platform ensure the correct orientation with the smaller of the two section located towards the rear of the vehicle



⚠ WARNING: Never operate the vehicle without all latching pins fully seated in the pin holes. Injury or death may occur in the event of an accident.

Removing the Lower Bed Platform

- Release all ten latching pins by pulling back on the latching pin knobs and rotating 90 degrees to retain the pins



- Fold the two sections of the front platform on top of themselves and remove from vehicle



- Remove the rear platform



Couch Mode

- Release the latching pins on the smaller section of the front platform section only.



- Pull back on the latching pin knobs and rotating 90 degrees to retain the pins

- Lift the section up towards the front of the vehicle using the slotted handle



- Use the two tensioning straps to set the desired angle of the back rest



- Ensure the straps have equal tension

⚠ WARNING: Do not operate the vehicle with the lower bed platform in couch mode. When in couch mode, back rest angle must be no greater than 110 degrees to avoid damage to straps and strap connections.

Marine Table*

The marine table is a three-piece system comprised of a floor mount bolted into the floor, a center leg, and the table top. The marine table is designed to be setup during use and stowed when operating the vehicle.

Table Setup

- Release the table top from the table mount by turning the star knob counterclockwise



- Remove the black cap from the floor mount



- Slide the center leg tube out of the leg holder brackets



- Place the center leg into the floor mount (leg is symmetric and either side can go into the floor mount)



- Line the table top up with the center leg and place on top



The table can be rotated 360 degrees

⚠ WARNING: Do not operate the vehicle with the marine table deployed. Max weight 50 lbs.

Stowing the Table

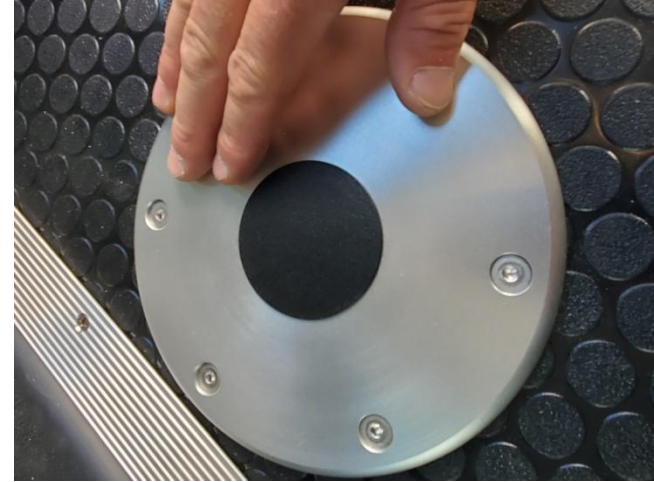
- Remove the table top from the center leg
- Remove the center leg from the floor mount
- Slide the leg into the leg holder brackets on the bottom of the table top



- Slide the table top into the table mount bracket
- Secure the table top by rotating the star knob clockwise until snug



- Replace the black floor mount cover



Lagun Table*

The Lagun table consists of a wall mount, table leg, table arm, and a table top. The Lagun table can be adjusted using the hand locks to move the table leg up and down, rotate the table arm, and rotate the table top.

Table Setup

To adjust the height:

- Loosen the hand lock on the table leg



- Slide the leg up and down to the desired height
- Tighten the hand lock

To rotate the table Arm

- Loosen the hand lock on the table arm



- Rotate the arm to the desired position
- Tighten the hand lock

To rotate the table top

- Loosen the hand lock on the table top



- Rotate the table top to desired position
- Tighten the hand lock

Stowing the Table

The Lagun table can be left in place when driving as long as all hand locks are secured. The table can also be easily removed if desired.

- To remove loosen the hand lock on the table arm



- Remove the table arm
- Loosen the hand lock on the table leg



- Slide the table leg on to the bottom of the table top bracket



- Tighten the hand lock on the table leg to secure it to the bottom of the table bracket



- There is no designated spot for the Lagun table components, either remove from the van or stow in an appropriate location



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