



2024 Owner's Manual

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Why Register?

Get access to...

- Warranty Services
- Owner Updates
- Recalls, if necessary
- And, occasional promotions and/or giveaways!

Our Owner's Corner is an ongoing work in progress and we look forward to providing you with a unique experience of adventure as a VTW owner.



Warranty Information

Vintage Trailer Works, Inc. (VTW, Inc.) Limited Warranty

WARRANTY SPECIFICATIONS

Vintage Trailer Works, Inc. warrants to the original consumer purchaser that the trailer produced by VTW, Inc. will be free from defects in material and workmanship for a period of one and two years, depending upon the Camper model and component, except as herein limited, from the date of the first retail purchase, provided all stated conditions and exclusions are satisfied. This warranty is limited to the first retail purchaser, and it is not transferable or applicable to rental trailers.

90 Day Warranty: Applies to silicone and foam seals. After 90 days it is the responsibility of the owner to ensure the Camper's seals are maintained. We offer replacement parts (such as mastic/butyl tape and foam seals) in our [online store](#).

One Year Warranty: Limited to windows, doors, aluminum, plastics or TPO products, plumbing, cabinets, trim, electrical, stoneguard, floor coverings, improper application of paint or undercoat, and lights. Aftermarket products installed or applied by VTW, Inc. are excluded from this warranty, but may be warranted by the applicable supplier.

Two Year Warranty: Limited to the overall welded frame structure and associated frame components on all trailer models.

Want to talk to our Warranty Department directly?

Main: (888) VTW-CAMP (888-889-2267) ext. 409

Direct: (334) 439-4234

Want to email us instead?

warranty@vintagetrailerworksinc.com

General Contact

HQ E-mail: sales@vintagetrailerworksinc.com

Headquarters General Contact: 888-VTW-CAMP (889-2267)

Welcome!

Welcome to the Vintage Trailer Works family! Our Campers are Built to Love; Built to Last®.

We hope you enjoy the many adventures your Camper brings!

Your Camper has been handcrafted with the highest quality of materials the industry provides. Considering this, we want to equip you with the tools to maintain your Camper so it can bring you a lifetime of adventures.

Please carefully review the following Owner's Manual in which you will find dangers and cautionary notifications, safety instructions, maintenance schedules, and how-to helps for some of the more common questions. This Owner's Manual serves as a general Owner's Manual for all VTW Teardrop style Campers, therefore specific model information may not be listed/discussed in this Owner's Manual.

Thank you,

The VTW Crew

Disclaimers

The information contained within this Owner's Manual is based on the latest production information and specifications available at the time of publication. This information is subject to change based on improvements in process, technique, product, or availability of material. VTW Inc., reserves the right to make changes as is beneficial and necessary for the betterment of VTW Inc. Therefore, no legal claims can be filed against VTW, Inc. based on the contents of this Owner's Manual. The observance or non-observance of this manual is the sole responsibility of the VTW Camper owner.

Any operating procedures listed are described under ideal circumstances to ensure safety and security. Any loss incurred due to the improper use or non-observance of any safety procedures or warnings provided in this manual are the sole responsibility of the VTW Camper owner. VTW Inc. cannot be held liable for any losses that are a result of negligence to safety procedures and warnings by the VTW Camper owner.

Web Links:

Any external links or websites listed in this manual are not the intellectual property or rights of VTW Inc. and therefore any information presented through these links is not considered legal advice and is merely presented in a general nature and may not pertain to your specific circumstances. VTW Inc. is not liable for any loss or injury that may result from the following actions, negligence, or omissions listed on these websites or links.

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I. Safety

a. General

- i. PLEASE READ AND FOLLOW ALL RELATED OPERATIONAL MANUALS AND THE INSTRUCTIONS IN THIS Owner's Manual BEFORE USE. THIS Owner's Manual IS INTENDED TO ACT AS A GENERAL GUIDE FOR OPERATION. THIS MANUAL IS SUBJECT TO CHANGE WITHOUT NOTICE AND MAY/MAY NOT INCLUDE INFORMATION REGARDING YOUR TRAILER. ALWAYS REFER TO THE SPECIFIC MANUFACTURER'S OWNER, OPERATIONS, AND SAFETY MANUAL FOR OPTIONAL EQUIPMENT WHICH INCLUDES, BUT IS NOT LIMITED TO INVERTER, AIR CONDITIONER UNIT, ROOF TOP TENT. SAVE ALL INSTRUCTIONS. Tire and Load

b. Tire and Load Information

i. SAFETY CHECKLIST

1. Check tire pressure at least once a month (including the spare) and before any long trip. (We recommend 35 PSI, but refer to your specific tire's PSI recommendations)
2. Make sure all the lug nuts are secure. (100 ft lbs is recommended). Use a torque wrench. Do not guess! It is important to maintain proper wheel nut torque to provide safe and secure attachment of the wheel to the hub/drum.
3. Slow down if you must go over a pothole or other object in the road.
4. Do NOT run over foreign objects in the roadway and avoid striking the curb when parking.
5. See Tire Information Loading Label for recommended tire size, inflation pressure, cargo Carrying Capacity as well as weight and axle weight ratings.
6. Inspect tires for uneven wear patterns on the tread, cracks, foreign objects, or other signs of wear or trauma and remove bits of glass and foreign objects wedged in the tread.
7. Do not exceed the safe age to operate the tire.
 - After 3-5 years, you should consider replacing your tire, especially if you see signs of degradation.
8. Make sure your tire valves have valve caps.
9. Do not overload your vehicle and distribute weight evenly in the Camper.
10. Do not exceed tire speed ratings regardless of the posted maximum speed limit.
11. Use this information to make tire safety a regular part of your vehicle maintenance routine and use good judgment to adjust towing to road conditions, weather conditions, traffic and posted speed limits while operating the vehicle. Recognize that the time you spend is minimal

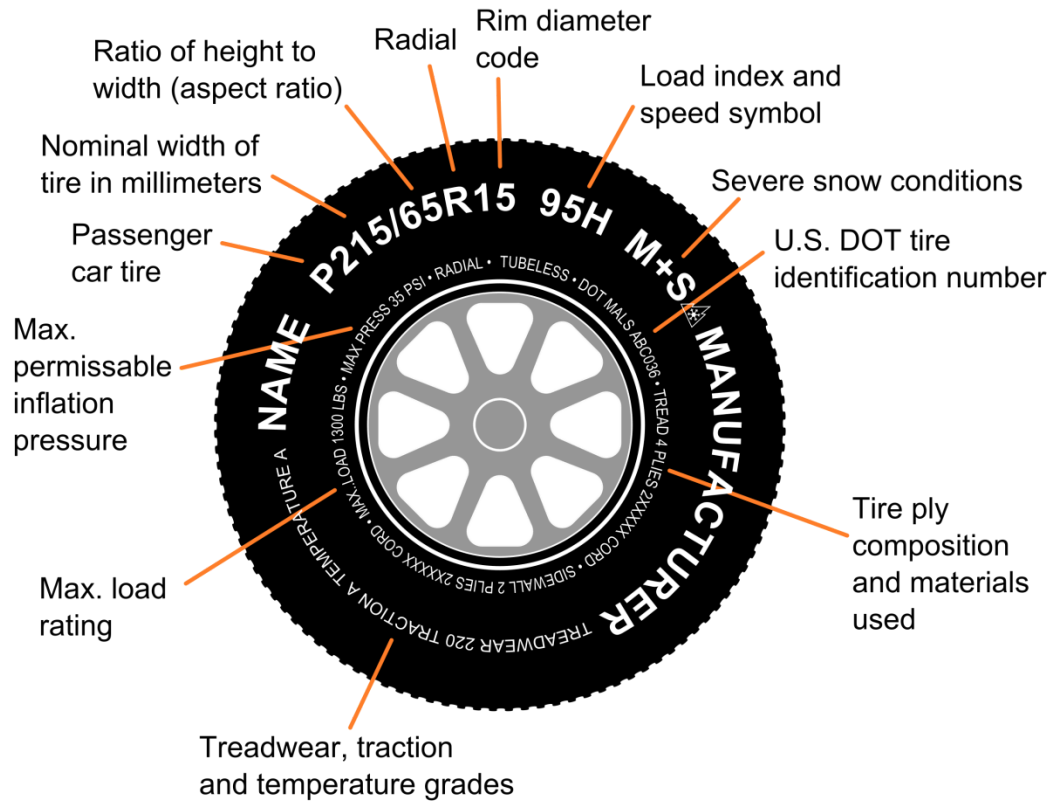
compared with the inconvenience and safety consequences of a flat tire or other tire failure.

ii. TIRE LABELING & US DOT TIRE IDENTIFICATION NUMBER (TIN)

1. Federal law requires tire manufacturers to place standardized information on the sidewall of all tires. This information identifies and describes the fundamental characteristics of the tire and provides a tire identification number for safety standard certification and in case of a recall. The TIN begins with the letters "DOT" and indicates that the tire meets all federal standards.

NOTICE

If it becomes necessary to replace a tire and you feel it is a warranty issue, most tire manufacturers require the D.O.T. number be cut out and returned to them with the warranty claim. Otherwise, the warranty could be voided.



2. P - Indicates the tire is for passenger vehicles.

NOTICE

Passenger car tires are not recommended for use on trailers, because the capacity ratings are not marked on the sidewalls of these tires. In the event a passenger car tire is used, the capacity must be de-rated by 10%.

3. Next (3 digit) Number - Gives the width in millimeters of the tire from sidewall edge to sidewall edge. In general, the larger the number, the wider the tire.
4. Next (2 digit) Number - Gives the tire's ratio of height to width (known as the aspect ratio). Numbers of 70 or lower indicate a short sidewall for improved steering response and better overall handling on dry pavement.
5. R - 'R' stands for radial.
6. Next number - This two-digit number is the wheel or rim diameter in inches. If you change your wheel size, you will have to purchase new tires to match the new wheel diameter.
7. Next number - This two- or three-digit number is the tire's load index. It is a measurement of how much weight each tire can support. If you are unsure, contact a local tire dealer.

NOTICE

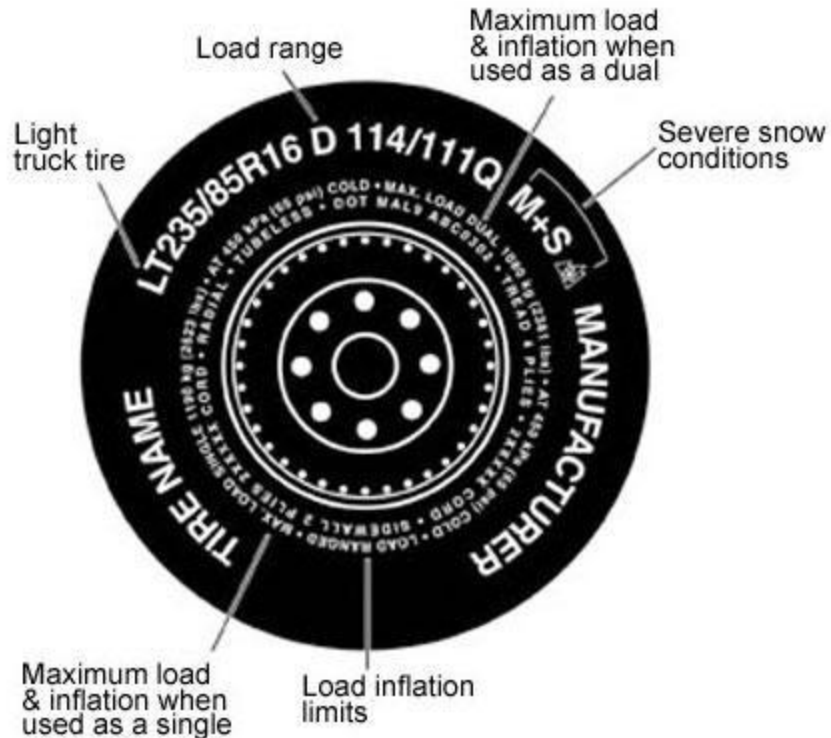
You may not find this information on all tires since it is not required by law.

8. M+S - 'M+S' or 'M/S' indicates that the tire has some mud and snow capability. Most radial tires have these markings; hence, they have some mud and snow capability.
9. Speed Rating – The speed rating denotes the speed at which a tire is designed to be driven for extended periods of time. The ratings range from 65 miles per hour (mph) to 186 mph.
10. Letter Rating Speed Rating
 - ST 65 MPH
 - Q 99 MPH
 - R 106 MPH
 - S 112 MPH
 - T 118 MPH
 - U 124 MPH
 - H 130 MPH
 - V 149 MPH
 - W 168 MPH
 - Y 186 MPH

NOTICE

You may NOT find this information on all tires since it is not required by law.

11. Tire Ply Composition and Materials Used - The number of plies indicates the number of layers of rubber-coated fabric in the tire. In general, the greater the number of plies, the more weight a tire can support. Tire manufacturers also must indicate the materials in the tire, which include steel, nylon, polyester, and others.
12. Maximum Load Rating - Load rating indicates the maximum load in kilograms and pounds that can be carried by the tire.
13. Maximum Permissible Inflation Pressure - This number is the greatest amount of air pressure that should ever be put in the tire under normal driving conditions.
14. Treadwear Number - This number indicates the tire's wear rate. The higher the treadwear number is, the longer it should take for the tread to wear down. For example, a tire graded 400 should last twice as long as a tire graded 200.
15. Traction Letter - This letter indicates a tire's ability to stop on wet pavement. A higher graded tire should allow you to stop your car on wet roads in a shorter distance than a tire with a lower grade. Traction is graded from highest to lowest as 'AA', 'A', 'B', and 'C'.
16. Temperature Letter - This letter indicates a tire's resistance to heat. The temperature grade is for a tire that is inflated properly and not overloaded. Excessive speed, under inflation or excessive loading, either separately or in combination, can cause heat build-up and possible tire failure. From highest to lowest, a tire's resistance to heat is graded as 'A', 'B', or 'C' (see "Appendix A" for more information).









iii. LIGHT TRUCK TIRES

1. Light Truck Tires
2. LT- The "LT" indicates the tire is for light trucks or trailers.
3. ST – An "ST" is an indication the tire is for trailer use only.

iv. CHECKING TIRE PRESSURE

1. It is important to check your vehicle's tire pressure at least once a month for the following reasons:
2. Most tires may naturally lose air overtime.
3. Tires can lose air suddenly if you drive over a pothole or other object or if you strike the curb when parking.
4. With radial tires, it is usually not possible to determine under-inflation by visual inspection. For convenience, purchase a tire pressure gauge to keep in your vehicle. Gauges can be purchased at tire dealerships, auto supply stores, and other retail outlets. The recommended tire inflation pressure that vehicle manufacturers provide reflects the proper psi when a tire is cold. The term cold does not relate to the outside temperature. Rather, a cold tire is one that has not been driven on for at least three hours. When you drive, your tires get warmer, causing the air pressure within them to increase. Therefore, to get an accurate tire pressure reading, you must measure tire pressure when the tires are cold or compensate for the extra pressure in warm tires.

v. Tire Wear Diagnostic Chart:

Tire Wear Diagnostic Chart			
Wear Pattern		Potential Cause	Potential Action
	Center wear	Over inflation	Adjust pressure to the recommended tire PSI
	Edge wear	Under inflation	Adjust pressure the recommended tire PSI
	Side wear	Loss of camber or overloading	Adjust load to ensure it does not exceed the trailer GVWR; check alignment have professional adjust as needed
	Toe wear	Incorrect toe-in	Check alignment. Have a professional adjust as needed.
	Cupping	Out of balance	Check bearing adjustment and balance tires
	Flat spots	Wheel lock up and tire skidding	Avoid sudden stops when possible and adjust brakes

1. If you have uneven wear on your tires, consult the above guide to determine the best course of action.
- vi. STEPS FOR MAINTAINING PROPER TIRE PRESSURE
1. Locate the recommended tire pressure on the vehicle's Tire and Loading Information label located on the exterior front left side wall.
 2. Record the tire pressure of all tires.
 3. If the tire pressure is too high in any of the tires, slowly release air by gently pressing on the tire valve stem with the edge of your tire gauge until you get to the correct pressure.
 4. If the tire pressure is too low, note the difference between the measured tire pressure and the correct tire pressure. These "missing" pounds of pressure are what you will need to add.

5. At a service station or using an air compressor, add the missing pounds of air pressure to each tire that is under-inflated.
6. Check all the tires to make sure they have the same air pressure. If you have been driving your vehicle and think that a tire is underinflated, fill it to the recommended cold inflation pressure indicated on your vehicle's Tire and Loading Information label. While your tire may still be slightly underinflated due to the extra pounds of pressure in the warm tire, it is safer to drive with air pressure that is slightly lower than the vehicle manufacturer's recommended cold inflation pressure than to drive with a significantly underinflated tire. Since this is a temporary fix, don't forget to re-check and adjust the tire's pressure when you can obtain a cold reading.

vii. UNDERSTANDING TIRE PRESSURE AND LOAD LIMITS

1. Tire inflation pressure is the level of air in the tire that provides it with load-carrying capacity and affects the overall performance of the vehicle. The tire inflation pressure is a number that indicates the amount of air pressure—measured in pounds per square inch (psi)—a tire requires to be properly inflated. (You will also find this number on the vehicle information placard expressed in kilopascals (KPA), which is the metric measure used internationally.)
2. Vehicle manufacturers determine this number based on the vehicle's design load limit, that is, the greatest amount of weight a vehicle can safely carry and the vehicle's tire size. Because tires are designed to be used on more than one type of vehicle, tire manufacturers list the "maximum permissible inflation pressure" on the tire sidewall. This number is the greatest amount of air pressure that should ever be put in the tire under normal driving conditions.

viii. VEHICLE LOAD LIMITS

1. Determining the load limits of a vehicle includes more than understanding the load limits of the tires alone. On a trailer, there is a VIN Sticker on the front driver's side of your Camper. The VIN sticker will indicate the vehicle's gross vehicle weight rating (GVWR). This is the most weight the fully loaded vehicle can weigh. It will also provide the gross axle weight rating (GAWR). This is the most a particular axle can weigh. If there are multiple axles, the GAWR of each axle will be provided. In the same location as the certification label described above, there is a vehicle placard. This placard provides tire and loading information. In addition, this placard will show a statement regarding maximum cargo capacity.

ix. CARGO CAPACITIES

1. Cargo can be added to the vehicle, up to the maximum weight specified on the placard. The combined weight of the cargo is provided as a single

number. In any case, remember: the total weight of a fully loaded vehicle cannot exceed the stated GVWR.

2. Water and propane also need to be considered. The weight of fully filled propane containers is considered part of the weight of the Camper before it is loaded with cargo and is not considered part of the disposable cargo load. Water, however, is a cargo weight and is treated as such. If there is a freshwater storage tank of 100 gallons, this tank when filled would weigh about 800 pounds. If more cargo is being transported, water can be offloaded to keep the total amount of cargo added to the vehicle within the limits of the GVWR so as not to overload the vehicle. Understanding this flexibility will allow you, the owner, to make choices that fit your travel and camping needs.
- x. HOW OVERLOADING AFFECTS YOUR TRAILER AND TIRES
1. The results of overloading can have serious consequences for passengers' safety. Too much weight on your vehicle's suspension system can cause spring, shock absorber, or brake failure, handling or steering problems, irregular tire wear, tire failure or other damage.
 2. An overloaded vehicle is hard to drive and hard to stop. In cases of serious overloading, brakes can fail completely, particularly on steep hills. The load a tire will carry safely is a combination of the size of the tire, its load range, and corresponding inflation pressure.
 3. Excessive loads and/or under inflation cause tire over-loading, and as a result, abnormal tire flexing occurs. This situation can generate an excessive amount of heat within the tire. Excessive heat may lead to tire failure.
 4. It is the air pressure that enables a tire to support the load, so proper inflation is critical. Since trailers can be configured and loaded in many ways, air pressure must be determined from actual loads (determined by weighing) and taken from the load and inflation tables provided by the tire manufacturer. These air pressures may differ from those found on the certification label. However, they should never exceed the tire limitation for load or air pressure. If you discover that your tires cannot support the actual weights, the load will need to be lightened.

c. Propane

- i. Your VTW Camper is not equipped with a Carbon Monoxide detector.
 1. Carbon Monoxide is the result of incompletely burned fuel from appliances or gas/diesel exhausts.
 2. While VTW does not provide a CO detector, it is safe practice to add one after receiving your unit, especially if you are using a gas burning stove, heater, or water heater.

3. If a VTW Inc. teardrop Camper is equipped with Propane, it will be mounted on the driver's side rear fender well. VTW Inc. is not liable for any injuries that may come because of improper use or relocation of the LP.

Danger!

If you smell Propane

- 1 Extinguish any open flames and all smoking materials.
- 2 Shut off propane supply at the container valve(s) or propane supply connection.
 - 3 Do not touch electrical switches.
 - 4 Open doors and other ventilated openings.
 - 5 Leave the area until the odor clears.
- 6 Have the propane system checked and leakage source corrected before using it again. Ignition of flammable vapors could lead to a fire or explosion and result in death or serious injury.

d. Fire Safety

- i. VTW Inc. does not supply a smoke alarm, fire alarm, or fire extinguisher.
 1. While we do not supply the above-listed items, customers are encouraged to purchase, install, and keep them handy. Our Camper's walls and dividers are made from 3/4" marine grade birch plywood. We believe this provides an advantage in durability, but it is wood, so it is flammable.
 2. Due to the flammable nature of the wood, we advise you to be very mindful and practice general Fire Safety and avoid:
 - Smoking or having an open flame in bed.
 - Leaving children unattended with fire sources available.
 - Using flammable cleaning products.
 - Leaving food unattended while cooking.
 - Having faulty wiring.
 - Using damaged electrical devices.
 - Improper use of Propane or Gas.
 - Placing hot objects (pans/pots) directly onto stainless steel.
 - General carelessness.

II. Electrical

a. GENERIC

- i. The electrical system in your Camper is a combination 12 Volt DC (Direct Current) and 120 Volt AC (Alternating Current) system. In simpler terms, the 12 Volt system is what an automobile uses, and the 120 Volt system is what most households use.

b. 12 VOLT DC SYSTEM

- i. The 12 Volt system is powered by a deep cycle marine/rv battery (available option at the request of the purchaser). Almost all equipment except the 120V plugs and GFCI galley power strip operate on 12V DC
- ii. **Battery** - The heart of the 12 Volt system is the battery so choose yours wisely. Your battery is essentially a storage device for electrical energy. We recommend at a minimum an RV/Marine Deep Cycle battery for our applications.
 1. Before you select your battery, define your camping needs thoroughly. For example, if you will typically camp with access to campground 120V, a standard deep cycle lead acid battery should suffice.
 2. If you will be camping without access to campground 120V and will rely heavily on the battery to run the many features in your Camper, you need to consider a deep cycle battery that has considerable amperage available, a lithium upgrade, or possibly installing 2 batteries for your needs.
 3. A well charged and maintained battery is critical for proper operation of the appliances and features within your Camper. A battery which is not well charged and maintained can cause intermittent or failure of operation with most of the 12V components in your Camper. Follow the charging and maintenance instructions closely for the battery you select.

****HELPFUL TIP: If a 12V accessory (lights, fan, 12V plug, etc.) is not operating properly, ensure that the battery is both connected and fully charged.****

4. All VTW Inc. Campers will be equipped with a battery charger requiring 120V AC connection, either direct to the battery charger or via the GFCI galley power strip (see 120V AC section below).
 5. See "Battery" section under maintenance recommendations to get the best performance and life from your battery. Remember to turn your master switch (in the front box) off when the trailer is in storage to prevent unnecessary battery drainage.
- iii. THE BATTERY CHARGER
 1. Each Camper is equipped with a 12V 6A 24V 3A Foxsur Smart Charger.

- In order for the battery charger to function, the charger must be plugged to 120V power and the master disconnect switch in the front box must be turned on.
- This charger is intended to maintain the battery through periods of use. If your battery voltage is too low, you will need to disconnect the battery and connect a larger amperage rated battery to charge the battery back up.
- It is **highly** recommended that you consult the user manual for the battery you choose before using the Camper to ensure best practices and longer life for your battery.

iv. 12 VOLT DC FUSES –

1. A 12VDC interior fuse panel is installed in the Power Distribution Center to protect the interior circuits. The power distribution center is in the galley lower cabinet door.
2. The fuse panel is labeled and had the amp size listed on the back of the cover in the event that a blown fuse is not readable.
3. If a fuse is blown the fuse block will show a red light next to the blown fuse for easy identification.

****WARNING****

Do not install fuses with amperage ratings greater than that specified on the label. Replacing a fuse with one that has a higher rating greatly increases the chances of damaging the electrical system. If you do not have a replacement fuse with the proper rating for the circuit, install one with a lower rating until you can replace it with the properly rated fuse. If the replacement fuse of the same rating blows in a short time, indications are that there is probably an electrical problem with your Camper. Leave the blown fuse in that circuit and have your Camper checked by your nearest dealer or local trailer repair shop.

v. INVERTER

1. Your Camper may be equipped with a factory installed inverter that converts 12VDC to 120VAC. It supplies **continuous** AC power to appliances connected to its output. ****NOTE**** Even if no items are plugged into the Inverter, it is still converting 12V to 120V, and therefore will drain the battery over time.
2. The inverter should be turned OFF when the Camper is in storage. Also, be sure to turn the inverter OFF and disconnect the battery power cables before performing any 120VAC service work. If the inverter is not functioning, check both the circuit breaker protecting the inverter input and the fuse located on the inverter.



DANGER

The inverter supplies 120VAC power to connected appliances. Disconnect the battery cable and the 120VAC power cord before working on the electrical system. Do NOT reconnect the cables until all work has been completed.

c. 120 VOLT AC SYSTEM

- i. The 120 Volt system is supplied by plugging the Galley Power Strip into an outside power source (campground, house, etc.) or running a generator. Once connected or powered, the 120V AC will power the various 120V items with which your Camper may be equipped.
 1. GALLEY POWER STRIP – Vintage Trailer Works provides a galley power strip for use at the campground, home, etc. where you have access to 120V AC power. Per the manufacturer’s recommendations, 15 amps is the maximum amperage allowed through the power strip at one time. If this amperage is exceeded the power strip will trip either at the integrated circuit breaker (ON/OFF Switch) or the Ground Fault Circuit Interrupter (GFCI).
 2. Available Power – It is good practice to contact your potential campground and verify what power they have available and ensure any adapters/reducers or extension cords are the appropriate size and length to meet your electrical needs.

d. 7-Way TRAILER PLUG

- i. VTW utilizes a 7-Blade Flat pigtail connector to supply the electrical connection between the tow vehicle and the Camper. The plug connects into a 7-way connector on the tow vehicle to allow operation of the Camper’s marker lights, taillights, brake lights, and electric brakes.
- ii. VTW wires the trailer side 7-way pigtail to allow the tow vehicle to charge the battery. You will need to verify with your manufacturer or whoever installed the tow side 7-way plug, that the tow vehicle is wired to charge the Camper battery.

e. ELECTRIC BRAKES

- i. You can choose to equip your Camper with electric brakes. VTW utilizes self-adjusting electric brakes to lessen the amount of maintenance required. Electric brakes are designed to apply brake pressure to the Camper and make the towing experience a bit more comfortable.

- ii. The electric brakes are powered by the tow vehicle through the 7-way plug and a brake controller. When brake pressure is applied on the tow vehicle, the controller activates the brakes on the Camper. A battery is not required for the electric brakes to operate so long as you have the brake controller and 7-way plug installed on the tow vehicle.
 - iii. You will need a brake controller to operate your electric brakes.
 - iv. Your electric brakes also come with a breakaway switch that is wired to the battery. This switch is mounted on the tongue behind the hitch and between the bolt on your swivel jack. The cord and D-clip connect to the tow vehicle. If the Camper and the tow vehicle were to become separated, the pin would pull from the switch at which point the brakes would lock up and slow the Camper down, bringing it to a stop.
- f. SOLAR
- i. Solar Panels are designed to take sunlight and convert that energy into usable DC electricity. All VTW Campers are equipped with a Renogy Wanderer Solar Controller that has leads to connect to the battery and 10 ft MC4 connectors for the solar panel. This system, in its simplest form, is designed to help sustain battery life while camping without access to 120V.
 - 1. When using your solar system remember that weather plays a big role in the performance of your solar panels. Ideal circumstances are bright sunny days with clean and properly positioned panels.

III. Plumbing

- a. General
 - i. The plumbing system is a simple system containing a Fresh Water tank, a marine grade water pump, faucet, and drain. Some systems can include a battery powered outdoor shower/water heater combination unit (heated with LP).
- b. Fresh Water
 - i. Fresh Water Tank
 - 1. This item is designed to be used with **Potable Water** only.
 - 2. There is a gravity fill port on the side of the unit that can be filled with any potable water. The tanks we use are 10, 13, or 16 gallons depending on which Camper and package you select.

****WARNING**** Potable water only. Sanitize, flush, and drain the water tank before using.

- 3. Note that any water you add before travel will add 8 pounds per gallon to the weight of the Camper.
 - 4. During the winter months, especially if you live in colder environments, we recommend fully draining the water tank to avoid damage in freezing conditions.
 - ii. Water Pump
 - 1. The water pump pumps water from the fresh water tank to the faucet and/or heated shower.
 - 2. This is a 12V pump with a switch mounted on the faceplate in the galley under the sink. Once the switch is turned the pump will begin to pressurize.
 - 3. This is a self-priming pump that will switch off once the system is fully pressurized. ****NOTE**** If your pump does not cut off once fully pressurized, you either have an open valve or a leak.
 - 4. See the [Owner's Corner](#) for a manual on the water pump supplied with your Camper.
 - iii. Faucet and Drain
 - 1. The final phase of your plumbing system is the faucet and drain line.
 - 2. The drain line runs through the bottom of the Camper with a screw on cap underneath the Camper.
- c. Outdoor Shower/Water Heater Combo
 - i. The Joolca HOTTAP shower package includes an instant water heater powered by D batteries and LP, a portable water filter, and water pump. A shower port with a quick connect fitting is installed below the water

fill cap which transfers water from the water tank through the heater and out of the shower head.

- ii. The Joolca Shower package has the ability to be operated independently of the on board water. You can use the portable filter and water pump set up to pull water from a resource other than the Camper.

****HELPFUL TIP**** During the winter months, make sure to fully drain the water heater/shower to avoid freezing and busting the water lines.

****HELPFUL TIPS**** It is good practice to tighten the hose clamps and other related plumbing lines after arriving at camp(or after long, bumpy trips) to ensure no leaks will occur.

IV. Using your Camper

- a. Pre-Trip Inspection
 - i. Before Each Use
 1. Loaded Weight is within Specs
 2. All Appliances are operational (cycle ON/OFF)
 3. Check Fuses
 4. All alarms work (if equipped)
 5. Battery fully charged (disconnect switched OFF before leaving)
 6. All Lights work (Running Lights, Side Markers, Turn Signals, Brake Lights)
 7. Check Tire Pressure and Tire Wear
 8. Ensure Lugs are Tight (100 ft/lbs)
 9. Check Ventilation points for dirt and other obstructions
 10. Turn off electronics before leaving (battery, lights, switches, radio, etc.)
 11. Secure all loose objects before leaving (Side Tables, remotes, hoses, windows, doors, tools, cutting boards, refrigerators, stoves, etc.)
 - b. Towing/Hauling
 - i. Hitch is Secure (with pin or padlock).
 - ii. Safety chains are properly secured.
 - iii. Break-away switch connector is properly attached.
 - iv. Front jack(s) is raised and flipped up.
 - v. Mirrors are properly adjusted.
 - vi. Hitch/Receiver is adjusted to allow the Camper to be level during tow.
 1. This helps even the weight distribution and provides a smooth towing experience.
 - vii. Towing Considerations:
 1. TOW VEHICLE SELECTION: We recommend the tow vehicle being used have a towing capacity able to handle at least the Gross Vehicle Weight Rating (GVWR) of the Camper you have selected. Please consult with your tow vehicle dealer for more information about the specific ratings of your tow vehicle.
 2. HOOKING UP TO THE TOW VEHICLE:
 - TRAVEL TRAILER:
 - i. Crank the tongue of the trailer jack up until the hitch coupler is high enough to clear the tow vehicle.
 - ii. Back the tow vehicle to the trailer until the hitch ball is directly under the coupler on the trailer.
 - iii. Set the parking brakes, raise the locking latch on the coupler and crank it down on the ball.
 - iv. Move the locking latch down to lock it on the ball. Secure with a padlock or pin.

- v. Connect the power cord between the tow vehicle and the trailer.
 - vi. Connect the breakaway switch to the tow vehicle.
 - vii. Connect the safety chains to the tow vehicle
 - viii. Crank the jack all the way up.
 - ix. Install and adjust side mirrors.
 - x. Check all lights on the trailer and tow vehicle (running, turn signals and brakes).
 - xi. Pull forward and check the operation of the trailer brakes with the hand control to ensure proper operation. Refer to manufacturer specifications on setting the brake control.
- WEIGHT DISTRIBUTION: Proper weight and load distribution is essential to safe towing. Before your first trip, load your Camper with the weight distributed evenly (front to rear, side to side) with all personal belongings, equipment, food, water, etc. you feel are needed and weigh the Camper at a local weigh station (you will need to know the weight of your tow vehicle beforehand in order to get the weight of your Camper specifically). Keep the loaded tongue weight between 10% and 15% of the total weight.
 - SAFETY CHAINS - TRAVEL TRAILERS: Safety chains are included with every Camper and, in most states, are required when towing a trailer. Hook them to the safety chain loops provided on the tow vehicle's hitch, crossing them under the trailer tongue. Inspect the length of the chains once attached to the tow vehicle frame. They should be long enough to allow for turns, but short enough to avoid any drag.
- c. At the Campground
- i. Disconnect and Level your Camper.
 - ii. Ensure the 7-way Trailer Plug is disconnected from the tow vehicle (failure to disconnect could drain the towing vehicles battery).
 - iii. Stabilize your trailer with the provided stabilizer jacks and front jack. Wheel chocks are also recommended but not provided.
 - iv. Open awnings once you have ensured there are no obstructions.
 - v. Connect Galley Power Strip to Shore Power (campground 120V) connection.
 - vi. Ensure all Electrical Components power on.
 - vii. Connect propane (where applicable); See Propane section for ventilation requirements.
 - viii. Set up all remaining features as needed.

- d. Arriving Home/Storage
 - i. Disconnect from Camper.
 - ii. Ensure all electrical switches are turned to the OFF position.
 - iii. Connect Battery Charger as needed (Reminder that the battery disconnect must be turned to the ON position if you are using the VTW provided battery charger)
 - iv. Turn Battery Disconnect OFF to minimize drain on the battery.
 - v. Ensure all silicone and foam seals are intact to prevent water damage
 - vi. Ensure all openings are closed and latched (windows and doors)
 - vii. We recommend storing it in a garage or under a cover during periods of extended storage.
 - viii. If stored outside exposed to the elements, it is best practice to check your Camper at least biweekly and after a rain to ensure that the Camper is still sealed well.

V. Care and Maintenance

- a. General
 - i. Proper maintenance of your Camper is key to a long, beautiful friendship with adventure. We list a recommended schedule and some best practices for maintenance. These care and maintenance tips and recommendations will keep your unit performing in peak condition and maintain resale value for when it is time to upgrade to a new VTW Camper!
- b. Maintenance Schedule:

Silicone Seals-check for gaps or separation.	Every 3 Months
Bulb/Foam Seals-replace any overly compressed seals, especially where there is a gap between foam and frame	Every 3 Months
Tire Pressure including Spare (check Tire for PSI rating)	Every 3 Months
Tire Tread Check and Dry Rot (see I. Safety>b. Tire and Load>v. Tire Wear Diagnostic Chart)	Every 3 Months
Wash Trailer and Windows	Every 3 Months
Roll Trailer Forward or Backward to Prevent Flat Spots on Tires	Every 3 Months
Tighten screws, nuts, and bolts. Inspect Back Door Hinge screws(trailer side) are tight/Flush against hinge. If they are not, tighten or replace, adding a dot of silicone in the hole to help seal.	Every 3 Months
Inspect for Water Damage	Every 3 Months
Trim Mastic and Butyl Tape	Every 3 Months
Check and Grease Wheel Bearings as Needed	Every 6 Months
Check Window Seals for Leaks	Every 6 Months
Appliance Maintenance per Manufacturer's Instructions	Every 6 Months
Clean Window Weep Holes	Every 6 Months

Check Electric Brakes	Every 12 Months
Inspect Battery, Clean and Check Fluid Levels	Every 12 Months
Clean and Lubricate Swivel Jack, Locks, Gears, Hinges	Every 12 Months
Winterize if Necessary	Every 12 Months
Check Propane System by Qualified Service Center	Every 12 Months
Check Torque on all Wheel Nuts and Axles	Every 12 Months
Verify Alignment on axles (if necessary)	Every 12 Months

c. Recommended Parts, Pieces, and Tools for Maintenance

i. Material:

1. Dynaflex Ultra (Black, White)
2. 5/16 Grade 8 Stainless Nuts/Bolts/Washers (Heavy Duty Roof Racks)
3. 3/8 Grade 8 Stainless Nuts/Bolts/Washers (Heavy Duty Roof Rack Bars)
4. 13/16" Lug Nuts
5. 3/4" Self Tapping Screws w/ Square Bit Heads (Used throughout the Camper, most notably, on the back door trim)
6. #12 1-1/2" Metal to Metal Roofing Screws (for back door hinge, we use 3/4" Hex head but you can use whatever you can find)
7. Assorted Hose Clamps
8. Assorted Fuses
9. Assorted 12V Connectors
10. Hi-Temp Bearing Grease

ii. Tools:

1. Standard Socket/Wrench Set
2. Drill and Bits (standard Phillips will work fine)

3. #2 Square Bit
4. ¼" Nut Driver
5. Plastic Razor Knife
6. Mineral Spirits
7. 13/16" Deep Well Socket (for lug nuts)
8. 15/16" Deep Well Socket (for coupler, if needed)
9. Grease Gun
10. Wire Strippers/Cutters

d. Maintenance Tips:

- i. Below you will find some maintenance how-tos, tips, and tricks. In addition, in the next section (VI. Video Library), we will provide links to instructional videos from our content library as a bonus for you visual learners.

ii. Re-Silicone

1. Using a plastic utility knife, trim old silicone and mastic away from the desired location.
2. Clean the location with Mineral Spirits (or similar).
3. Ensure the location is dry.
4. Re-apply silicone.
5. We use Dyna-Flex Ultra as seen in the previous section C.

iii. Foam Seals

1. Wiping down your foam seals with a [seal conditioner](#) and silicone spray will help preserve the life and maintain the effectiveness of your seals.
2. Occasionally foam seals will need to be replaced. Simply peel off the old seal and reapply some [weatherstrip adhesive](#). After the adhesive is applied, place your foam seal/weatherstrip. You can find the foam seal we use in our online shop.

iv. Cleaning your Camper

1. Trim Mastic
 - Trim away excess with a plastic putty knife and clean residue with Mineral Spirits.
2. Wash
 - Any standard car wash soap will be more than enough to clean the dirt and debris away.
3. Clean weep holes
 - At the bottom of your windows and doors, there will be a small slit that is there to allow water to drain from the door/window

should any get in. You will want to make sure these areas are free of dirt and debris. If these areas are clogged, it could lead to a leak from the door area.

v. Inspect for Water Damage

1. Every couple of months you will want to inspect for leaks, especially if the Camper is left outside. While leaks should not be common, they can occur from time to time, especially if the Camper sits outside in the elements when not in use and the **silicone or foam seals are not maintained properly.**
2. Areas to pay attention to:
 - Door: check foam seals and weep holes.
 - Stargazer: Check silicone seal around aluminum trim.
 - Galley: check corners under the hinge at the pivot point. If you can see inside the cabin, you will have a leak. Also see above under silicone about the hinge above the galley.

vi. Grease Bearings

1. Use any high-temp bearing grease (found at your local parts store).
2. Remove the black rubber cover from the dust cover to reveal the grease fitting.
3. Using your grease gun, mechanical or battery powered, pump grease into the fitting until grease seeps out.

vii. Lubricate Jacks, Locks, Gears, and Hinges

1. Front Jack: the gears inside the front jack will need some grease from time to time to keep the actions working smoothly. Simply pop the black cap off and drop in some grease, rotate the handle a few times to work the grease in and add more as needed.
2. Entry Door Latch and Hinges: WD40 or the like will keep your locks and hinges working smooth over time.

viii. Electric Brakes

1. [Self Adjusting Electric Trailer Brakes - Etrailer](#)
2. Your Camper may be equipped with Self-Adjusting electric brake shoes (if added as an option). It is a good practice to check these at least once per year (at the beginning or end of the season) to determine if replacements are needed.
3. As with greasing or replacing the bearing, you can always take your Camper to a local repair shop, and they may be able to handle this maintenance for you.

ix. Battery Service and Long Term Storage:

1. Proper battery maintenance largely depends on what battery you are using in your rig. There are 3 main types of batteries:
 - Flooded/Lead-Acid
 - Sealed/Gel or AGM

- Lithium
2. Because each of the batteries are different and are maintained differently, we won't go into specifics, but there are a few general rules that you can apply to properly maintain your battery.
- **NOTE:** Please be sure to research the maintenance specifics for the battery type you choose to get the most out of your battery and electrical system. Most Lithium Batteries come with an Owner's Manual with this information is contained within.
 - Keep Terminals Clean: Use a 1:6 (Baking Soda:Water) cleaning solution. Spray and let it sit for about 5 minutes before wiping it down. It's a good idea to wipe the battery down with a damp rag too but make sure to dry it after.
 - Avoid discharging your battery beyond 50% of its capacity (capacity rating varies by type of battery).
 - Check battery charge more frequently in the hotter and colder climates. Batteries don't like extreme temperatures.
3. Long Term Storage:
- When your camper is unused for an extended period of time, you will want to take some precautions with your battery so that it does not die while not in use.
 - **NOTE:** Please be sure to research the storage specifics for the battery type you choose to get the most out of your battery and electrical system. Most Lithium Batteries come with an Owner's Manual with this information contained within.
 - Disconnect the battery from the camper and store in a cool dry location (between 32 and 80 degrees Fahrenheit).
 - Clean the battery, terminals, and leads.
 - Fully charge the battery. (full charge voltage varies by type)
 - Once fully charged, check the battery every 30 days and charge if it is below 75%.
 - Do not leave it on a trickle charge for more than 48 hours.

VI. Video Library

a. General

- i. The below items are a list of the various components that may be options on your Camper. You will find a general walkthrough video for each component or system! If there is a specific component or system not listed that you would like more information on or even a video, please feel free to send an email to our marketing inbox: marketing@vintagetrailerworksinc.com.

b. Components and Systems

- i. General Overview/Walkthrough
- ii. Electrical System
 1. 12V DC System
 - [Tongue Box](#) - Battery, Master Switch, Wiring
 - Fuse Box in Galley
 2. 120V AC System
 - [Power Strip](#) - GFCI Power strip, 120V appliances and Battery Charger
 3. Solar
 - [Renogy Solar](#) Charge Controller
 4. [Krieger Inverter](#)
- iii. Water System
 1. [Water Tank, Pump, Faucet, and Drain](#)
 2. Joolca HOTTAP Shower Package
- iv. Stove
- v. [Comfort Temp A/C Unit](#)
- vi. OVS Awnings/Tents
 1. Standard 8x8
 2. [180*](#)
 3. 270*
 4. [Shower Tent](#)
- vii. MaxxFan Vent Fan
 1. Standard
 2. Deluxe
- viii. Blizzard Box
- ix. LiTime 100Ah LifPO4 Battery
- x. [Electric Brakes](#)
- xi. [Leveling & Stabilizer Jacks](#)

c. Maintenance

- i. [Re-Silicone and Potential Leak Points](#)

ii. Hubs and Bearings

1. [Check and tighten your wheels](#)
2. [Grease your bearings](#)

We will continue to update this as needed, stay tuned to the [Owner's Corner](#).