

# Noovo Pop Owners Guidebook

[www.noovolife.com](http://www.noovolife.com)



# noovo





# Welcome to the Noovo Family!

Noovo **Pop**: the compact, family-ready camper van with a pop-top tent, comfortably sleeping up to 4 people for hassle-free outdoor adventures.









# Your van's road-ready checklist

## Check the exterior

- ☐ Extension cord disconnected
- ☐ Awning rolled up
- ☐ Gas door, Gray water drain, Toilets service door, Fresh water inlet, shore power hatch are all correctly closed
- ☐ Tires look inflated and in good condition

## Check the interior

- ☐ All windows and doors are securely closed. The sliding door is sometimes difficult to slam.
- ☐ All your belongings are tidy and secure in the drawers and cabinets. Make sure all drawers are securely closed (buttons pressed).
- ☐ Neither the heating nor the air conditioning of the van are running.
- ☐ The water pump is not running.
- ☐ The van's lights are off.
- ☐ You and your passengers have fastened your seat belts. You have adjusted your seat and mirrors.





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# About this guidebook





# About this guidebook

This user guide is a manual that provides information on how to operate and maintain your van as well as general safety information. It includes information on the vehicle overview, its features, specifications, and controls. It should help you to maintain your van in good condition, such as performing routine maintenance tasks and troubleshooting problems and have the best experience possible.

It is a good idea to read this van user guide carefully. This will help you to learn how to use the van’s features and controls safely and efficiently. It can also help you to avoid problems down the road.

For every question or issue with your van please refer to the summary at the beginning of this user book.

You’ll find three main chapters in this book: the electrical system, the water system, and the use of your interior and exterior features corner by corner (kitchen, bathroom, living, bedroom, outside).

This user guide gives you advices on best practice and alerts for your common safety or vehicle hazards using the three following designations:

NOTE: A note is a piece of information that is intended to provide additional context or clarification about a particular topic. Notes can be used to:

- Highlight important information
- Provide additional details about a complex topic
- Explain the reason for a particular step or procedure
- Offer tips or advice on how to perform a task
- Warn you about potential hazards or risks

CAUTION: A caution is a piece of information that is intended to alert the user to a potential hazard or risk, but which is less severe than the hazards or risks associated with warnings. Cautions are typically used to:

- Prevent the user from damaging the product
- Avoid minor injuries to the user
- Ensure that the product is used safely and effectively

WARNING: a warning is a piece of information that is intended to alert the user to a potential hazard or risk. Warnings are typically used to:

- Prevent the user from getting injured or killed
- Protect the product from damage
- Prevent the user from violating any laws or regulations

Warnings are an important part of this user guide. This can help to keep you safe and protect the van and its components from damage. It is important to note that warnings are not intended to be a complete list of all potential hazards and risks. Users should always exercise caution when using any product and should read the user guide carefully before using the product for the first time.

We hope this user guide will help you have the best experience with your van so you can enjoy it as much as we do!









# About Noovo

We are a camper van conversion company that specializes in building off-grid camper vans with a focus on comfort and style. Our vans are equipped with everything you need to live off-grid, including a fullsize bed, fully equipped kitchen, bathroom, and solar power system. Because we travelled one year in a bus we designed and built, we know what matters on the road and in your van.

# Our Work

All our Noovo vans are built with the lightest materials and the latest technology on the market. Made to be super durable, they are also designed to be low-maintenance and easy to keep clean.

We take great pride in our vans being well-designed, high-quality, and long-lasting. We have implemented several quality control processes to ensure this.





# RVIA Certified

RV Industry Association-certified, our Noovo Pop meets over 500 safety standards across electrical, plumbing, heating, fire & life safety, and construction, facilitating easier financing, insurance, and resale.

The Recreation Vehicle Industry Association (RVIA) is a trade association that represents the RV industry in North America. RVIA members include manufacturers, suppliers, dealers, and other businesses that support the RV industry.

RVIA certification is a voluntary program that helps to ensure that RVs meet certain safety and quality standards. RVIA certified RVs are inspected by independent third-party inspectors for compliance with RVIA standards.



# The RVIA RV certification process is as follows:

1. The RV manufacturer submits an application to RVIA.
2. RVIA reviews the application and assigns an inspector to the manufacturer’s plant.
3. The inspector conducts a comprehensive inspection of the manufacturer’s plant and production process.
4. The inspector also inspects a sample of RVs from the manufacturer’s production line.
5. if the manufacturer’s plant and RVs meet RVIA standards, the manufacturer is granted RVIA certification.

RVIA certified RVs are issued a certification label that can be displayed on the RV. The certification label indicates that the RV has met RVIA standards and is safe for use.

RVIA certification is important for both consumers and manufacturers. For consumers, RVIA certification provides peace of mind knowing that the RV they are purchasing has been inspected for safety and quality. For manufacturers, RVIA certification helps to ensure that their RVs are of high quality and meet consumer expectations.

Our vans models evolve with our customers and their needs. We are constantly seeking to offer you the best possible travel, living and comfort experience.

NOTE: This User Guide is general in its coverage of the vehicle components and systems. Some of the exact equipment or functions may have been changed due to continuous product improvement. Your vehicle may differ slightly from the information included herein. Descriptions, images, and specifications were correct at the time of publication, but Noovo reserves the right to make changes, without obligation to install the same products previously manufactured.

## Final Inspection

### Final Inspection

All our vans are high quality construction and attention to detail. Inspection process ensures that every detail is meticulously checked, guaranteeing that your dream van meets our high standards of quality and safety.

- Leak Inspection.
- Electrical & Plumbing Inspection.
- Craftsmanship inspection.





Section 02

# You & Noovo





# You & Noovo

## Assistance

We are committed to providing our customers with excellent customer service throughout the life of their vehicle, that’s why we are here for you every step of the way.

For service or technical assistance, please contact us by email [contact@noovolife.com](mailto:contact@noovolife.com) or call us at +1(725)215-2114. We’ll do everything we can to get you back on the road as soon as possible.

## Reporting of safety defects

If you suspect a safety defect with your van that could cause a crash, injury, or death, please contact the National Highway Traffic Safety Administration (NHTSA) and Noovo immediately. If NHTSA receives multiple reports of the same issue, they may open an investigation or issue a recall.

The NHTSA is responsible for a wide range of safety-related activities, including setting and enforcing safety standards for vehicles, tires, child safety seats, conducting research on traffic safety and developing new technologies to improve safety, investigating traffic crashes, identifying causes and trends, issuing vehicle recalls to address safety defects, educating the public about traffic safety and promoting safe driving behaviors.

### To contact the NHTSA:

Call the Vehicle Safety Hotline toll-free at 1-888-327-4236 (TTY 1-800-424-9153); go to [www.safercar.gov](http://www.safercar.gov); or write to Administrator, NHTSA, 1200 New Jersey Avenue S.E., Washington, D.C. 20590.

## Warranty & Coverage

### Limited warranty for van conversion.

Seller warrants the Van Conversion and any optional features added thereto for a period of one (1) year from the date of actual delivery to Buyer (“Limited Warranty”). This Limited Warranty applies only to substantial defects in material and/or workmanship attributable to Seller as part of the van conversion.

Buyer expressly understands and acknowledges that this Limited Warranty applies only to systems, improvements, upgrades, fixtures, and installments made by Seller and does not include defects in the Vehicle itself.





## Indemnification

Buyer shall defend, indemnify and hold harmless Seller, and all of Seller's owners, directors, officers, and employees, against any claims, damages, losses, and expenses, including reasonable attorney fees and costs, arising out of or resulting from Buyer's use of the Vehicle or Van Conversion, provided that any such claim, damage, loss, or expense is caused in whole or in part by the negligent acts or omissions or willful misconduct of Buyer or anyone for whose acts Buyer may be liable under any applicable Nevada law.

## Disclaimer of liability for mechanical defects

Buyer acknowledges that Seller shall perform no evaluation, investigation, analysis, or mechanical work on the Vehicle outside of the Van Conversion specified in Paragraphs 3 and 4. Buyer expressly releases and holds harmless Seller from any and all claims for damages arising from mechanical defects in the Vehicle itself, including but not limited to issues with the Vehicle's engine, brakes, suspension, tires, transmission, drive train, internal electrical components (except to the extent installed by Seller as part of the Van Conversion),





Section 03

# Your van chassis





# Your van chassis

Model	RAM Promaster 3500 High Roof Extended
Engine	3.6L Pentastar V6 24V VVT
Horsepower	276 HP @ 6400 RPM
Transmission	9-speed automatic
Fuel Tank	25 Gallon
MPG*	16-18 Estimated Highway
Fuel Type	87 Octane Fuel
Drive Train	Two Wheel Front Drive
Seating Capacity	4 Passengers. All passengers must be in seats with seat belts fastened when van is in motion
Spare Tire	Under frame, at rear of vehicle
Overall Length	20' 11"
Overall Height	9' 6" (closed Pop Top) 12' (open Pop Top)
Overall Width	8' 2.25"
Interior Height/Width	6 ft 2.25 in. / 5 ft. 11 in.
Payload Capacity	4,680 lbs
Towing Capacity	6,910 lbs
Maximum Gross Vehicle Weight (GVW)	11,500 lbs

\*MPG (miles per gallon) is an estimate and may vary depending on driving conditions, vehicle load, and other factors.





# Driving





# Driving

## Driving Tips

Here are some good driving tips for your van:

1. Be aware of the vehicle’s height and length. The ProMaster 3500 is a tall and long van, so it is important to be aware of its dimensions when driving, especially in tight spaces.
2. Allow extra space for braking and accelerating. Your van is a heavy vehicle, so it takes longer to brake and accelerate than a smaller vehicle.
3. Take corners slowly and carefully. Your van has a high center of gravity, so it is important to take corners slowly and carefully to avoid rollovers.
4. Be mindful of the vehicle’s blind spots. Your van has large blind spots, so it is important to use your mirrors and blind spot monitoring system when changing lanes or merging.
5. Avoid sudden lane changes and braking. Sudden lane changes and braking can cause your van to lose control.
6. Use the cruise control system to maintain a consistent speed. This will help to improve fuel economy and reduce wear and tear on the vehicle.
7. Inspect the tires regularly and make sure they are properly inflated.
8. Underinflated tires can cause your van to handle poorly and increase the risk of a blowout.

9. Have the vehicle serviced regularly by a qualified mechanic. This includes having the brakes, tires, and other safety components inspected and serviced regularly. This will help to keep the vehicle in good condition and prevent problems down the road.
10. When loading the van, make sure that the weight is evenly distributed. This will help to improve handling and stability.
11. Avoid overloading the van. Overloading can cause the van to handle poorly and increase the risk of a breakdown.
12. Drive defensively and be aware of your surroundings. This will help you to avoid accidents.

By following these tips, you can help to ensure a safe and enjoyable driving experience with your van!

NOTE: For more information on Ram ProMaster-specific items such as driving controls, instrumentation, cruise control, climate controls, wipers, lights, and other chassis-related features, please consult your vehicle’s operating manual.









# National and State Parks

It’s important to be mindful of regulations and etiquette when driving a van in national parks, public lands, and designated parking areas. Here are some guidelines to follow:

**Obtaining Permits:** Some national parks require permits for overnight camping or backcountry driving. Check with the park administration for specific permit requirements.

**Staying on Designated Roads:** Avoid driving off-road unless explicitly permitted. Stick to designated roads and trails to minimize environmental impact and protect sensitive habitats.

**Respecting Wildlife:** Be aware of wildlife and maintain a safe distance. Avoid feeding or approaching animals, and properly dispose of food waste to prevent attracting wildlife.

**Leaving No Trace:** Practice responsible camping and leave no trace of your presence. Pack out all trash, minimize campfires, and respect natural features and vegetation.

**Parking Regulations:** Be mindful of parking regulations in designated areas, including national park visitor centers, campgrounds, and trailheads. Park in designated spaces and avoid blocking access or causing congestion.

**Local Etiquette:** Respect local communities and businesses around national parks. Be mindful of noise levels, avoid littering, and support local businesses whenever possible.

By following these guidelines and being respectful of the natural environment, you can enjoy the unique experience of driving a van in US national parks while contributing to the preservation of these precious landscapes for future generations.

# Overnight Parking

Overnight parking with a van can be a convenient and cost-effective way to explore new places and enjoy outdoor adventures. However, it’s important to choose safe and designated parking areas to ensure a comfortable and hassle-free experience. Here are some tips for overnight parking with a van:

**Plan Ahead:** Research your destination and identify potential overnight parking options before you set out. Consider factors like proximity to attractions, safety, and amenities when making your decision.

**Choose Designated Parking Areas:** Whenever possible, opt for designated overnight parking areas or campgrounds. These locations are typically well-maintained, offer security, and may provide amenities like restrooms and trash disposal.

**Stealth Camping:** If you prefer a more secluded experience, stealth camping involves discreetly parking overnight in public areas without explicitly designated camping facilities. However, be mindful of local regulations and etiquette to avoid trespassing or causing disturbances.

**Consider RV Parks and Truck Stops:** RV parks and truck stops often allow overnight parking for vans. These locations may offer additional amenities like showers, laundry facilities, and electrical hookups. Walmart and Target Parking Lots: Many Walmart and Target stores allow overnight parking for RVs and vans. While these locations may not offer amenities, they provide a safe and convenient option for short stays.

**Discretion and Respect:** When parking in public areas, be discreet and respectful of your surroundings. Avoid blocking access, generating excessive noise, or leaving trash behind.





**Security Measures:** Take precautions to secure your van and valuables. Lock all doors and windows, consider using security devices like wheel locks, and keep valuables out of sight.

**Know Your Limits:** Be aware of your van’s capabilities and limitations. Choose parking spots suitable for your van’s size and avoid areas with challenging terrain or restricted access.

**Embrace Flexibility:** Overnight parking can sometimes be unpredictable. Be prepared to adjust your plans if necessary and explore alternative options if your initial choice is unavailable or unsuitable.

# Enjoy the Experience!

Overnight parking with a van can be a unique and rewarding experience. Embrace the adventure, enjoy the flexibility, and appreciate the opportunity to explore new places in your own way.









# Passengers Safety

Passenger safety in a car is paramount for a safe and enjoyable driving experience. Here are some key aspects of passenger safety:

**Seat Belts:** Seat belts are the most effective single measure for reducing the risk of death and serious injury in car crashes. All passengers, regardless of age or seating position, should always wear seat belts properly, ensuring they are snug and secure across the chest and lap.

**Child Passenger Safety:** Children are particularly vulnerable in car crashes due to their developing bodies and smaller stature. Additional information on this subject is provided in a paragraph later.

**Safe Seating Positions:** The safest seating positions in a car are generally the back seats, as they are farther away from the impact point in a crash. Encourage passengers to sit in the back seats whenever possible.

**Avoiding Distractions:** Passengers can play a role in reducing driver distractions. Avoid talking loudly, using electronic devices, or engaging in activities that might divert the driver’s attention from the road.

**Safe Entry and Exit:** When entering or exiting the car, be mindful of traffic and avoid stepping out into oncoming traffic. Use designated crosswalks and pedestrian signals whenever possible.

**Emergency Procedures:** Familiarize yourself with the car’s emergency features, such as seat belt release mechanisms, door locks, and window exits. This knowledge can be crucial in the event of an emergency.

**Respecting Driver Authority:** Passengers should respect the driver’s authority and avoid making requests or engaging in behavior that could distract or hinder the driver’s ability to operate the vehicle safely.

**Communication:** Open communication between the driver and passengers can contribute to a safer driving environment. Passengers should feel comfortable expressing concerns or requesting adjustments to their seating or comfort levels without hesitation.

**Personal Responsibility:** Passengers also have a responsibility to behave safely and avoid actions that could endanger themselves or others. Avoid consuming alcohol or drugs before or during car rides, and refrain from engaging in activities that could cause distractions or disruptions.

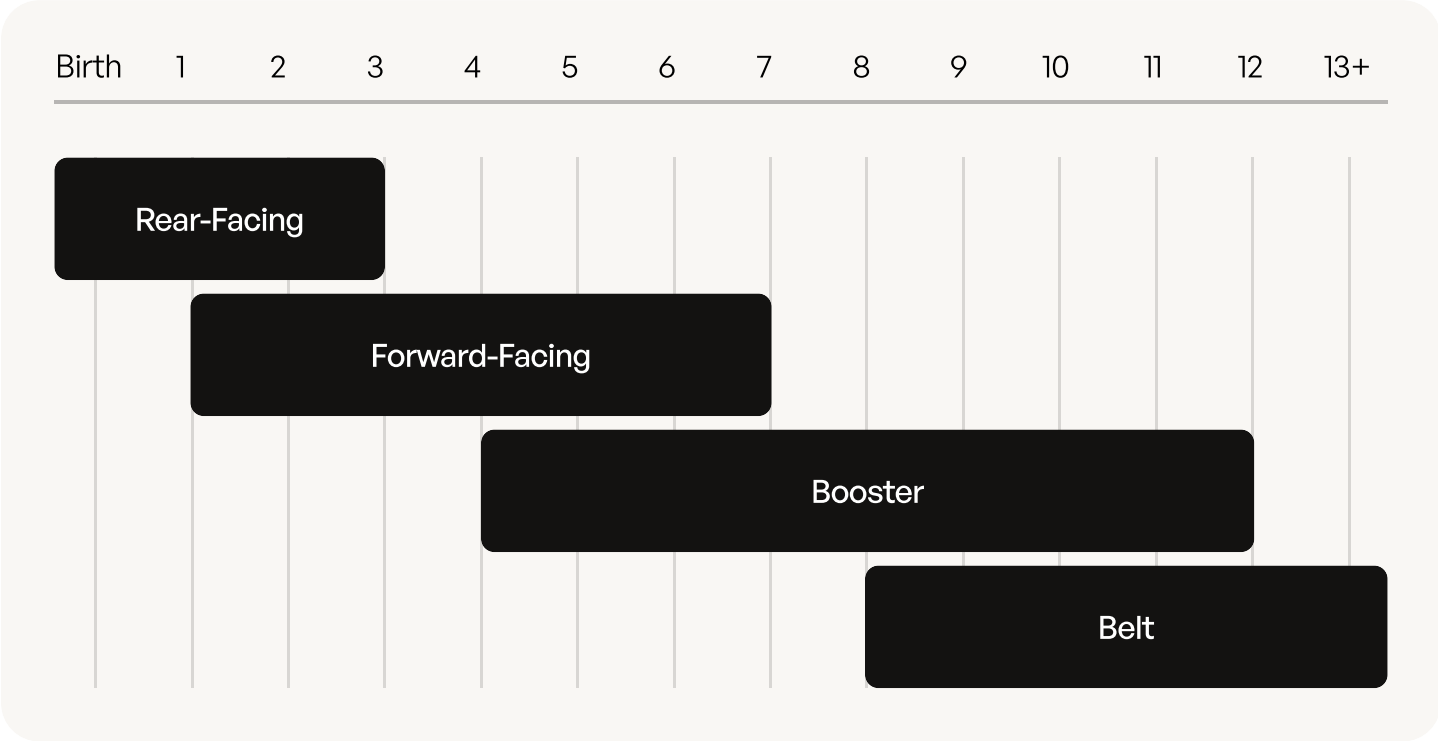
**Cleanliness:** Keep the van’s interior clean and free of clutter. This will help to prevent passengers from tripping and falling.





Here are some additional tips for parents and caregivers traveling with children in a van:

- Use child safety seats and booster seats for all children under the age of 12. Please refer to the chart from the NHTSA website below.
- Make sure that child safety seats and booster seats are properly installed and used.
- Never leave children unattended in the van.
- Keep the van’s interior cool in hot weather.
- Provide children with plenty of drinks and snacks.



Pregnant women should always wear their seat belts correctly, with the lap belt across their hips and below their belly, and the shoulder belt across their chest between their breasts and away from their neck.

WARNING: The front seats of your RV can be rotated to face the rear of the vehicle but they must be locked in the forward position when the vehicle is moving.





# Your electrical lithium system







# Your electrical lithium system

Designed for off-grid living, our van offer customizable power options. Equipped with a 660Ah lithium battery, solar panels, shore power, it allows for campground charging or total off-grid living. The Electricity box is located in the trunk on the passenger side.

## Electrical System

- MultiPlus 12/3000/120-50 120V
- Lithionics Battery® 12V / 660Ah
- Lithionics Battery® BMS
- Lithionics Battery® ACR (Automatic Combiner Relay)
- 200W Semi Flexible Solar Panel
- Smart Solar MPPT 100/50 Charge Controler
- Lynx Distributor (M8)
- GX Touch 70
- GX Tank 140
- WFCO® Distribution Center





# Electricity Basics

Your van’s electrical system is essential, so it’s important to learn about electricity basics. This will help you understand how your electrical box works and how to stay safe, save money, and keep your van’s electrical system in good condition.

Let’s dust off our physics caps and learn how electricity works, like, at all!

**Voltages:** Van electrical systems are typically 12V DC systems. This means that the batteries, appliances, and other electrical components in the van all operate on 12 volts of direct current.

**Amperage:** Amperage is the flow of electricity through a circuit. It is measured in amps. The higher the amperage, the more electricity is flowing through the circuit.

**Wattage:** Wattage is the power consumption of an electrical device. It is measured in watts. The higher the wattage, the more power the device consumes.

**Fuses and breakers:** Fuses and breakers are safety devices that protect electrical circuits from overload. If too much current flows through a circuit, the fuse or breaker will trip, interrupting the current flow.

**Wiring:** Wiring is used to connect electrical components together. It is important to use the correct size and type of wire for each application.

**AC power (alternating current)** is a type of electrical current that periodically reverses direction. The frequency of the AC current is the number of times it reverses direction per second. The standard frequency for AC power in most countries is 60 Hz, which means that the current reverses direction 60 times per second.

**DC power (direct current)** is a type of electrical current that flows in one direction only. DC power is commonly used in batteries, solar panels, and some electronic devices.

AC power is used in homes and businesses because it is easy to transmit over long distances and it can be easily converted to DC power for use in electronic devices. DC power is used in batteries and solar panels because it is easier to store and use than AC power.

Here are some of the key differences between AC and DC power:

Characteristic	AC Power	DC Power
Direction of current flow	Periodical reverse	One direction only
Frequency	Varies depending on the country	60 Hz (standard)
Transmission over long distances	Easy	Difficult
Storage	Difficult	Easy
Use in electronic devices	Requires conversion to DC power	Can be used directly

AC power and DC power can be converted between each other using inverters and rectifiers. Inverters convert DC power to AC power, while rectifiers convert AC power to DC power.

Inverters and rectifiers are commonly used in solar power systems to convert solar energy from DC to AC power so that it can be used in homes and businesses. Inverters and rectifiers are also used in battery-powered devices to convert battery power from DC to AC power so that the devices can be used with standard AC appliances.





**Battery capacity:** The battery capacity is the amount of electricity that the battery can store. It is measured in amp-hours (Ah). The higher the battery capacity, the longer the battery can power the van’s electrical system.

**Charging system:** The charging system is used to charge the batteries. It typically consists of an alternator, which is driven by the engine, and a charge controller, which regulates the charging current.

**Inverters:** Inverters are used to convert DC power from the batteries to AC power that can be used to power appliances and devices.

**Solar panels:** Solar panels can be used to charge the batteries from sunlight.

**Shore power:** Shore power is AC power that can be plugged into from a campground or other external source.

# Electrical System

## Multiplus 12/3000/120-50 120V

The Victron MultiPlus 12/3000/120-50 120V is a versatile and valuable inverter/charger.

Here are some benefits of using the MultiPlus in your van:

**True sine wave output:** The Victron MultiPlus 12/3000/120-50 120V produces high-quality AC power that is compatible with all types of electronic devices, including sensitive devices such as computers and medical equipment.

**Low standby current:** The Victron MultiPlus 12/3000/120-50 120V uses very little power when it is not in use. This is important to conserve battery power.

**Built-in transfer switch:** The Victron MultiPlus 12/3000/120-50 120V automatically switches between AC power sources (such as shore power or a generator) and battery power. This is convenient to use the most efficient source of power at all times.

## Lithionics Battery® 12V / 660 Ah

The Lithionics Lithium Battery 12.8V/660Ah is a high-performance lithium-iron-phosphate battery. With 660Ah of capacity, this battery provides ample power for extended periods off-grid, allowing you to run lights, appliances, electronics, and even more power-hungry devices like air conditioning units or induction cooktops without frequent recharging.

Lithionics Battery® uses an organic Lithium-ion Iron Phosphate chemistry in all of their lithium battery models. This naturally safe chemistry is paired with an internal shut down curtain technology inside each lithium cell, preventing any flame or explosion from thermal runaway events.

The battery is designed to be weather-resistant, making it capable of handling varying environmental conditions—whether you’re camping in hot deserts, cold mountains, or humid forests. Its built-in temperature management ensures reliable performance across different climates.

You can easily keep track of your battery’s health and performance on your smartphone through the Lithionics Battery App or the Victron app (see Victron Connect App section below). This feature allows you to monitor charge levels, voltage, and other important metrics from anywhere in your van, ensuring you’re always informed about your power situation.

To shut down the batteries : Go to the rear of the van and open the taillight access on the passenger side. Push the small black button for 3 sec until the blue light starts to flash. It allows you to shut down the Battery Management System (see Storage section).

Lithionics Battery website: <https://lithionicsbattery.com/>





### Lithionics Battery BMS

Advanced NeverDie BMS V9 – iONbus technology is a sophisticated battery management system (BMS) designed to optimize the performance, safety, and longevity of the lithium-ion battery.

ONbus® combines two independent data channels, RV-C CAN and Optoloop®, into a single network, which provides redundancy required by strict safety standards such as UL1973, while also increasing amount and quality of the cell level data available to better manage customer’s experience.

### Lithionics Battery ACR (Automatic Combiner Relay)

An Automatic Combiner Relay (ACR) is used to allow charging separate Chassis and House batteries from common charge sources such as an engine alternator, inverter/charger, solar.

The ACR automatically manages the connection between multiple battery banks to ensure that they charge efficiently without manual intervention. When the system detects that one battery bank has reached a certain voltage, it automatically connects the banks to share charging sources.

Lithium batteries have an advantage of absorbing as much charge current as possible during the bulk charge stage, which could overheat and potentially damage stock engine alternators, so this intelligent 12V ACR reduces the duty cycle and allows cooling periods. At the same time, a lithium battery requires charge termination when fully charged, so this 12V ACR keeps it disconnected after the charge cycle is completed.

### 200W Semi Flexible Solar Panel

Renogy Solar Panel 200W 12V Lightweight Monocrystalline Semi-Flexible Bendable Mono.

The Renogy 200W Flexible Monocrystalline Solar Panel can provide an average of 1000 Watt-hours of electricity per day (calculates with 5 hours sunlight). It ensures reliable and sustainable power for off-grid living, maintaining over 80% output efficiency even after 25 years of use.

To turn off solar power: Go to the rear of the van. Pull open the taillight access on the passenger side. Flip the solar breaker in the down position. (Above main distributor switch).

### Smart Solar MPPT 100/50 Charge Controller

The Smart Solar MPPT 100/50 Charge Controller is a sophisticated solar charge controller designed by Victron Energy to optimize the performance and extend the lifespan of lead-acid, lithium-ion, and other battery types in various applications. It utilizes advanced Maximum Power Point Tracking (MPPT) technology to maximize solar energy harvest and features a wide range of monitoring and control capabilities.

The charge controller boasts a peak conversion efficiency of over 98%, minimizing energy loss during the charging process.

The Smart Solar MPPT 100/50 provides comprehensive monitoring capabilities,including real-time data on solar power generation, battery voltage, current, temperature, and remaining capacity.

It can be remotely monitored and controlled using the VictronConnect app and GX devices, allowing you to access and manage settings from anywhere.





### Lynx Distributor (M8)

The Lynx Distributor (M8) is a modular DC busbar system designed by Victron Energy to provide a centralized and organized power distribution solution for your van. It acts as a central hub for connecting batteries, inverters, chargers, and other DC components, ensuring efficient and safe power distribution.

The Lynx Power In (M8), Lynx Smart BMS 500 (M8), and Lynx Distributor (M8) are all components of the Victron Energy Lynx DC distribution system, but they serve different purposes.

Below is a table summarizing the key differences between the three products:

Feature	Lynx Power In (M8)	Lynx Smart BMS 500 (M8)	Lynx Distibutor (M8)
Primary purpose	Connect batteries	Protect and monitor batteries	Distribute power
Current capacity	1000A	500A	1000A
Battery protection	No	Yes	No
Battery monitoring	Yes	Yes	Yes
Remote monitoring	No	Yes	No
Contactor	No	Yes	No
Fuse protection	No	No	Yes
LED status indicators	No	No	Yes
Modular design	Yes	Yes	Yes

### Victron GX Touch 70

The Victron GX Touch 70 is a 7-inch touchscreen display that provides a comprehensive overview and control of your Victron Energy system. It is compatible with a wide range of Victron Energy products, including inverters, chargers, batteries, and solar panels.

The user-friendly touchscreen interface that makes it easy to navigate and manage your system. It provides real-time data on various system parameters, including battery voltage, current, temperature, and remaining capacity. It also displays inverter status, charger status, and solar power generation data.

You can set up alarms to notify you of potential issues, such as low battery voltage or high inverter temperature. This allows you to take proactive measures to prevent problems.

The GX Touch 70 can be accessed remotely using the VictronConnect app. This allows you to monitor your system and adjust settings from anywhere using your smartphone or tablet.

It is located above the sliding door, passenger side.

### Victron GX Tank 140

The Victron GX Tank 140 is an accessory for Victron Energy’s GX device lineup, allowing you to monitor and manage the level of your fresh water tank.

The GX Tank 140 displays real-time tank level data on the connected GX device or remotely via the VictronConnect app.

Tank level data is logged over time, allowing you to track trends and identify potential issues.

You can configure alarms to be notified of low tank levels or other predefined conditions.





## WFCO® Distribution Center

The WFCO® Distribution Center efficiently distributes power from the batteries to various electrical circuits, ensuring that all appliances and devices receive the necessary power.

Each circuit in the distribution center has its own circuit breaker or fuse, providing protection against overcurrents and short circuits. This safeguard helps prevent electrical damage and potential fires.

The distribution center provides a grounding point for the van’s electrical system, ensuring proper grounding and safety. It also facilitates bonding, which connects various metal components to the grounding system to prevent electrical shocks.

The distribution center is constructed with durable materials to withstand the rigors of RV travel, including vibrations, bumps, and extreme temperatures.

It is located under the fridge (passenger side).

## Victron Connect App

The VictronConnect app is a powerful tool for monitoring, configuring, and updating Victron Energy products. It is available for Android, iOS, Windows, and macOS X.

To connect to your Victron Energy devices using the VictronConnect app, you can use either Bluetooth, USB, or WiFi/LAN/Internet.

### Bluetooth Connection:

- Enable Bluetooth on your mobile device and ensure the Victron Energy device is powered on and in Bluetooth range.
- Open the VictronConnect app and tap the «Scan» button.
- Select the desired Victron Energy device from the list of detected devices.

### USB Connection:

- Connect the Victron Energy device to your computer using a compatible USB cable.
- Ensure the VictronConnect app is installed on your computer.
- Open the VictronConnect app and the device should be automatically detected.

### WiFi/LAN/Internet Connection:

- Connect the Victron Energy device to a WiFi network with internet access.
- Ensure the VictronConnect app is installed on your mobile device or computer.
- Open the VictronConnect app and tap or click the «Connect device» option.
- Select the desired Victron Energy device from the list of detected devices.

The default PIN code for first-time connection is 000000. Once the initial connection is established using the default PIN code, it is recommended to change the PIN code to a more secure and personalized one. This helps prevent unauthorized access to your Victron Energy device.

### To change the PIN code:

- Connect to the Victron Energy device using Bluetooth.
- Open the VictronConnect app and navigate to the device’s settings menu.
- Locate the PIN code setting and enter the current PIN code (000000 by default).
- Enter your desired new PIN code and confirm it.
- Save the changes.





### Battery Monitor Pages

By clicking «Battery Monitor,» you can view the current charge level and navigate between screens that offer comprehensive information on the battery’s present status and historical data.

→ To access ‘Settings’ click on the cog icon at the top right of the screen.

From ‘Settings’ you can change the data concerning your battery storage; set alarms and relays; change charging parameters; tailor the appearance and quantity of data displayed and set up or join an existing VE.Smart network.

### Solar Charge Controller Pages

Clicking on your Solar Charge Controller product allows you to view the current charging status.

→ To access ‘Settings’ click on the cog icon at the top right of the screen.

‘Settings’ will allow access to the extensive range of functions available on your solar charge controller, including programming the charge settings; initiating relays which are triggered by solar time, or by voltage parameters; together with comprehensive historical analysis.

### Renaming your products

It is possible to change the name of your Victron product to make identification easier. This is especially useful as you have multiple products.

**To change the name:** First, complete your connection; then go to the Product info page. To access that page, click the button on the upper right. For some products, it will be the settings icon. After opening that menu press the three vertical dots, and click Product info. For other products you’ll find the information button on the upper right, which takes you straight to the Product info page. Go to the Custom Name option, and select Edit and Done.

### Additional Tips

Here are some tips for minimizing issues with the VictronConnect app:

**Ensure Compatibility:** Before using the app, check that your Victron Energy products and firmware versions are compatible with the latest app version.

**Update Regularly:** Keep the VictronConnect app updated to the latest version to benefit from bug fixes, stability improvements, and new features.

**Clear Cache:** Regularly clearing the app’s cache can help resolve connectivity issues and improve performance.

**Restart Devices:** If you encounter connection problems, try restarting your mobile device or Victron Energy products.

**Seek Support:** If you encounter persistent issues, don’t hesitate to contact Victron Energy’s customer support for assistance.





# GFCI

## Multiplus 12/3000/120-50 120V

Every electrical outlet in the van is protected by a Ground Fault Circuit Interrupter (GFCI).

A GFCI is a safety device designed to protect people from electrical shock. It monitors the flow of electricity in a circuit and quickly shuts off power if it detects an imbalance, such as when electricity is leaking from the circuit to the ground, which could happen if a person comes into contact with a live wire.

**How It Works:** The GFCI constantly compares the amount of current going into the circuit with the current coming out. If the current differs by even a small amount (usually 4 to 6 milliamps), the GFCI trips and cuts off the power in a fraction of a second, reducing the risk of shock or electrocution.

All outlets are connected on a GFCI line located on the upper living cabinet.

# Master Switch

Access the master switch for the van’s electrical system by opening the rear right door of your van (passenger side) and locating the wooden vertical panel on the far right. Upon opening this panel, you’ll find the red main switch with ON/OFF position that controls the entire electrical system.

# Shore Power

You’ll find an RV Extension 30 Amp cord and two adapters (15A to 30A and 30A to 50A) in the garage of your van.

The hatch to connect you to shore power is located on the driver’s side (black square)

## Campground situation:

Depending on the campground power station amperage there is two options:

- 30Amp power station: connect directly your RV extension
- 50Amp power station: use the 30 to 50 adapter to prevent surcharge

Alternatively, for standard housing outlet, use regular 12awg extension cords (12awg preferred), utilize the provided 15Amp to 30Ampa adapter.









Section 06

# Plumbing & Heating





# Plumbing & Heating

## Your water system

Situated in the driver’s side of the van’s trunk is your «water box», a comprehensive system that includes a water pump, a pre-pressurized accumulator, a 40-gallon fresh water tank, and the connection for your outdoor shower.

### **Shurflo® 3 GPM Water Pump**

The round switch for the water pump is located on your kitchen’s backsplash, next to the outlet. Turn off when not in use to preserve battery.

The Shurflo® 3 GPM Water Pump is a high-performance, demand-operated water pump known for its reliability, durability, and ease of use.

The Shurflo® 3 GPM Water Pump delivers a maximum flow rate of 3.5 gallons per minute, making it suitable for a wide range of water needs, including showers, toilets, and multiple faucets.

The pump operates automatically when water flow is detected and shuts off when demand ceases, conserving energy and preventing unnecessary wear and tear.

The pump is self-priming, capable of lifting water up to 12 feet vertically, making it ideal for installations where a gravity-fed water supply is not available.

The pump features built-in thermal protection to prevent overheating and damage in high-temperature environments.

The Shurflo® 3 GPM Water Pump is designed for quiet operation, minimizing noise and vibration during use.

### **Shurflo® 3 Pre-Pressurized Accumulator**

The Shurflo® Pre-Pressurized Accumulator is a small tank that is installed in a water system to help reduce water pump cycling, pulsation, and pressure spikes. It is a simple and effective way to improve the performance and lifespan of your water pump.

The accumulator stores a reserve of pressurized water, reducing the frequency of pump starts and stops. This extends the life of the pump and reduces wear and tear. It absorbs sudden changes in water pressure, smoothing out the flow and eliminating annoying pulsation in faucets and appliances. The accumulator helps maintain consistent water pressure, even during periods of high demand. This ensures optimal performance for appliances and fixtures.





## Outdoor Shower

Whether to rinse off dirt and grime after a day of hiking or biking, cool down after a hot day, or give your dog a quick bath, an outdoor shower is a versatile addition to your van.

To make use of your outdoor shower, follow these guidelines:

- Set the desired water temperature using the integrated mixing valve (the lower one). Adjust the valve until you achieve a comfortable water temperature.
- Adjust the spray nozzle to your preferred spray pattern, whether it’s a gentle mist or a powerful rinse. The adjustable spray head allows for personalized showering preferences.
- Turn on the shower valve to start the water flow. Enjoy your outdoor shower experience! When finished showering, turn off the shower valve.

NOTE: Use environmentally friendly soaps and shampoos to minimize impact on the environment.

NOTE: Conserve water by keeping shower sessions short and using the adjustable spray pattern to control water flow.

NOTE: After each use, ensure the shower is drained properly to prevent water from freezing or causing damage during storage.

NOTE: Periodically clean the shower head and nozzle to remove any mineral buildup or debris that could affect water flow or spray pattern.

## Fresh Water Tank

Your van is equipped with a 40 gallon fresh water tank. You can find it in the trunk of your van, on the driver side.

You can check the status of your water tank using your Victron’s touchscreen display or using the Victron Connect App.

## How to fill your fresh water tank?

The lockable water inlet is located outside of your van, on the passenger side (above the rear wheel).

Use the hose provided in the garage to fill the tank. You can watch your progress by looking the water tank in the garage. If water vents back at you, you have overfilled the tank.

NOTE: Reserve this hose only for filling the tank with fresh water.

CAUTION : be careful to NOT fill the fresh water tank with gas. The fuel hatch and the water hatch can sometimes be confused.

NOTE: ONLY use safe potable water when filling the tank.

Maintaining a clean and healthy fresh water tank in your van is crucial for ensuring safe drinking water and preventing unpleasant odors or contamination. Here are some pro tips to keep your fresh water tank in top condition:

Sanitize your fresh water tank at least every six months, or more frequently if you use your van frequently or in areas with questionable water quality. Use a food-grade sanitizer specifically designed for fresh water tanks, following the manufacturer’s instructions carefully.

If you don’t use your van as a full-time residence, empty the fresh water tank completely after each trip. Avoid storing water in the tank for long periods, especially during hot weather, as stagnant water can become more prone to bacterial contamination, sediment buildup, and algae growth.

Flush the fresh water tank periodically, especially after sanitizing or if you notice any changes in the taste or odor of the water. This flushes out any residual sanitizer or contaminants.

If you’re using your van in cold weather, take steps to prevent the fresh water tank from freezing. Please refer to the winterization guide for further information.





Regularly clean the access panel and fittings around the fresh water tank to remove dirt and debris that could attract pests or introduce contaminants.

Regularly inspect the fresh water tank and its connections for leaks or damage. Address any leaks promptly to prevent water damage to your van.

### Gray Water Tank

There is a “Grey” water tank underneath the van. This holds 40 gallons.

There’s no gauge to check the grey water level, when the fresh water tank is empty, the grey water tank should be full.

To empty the grey water tank, remove the black cap located on the exterior of your van, driver side, fit the grey water hose into the dedicated jaws, connect it to the dump station. Once both sides are connected you can open the grey water valve by pulling the handle to the back of the van.

CAUTION: Use separate hoses to fill your clean water tank and empty the gray water tank.

NOTE: Check if dumping of gray water is allowed in the area you are camping. If not, please pack out with you.

Maintaining a clean and functional greywater tank in your van is essential for preventing unpleasant odors, ensuring proper drainage, and minimizing the risk of environmental contamination. Here are some pro tips to keep your greywater tank in top condition:

Empty the greywater tank regularly, ideally after each use of your van. This prevents the buildup of waste and reduces the risk of clogs or overflows.

Flush the greywater tank periodically to remove accumulated waste and debris. This can be done by connecting a hose to the tank’s outlet and running clean water through the system.

Use enzyme-based cleaners specifically designed for greywater tanks to break down organic matter and prevent odor-causing bacteria growth. Follow the manufacturer’s instructions for proper usage and dosage.

Avoid pouring grease or oil down the greywater drain, as these substances can solidify and clog the tank and pipes. Properly dispose of grease and oil separately.

Regularly monitor the drainage of your greywater system to ensure it is flowing properly. Slow drainage could indicate a clog or blockage that needs to be addressed.

If you’re using your van in cold weather, please refer to the winterization guide for further information.

Avoid using harsh chemicals or bleach in the greywater tank, as these can damage the tank and plumbing system. Opt for enzyme-based cleaners instead.

Regularly check the connections around the greywater tank and plumbing system for leaks or damage. Tighten any loose fittings and repair any leaks promptly.









# Heater & On-Demand Water Heater

## Furnace System

### Rixen MSC7 Hydronic

The Rixen Hydronic MCS7 with Furnace is an efficient heating system capable of providing up to 17,000 BTU’s of heat, while offering on demand continuous hot water.

All functions for daily use are available through the 5.5” touchscreen display located above the sliding door (passenger side).

The heat source options are located on the left side of the screen (furnace, electric or engine). One of these options must be selected in order to produce hot air and water for the RV.

Fan speed, interior temperature, humidity and set temperature are displayed down the center of the screen. On the right side of the screen there is selections for heat (Hot water, floor heat option, engine preheat option, auxiliary control option and the glycol temperature indicator).



- 1. Furnace operation and fault code indicator
- 2. Menu Options
- 3. Fan Speed - Auto or Manual
- 4. Eberspaecher Furnace
- 5. Electric Element 1500W
- 6. Set Temperature
- 7. Domestic Hot Water
- 8. System Fluid Temperature

### 1. Furnace Operation and Fault Code Indicator

This green icon will appear in the top left and display the current status of the system and any fault codes that may appear on the furnace.

### 2. Menu Options

This drop-down menu will allow the operator to view the system operations, furnace diagnostics, Wi-Fi set up, fuel priming of the furnace and a QR code to the technical manual.

### 3. Fan Speed

Fully automatic or manual from 10-100% in 5% increments.

### 4. Furnace

Eberspaecher 5Kw (17,000btu’s) Hydronic Fuel Operated Heater.  
Icons status colors:



### 5. Electric Element

1500W electric element to be used when plugged into shore power.

### 7. Set Temperature

Choose you desired interior air temperature.



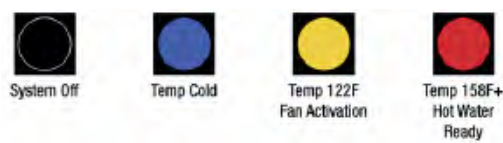


### 8. Domestic Hot Water

On demand continuous hot water for shower and sink.

### 12. System Fluid Temperature

This icon displays the current coolant temperature of the MCS7.



The furnace icon is located on the top left of the screen, when pressed the icon will turn blue indicating that it is ready. When there is a call for heat it will turn orange, the furnace is now engaged. The furnace will now run and keep the coolant hot and ready for hot water and interior air heat. The furnace will cycle from 5Kw down to 1.3Kw (1.8Kw for gasoline) to maintain the temperature of the coolant in the system.

When the system is to heat the RV’s interior, you will set the thermostat to the desired setpoint temperature. Choose your heat source, select your fan speed (manual settings run in 5% increments) and auto will run the fan on high until the interior air temperature starts to reach the set point temperature. At this point the fan will automatically slow down and remain on low levels maintaining the set point temperature.

The engine heat option is located on the lower left of the screen and will capture engine waste heat. This is possible by using a plate exchanger between the engine coolant loop and the MCS7 coolant loop. Up to 30Kw of heat can be added to the system with this available option. This option can also be used to preheat the engine with an auxiliary pump added to the engine side.

The engine heat icon works in two different scenarios.

### Temperatures and Fan Speed

The fan speed, interior temp, humidity and set point temperature are displayed in the middle of the screen. Tapping anywhere in the middle of the screen will prompt a new screen to appear to set the Fan speed and thermostat.

1. On the top of the screen is the interior fan speed. This can be controlled automatically by the MCS7 system or manually by the operator. To choose the manual or automatic fan speed tap the fan speed % number or the auto icon to toggle between the two. There is also an On/Off enable button for the fan. Note the fan will only engage if there is a heat source selected and the fluid temp system icon is yellow. The fan speed, when in manual mode, will range from 10% to 99% in 5% increments.
2. The temperature in the middle of the screen is the reading from the external air sensor attached to the controller. This will display the current interior temperature of the RV.
3. Touching the set temperature allows you to adjust the interior temperature with the negative and plus symbols.

### Continuous Hot Water

To generate continuous hot water, you will need to select the furnace icon on the top left of the screen. This is because the furnace can create 17,000btu’s of heat while the electric element is capable of 5,000btu’s of heat. The element alone is not enough to create continuous hot water.

The desired water flow rate is 0.8gpm for peak system performance. If you’re plugged into shore power and you want the best performance, you can select both furnace and electric icons for 22,000btu’s.

When you select the hot water icon, located on the top right of the screen, the furnace will run continuously to generate heat.





CAUTION:

- The heater must be switched off when refuelling.
- When the heater is mounted in a safety housing etc., the installation compartment of the heater is not a stowage compartment and must be kept clear. In particular fuel canisters, oil cans, spray cans, gas cartridges, fire extinguishers, cleaning rags, items of clothing, paper etc. must not be stored or transported on or next to the heater.
- Defect fuses must only be replaced by fuses with the prescribed rating.
- If fuel leaks from the heater fuel system, arrange for the damage to be repaired immediately by a JE service partner.
- When topping up the coolant, collant type will be specific to Rixen recomendation (50/50 only, no additional water needed) Collant tank should be always filled up at 1" below the top of the reservoir.
- After-running of the heater must not be interrupted prematurely e.g. by pressing the battery disconnecting switch, apart from in the case of an emergency stop.









Section 07

# Interior Amenities





Section 08

# Kitchen





# Interior Amenities

## Kitchen

### Counter Top & Storages

Your counter top, your drawers and storages are made of laminated. Clean it regularly with mild soap and water and avoid using harsh chemicals or abrasive cleaners, as these can damage the surface. To remove stubborn stains, you can use a commercial laminate cleaner. Follow the directions on the product label.

If you spill something on the countertop, wipe it up as soon as possible to prevent staining.

Use a cutting board when chopping food. This will protect the countertop from scratches and cuts.

Avoid placing hot pots and pans directly on the countertop. Use a trivet or hot pad to protect the surface from heat damage.

If you notice any scratches or chips in the laminate, repair them as soon as possible to prevent further damage.

#### **How to open your drawers:**

To open your drawers, press the round knob until it pops out. Then, pull the drawer towards you. To close and lock the drawer, press the knob back in. Don't forget to check all your drawers before driving to prevent them from opening.

### Lights and Outlets

At the end of the countertop you'll find two rounded switches. The left one is the 12V LED Lights of the kitchen and the right one command the ceiling lights.

On the backsplash you have a white 110V outlet. The round switch command the water pump. Refer to the water section for further information on it.

### Window

On the sliding door you have an Arctic Tern® - 450 x 900 mm window. You can open the window by sliding it to the side. There is a security feature allowing you to block the window when you are parked or driving. This is a small flap to raise or lower at the intersection of the two sides of the window.





# Sink

Your sink is 15”x15” and made of stainless steel. To maintain it, follow these tips:

Clean it regularly. Stainless steel is non-porous and easy to clean, so you can use mild soap and water. For a deeper clean, use a mixture of equal parts vinegar and water. Apply the solution to the sink with a soft cloth and wipe it clean.

Rinse the sink after each use. This will help to prevent stains from forming.

Dry the sink with a soft cloth after each use. This will help to prevent water spots from forming.

Avoid using harsh chemicals or abrasive cleaners. These can damage the surface of the sink.

If you have a hard water supply, you may need to descale the sink periodically. To do this, mix one part vinegar with two parts water and pour it into the sink. Let it sit for 30 minutes, then rinse it clean. To remove stubborn stains, you can use a commercial stainless steel cleaner. Follow the directions on the product label.

## Faucet / Water Filter

### Acuva® Arrowmax 2.0 - UV Water filter

The Acuva® Arrowmax 2.0 is a UV water filter that uses ultraviolet light to inactivate harmful bacteria, viruses, and cysts in drinking water.

- WARNING:
- Do not store the device in freezing conditions.
  - Do not allow water to freeze in the device.
  - Do not use the device if damaged or dropped.
  - Do not submerge the device under water.

- CAUTION:
- A steady blue indicator light (illuminating the Acuva logo) on the device and smart faucet (if installed) while water is flowing is the only indication that the UV-LED unit is working. If the blue light is not lit while the faucet is open, please check the “Troubleshooting” section of this manual.
  - The UV device includes fragile parts, including parts made from glass. The device should not be dropped and must be transported/carried with sufficient care.

NOTE:

Minor condensation may occur on the device in humid weather and with cold water temperatures (less than the dew point temperature). Condensation drips may be noticed coming from inside the unit.

**Indicator Light**

The Acuva logo lights up to indicate various modes of use.

- No Light:** The device is idle or no power is connected.
- Blue Light:** The device is active.
- Green Light:** The device is undergoing its self-cleaning protocol. This 30 second protocol occurs at start up as well as after every 12 hours of idle time and can be interrupted to dispense water.

If there is a fault, the indicator light will turn red or yellow. Please consult the Troubleshooting section.

**Regular Maintenance**

The ArrowMAX 2.0 is designed to give years of trouble-free use. Acuva products use UV-LEDs, meaning there are no bulbs to replace. However, there are some simple tasks that should be performed to ensure continued operation.

- Check monthly that none of the connectors are leaking.
- Replace the in-line filter after winterization or as per the instructions on the filter label.

NOTE: The small quartz windows inside the unit does not reach high temperatures to encourage mineral build-up (scaling) as with UV lamp systems. As a result, no significant scaling or loss of performance due to scaling over time is expected.









## Winterizing

### 1. Remove the Pre-Filter

Remove the pre-filter from the system and set it on its end (outlet-down) to drain. Place the filter in a bag and store in a refrigerator or a cool environment until it’s time to flush and use it again.

### 2. Option A) Apply Compressed Air:

Apply compressed air to the inlet of your unit to blow out any and all water trapped in the system as well as any accessories such as flow restrictors or faucets you may have. Repeat this a few times to ensure no water is left in the lines.

### Option B) Use Antifreeze Reagent

Drain out your water lines and run special RV antifreeze through the system.

### Option C) Remove and Store Away

If you do not have access to compressed air or antifreeze, remove the system and flow restrictor (if present) and store in a temperature controlled environment (>40°F) until ready to re-install.

NOTE: Simply draining your water system may not be effective at removing enough water to prevent damage inside the device.

#### CAUTION:

Failure to properly winterize the Acuva™ ArrowMAX 2.0 before it is exposed to freezing temperatures can lead to damage and water leakage.

Failure to winterize can result in damage to the system which is not covered by warranty, so please take care to winterize well before freezing temperatures or inclement weather may occur.

Indicator LED State	Fault Condition	Comments to User
Off (No water flow)	No Fault	-
Off (Water flow)	The unit is not powered	Verify that the unit is connected to power and that the input voltage is within specifications (11-16V).
	The flow direction is reversed	Ensure the inlet and outlet tubes are connected to the respective fittings marked “IN” and “OUT” on the device.
	The flow rate is too low	The flow sensor inside the unit requires a minimal water flow to activate the system (approx. 0.3 L/ min≈0.08 Gallons/min). Ensure there is enough water pressure (i.e. 12 PSI) in the line to reach this flow.
Transmission over long distances	Easy	Difficult
Storage	Difficult	Easy
Use in electronic devices	Requires conversion to DC power	Can be used directly
Red	UV-LED fault	Unplug and plug in the device’s power jack. If this fault persists, contact Acuva for support.
Yellow blinking	Low input voltage	Verify that the input voltage is above 11volts.



# Cooktop

## Contoure® - Single burner induction cooktop

### How to use it properly:

- Press the On/Off button to turn on the cooktop.
- To select the desired heat setting press power and then select number from 1 to 9 on the bar.
- The cooktop will automatically start heating the cookware.
- To set a timer press Time and select the number of minutes between 1 to 9 on the bar.
- To lock the cooktop and prevent accidental manipulation, press the Lock button. Press again for a few seconds to unlock.
- You can use the mode Keep warm
- To turn off the cooktop, press the On/Off button.

### CAUTION:

- Only use compatible ferromagnetic cookware on the induction cooktop.
- Do not place empty cookware on the cooktop.
- Do not touch the hot cookware or cooktop surface. Keep children and pets away from the cooktop when it is in use.

### CAUTION:

- Keep ventilation openings in the appliance’s casing or in the recess free from obstruction.
- Do not use mechanical devices or other means other than those recommended by the manufacturer to accelerate the defrosting process.
- Do not damage the refrigerant circuit.
- Do not use electrical appliances or devices inside the food storage compartments if these appliances or devices are not of the type recommended by the manufacturer.

### Cleaning the refrigerator:

Before carrying out any maintenance or cleaning operation, disconnect the power.

Outside: wash the outside of the refrigerator with lukewarm water, rinse with cold water and dry with a soft cloth. Do not use abrasive or aggressive products.

Cleaning and maintenance of the condenser must be performed only by authorised after-sales staff.

Inside: remove the internal shelves, grilles (or the rack), the containers and the ice trays and proceed with cleaning using lukewarm water with bicarbonate of sodium or vinegar. Rinse and dry carefully with a soft cloth.

Completely avoid the use of abrasive products, detergents or soaps. in order to avoid the formation of mould or unpleasant smells, unplug the appliance, empty it and clean the inside and leave the door half open.

If the refrigerator will not be used for a long time, disconnect it from the electrical power supply, empty it out completely, clean it and leave the door in the “Vent Position”.

# Fridge

## Vitrifrigo® C85i - 12V Fridge

This refrigerator is equipped with a mechanical thermostat for automatic temperature maintenance and for automatic defrosting. The refrigerator is already factory set at the best operating temperature. To regulate the temperature, turn the knob positioned inside the fridge, in a clockwise direction (towards “MAX”) in order to lower the temperature, and in an anti-clockwise direction (towards “MIN”) to increase it.

The fridge has a temperature control dial that can be set from 36°F to 50°F. The fridge will take some time to reach the new temperature. Allow it to run for at least 30 minutes before checking the temperature.





Defrosting the appliance:

It will be necessary to defrost the refrigerator every often when the frost builds up to a thickness of more than three millimetres. This operation is necessary in order to guarantee that the fridge works efficiently and to avoid increasing the electricity consumption. In order to achieve complete defrosting of the refrigerator turn the thermostat control to the stop position. Keep the door open so that the defrosting time is quicker.

- CAUTION:
- Do not use mechanical devices or other means other than those recommended by the manufacturer to accelerate the defrosting process.
- Do not remove the layer of frost using pointed or sharp metal tools that may cause a puncture in the cooling plate with irreparable consequences for the appliance.

Problem	Cause	Solution
The refrigerator does not start	No electrical current	Check that the power supply cable is intact and properly connected.
		DC mode: Check that the battery is charged.
		Check that the voltage on the terminal block of the appliance’s electronic device is the same as that of the battery.
	Try running a reset	Disconnect the power cable. Wait for a minute and then reconnect it.
	Thermostat in “STOP” position	Move the thermostat to the recommended position
The refrigerator does not cool	Insufficient output	Check that: (a) the door closes hermetically; (b) the refrigerator is not near heat sources and is sufficiently ventilated; (c) the condenser is not clogged with dust.
The refrigerator does not stop	The internal temperature is too high	Check that the door is completely closed
The courtesy light does not switch on	The light is faulty	Call the service centre
The refrigerator is noisy	-	Check that the refrigerator sits flat and is not in direct contact with any object that might cause vibrations.







## Microwave

### Contoure® RV788 - Microwave

To use the Contoure RV788 microwave oven, follow these steps:

1. Place the food or beverage in the microwave-safe container.
2. Close the door and make sure it is latched securely.
3. Select the desired cooking setting by pressing the corresponding button on the control panel.
4. Press the START/30 SEC button to start the cooking process. The microwave will display the remaining cooking time.
5. To check the progress of the cooking, press the PAUSE/ST button.
6. To adjust the cooking time, press the + or - buttons.
7. When the cooking time is up, the microwave will emit a signal and the door will unlock.
8. Remove the food or beverage from the microwave oven carefully.

Here are some additional tips for using your microwave oven:

Use the pre-programmed cooking settings for common foods. This will save you time and effort, and it will help you to cook your food evenly.

If you are cooking multiple items at once, use a lower power level and cook for a longer period of time. This will help to prevent the food from overcooking.

Stir or rotate food during cooking to ensure even cooking.

Allow food to rest for a few minutes before serving to allow the heat to distribute evenly.



# Safety

- The oven must be on a leveled surface.
- The turntable and turntable roller rest must be in the oven during cooking. Place the cookware gently on the turntable and handle it carefully to avoid possible breakage.
- Incorrect use of browning dish may cause the turntable to break.
- Use only the specified bag size when using Direct Access Popcorn.
- The oven has several built-in safety switches to ensure that the power remains off when the door is open. Do not tamper with these switches.
- Do not operate the microwave oven empty. Operating the oven with no food or food that is extremely low in moisture can cause fire, charring or sparking.
- Do not cook bacon directly on the turntable. Excessive local heating of the turntable may cause the turntable to break.
- Do not heat baby bottles or baby food in the microwave oven. Uneven heating may occur and could cause physical injury.
- Do not heat narrow-necked containers, such as syrup bottles.
- Do not attempt to deep-fry in your microwave oven.
- Do not attempt home canning in this microwave oven, as it is impossible to be sure all contents of the jar have reached boiling temperature.
- Do not use this microwave oven for commercial purpose. This microwave oven is made for household use only.
- To prevent delayed eruptive boiling of hot liquids and beverages or scalding yourself, stir liquid before placing the container in the oven and again halfway through cooking time. Let stand in the oven for a short time and stir again before removing the container.
- Use carefully when cooking food in the microwave oven to avoid burning due to excessive cooking.
- When the appliance is operated in the combination mode, children should only use the oven under adult supervision due to the temperatures generated.
- Failure to maintain the oven in a clean condition could lead to deterioration that could adversely affect the life of the appliance and possibly result in a hazardous situation.

## WARNING:

Tightly-closed utensils could explode. Closed containers should be opened and plastic pierced before cooking. There may be certain non-metallic utensils that are not safe to use for microwaving. If in doubt, you can test the utensil in question following the procedure below:

1. Fill a microwave-safe container with 1 cup of cold water (250ml) along with the utensil in question.
2. Cook on maximum power for 1 minute.
3. Carefully feel the utensil. If the empty utensil is warm, do not use it for microwave.
4. Do not exceed 1 minute cooking time.





Material you can use in microwave oven:

Utensils	AC Power
Aluminum foil	Periodical reverse
Browning dish	Varies depending on the country
Dinnerware	Easy
Glass jars	Difficult
Glassware	Difficult
Oven cooking bags	Difficult
Paper plates and cups	Difficult
Paper towels	Difficult
Parchment paper	Difficult
Plastic	Difficult
Plastic wrap	Difficult
Thermometers	Difficult
Wax paper	Requires conversion to DC power

Materials to be avoided in microwave oven

Utensils	AC Power
Aluminum tray	May cause arcing. Transfer food into microwave-safe dish.
Food carton with metal handle	May cause arcing. Transfer food into microwave-safe dish.
Metal or metaltrimmed utensils	Metal shields the food from microwave energy. Metal trim may cause arcing.
Metal twist ties	May cause arcing and could cause a fire in the oven.
Paper bags	May cause a fire in the oven
Plastic foam	Plastic foam may melt or contaminate the liquid inside when exposed to high temperature.
Wood	Wood will dry out when used in the microwave oven and may split or crack.









# Carbon Monoxide Alarm

## SAFE T ALERT - SA-339 Sealed Battery

Your Carbon Monoxide detector is located next to the fan in the hallway of your van.

IMPORTANT: It is recommended that this alarm is replaced after five years of service. Record the installation / retail sale date in the Owner’s Replacement Record section of this manual and also record a replacement date. This unit has an End of Life (EOL) signal that will sound after 5 years of use.

### What you need to know about CO

#### What is CO?

CO is an invisible, odorless, tasteless gas produced when fossil fuels do not burn completely, or are exposed to heat (usually fire). Electrical appliances typically do not produce CO.

These fuels include: Wood, coal, charcoal, oil, natural gas, gasoline, kerosene, and propane.

Common appliances are often sources of CO. If they are not properly maintained, are improperly ventilated, or malfunction, CO levels can rise quickly. CO is a real danger now that homes are more energy efficient.

“Air-tight” homes with added insulation, sealed windows, and other weatherproofing can “trap” CO inside.

#### Symptoms of CO poisoning

These symptoms are related to CO poisoning and should be discussed with ALL household members:

**Mild Exposure:** Slight headache, nausea, vomiting, fatigue (“flu-like” symptoms).

**Medium Exposure:** Throbbing headache, drowsiness, confusion, fast heart rate.

**Extreme Exposure:** Convulsions, unconsciousness, heart and lung failure. Exposure to Carbon Monoxide can cause brain damage, death.

NOTE: Reported cases of CO gas poisoning indicate that while victims are aware they are not well, they are disoriented. They are unable to save themselves by exiting the RV or calling for assistance. Small children and pets may be affected first.

Your SAFE-T-ALERTTM SA-339 alarm helps protect your household members and guests from CO produced while using your RV. CO gas is produced when any type of fuel is incompletely burned. Potential sources of CO in and around your RV can include gas or diesel engine exhaust, portable space heaters, gas stoves and ovens, furnaces, defective engine exhaust systems, portable grills, other nearby RVs, portable generators, generator exhaust, and other propane- powered appliances. All are sources of CO.

#### The following are also sources of CO that may affect your RV:

- Extended operation of unvented fuel burning appliances can build up high CO levels.
- An idling vehicle in an open or closed garage.
- Temperature inversions can trap exhaust near the ground.
- CO build up can be caused by reverse/negative venting of fuel burning appliances including; 1) Clogged, loose or faulty stacks or chimneys of (clothes dryers, furnaces and water heaters, etc.), 2) wind direction and/or velocity, 3) simultaneous operation of multiple fuel burning appliances, and/or exhaust fans.





WARNING: Limitations of CO alarms : this alarm will not work without power. Do not remove the 3 volt lithium battery.

THIS ALARM WILL ONLY INDICATE THE PRESENCE OF GAS AT THE SENSOR. This alarm will only indicate the presence of gas at the sensor. Do not block or cover the alarm with any object that can prevent carbon monoxide from reaching the sensor.

THIS ALARM MAY NOT ALARM AT LOW CO LEVELS - It is not designed to measure compliance with the Occupational Safety Health Administration (OSHA) commercial or industrial standards. Individuals with medical problems may consider using warning devices, which provide audible and visual signals for CO concentrations under 30 ppm.

THIS ALARM IS NOT A REPLACEMENT FOR INSURANCE. Always be sure your RV is fully insured.

WARNING: Installation of the device should not be used as a substitute for proper installation, use, and maintenance of fuelburning appliances, including appropriate ventilation and exhaust systems.

How to protect your family:

- TEST YOUR UNIT EVERY WEEK. Alarms that do not work will not alert you to hazardous levels of CO. See the section, Test Procedure, in this manual for further information.
- MAKE REGULAR VISUAL INSPECTIONS. Check all fuel burning equipment including gas water-heaters, kitchen gas stoves, space heaters, gas dryers and all pilot lights. Check the color of the pilot flame. The color should be blue.
- MAKE REGULAR VISUAL INSPECTIONS OF THE ENGINE AND GENERATOR
- EXHAUST SYSTEMS. Cracked exhaust systems can allow CO to enter the living area.
- PROFESSIONALLY MAINTAIN YOUR ENGINE AND GENERATOR.
- Although gas engines and generators produce CO, a poorly tuned engine and generator will produce greater amounts CO.

Test Procedure

WARNING: To reduce the risk of carbon monoxide poisoning, test this alarm’s operation after the RV has been in storage, before each trip, and at least once per week during use.

WARNING: The test button only tests the alarm circuit, not the sensors. To test the CO sensor, use a can of Safe-T-Alert CO test gas to test the 400 ppm calibration point. Do not try to generate CO to test the alarm.

The alarm may be tested at any time. The TEST/Mute switch is located on the front of the alarm. Press and hold the test button for 1 second. The alarm is working properly if the green indicator light changes color to red and the horn beeps 4 times.

IMPORTANT: If this alarm does not test properly, return it immediately for repair or replacement.

Operation

To operate this CO alarm, pull on tab to remove; this starts the detectors/operation. If the ON indicator light does not light, see the section Trouble-Shooting Guide, in this manual for further information. Do not attempt to fix it yourself.

Visual and audible alarm signals

The alarm has two indicator lights that display a specific color for each monitored condition. There also is a matching sound pattern for alarm conditions.

CO alarm

The Red CO LED will flash and the alarm will sound 4 “BEEPS” then silent for 5 Seconds. These signals indicate that the CO level is over 35 ppm: Immediate action is required. See procedures to take during an alarm. This cycle will continue until the TEST/Mute button on the front of the alarm is pressed. Ventilate the RV. The red light will stay on until the CO has cleared, or the alarm will reactivate in approximately 6 minutes if the CO is still present. Do not re-enter the RV. This alarm will return to normal operation after the RV is properly ventilated.





Malfunction/Service Signal: If any malfunction is detected, the Operational/CO LED will alternate red/green, and the alarm will sound once every 15 seconds. Press the Test/Mute button. If the Test/Mute button does not clear the signals, check the battery voltage. If the battery voltage is not low and the unit will not return to normal operation, immediately remove the alarm and return for service or warranty replacement.

Operation	Audible Signal	Visual Signal
Normal	None	Green LED flashes every minute
CO alarm	4 “beeps”, 5 seconds off	Steady red
Alarm malfunction	Beep every 30 seconds	Alternating red/green
End of life	Beeps every 25-30 seconds	Red red, green, green flashing
Warm up cycle (About 10 minutes)	No sound	Flashing green

Trouble-shooting guide

Use this chart to trouble-shoot problems with this SA-339 Alarm.

Problem	Cause / Solution
Green Operational LED Off	1.Dead or Missing Battery 2.Contact Customer Service
No sound when testing, no red LED when testing	Contact Customer Service Contact Customer Service
Malfunction Alarm LED: Red/Green and beeps every 15 seconds.  Battery voltage is good, and it will not reset to normal operation.	1. Check Battery Voltage  2. Contact Customer Service
End of life alarm	Push reset button to reset for 3 days – Replace within 30 days.

How to take care of your alarm

This CO alarm is designed to be as maintenance-free as possible. To keep your alarm in good working order, you must:

- Test the alarm weekly. See the section "Test Procedure" above for further information.
- Vacuum the dust off the alarm cover. At least once a month (more frequently in dusty locations), use the soft brush attachment of your vacuum to clean the alarm cover.
- Clean the alarm cover when dirty. Wash the alarm cover by hand. Use a cloth dampened in clean water. Dry with a soft cloth.
- Do not spray cleaning agents or waxes directly onto the front panel. This action may damage the sensor, cause an alarm, or cause an alarm malfunction.
- Observe the color of the indicator light. At frequent intervals and during your weekly test, check the indicator light on the front panel of the alarm.

See the section "Operation" above for further information.

Procedures to take during a CO alarm

WARNING: Actuation of this device indicates the presence of carbon monoxide (CO) gas, which can KILL YOU. If signal sounds (4 beeps and flashing or solid red light):

1. Operate the Test/Mute button;
2. Call your emergency local service (fire department or 911);
3. Immediately move to fresh air - outdoors or by an open door/window. Check that all persons are accounted for. Do not reenter the premises or move away from the open door / window until the emergency responders have arrived, the premises have been aired out and your alarm remains in its normal operation.
4. After following steps 1-3, if your alarm reactivates within a 24-hour period, repeat steps 1-3 and call a qualified appliance technician to investigate for sources of CO from fuel burning equipment and appliances, and inspect for proper operation of this equipment. If problems are identified during this inspection have the equipment serviced immediately. Note any combustion equipment not inspected by the technician and consult the manufacturers’ instructions, or contact the manufacturer directly, for more information about CO safety and this equipment. Make sure that the motor vehicles are not, and have not been, operating in an attached garage or adjacent to the residence.

The emergency number depends on your travel location.

End of life (EOL) directions

1. Unscrew the screws with a Phillips screwdriver. Placement marked by this image:
2. Remove back panel.
3. Remove battery. Discard or recycle battery and circuit board. Replace with new alarm.

IMPORTANT: Removing /damaging label or opening the alarm voids warranty. Only open at EOL.









# Smoke Detector

## SAFE T ALERT - Single Station Smoke Detector

Your Smoke detector is located next to the fan in the hallway of your van.

### Operating your smoke alarm

Once the smoke alarm has been installed a small indicator light (LED), positioned beside the test button, should flash approximately once a minute in normal operation. If unit is detected the unit will emit a loud pulsating alarm until the air is clear.

### Testing your smoke alarm

It is recommended that you test your smoke alarm once a week to ensure the detector is working correctly. Push and hold the test button for approximately 3 seconds. A loud pulsating alarm should sound to indicate the correct function. During the alarm condition the indicator light will flash quickly.

### Common causes of false alarms

The smoke alarm may be triggered by steam, condensation, normal smoke or fumes. Small insects getting into the smoke alarm chamber may cause intermittent alarms. Keep away from the sources to avoid nuisance alarms.

### Distinctions between warning and fault signals

**WARNING SIGNAL:** The horn will sound for 3 beeps, pause. The LED flashes RED.

**FAULT SIGNAL:** The horn will sound for 2 beeps, pause 40 second, 2 beeps. The LED flashes YELLOW.

### Low battery warning

If the smoke detector emits a short «beep» once every 40 seconds the battery is at end of its life and this detector should be replaced immediately. This low voltage warning will be given for at least 7 days. If the red indicator light (LED) does not flash every 40 seconds then replace the whole smoke alarm unit.





## Fire safety tips

Follow safety rules and prevent hazardous situations:

- Use smoking materials properly. Never smoke in bed.
- Keep matches or lighters away from children;
- Store flammable materials in proper containers;
- Keep electrical appliances in good condition and don't overload electrical circuits;
- Keep stoves, barbecue grills, fireplaces and chimneys grease and debris-free;
- Never leave anything cooking on the stove unattended; 7) Keep portable heaters and open flames, like candles, away from flammable materials;
- Don't let rubbish accumulate. Keep alarms clean, and test them weekly. Replace alarms immediately if they are not working properly. Smoke Alarms that do not work cannot alert you to a fire. Keep at least one working fire extinguisher on every floor, and an additional one in the kitchen. Have fire escape ladders or other reliable means of escape from an upper floor in case stairs are blocked.

### What to do in case of fire

Once the smoke alarm has been installed a small indicator light (LED), positioned beside the test button, should flash approximately once a minute in normal operation. If unit is detected the unit will emit a loud pulsating alarm until the air is clear.

### What to do in case of fire

- Don't panic; stay calm. Follow your family escape plan.
- Get out of the van as quickly as possible. Don't stop to get dressed or collect anything.
- Feel doors with the back of your hand before opening them. If a door is cool, open it slowly. Don't open a hot door. Keep doors and windows closed, unless you must escape through them.
- Cover your nose and mouth with a cloth (preferably damp). Take short, shallow breaths.
- Meet at your planned meeting place outside your home, and do a head count to make sure everybody got out safely.
- Call the Fire Department as soon as possible from outside. Give your address, then your name.
- Never go back inside a burning building for any reason.
- Contact your Fire Department for ideas on making your home safer.

FOR MORE INFORMATION ON THE CARBON AND SMOKE DETECTOR, PLEASE SEE THE OWNER'S MANUAL IN THE DRAWER UNDER THE COOKTOP.





# Fire Extinguisher

## FirstAlert® Dry Chemical Fire Extinguisher

The fire extinguisher is located on the right side of the passenger seat.

### Checking and inspecting the fire extinguisher.

WARNING:

- DO NOT CHECK THE PRESSURE OR TEST THE FIRE EXTINGUISHER BY SQUEEZING THE LEVER, EVEN BRIEFLY. ONCE USED, IT WILL GRADUALLY LOSE PRESSURE AND WILL NOT BE FULLY CHARGED FOR USE IN AN EMERGENCY.
- When the pointer drops into the red area, the extinguisher may still be pressurized, but must be recharged.

### Checking Steps:

- Inspect the extinguisher once a week. Remove the extinguisher from the mounting bracket and inspect the gauge. If the yellow pointer is in the green area, the extinguisher is properly pressurized and ready to use. If the pointer drops into the red area, the extinguisher has lost some pressure and should be replaced.
- Check for signs of damage or misuse. Make sure you can still read all the text on the label. Carefully examine the surface of the extinguisher for corrosion. You can help prevent corrosion by cleaning the extinguisher if it gets wet or dirty. If you notice corrosion during the warranty period, return the unit to First Alert® (see "Limited Warranty" at the end of the owner's user manual).
- Make sure the tamper indicator ("safety seal") is still intact and the nozzle is clean and unobstructed.
- When you finish inspecting the extinguisher, always put it back securely into the mounting bracket.

For more information about fire extinguishers, consult the NFPA Standard #10, «Portable Fire Extinguishers,» available from the National Fire Protection Association, Inc., Batterymarch Park, Quincy, MA 02169, USA.

### How to operate your fire extinguisher in a fire emergency

DANGER: Make sure your extinguisher may be safely and effectively used on the small fire you want to fight. Always use extreme caution when fighting any fire. Fight a fire only where there is a clear escape path to allow you to get out safely if the fire gets worse.

WARNING: Avoid breathing smoke and heated fumes; stay low if necessary. Burning materials will release toxic fumes. Inhaling these fumes may cause injury or death.

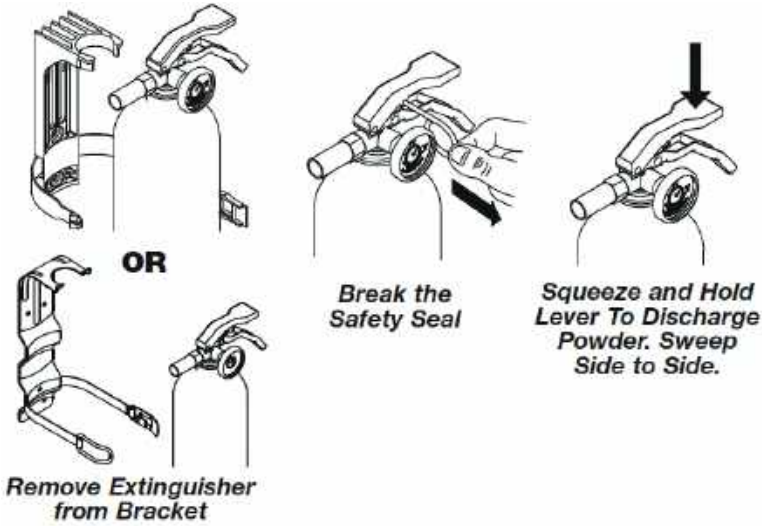
### CAUTION:

- Always stand back far enough away from the fire—near an exit—and make sure nothing is between you and your escape route. If you get too close to a fire, you risk getting burned or hit by splattering material like grease. If the fire is too hot or smoky for you to get within 6 feet (2 meters), DO NOT try to fight the fire yourself. Evacuate immediately and call the FireDepartment.
- For fires on a kitchen stove, turn oven or burners off immediately if possible. If you can't reach the oven or burner controls safely, extinguish the fire first, then turn them off.
- Fight the fire from an upwind direction with your back to any strong air current. Trying to fight a fire with currents blowing towards you can result in serious injury.





To fight the fire:



1. Remove the extinguisher from the mounting bracket.
2. Hold the unit firmly with the nozzle facing away from you.
3. Pull out the pin to break the “Safety Seal”. You won’t be able to squeeze the lever until the safety seal is removed.
4. Stand back 6 feet (2 meters) from the fire and make sure the fire is not between you and your exit.
5. Hold the extinguisher upright and aim the nozzle at the base of the fire.
6. Squeeze and hold the lever to discharge the powder.
7. Sweep the spray at the base of the burning material, using quick side-to-side motions. (If the spray scatters the fire, move back.)
8. Move slowly towards the fire as the extinguisher spray pushes the fire back. Maintain a 6-foot (2 meter) distance between you and the front of the fire at all times.
9. Completely discharge the contents of the extinguisher and make sure the fire is completely out. Flashbacks are common with fires.
10. For kitchen fires on a kitchen stove, turn off the stove immediately if possible, otherwise as soon as it is safe.
11. If you suspect a fire had an electrical origin, shut off the electrical power, if possible, without eliminating your escape route. Do not touch electrical wires or appliances.
12. After you have completely discharged your extinguisher, leave the building and close all the doors behind you.

After the fire is extinguished

DANGER: Do not turn the electrical power back on or plug in any appliances until the area has been cleaned up completely. It is very important to remove the powder from electrical equipment after a fire. If the powder gets wet, it can conduct electricity. (Using a dry chemical extinguisher on wet electrical equipment may be hazardous for this reason.) This may worsen an electrical leakage problem, impair the equipment’s insulation, or create an electrical shock hazard.

FOR MORE INFORMATION ON THE FIRE EXTINGUISHER, PLEASE SEE THE OWNER’S MANUAL IN THE DRAWER UNDER THE COOKTOP.





Section 09

# Living Room





# Interior Amenities

## Living Room

### Table Extension

Expand your workspace or dining area by extending the table. Simply pull the black knob under the table, adjust the table to the desired angle, and release the knob.

As your counter top, your table is made of laminated. Clean it regularly with mild soap and water and avoid using harsh chemicals or abrasive cleaners, as these can damage the surface. To remove stubborn stains, you can use a comm

### Seats

Comfortable seating area with backrests and seatbelts for two people, along with an ISOFIX system for baby car seats.

### Window (Driver Side)

**Arctic Tern® - 450 x 900mm (177,2in x 354,3in)**  
(built-in bug net & covers included)

The bug net and window cover can be easily interchanged. To use the bug net, simply pull it upward from the bottom. Conversely, to utilize the window cover, pull it downward from the top. You can attach the bug net to the cover allowing you to easily remove one while simultaneously bringing out the other. Additionally, tucking the cover in while it's attached to the mosquito screen helps prevent damage.

### Storage

You will find two upper cabinets above the window allowing you to store your belongings. The GFCI line is located on the upper living cabinet (see Elec section for more information). The shelves located under the table on the driver side will allow you to store a few books or other objects.

A discreet storage compartment lies beneath the table, accessible by simply inserting your finger into the designated hole. This hidden space provides ample room to store shoes or other personal items.

### Lights and Outlets

**Outlet 110V & Outlet 12V** (located under the window)  
**12V LED Light Under Cabinet** - switch is located next to the outlet.  
**12V LED Light Ceiling** - The switch is located at the end of the kitchen worktop, opposite the passenger seat and and it is the rightmost switch of the two



# Fan

## MaxxAir® Fan Deluxe 7500K With Remote

### KNOB, VENT LID OPEN/CLOSE

*Automatic Opening Models*  
Allows closing of the vent lid in the event of RV power loss. This knob does not lock. Do not push in or pull out. Rotate knob clockwise to close vent lid; rotate knob counter-clockwise to open vent lid.  
**CAUTION:** Do not use excessive force when operating Knob.

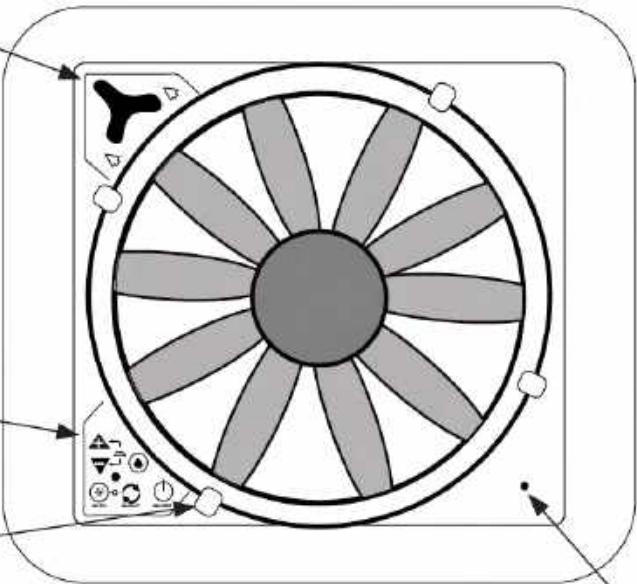
### KEYPAD CONTROLS

Use Keys on Keypad to control MAXXFAN functions (see descriptions on next page).

### INSECT SCREEN RETAINER KNOB

Rotate all 4 knobs 1/2 turn to remove screen.

**CAUTION:** Never operate fan with screen removed



**THERMOSTAT TEMPERATURE SENSOR**

### Keypad controls

NOTE: A beeping sound will confirm each key press



**On/off:** Use this key to start the fan or to turn off the fan. On automatic opening models, the lid will also open or close when the fan is turned on or off. On manual opening models, pushing this key while in auto mode will exit auto mode, turn off the fan, and the lid will stay in the position you selected. On automatic opening models, this button will exit auto mode, turn the fan off, and close the lid.

**In/out:** Use this key to reverse the direction of the fan. The fan will slow down and pause for two (2) seconds before resuming operation in the opposite direction. Note: In auto mode, the fan direction is automatically positioned to exhaust, but it may be overridden and changed to intake by depressing this key.

**Auto:** Auto mode allows the thermostat to turn the fan on and off depending on the thermostat setting. Press this key once for less than three (3) seconds to enter auto mode; three (3) quick beeps will confirm the MAXXFAN has entered auto mode. To exit auto mode, press the on/off key. The initial factory set point for the thermostat is 79°F (26°C). The green LED will light to indicate the MAXXFAN is in auto mode. To adjust, follow the instructions below:

- If no previous thermostat temperature was entered, or you wish to change a previous set temperature, press the hold to set key for more than 3 seconds and you will hear one long beep, and the thermostat will be reset to 79°F (26°C).
- To further adjust the set temperature, if desired, use the (+) or (-) arrow keys to adjust at 0.5°C increments per press. The fan will emit a beeping sound to confirm this setting.

### Ceiling fan mode

With the fan motor running, close the Vent Lid to enter Ceiling Fan Mode. The fan motor will continue to run and circulate air within the RV cabin.

### Serial number label

The serial number label is located underneath the round insect screen.

NOTE: The MAXXFAN is designed to be fully opened or fully closed when the vehicle is moving.

**CAUTION:** When removing screen for cleaning, turn the MAXXFAN OFF and remove the vehicle 12 volt power to the MAXXFAN. When cleaning your MAXXFAN, use only a mild detergent solution.





- If a previous thermostat temperature was entered, the fan will remember this temperature setting, and the next time you enter Auto Mode, the fan will start ventilating automatically as directed by the thermostat. The fan speed will automatically adjust based on the cabin temperature. As cabin temperature rises, the fan increases in speed.

NOTE: If 12 volt RV power is removed from the MAXXFAN, the thermostat will be reset to 79°F (26°C).

**+/- Arrows**

- When in auto mode: Use the (+) and (-) arrow keys to adjust the thermostat set temperature up or down in 1° increments per press.
- When in manual mode: Use the (+) and (-) arrow keys to adjust the fan speed up or down. When the fan speed reaches either the maximum or minimum speed, the fan will respond with 2 quick beeps to indicate this.

**Arrow keys pressed together:** Automatic lift models only  
Press the (+) and (-) arrow keys at the same time to open or close the lid. The fan motor will remain in its current state.

**Remote control operating guide**



- Fan on & power off** - Press this button:
- To start the fan
  - To turn the fan off
  - To exit auto mode



**Vent lid position** - Press this button to open or close the vent lid.

While the fan is running in manual mode, press once to close the vent lid and enter "Ceiling Fan" mode.

Note: This button is not active in auto mode. If the fan loses 12-volt RV power or power is removed from the fan, use the knob located at the ceiling to manually open or close the vent lid if desired.



**Air exhaust / intake** - Press this button to reverse the fan from intake or exhaust.

Note: In auto mode, the fan direction is automatically positioned to exhaust, but may be overridden and changed to intake by depressing this key.



- Fan auto mode** - Press this button to enter auto mode.
- Auto mode allows the fan lid to automatically open and the fan motor to operate as dictated by the thermostat set point temperature. Once the cabin temperature cools and reaches the set point temperature, the fan lid will close and the fan motor will shut off.
  - Pressing this button while in auto mode will shut off auto mode, close the vent lid, and shut off the fan motor.



- Thermostat set temperature**
- Temp + ~ Press this button to increase the set temperature for auto mode.
  - Temp - ~ Press this button to decrease the set temperature for auto mode.

Note: The thermostat temperature range is from 28°F to 99°F (-2°C to 37°C). To change from Celsius to Fahrenheit on the temperature display, press and hold both set temperature keys simultaneously.





**Fan speed**

- Fan speed up ~ Press this button to increase the fan speed. The fan has ten speeds.
- Fan speed down ~ Press this button to decrease the fan speed. The fan has ten speeds.

NOTE: When the fan speed reaches either the maximum or minimum speed, the fan will respond with 2 quick beep sounds to indicate this.



**Low battery indicator**

- When the battery is at full charge, three black power bars are displayed.
- One or zero power bars displayed indicates the batteries need replacement.



**Transmission signal**

- This symbol is displayed on the screen when any button is pressed to indicate the signal was transmitted to the fan.
- A beep sound from the ceiling unit indicates the signal from the remote control was received by the fan.

FOR MORE INFORMATION ON THE FAN, PLEASE SEE THE OWNER'S MANUAL IN THE DRAWER UNDER THE COOKTOP.





# Pop Top Tent

WARNING: Sleeping facilities should not be used while the vehicle is in motion. For safety, passengers must remain in seatbelted positions when the vehicle is moving.

The Pop-Top sleep system offers a comfortable and innovative sleeping solution while maximizing the available space in your Noovo van. Access the bed using the provided ladder. Designed to be weather-resistant, the Pop-Top sleep system is suitable for mild to moderate conditions. It has a weight capacity of 440 pounds, evenly distributed.

NOTE: After using the Pop-Top sleep system in wet and rainy situations, ensure that the sleep system is opened up and dried out as soon as possible to prevent build up of mildew in the system. DO NOT CLOSE THE POP-TOP WET.

WARNING:

- Never drive the vehicle with the sleeping unit unlocked.
- Always secure the sleeping roof unit before driving by locking both latches and fastening the two retaining seat belts.
- DO NOT place any load on the roof while it is in the extended position.

CAUTION:

- Keep hands and fingers away from the sleeping roof while it is being operated.
- Use caution due to the low headroom.

Follow these steps to set up your Pop Top bedroom:

1. Folding Ladder

- Locate the folding ladder and open it to the extended position.
- The ladder has 2 locking latches that need to be locked before operation. Hook the latch attaches to. When the latch is on the hook push down on the bottom end to lock in place.
- Do this for both sides.
- The ladder is secured using two tabs on the entrance to the pop-top. The ladder hooks over the top of the tabs.
- With the ladder fully seated on the tabs, pull down on the ladder to ensure it is in place.
- Reverse all steps to return the ladder to a storage configuration.

2. Pop top tent

Open the pop up:

- Unbuckle the left and right seat belt buckles that help secure the pop-top.
- Pull down on a pop-top handle to take up slack to make it easier to release the pop-top travel latches.
- Push up on the travel latch button to unlock it.
- Swing the travel latch up from the bottom. This action will release the travel latch from the retaining hook.
- Push on the pop-top to extend it. The shocks will assist in the lifting.

Close the pop up:

After use, the pop-top can be placed back into the storage position by reversing the steps.

WARNING: Both seat belts and both travel latches must be secured prior to driving. Failure to secure latches could result in damage to the pop-top.

- The included pull straps are used to assist in pulling the pop-top back down. Those are attached by a d-ring to both pop-top handles.
- When pulling the pop-top down, pull the fabric in to avoid pinching it in the pop-top. This will make it easier to latch and will help avoid any damage.
- The fabric can then be rolled up neatly and out of the way to be secured by the seat belts.









Section 10

# Bathroom





# Interior Amenities

## Bathroom

### Shower Head & Shower Handle

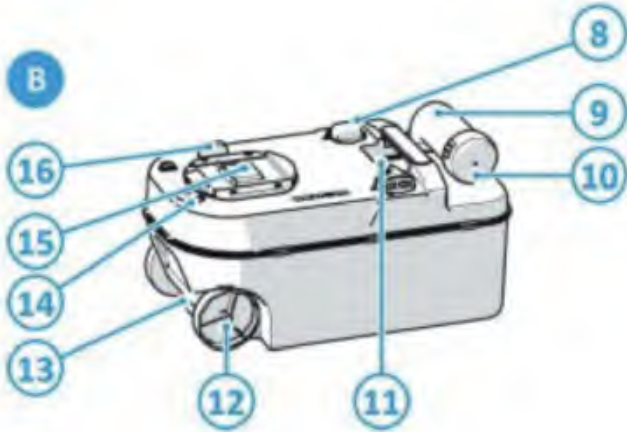
To take a shower, turn on the water pump (round switch on the kitchen’s backsplash) and the water heater (See Water section). No need to wait for the water to heat up, the water heater acts instantly. You are now ready to take your shower! When top of lever is pointed to driver side, it is HOT.

The Nautilus shower door is retractable. To open it, gently hold and press-in.

Clean shower screen every 2-3 months using a mild non-abrasive agent or window cleaner.

### Toilet

**Thetford® C223S RV Cassette Toilet / Water connected & Electrical flush**



- |                     |                          |                                     |                   |
|---------------------|--------------------------|-------------------------------------|-------------------|
| 1. Level indication | 5. Seat                  | 9. Pour out spout                   | 13. Pull handle   |
| 2. Flush water tank | 6. Swiveling toilet bowl | 10. Cap                             | 14. Vent button   |
| 3. Flush button     | 7. Blade Handle          | 11. Automatic pressure release vent | 15. Sliding cover |
| 4. Cover            | 8. Float                 | 12. Wheel                           | 16. Blade opener  |





Before use

1. Ensure that all packaging materials have been removed. Prepare the waste-holding tank.
2. Remove the waste-holding tank through the service door.
3. Place the waste-holding tank upright and turn the pour-out spout upwards.
4. Remove the cap from the pour-out spout.
5. Check the correct dosage of Thetford waste-holding tank additive on the package.
6. Add the stated dosage to the waste-holding tank.
7. Add 3 liters of water to the waste-holding tank to ensure that the bottom of the waste-holding tank is covered.
8. Screw the cap back onto the pour-out spout.
9. Slide the waste-holding tank back into its original position via the service door.

CAUTION: Never add toilet additives directly via the valve blade or via the toilet bowl, as this could damage the lip seal of the waste-holding tank. Only fill the waste-holding tank via the pour-out spout.

CAUTION: Never use force if you cannot get the waste-holding tank back into place easily. If a blockage occurs, always check if the blade handle is in the closed position.

Use of the toilet

CAUTION: The toilet can withstand a maximum load of 265lbs. Make sure you do not overload the toilet.

Close the cover and use both hands to rotate the bowl to the desired position (max. 90° clockwise and 170° counterclockwise)

Opening the blade:

Open the blade by moving the blade handle from left to right. Always close the blade completely after use.

NOTE: The toilet can be used with the blade open or closed.

Flushing the toilet:

Make sure the blade is open.  
Press the flush button and hold it for several seconds to flush the toilet. The flush of your toilet will be more effective if you pulsate the flush by pressing the flush button several times in a row.

NOTE: Ordinary toilet paper can cause clogging. Use Thetford Aqua Soft toilet paper for your toilet. This toilet paper is super-soft, dissolves quickly, prevents clogging and makes it easier to empty the waste-holding tank.

CAUTION: To prevent water damage to your van do not travel with water in the toilet bowl.

CAUTION: Do not leave water in the toilet bowl if the toilet is not being used. This does not help to reduce unpleasant smells and only leads to flooding.

Emptying the waste-holding tank

Your toilet has a 1-level indication for the waste-holding tank. When the slide turns from green to red, the waste-holding tank is full.

1. Remove the waste-holding tank.
2. Fold out the pull handle until it is fully extended.
3. Pull the tank to an authorized waste disposal point.
4. Place the waste-holding tank upright and turn the pour-out spout upwards.
5. Remove the cap from the pour-out spout.
6. Press and hold the vent button with your thumb while the pour-out spout is pointing downwards to empty the waste-holding tank.
7. Add 5 liters of water to the waste-holding tank and replace the cap.
8. Gently shake the tank to clean it. Empty the waste-holding tank again
9. Remove the float from the waste-holding tank by turning it clockwise and rinse the float with tap water.
10. Fold in the pull handle until it clicks into place.
11. Slide the waste-holding tank into the toilet and close the service door.
12. If you want to continue using your toilet after emptying the waste-holding tank, prepare the waste-holding tank again (see "Before use" section).

CAUTION: To prevent water damage to your van, do not travel with a waste-holding tank that is more than 3/4 full. This may cause leakage through the venting system. Do not allow the waste-holding tank to become too full.

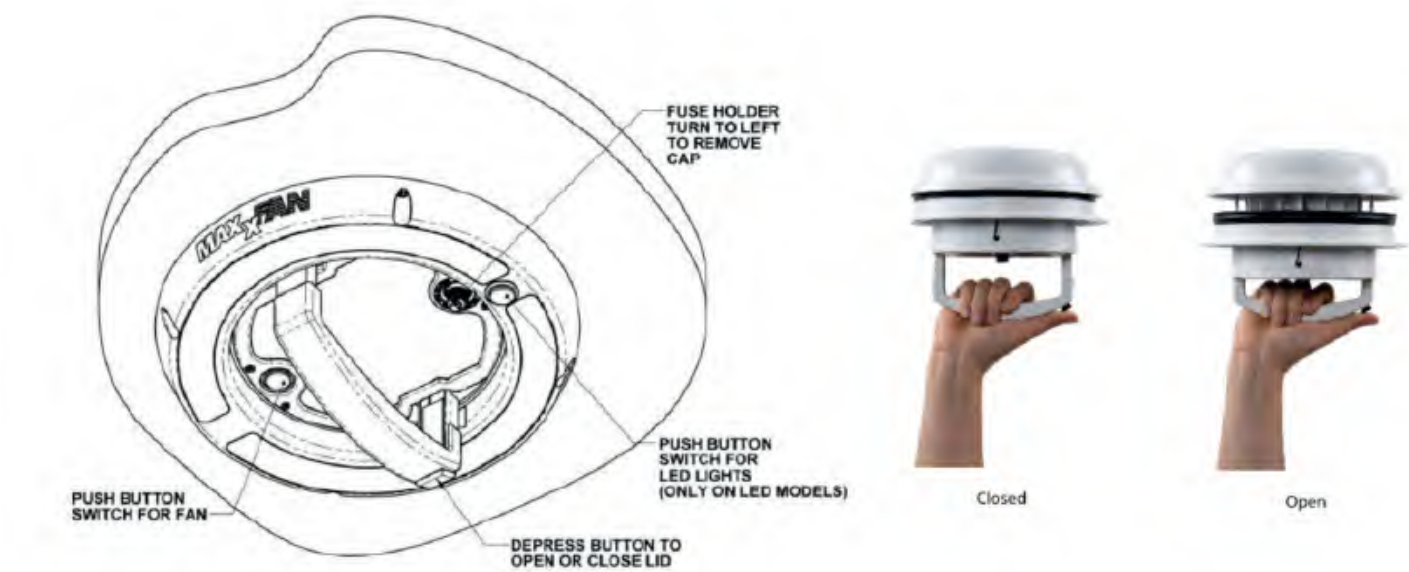
NOTE: Thetford green toilet additives are completely safe to empty into a septic tank or small biological systems on camping sites.





# Shower Fan

## Maxx® Air Fan Dome +, 6» Fan, Led



### How to clean your fan:

Cleaning of your MAXXFAN Dome may be achieved with mild soap and water only. The screen can be removed for cleaning by removing the four (4) screws. Before removing the screen for cleaning, ensure the fan is turned to the off position.

CAUTION: Do not operate the fan with the screen removed.

The MAXXFAN Dome fan has a 5-amp fuse. To access the fuse, turn the fuse cap to the left to remove the cap. Replace the fuse with a 5-amp, type GMA fast acting fuse. Replace the fuse cap to secure the fuse in the fuse holder.

### How to use your fan:

1. To open the MAXXFAN Dome lid, push the button on the handle to disengage the clip and slide the handle away from you until the clip engages the upper opening.
2. To close the lid, push the button on the handle to disengage the clip and pull the handle toward you until the clip engages the lower opening.
3. Operation of your MAXXFAN Dome simply entails pushing the on/off button on the fan to activate the exhaust fan.
4. The optional LED lighting on the garnish ring is operated by the push button on the garnish ring. The LED lighting and fan operate independently.
5. Close the lid to impede the infiltration of air when the exhaust fan is not in use.
6. The MAXXFAN Dome fan should not be operated with the lid closed.









# Bedroom





# Interior Amenities Bedroom

## Bed

**WARNING:** Sleeping facilities should not be used while the vehicle is in motion. For safety, passengers must remain in seatbelted positions when the vehicle is moving.

Designed to provide the ultimate sleep experience, your mattress is a short queen size with a 6-inch memory foam layer that cradles your body and promotes deep, restorative sleep.

### **Cleaning and care tips:**

- Use a vacuum cleaner with an upholstery attachment to remove dust mites, pet dander, and other allergens from the mattress surface. Vacuuming helps maintain a clean and allergy-friendly sleeping environment.
- If spills or stains occur, blot them up immediately with a clean, absorbent cloth. Avoid using harsh chemicals or scrubbing, as this can damage the mattress fabric.
- Every few weeks, open your windows and let fresh air circulate around the mattress. This helps dissipate moisture and prevent odor buildup.
- Extreme temperatures and humidity can damage the mattress material. Keep the bedroom temperature comfortable and avoid placing the mattress in direct sunlight or near heat sources.

## Windows

**Window: Arctic Tern® - 300 x 1100mm (11,8in x 43,3in)**  
(built-in bug net & covers included)

The bug net and window cover can be easily interchanged. To use the bug net, simply pull it upward from the bottom. Conversely, to utilize the window cover, pull it downward from the top. You can attach the bug net to the cover, allowing you to easily remove one while simultaneously bringing out the other. Additionally, tucking the cover in while it's attached to the mosquito screen helps prevent damage.

## Storage

You have two rows of cabinets to store your belongings in your room. They open simply by pulling them up and down. Remember to close them carefully before driving

## Electrical Sockets and Switches

As you rest on your bed, facing away from the window, you'll discover a 110V white socket and a 12V black one on your right, along with the round switch that controls the bedroom's 12V LED, under the cabinet.



# Under the Bed

You'll find in the garage:

- The water box on the driver side
- The elec box on the passenger side
- The 12V LED round switch on the passenger side
- In the wooden vertical cabinet (passenger side, on the far right) with:
  - A small black button that allows you to shut down the batteries (see Storage section).
  - The solar breaker handle
  - The red main switch with on/off positions that controls the entire electrical system

# Air Conditioning

## Dometic® RTX 2000 12V Roof AC

The 12V AC is positioned over the bed to optimize for sleep cooling. You can run it for up to 12 hours.

To optimize the cooling:

- Park your vehicle in the shade when possible.
- Shade your vehicle when possible.
- Before using the AC, you should always cool down the vehicle by fully airing out the interior.
- Keep doors and windows closed.
- Avoid any heat sources in the vehicle.
- Reduce the power consumed by other products to ensure the maximum possible operating time of the AC.

The remote for the air conditioner is located on the wall by the bed. The display for the AC is on the AC unit over the bed.

The Dometic® RTX 2000 12V is used to supply the interior of your van with cool and dehumidified air. The system is designed for stationary use; however, it can be used while driving.

It's suitable for ambient temperatures of 41°F to 126°F.

In BOOST mode, the parking cooler cools the vehicle interior for no more than 20 minutes at maximum power and then switches to AUTO mode. When the set temperature is reached, the parking cooler switches to auto mode before the 20 minutes is reached.

In AUTO mode, the fan and compressor speed are controlled automatically.

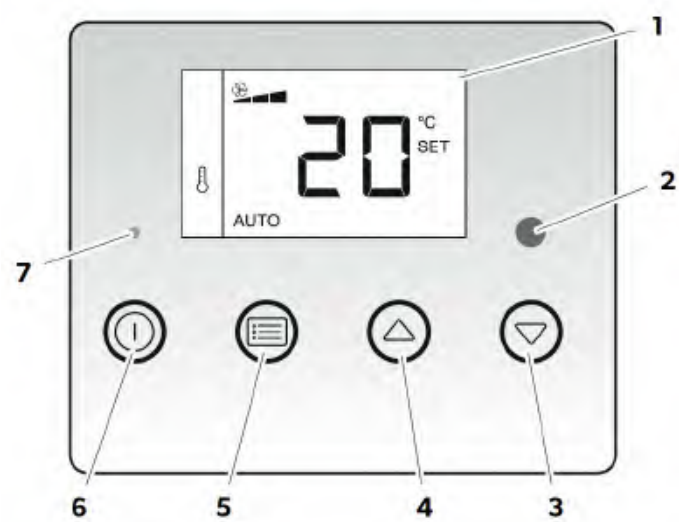
In ECO mode the fan and compressor speed are controlled automatically.

The compressor power is limited in ECO mode electronically. The system is controlled using the control panel or the remote control.



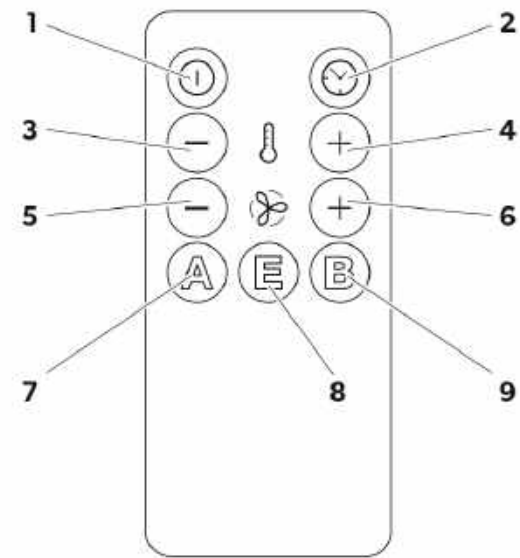


Control Panel



1. Display
2. Infrared receiver (for the remote control)
3. Opens the sub-menus for setting or decreases the value of the selected parameter once a menu has been opened.
4. Opens the sub-menus for setting or increases the value of the selected parameter once a menu has been opened.
5. Scrolls through the menu items.
6. Switches the parking cooler:
  - On
  - Off (press button briefly)
  - To standby mode (press button longer than 3 seconds)
7. LED power (blue): Only lights up when the system is switched on or in standby.

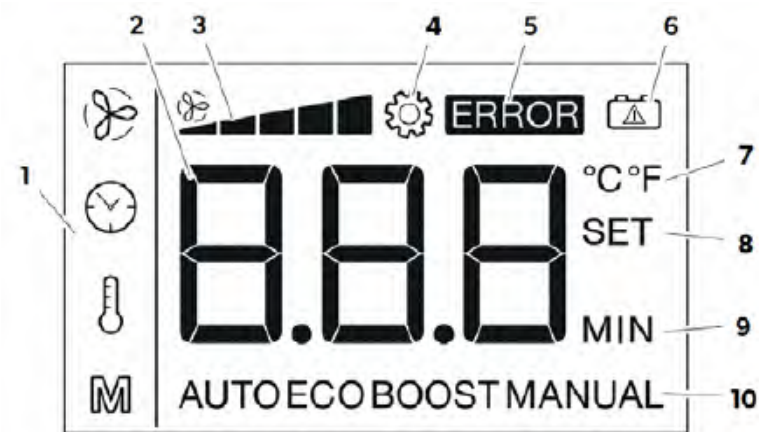
Remote



1. Press button briefly: Switches the AC to standby mode or on again, if it is in standby mode. Press the button for longer than 3 seconds: Switches the AC off. The AC can only be switched on at the control panel.
2. Increases the timer running time by 10 minutes.
3. Reduces the set point by 2°F.
4. Increases the set point by 2°F.
5. Switches the AC to manual mode and increases the speed of the fan.
6. Switches the AC to auto mode.
7. Switches the AC to eco mode.
8. Switches the AC to boost mode.



## Display



1. The symbol shows the current menu selected.
2. Depending on the current menu, shows:
  - The required temperature
  - The current fan speed
  - The remaining running time of the timer
3. Shows the current fan speed.
4. Setting: Lights up when the setting menu has been activated.
5. Error: Lights up when the supply voltage falls below a set value. Additionally, the display flashes.
6. Battery: Displays problems with the supply voltage.
7. °C: Lights up when the temperature is shown in °C.  
°F: Lights up when the temperature is shown in °F.
8. Set: Indicates that the set temperature is being shown.
9. Min: Lights up when the timer has been set.
10. Shows the current mode.

### CAUTION:

Never close all of the air nozzles of the AC simultaneously. The system would ice up inside.

## Switching ON the AC

With the system switched off, press the power button.

- The fan starts.
- The Power LED lights up.
- The digital display shows the current status of the AC

## Switching off the AC:

- Press the power button for at least 3 seconds to switch off the AC.
- The cooler saves the current settings.
- The power LED goes out.




### Note:

- When the AC is in boost mode and switched off, it will start the next time in auto mode.
- A running timer is set to 0 by switching off the AC.
- If the AC is switched off while the compressor is still operating, the fan will continue to run for 20 seconds to dry the evaporator, among other things.
- If you don't press any button for more than 5 seconds, the display switches back to the menu mode.



Control panel warnings

The system control unit has various functions for protecting the device and the battery. If one of these protective functions has been triggered, this is shown by the following codes on the display:

Display Indication		Description	Cause	Remedy
LO		The battery monitor has detected low voltage.	Connection voltage is too low. The battery capacity is not sufficient to operate the system.	<ul style="list-style-type: none"><li>• Charge your vehicle battery.</li><li>• If the fault occurs again, contact an authorised workshop.</li></ul>
LO	°C	The system has detected that the ambient temperature is too low for operation.	The ambient temperature is below 5°C.	<ul style="list-style-type: none"><li>• Wait until the ambient temperature has risen above 5°C before switching on the system.</li></ul>
HI		The system has detected a brief or constant over-voltage.	A brief over-voltage may occur when large electrical consumers are switched off. Constant over-voltage is the result of an incorrect connection voltage.	<ul style="list-style-type: none"><li>• Brief over-voltage: no action required.</li><li>• If the display message “HI” remains visible for a longer period: Have the vehicle electronics checked. Make sure the connection voltage is less than 30 V.</li></ul>
	-	The system has detected a too big inclination. The compressor is switched off. 10 minutes later, the entire system will be switched off.	The compressor (driver’s cab) is tilted too far.	<ul style="list-style-type: none"><li>• Once the compressor has been returned to its normal position, the system can be switched on again.</li></ul>

Cleaning and care

Please observe the following tips for the cleaning and care of your AC:

- Clean the housing of the AC and the outlet panel occasionally with a damp cloth.
- Remove leaves and other dirt from the ventilation grilles of the AC occasionally. Make sure you do not damage the system in the process.
- Check regularly that all the elements for the air conditioning unit are fastened.
- Check regularly that the connection lines are undamaged and secure.

CAUTION: Do not use abrasive cleaning agents, hard objects, or flammable agents during cleaning, as these can damage the appliance.

NOTE: The AC may be cleaned with a high-pressure cleaner.

For fault messages and other information about the Dometic® RTX 2000 12V roof AC, please refer to the owner’s user manual.





# Exterior





# Exterior

## Driver Side

From front to back on the driver’s side of the van

### Gas

Just to the right of the driver’s door you will find the van’s fuel door

### Gray Water Tank

Towards the middle of the van, at chassis level, you will find the outlet for the gray water tank. See the Water section for more information on the subject.

### Toilets Service Door

The service door for emptying the toilet is the biggest one on the driver’s side. You will need the key provided with the van’s key ring to open it. For instructions on how to empty the toilet, please refer to the Bathroom section.

### Shore Power

At the back of the van, on the driver’s side, you will find the hatch with the plug for connecting to electricity. For further information, please refer to the Electricity section.

### Fresh Water

At the back of the van, on the driver’s side, you will find the lockable water inlet to fill your fresh water tank.

WARNING: Be careful not to confuse it with the fuel door. For further information, please refer to the Water section.

## Passenger Side

### Electrical Awning

#### Girard Systems - GG750 AWNING

You will find the awning control panel above the sliding door. It is a black square with six buttons marked Awning/In/Stop/Out/LED/On/Off/Close Off.



- Top left Awning In button: Push to retract the awning.
- Middle left Stop button: Push to stop the opening or closing of the awning.
- Last left Out button: Push to extend the awning.
- Top right LED On button: Turns on LED lights.
- Middle right Off button: Turns off LED lights.
- Last right Close/Off button: Closes the awning and turns off the LED lights.

WARNING: Do not put your hands in the mechanical parts of the awning when the awning is moving.



Automatic Operation

The awning is equipped with a seismic sensor that, when the awning is open, detects the oscillatory movements of the front bar. When the movement exceeds the set threshold (e.g., in case of strong wind), the awning automatically closes to preserve it.

CAUTION: Given the automatic operation, make sure there are no obstacles during the closing.

- Make sure that the awning perfectly rolls up.
- Before leaving, make sure the awning is correctly closed.
- A damaged fabric does not allow the awning to perfectly roll up.
- Never use the awning with a damaged canopy.
- Wash the canopy with a light cleaning detergent.
- In case of problems, please contact the dealer closest to you or the address on the last page.

NOTE: The awning is designed to protect from the sun, and not from rain, wind, or snow. In these cases, we recommend rolling it up!

Manual Override

In case of motor issues, the GG750 has a manual override to close the awning.

- Remove the endcap opposite the motor by removing the 3 Phillips head screws.
- Using a 13mm wrench, turn the manual override shaft in order to close the awning.

NOTE: The manual override is one-way; it can only close the awning. Please refer to the owner’s manual for further information.

Fold-out Table:

The table is attached using a powerful magnet. To unfold it, pull it towards you. To fold it, push it upwards.

CAUTION: Don’t overload it or sit on it, you could damage it.





# Connectivity





# Connectivity

## Starlink

Installing and using Starlink involves setting up the satellite dish, connecting the hardware, and accessing the Starlink app. Here’s a step-by-step guide:

**Step 1: Unpack and Prepare the Starlink Kit**

Carefully unpack the Starlink kit and ensure you have all the components, including the dish, mast, router, cables, and mounting hardware.

**Step 2: Select the Mounting Location**

Choose an unobstructed location for the satellite dish, preferably with a clear view of the southern sky. Avoid placing it near trees, buildings, or other obstructions that might block the signal.

**Step 3: Assemble the Dish and Mast**

Assemble the Starlink dish according to the instructions provided in the user manual. Attach the dish to the mast using the provided hardware.

**Step 4: Mount the Mast**

Select a secure mounting location for the mast. You can either mount it on a rooftop, ground pole, or wall bracket. Ensure the mast is firmly secured and level.

**Step 5: Connect the Cables**

Connect the dish cable to the satellite dish and the router. Ensure the cables are securely fastened and protected from the elements.

**Step 6: Position the Dish**

Using the Starlink app or the provided mounting template, carefully position the dish to point directly towards the southern sky. The app will guide you through the alignment process.

**Step 7: Connect to Power**

Connect the router to a power outlet. The router will power on and begin the initialization process, which may take several minutes.

**Step 8: Connect to Wi-Fi**

Once the router is initialized, you can connect your devices to the Starlink Wi-Fi network using the provided network name and password.

**Step 9: Install the Starlink App (Optional)**

Download and install the Starlink app on your smartphone or tablet. The app allows you to monitor your Starlink connection, troubleshoot issues, and manage your Starlink service.

**Additional Tips:**

Check for obstructions regularly to ensure the dish has a clear view of the sky.

Restart the router occasionally to optimize performance.

Keep the Starlink equipment clean and free from debris.

Contact Starlink support if you encounter any issues or have questions.





# Maintenance





# Maintenance

## Storage

Storing your van for weeks or months requires proper preparation to prevent damage and maintain its systems. Here’s a comprehensive guide to ensure your van remains in good condition during storage:

### Exterior Protection:

**Clean and Wax:** Give your van a thorough wash and wax to protect the paint from fading and corrosion. Use a high-quality wax that provides UV protection and seals the paint surface.

**Cover:** Invest in a weatherproof cover specifically designed for your van. This will shield the exterior from dust, dirt, moisture, and harmful UV rays.

**Protect Tires:** Inflate tires to the recommended pressure to prevent flat spots and maintain tire shape. Consider using tire covers to protect them from sunlight and harsh weather conditions.

**Elevate the Van (Optional):** If possible, elevate the van slightly using jack stands to reduce tire pressure and prevent flat spots during prolonged storage.

### Interior Protection:

**Thorough Cleaning:** Clean the interior thoroughly, including removing trash, vacuuming carpets, and wiping down surfaces. This will prevent the accumulation of dirt, mold, and mildew.

**Moisture Management:** Slightly open one or more windows to allow for air circulation and prevent moisture buildup. Remember to secure the windows in a way that prevents pests from entering (use the bug net). Additionally, be mindful of weather conditions and close the windows if heavy rain or strong winds are expected.

The windows in a way that prevents pests from entering (use the bug net). Additionally, be mindful of weather conditions and close the windows if heavy rain or strong winds are expected.

Place silica gel packets or moisture absorbers inside the van to prevent humidity buildup and condensation. This will help protect the interior from dampness and potential mold growth.

**Battery Maintenance:** Disconnect the chassis battery or use a battery tender to maintain its charge and prevent damage from prolonged inactivity.

**Prevent Pests:** You can use pest-repellent sachets to discourage rodents and insects from entering the van.

### Water System:

**Drain Water Tanks:** Completely drain all water tanks, including the fresh water tank, gray water tank, and black water tank. This will prevent water damage and unpleasant odors.

**Flush Water System:** Run a mixture of water and van antifreeze through the water system to prevent freezing and potential damage to pipes and pumps.

**Leave Faucets Open:** Slightly open all faucets, including the showerhead, to allow any remaining water to drain. This will help prevent freezing and blockages.





### Amenities and Valuables:

**Empty your van:** Empty your van of your belongings that could be damaged by the cold or humidity, and of any food that could be eaten by pests. Only keep canned goods and glass containers

**Empty Appliances:** Empty all fluid reservoirs, including refrigerator, and waste tanks, to prevent leaks and odors.

**Remove Valuables:** Remove any personal items, valuables, and sensitive documents from the van to prevent theft or damage.

**Store Valuables Securely:** If storing personal items within the van, consider using secure storage compartments or lockboxes to protect them from theft or damage.

**Secure Windows and Doors:** Ensure all windows and doors are securely locked to prevent unauthorized access and protect the interior from weather elements.

**Check for Leaks:** Regularly inspect the van for any signs of leaks, especially around plumbing fixtures, seals, and windows. Address any leaks promptly to prevent water damage.

### Electricity:

There are two ways to shut down the electrical system. One is for short term storage. This could be anywhere from a few days up to a month. Anything longer we recommend going with the second option, which would be long term storage.

If you plan on using the van more than a few times a month and have a sunny spot for storage go with short term storage.

Follow these steps:

### Short Term Storage:

#### Outdoor:

1. On the touch screen above the sliding door, tap to activate. Slide the screen left until you find the screen with “Current Limit” and “A/C Mode.” Tap “A/C Mode” 3 times to turn off the inverter, which turns off all A/C power.
2. Go to the electrical box in the rear of the van. Turn off the black and yellow DC Main breaker to turn off all DC power. This sheds all loads from the system, allowing the solar to keep the batteries charged. If you want to keep the fridge running during short-term storage, you can leave the DC Main on. Note that at night, the fridge will run with no solar backup, decreasing battery percentage overnight but replenishing during the day with sunlight. If leaving the DC Main breaker on, check the battery percentage periodically to ensure it doesn't drain too low.
3. When returning, if you chose to turn the DC Main breaker off, simply turn it back to the ON position to resume system use.

#### Indoor:

1. On the touch screen above the sliding door, tap to activate. Slide the screen left until you find the screen with “Current Limit” and “A/C Mode.” Tap “A/C Mode” 3 times to turn off the inverter, which turns off all A/C power.
2. Go to the rear of the van and open the taillight access on the passenger side.
3. Flip the solar breaker to the down position (above the main distributor switch) to turn off solar power.
4. Turn the red ON/OFF switch (at the bottom of the opening) to the left to turn off. This disconnects power from the BMS to the distributor.
5. Push and hold the small black push button (at the top of the opening) for 3 seconds until the blue light starts flashing. This shuts down the BMS, and the system is now fully turned off.



Long term storage:

For long term storage indoors or out, you should drain the battery to 50%. Storing the battery long term fully charged can cause damage to the cells and shorten the life of the battery.

To drain the battery simply leave the A/C running as well as lights and fans.

**When you get to the desired percentage, follow the steps above to shut down the system.**

To turn the system back on:

- Push and hold the black switch for about 3 sec till you hear a click and the blue light on the button comes on.
- Turn on the Red main switch to the right (ON).
- Flip handle for the solar breaker upwards.

**Disconnect Shore Power:** Disconnect the van from shore power to prevent electrical hazards and unnecessary power consumption.

**Remove Batteries:** If possible, remove the chassis battery and store it indoors in a temperature-controlled environment.

**Unplug Appliances:** Unplug all appliances and electronics to prevent power drain and potential damage from surges.

**Cover Electrical Outlets:** Cover electrical outlets with tape or plastic covers to prevent dust and moisture intrusion.

By following these tips, you can ensure your van remains in good condition during storage and is ready to use whenever you need it.

Winterization

Winterizing your van is crucial to prevent damage and ensure proper functionality during the colder months. Here’s a comprehensive guide to winterizing your van:

Water System:

**Drain Water Tanks:** Completely drain all water tanks, including the fresh water tank (drain cold AND hot water), gray water tank. This will prevent water from freezing and causing damage to pipes, pumps, and valves.

**Flush Water System:** Run a mixture of water and RV antifreeze through the water system to prevent freezing and potential damage to pipes and pumps. Follow the manufacturer’s instructions for the recommended antifreeze concentration.

**Protect Faucets and Drains:** Pour a small amount of RV antifreeze into each faucet, showerhead, and drain to prevent freezing and blockage.

**Leave Faucets Open:** Slightly open all faucets, including the showerhead, to allow any remaining water to drain. This will help prevent freezing and blockages.

**Store Hoses:** Drain and store any hoses used for filling or draining the water system. Protect them from freezing or damage by keeping them indoors or in a temperature-controlled storage area.

Electrical System:

Please follow recommendations mentioned in the Storage - Electricity - Long term storage section above..







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