

Base Camp
Operators Manual

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#### 1: FEATURES

Your Base Camp is constructed with materials and methods exceeding anything that is available on the current market. There are two types of composites used in the construction of your new camper, all selected for optimum performance in their respective applications. All of our composites are proprietary, manufactured in USA and Canada to our specifications, and assembled by Canadian craftsmen with years of experience. Truly a North American product.

The floor panel is laid up wet, gel coat, fiberglass, polyester resin, with a polypropylene honeycomb core. This product has been designed and utilized for its brute strength, the exterior of this panel is fiberglass with a poly coating for abrasion resistance, the interior has enough fiberglass on it to support a lifetime of foot traffic and the abuse a floor can take. The interior side of the floor has an automotive gel coat to seal the panel itself, it is then covered with one-piece Lonseal marine flooring, a very tough, wear resistant flooring designed for harsh environments. There is no wood in the floor, nothing to rot, nothing to fail.

The wall panels are another proprietary wet laid up product manufactured to our specs with a unique skin design, and a foam core manufactured to our specification for a very good balance between strength and insulation. Both sides of the wall panels are finished with an automotive gel coat, maintenance for the walls is the same as any fiberglass product, minor scratches can be polished out easily. The roof panel is the same material.

This whole package is wrapped in proprietary aluminum extrusions designed to minimize weight and maximize strength. By design the shell is watertight, the extrusions supply a second complete seal for the shell, along with increased structural integrity, and damage resistance.

The roof extrusion set, upper and lower, is the workhorse of the roof and allows excellent sealing when closed, supports the soft wall, hides the lift assist cylinders, and looks good doing it. All exterior extrusions are media blasted and powdercoated with an automotive/industrial quality polyester powder coat for corrosion resistance, and durability.

The interior cabinets are all CNC cut and formed 5052 marine grade aluminum for durability. All hinges are marine grade stainless; all cabinet doors are polymer sheet material, an FDA and USDA approved material. The cabinets are media blasted and powder coated with a textured polyester powder coat for durability, appearance, and ease of maintenance. All latches are compression latches to keep everything tight, this is especially critical on rough roads, and in rough environments. Keeping everything tight prevents noise, wear, and premature failure. Our tables and countertops are produced from Bamboo, this minimizes any environmental impact to the only wood product in your camper. This all translates to a camper that is exceptionally easy to clean and maintain to a standard equal of its construction.

The quality and properties of the shell demanded a soft wall solution to match. The soft walls are made with a North American sourced marine coated fabric exterior, a microfiber loft insulation, and a breathable treated interior fabric. Our soft walls are highly insulating,

extremely durable, and much quieter than a single fabric side wall. This is standard equipment on the Base Camp which helps to provide a comfortable environment whether it is cold, or hot outside. Insulation works both ways! Our windows and screens are all on heavy velcro, our window blind is integral, and constructed the same as the rest of the soft wall, fully insulated.

#### 2: RAISING AND LOWERING THE ROOF

The power roof on your Base Camp is designed to be easily raised and lowered with the push of a button while being very structural when fully opened and closed.

 Ensure that the battery is installed and operational. The 90 Amp breaker that is located under the drivers side dinette seat must be in the on position. There is also an ATC 10 Amp Fuse located in the fuse panel by the Breaker that is used for the Power Roof circuit.



2. The Control Panel beside the entry door on the dinett side, contains the controls for the Power Roof.



3. To enable the power roof, the red switch cover must be opened and the main power switch for the power roof to be toggled to the on position (up).

- 4. Once the power roof switch is in the on position the Up or Down push buttons can be depressed to raise or lower the roof. Press only the up or down button one at a time, not simultaneously.
- 5. To raise the roof, depress the "Up" (top) push button and hold until the actuators reach their limit and stop. It is important to ensure that the door is open to allow sufficient air movement as the roof goes up.
- 6. To lower the roof, depress the "Down" (bottom) push button. To allow the soft wall to collapse inwards properly, the fan(s) may be used to expel air while you lower the roof by an inch at a time. This may take several minutes, or you may need to manually push the soft wall in from the outside until it gains a memory of where to fold to allow it to collapse inwards. Once you have lowered the roof all the way ensure that you hold the down push button until the actuators reach their limit and stop.
- 7. Ensure that the Power Roof power switch is in the off position when not is use.
- 8. The actuators may be mechanically actuated if all power is lost, by turning the 6mm hex screw located on the very bottom (under sticker). Note: only move each actuator by 1" at a time to ensure that the roof moves as flat as possible to prevent any binding.



9. An interlocking safety device is wired into the Power Roof circuit that inhibits the Actuator from moving if the Wet Bath Lid is open. Always ensure that the Wet Bath Lid is closed when attempting to raise or lower the roof.

#### 3: EXTERIOR COMPONENTS AND FUNCTION

#### 1. Propane System

The propane cabinet is at the front left-hand (driver side) corner of the camper, accessed through a non locking door. (2)- 10 pound vertical cylinders fit the mounting bracket and is secured with a strap. The regulator and connecting hose are also located in the cabinet. Connect the propane connector to the cylinder and tighten firmly by hand.



**Propane Cabinet** 

#### 2. Connecting and Turning On The Propane Cylinder

Before opening the valve on the propane tank, MAKE sure ALL propane appliances inside the camper are turned OFF. Once you are sure all propane appliances are turned off, then you can safely open the valve on the propane tank. Proceed to open the propane tank valve slowly. By opening the propane valve slowly, it will allow the check valve to open properly and allow the correct amount of propane gas to enter the system. Wait a few minutes before turning on any propane appliances inside or outside the camper. This will allow the pressure to build up inside the propane hose and also ensure that the safety check valve will open up. Your camper should now receive the full propane flow it needs to run the appliance(s).

If you haven't used the camper in a while, and you open the propane tank valve too quickly, you might have restricted flow. It is best to open the propane tank valve very slowly, wait a few minutes, and then start using the propane appliances.

Prior to operating any propane appliances, you should purge air from the propane supply lines. The easiest & quickest way to purge air from the propane lines is to first raise the camper roof. Next, light the stove and operate each burner for approx.30 seconds. Lighting the stove usually removes most any trapped air in the propane lines and will then allow faster and easier lighting of other appliances where applicable.

Propane has a distinct smell added to warn the user of a possible leak. If you smell propane inside the camper, make sure the stove knobs are in the "OFF" position, exit the unit immediately, close the propane tank valve that is located on top of the propane tank, and allow ventilation through the door and windows to exhaust the vapors. Wait until the scent of the propane is no longer present. Check for valves that might have been left open. A spray bottle with water with a small amount of dish soap added can be used to spray the fittings and propane lines to inspect for potential leaks. The soap will bubble if a leak is present. Immediately have your camper checked out by an authorized RV service center to find the possible propane leak before using your camper again.

#### 3. Utility Connections

Utilities located on the driver's side cabin wall include; Exterior Shower Port, Lockable Water Fill, 30A Shore Power Connection.



Utilities located in the driver's side front lower cabinet include; Grey Water Discharge from the Grey Tank. With both a 1-1/2" Camlock and a Garden Hose style connector. A three way valve can be activated to release the Grey Tank contents.



Utilities located on the passenger side; Thetford Cartridge Access Door.





#### 4: INTERIOR COMPONENTS AND FUNCTION

#### 1. Battery

Your Base Camp can be equipped with any 12-volt AGM or LiFePO4 battery, the battery(ies) is/are in an enclosure located in the dinette raised floor. We only recommend fully sealed AGM batteries as a minimum battery specification. Conventional batteries vent explosive hydrogen when charging, and corrosion can cause electrical issues.



#### 2. Main DC Breaker

The main DC breaker is located under the drivers sider dinette seat. It is a resettable 120-amp breaker that can be manually closed or open.

#### 3. Solar DC Breaker

The Solar DC breaker is located under the drivers side dinette seat on the vertical front wall. It is a 90-amp breaker that can be manually closed or open.

#### 4. Battery Management System

Your Base Camp is equipped with a Victron Battery Management System as standard equipment. The Victron components are located under the rear DS dinette seat. It converts AC shore power to DC, charges the battery from shore power, charges and manages vehicle charging (critical in newer vehicles with smart alternators) and solar control(s). The Battery Monitor Display for the battery management system is in a control panel above the galley. This display is also used to turn the inverter on or off, based upon how your needs.



Please refer to the supplied factory Victron manuals for set up and operation, or alternatively download the manuals directly from these links or the Apps:

https://apps.apple.com/us/app/victronconnect/id943840744

https://play.google.com/store/apps/details?id=com.victronenergy.victronconnect&hl=en\_CA&gl=US

https://www.victronenergy.com/upload/documents/Manual-Orion-Tr-DC-DC-Smart-Charger-Non-Isolated-EN-NL-FR-DE-SV-CZ.pdf

https://www.victronenergy.com/upload/documents/Manual SmartSolar MPPT 100-30 100-50/MPPT solar charger manual-en.pdf

https://www.victronenergy.com/upload/documents/Manual-BMV-700-700H-702-712-EN-NL-FR-DE-ES-SE.pdf

#### 5. Main Control Panel

The main control panel for the camper is at the rear of the drivers' side cabinet. You will find the following components here:

- Interior light switch
- Water pump breaker
- Battery management control panel and monitor
- GFCI 110 VAC Receptacle
- Hot Water Heater Controller
- 12-volt USB outlet





#### 6. Fuse Panel

The fuse panel is located in the utility cabinet under the drivers side dinette seat. All circuits are marked for capacity, low voltage circuits are distributed from this point, use only fuse sizes specified. Altering fuse sizes may result in a fire, and loss of warranty.

Do not store anything in the utility cabinet as it may block airflow, short electrical components, or damage heating or plumbing components.



#### 7. Exterior Lights

The exterior light switches are located on the control panel beside the entry door on the dinette side.



#### 8. Air Heater - Air Top

The air heater is used to heat the cabin interior and has a single hot air directional duct located on the driver side under the dinette seat. The controller is located above the galley for ease of convenience. The heating unit itself is located within the driver side rear compartment.





#### 9. Hot Water Heater - Thermo Top

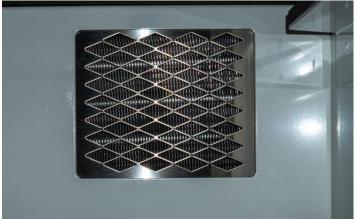
The coolant heater is used in a hydronic hot water heating system. This entails the use of a heat exchanger to transfer the heat generated within the coolant heater to the domestic hot water circuit. The coolant heater has a coolant tank located within the driver side rear lower compartment that can be maintained by adding coolant as required through the fill neck beside the battery compartment under the dinette raised floor.





#### 10. Auxiliary Cabin Heater

The Auxiliary Cabin Heating Circuit is connected to the Chassis cooling system through a fan powered radiator in the rear lower section of the dinette seat. The control for the fan is located on the main control panel under the galley countertop. This heating circuit can also be isolated by closing off the valves located under the hood.





#### 11. Water Pump

The water pump is located under the dinette raised floor. There is a strainer on the inlet of the pump that may require cleaning and servicing that is dependant on water supply. Inspect and clean the strainer as required or annually, it simply screws off and back on. Use caution to make sure the sealing O ring is correctly reinstalled when reassembling. The breaker for the water pump is on the main control panel.



#### 12. Water Tank

The water tank is located under the DS dinette seat with valves accessible within the driver side rear compartment. The level is visible by looking through the level indicating slots in the front access panel as well as indicated in the Victron control panel. The water tank is filled at the utility connection point on the drivers' side of the camper. A locking cap for the filler is standard equipment for your security. The drain for the water tank is located between the tank and the pump, valve with orange handle. There is a winterizing valve also located between the tank and the pump.



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#### 13. Winterizing

To winterize your Base Camp, open the tank drain valve located under the dinette floor and leave open. It is best to set the camper at a slight angle to maximize the amount of water that drains from the tank. Between the freshwater tank and the water pump, there is a winterizing valve, put this valve into the correct position, insert the clear vinyl tube into a jug of RV plumbing anti freeze, and turn the water pump on. Open the faucet on the cold tap, then the hot tap until antifreeze is running through, operate the outside/inside shower on both cold and hot settings until antifreeze is running through.

It is recommended to leave all taps open for the winter. Turn off the pump and open the faucet to relieve pressure in the lines, leave the valve in the winterization position.

#### 14. De-Winterizing

Close drain valve, fill fresh water tank to desired level. It is a good time to sanitize the fresh water tank and that will be covered below. Turn pump on to prevent anti-freeze from flowing back into the fresh water tank. Put the winterizing valve into the summer or in use position, close any open taps, and turn on the water pump. Open each tap including the outside shower until water flows clean and clear, we like to run quite a bit of water through just for personal preference. If you wish to sanitize the freshwater tank, follow the instructions next.

#### 15. Sanitizing the Fresh Water Holding Tank

Sanitize the fresh water system by flushing the system with a mild bleach solution. Use a dilution ratio recommended by your local health department or use a commercial sanitizing product following the appropriate directions. Usually no more than a tablespoon or two of bleach will be needed. You will NOT need cups or gallons of bleach.

After filling the water tank and adding a small amount of sanitizer, run the sink faucets for 20 – 30 seconds, and shower(s) (if equipped), then allow to stand for at least four hours or more. Drain the fresh water tank and flush your water system with clean, fresh water after you are finished. If excessive odor or taste from the sanitizing solution is still present in the water system, drain the fresh water tank one more time, flush out the tank and water lines by running the water pump and faucets inside the camper as needed, and fill once again with fresh water.

Any excess sanitizer can be removed following instructions from your health authority or following commercial preparation instructions. It is recommended that the system be sanitized prior to initial use, or after long periods of standing unused.

Do not store anything in the utility cabinet as it may block airflow, short electrical components, or damage heating or plumbing components.

#### 16. Hot Water Heater

The Thermo Top hot water heater is located under the vehicle on the back side of the rearmost lower cabinet on the driver's side. The heat exchanger, anti scald valve, and filler are located under the dinette floor next to the water pump. The reservoir for the coolant that fills the system is in the lower rearmost cabinet on the driver's side, the expansion tank is in the same cabinet. The control for the water heater is located next to the circuit breakers on the galley.

#### 17. Refrigerator

Your Base Camp is equipped with a Dometic CRX1140 refrigerator. For operating instructions refer directly to the supplied Dometic operator's manual.



Dometic CRX 1140 Refrigerator

#### 18. Cooktop

Your Base Camp is equipped with a True Induction propane gas burner and an induction cooktop combo. The cooktop surface is a ceramic glass surface with touch sensors under the glass. All operations are performed by means of all control knobs. Knob controls electric ignition, safety device & flame level.

TO IGNITE- push and turn the knob for 1-2 seconds in a counter clockwise direction up to the HI position (Maximum rate), push in and hold the knob until the flame has been lit. The sparks produced by the internal igniter will light the designated burner.

Before use, ensure that any window coverings or screens that may fall in the way of the burner are securely fastened out of harms way, there are straps for that purpose. out of propane and a cylinder has been changed. Do not use the cooktop as a source of heat, that can result in carbon monoxide poisoning, and death. If the burner does not light, and you smell propane, open doors and windows to ventilate the camper and do not use the cooktop until it is serviced or repaired.



**True Induction Cooktop Combo** 

#### 19. Carbon Monoxide and Propane Gas Detector

The carbon monoxide and propane gas detector is located at the bottom of the step up to the bed. It should be tested before each use of the camper and serviced according to the requirements set forth in the manufacturers' supplied manual.



#### 20. Smoke Detector

The smoke detector is located on the rear passenger side inside corner of the roof. It should be tested before each use of the camper and serviced according to the requirements set forth in the manufacturer's supplied manual.



## 21. Fire Extinguisher.

The fire extinguisher is located inside the storage closet/toilet closet.



### 22. Emergency Escape

The upper side window on the passenger side in the sleeping area is also labelled as an emergency escape.



All soft wall windows are sized to emergency escape dimensions