

Overland Series and Overland Micro Series

# This Manual Belongs to:

VIN		 
DEALER	·	 
ADDRESS		 
DEALER PHONE		 
DEALER CONTRACT		 

DATE	DESCRIPTION OF SERVICE	SERVICE PERFORMED BY

### Dear Ember Owner,

Congratulations on your new Ember, and welcome to the Ember Recreational Vehicles family! On behalf of everyone at Ember, we're glad you're here. At Ember, we're focused on creating a truly unique and exceptional ownership experience. We hope that you'll see this in not only the quality we build into our units, but through the interactions you'll have with our company and our dealer partners if you haven't already!

Your Ember has been designed from the ground up to provide you with a reliable and quality way to enjoy family fun and recreation.

Not only does it comply with all the Recreational Vehicle Industry Association's regulations, standards, and safety requirements, but it meets our own high standards of quality and testing.

We ask that you please read and understand the contents of this owner's manual as well as the other manuals for the various components from other manufacturers that came with your RV. Your personal safety and that of those traveling with you depends upon you becoming familiar with and learning how to properly operate the various systems, appliances, and components that your RV came equipped with. Take extra care in reading all cautions, warnings, and notices, and familiarize yourself and your family with the safety features built into your RV and what actions to take to assure a safe camping trip.

We proudly back our units with our 1-2-3 Warranty: 1 time transfer in the first year of ownership, a 2-year limited base warranty, and a 3-year limited structural warranty.

Please read through the details of our warranty carefully so you are familiar with the extent of the coverage and duration, along with the various exclusions, restrictions, and limitations that may apply. Ongoing maintenance and upkeep are important to upholding our warranties, so we ask that you please understand what those are. Some components used in the construction of your Ember from other suppliers come with additional warranties that extend beyond our warranty. Please be sure to understand these warranties as well and submit any necessary registration forms included in your Owners Packet.

Your dealership should be able to answer any questions or concerns you may have after reading through this Owner's Manual regarding your new Ember. If your dealer is unable to do so, please feel free to contact our Ownership Experience department.

We hope that your Ember brings you many years of adventures and fun with memories to last a lifetime! We are thankful you chose to be a part of the Ember family and wish you safe travels!

Best,

**ASHLEY BONTRAGER** 

Ahley Bontrager

Founder / CEO

**Ember Recreational Vehicles** 

### About this Manual

This Owner's Manual for your Ember Recreational Vehicle (RV) is intended to serve as a guide for safety, care, and normal operation of your unit. Information contained in this document is subject to change without notice and includes relative information available at time of the publication of this version. The photographs, drawings, components, and systems described may not represent what is in the RV you purchased due to available options, ongoing upgrades, and improvements. This document also contains information for both the Overland Series and the Overland Micro Series, and not all information applies to both series. Your Ember 1-2-3 Limited Warranty is included at the end of this Owner's Manual. Nothing in this Owner's Manual will or is intended to in any way modify, supplement, or change the terms and conditions of the 1-time transfer in the first year of ownership, the 2-year limited base warranty and the 3-year limited structural warranty that comes with your Ember RV. This Owner's Manual does not alter or supplement any component manufacturer warranty.

Your Ember came with an Owner's Packet that contains various component manufacturers' manuals and warranty information. Please be sure to look through all these documents and register for the available warranties beyond the 1-2-3 warranty offered by Ember Recreational Vehicles.

Please use the procedures outlined in this guide for typical operating conditions. The obligation for safe operation and use of your RV lies on you, and we have tried to include information to help, but not serve as a tutorial for how to camp or where to camp in your Ember RV. For questions, concerns, or assistance, please contact your dealer or Ember directly.

#### MAILING ADDRESS:

Ember Recreational Vehicles 710 Commerce Drive Bristol, IN 46507 Phone: 844-732-4204 Email: warranty@emberrv.com Website: www.emberrv.com

## Contents

OVERVIEW OF OWNER'S MANUAL	L	TOWING	
Safety Terms	10	Guidelines	25
Key Safety Items	10	Safety Chains	25
Egress Windows	10	Breakaway Switch	25
Extinguisher	11	Tire Pressure	26
Smoke Detector	11	Brakes	26
Carbon Monoxide (CO) Detector	11	Lights	26
Propane Gas Leak Detector	11	General Towing and Driving	26
Safety Regulations for LP	12	Sway and Fishtailing	27
Fire Safety	14	Winding Narrow Roads	27
YOUR EMBER RECREATIONAL VEH	ICLE	Sharp Turns	28
Exterior Photo with Key		Steep and Long Grades	28
Features Identified	16	Slippery and Icy Pavement	28
Technical Data and General		Freeways and Highways	28
Specifications	17	Corner Turns	28
PRE-TRIP PREPARATION		Mud and Sand	28
Pre-Trip Checklist	18	Parking	28
Loading	18	Additional Towing and	
Wheel Lug Nuts	18	Safety Information	28
Tire Inflation	18	TIRES	
Trailer Coupler	18	General Information	29
Safety Cables	18	Tire Fundamentals	29
Electrical	18	Sidewall Markings and	
Exterior	19	Important Terms	29
Interior	19	Tire Tread	30
Tool Kit Items	19	Pressure and Load Limits	30
Hitching	20	Checking Tire Pressure	30
Pre-Hitch/Coupling/Trip		Wheel Nut Torque	31
Considerations and Inspection	20	Torque Adjustments	31
Hitching Steps and Instructions	21	Tire Safety Checklist	32
LOADING		Travel Trailer Set Up at Destination	32
Key Terms	23	Site Requirements and Selection	32
Cargo Capacities	24	Leveling	32
How to Weigh your RV	24	Stabilizing Jacks	33
Ŭ,		Hook Ups	33

EXTERNAL EQUIPMENT		Range Hood	40
AND SYSTEMS		Refrigerator	41
European Windows	34	Roof Vents (Power and Manual)	41
Optional Observation System	34	Solar Prep	41
Independent Suspension	34	Solar Ready	41
Gear Box	34	Elevated Beds	42
Outdoor Kitchen	35	Standard Elevated Beds	42
Griddle	35	Use of Bed Rails	42
Cooler	35	Tips for Safe Elevated Bed Usage	42
Refrigerator	35	Murphy Beds	43
Television	35	Murphy Bed Setup and Storage	43
INTERNAL EQUIPMENT		ELECTRICAL SYSTEM	
AND SYSTEMS		Electrical System Maintenance	44
Appliances	36	120-Volt Alternate Current System	44
Safety	36	12-Volt Direct Current System	45
Propane Appliance Maintenance	36	Converter	45
Operating Appliances at High Altitude	37	Converter Inspection	
Air Conditioner	37	and Maintenance	45
TRUMA Combi Eco Plus	37	EmberLink™ Smart System	46
Thermostat – Wall-Mounted	37	Solar Power System and Batteries	46
Thermostat – Remote Control	38	PROPANE SYSTEM	
Dual-Zone Thermostat	38	Overview	47
Television	38	Regulator	47
TV Signal Booster	38	Regulator Freeze-Up	47
Antenna (TV)	38	Other Cold Weather Factors	48
Cable Hook-Up	38	LP PIGTAIL	49
Satellite	38	LP GAS DETECTOR	49
Awning	38	PLUMBING SYSTEM	
Awning, Electric	39	Freshwater System	50
Rear Observation		Monitoring Tank Status	50
Monitoring System	39	Nautilus	51
EmberLink™ Smart System	39	Plumbing Control Center	51
Microwave/Convection Oven	39	External Shower	51
Cook Top (Range)/Oven	40		

WARRANTY, REPAIR, AND SERVIC	E	THE 1-2-3 LIMITED WARRANTY	
General Care and Maintenance	52	Important Definitions	62
Cleaning the Interior	52	What Is a 1-2-3 Limited	
Exterior Finish	52	Warranty and How to Obtain	,-
Frame and Chassis	53	Warranty Service	63
Hitch Couplers	53	EMBER'S TWO (2) YEAR LIMITED BASE WARRANTY	63
Safety Chains	53	EMBER'S THREE (3) YEAR LIMITED	
Jacks	53	STRUCTURAL WARRANTY	65
Tires and Wheels	53	Remedies	66
Brake Adjustment	53	Primary Remedy	66
Sealants	53	Secondary Remedy	66
Ceiling, Interior Walls, Countertop, Tabletops	54	What is Not Covered by the Ember Limited Warranties	67
Faucets and Fixtures	54	Appliance and Component	
Fabric and Upholstery	54	Manufacturer Warranties and	
REQUIRED MAINTENANCE		Administration	68
SCHEDULE	55	Legal Remedies	68
WINTERIZING AND STORAGE		ACCEPTING DELIVERY	69
Winterizing Your RV	56		
Dewinterizing Your RV	57		
Storing your RV	57		
SERIAL NUMBER, VIN, DECALS			
Deciphering the VIN	58		
WARRANTY			
Obtaining Warranty Service	59		
Obtaining Emergency			
Warranty Repair	60		
Service & Warranty	60		
Have the Following Available When You Call	61		

### Overview of Owner's Manual

After you have thoroughly reviewed the manual, you will have a good understanding of the do's and don't's of owning and operating an Ember Recreational Vehicle. If you aren't sure of a certain feature, you can easily locate the section that addresses your concern and look up the information you need. As you read through the manual, you will encounter the following items:

#### SAFETY TERMS



DANGER indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury.



WARNING indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury.



CAUTION indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury.



NOTICE is used to address practices not related to personal injury. This applies to hazardous situations involving property damage only.

#### **KEY SAFETY ITEMS**

#### **EGRESS WINDOWS**

Egress or "Emergency Exit" windows are labeled from the factory with the word EXIT.

All egress windows can be distinguished by red operational handles or levers.

Depending upon the window type, an egress window may be a large section or an entire window. Review the locations and operational instructions posted on the window with all people staying in the RV.

#### **EXTINGUISHER**

Each Ember Recreational Vehicle includes a fire extinguisher which is located near the main entry door. The fire extinguishers are rated for Class B (gasoline, grease, and flammable liquids) and Class C (electrical) fires. Please refer to the manufacturer's instructions supplied with the Owner's Packet for care and operation.

#### **SMOKE DETECTOR**

For your safety, a smoke detector is installed in every RV. Most detectors are powered by a 9-volt battery. Check the manufacturer's expiration date on the label, replace batteries if needed, and clean dust away from the slots so that smoke can enter freely. All smoke detectors should be replaced every ten years. Please refer to the manufacturer's instructions supplied with the RV for care and operation.

#### CARBON MONOXIDE (CO) DETECTOR

For your safety, a carbon monoxide (CO) detector is installed in every RV. Depending on the model, it may be operated by battery (9V, AA) or wired so that it will be powered by a RV battery (if equipped) or 12V power from the converter. Please refer to the manufacturer's instructions supplied with the RV for care and operation.



PROPANE POWERED APPLIANCES PRODUCE CARBON MONOXIDE. CARBON MONOXIDE CAN BE FATAL!

#### PROPANE GAS LEAK DETECTOR

Ember RVs contain a propane gas leak detector in every camper. It is a safety device that is permanently mounted near the floor and is powered by 12V of electricity (the RV battery and/or converter). The detector is operational only if 12V of power is available. If the power is disconnected, the monitor will not operate.

Should a propane leak occur, the detector will sound an alarm and continue until the gas has dissipated or until a mute button is pressed. The mute button will only stop the alarm from sounding for 60 seconds, and the alarm will reoccur if gas is still present. The alarm may sound at times when no propane is present when household products are in use such as aerosol hair spray, cleaners, adhesives, alcohol, etc. Be sure to air out the RV thoroughly after delivery and when using these products. Please refer to the manufacturer's instructions supplied with the RV for care and operation.

The propane gas leak detector has a self-check circuit, which always runs while receiving 12V of power. If the circuitry fails, a failure alarm will sound and the operating indicator will cease to light. Replace the detector when recommended by the manufacturer, typically every five years.



IF THE LP GAS ALARM SOUNDS:

- EXTINGUISH ANY OPEN FLAMES, PILOT LIGHTS, AND ALL SMOKING MATERIALS.
- 2. DO NOT TOUCH ELECTRICAL SWITCHES.
- 3. SHUT OFF THE PROPANE SUPPLY AT THE CONTAINER VALVE(S) OR PROPANE SUPPLY CONNECTION.
- 4. OPEN DOORS AND OTHER VENTILATING OPENINGS.
- LEAVE THE AREA UNTIL THE ODOR CLEARS.
- 6. HAVE THE PROPANE SYSTEM CHECKED AND LEAKAGE SOURCE CORRECTED BEFORE USING AGAIN.

FAILURE TO COMPLY COULD RESULT IN EXPLOSION RESULTING IN DEATH OR SERIOUS INJURY.

#### SAFETY REGULATIONS FOR LP

Your Ember RV uses pressurized propane gas and, as such, requires that you as the owner be made aware of the risks involved. The following warnings are posted throughout your recreational vehicle to provide information on LP gas safety. They have been installed not only because of the requirement to do so, but also as a reminder to occupants of the recreational vehicle to exercise proper caution when using or being around LP gas appliances and equipment. We list several safety procedures here for you to study. Be sure that you and your family understand and follow them.



LP GAS CONTAINERS SHALL NOT BE PLACED OR STORED INSIDE THE LIVING AREA OF A RECREATIONAL

VEHICLE. LP GAS CONTAINERS ARE EQUIPPED WITH SAFETY DEVICES WHICH RELIEVE EXCESSIVE PRESSURE BY DISCHARGING GAS INTO THE ATMOSPHERE.



IT IS NOT SAFE TO USE COOKING APPLIANCES FOR COMFORT HEATING.

Cooking appliances need fresh air for safe operation. Before operation:

- 1. Open an overhead vent or turn on an exhaust fan.
- 2. Open a window.

A warning label is in the cooking area to remind you to provide an adequate supply of fresh air for combustion. Unlike homes, the amount of oxygen supply is limited due to the size of the recreational vehicle, and proper ventilation when using the cooking appliance(s) will avoid dangers of asphyxiation.



IT IS ESPECIALLY IMPORTANT THAT COOKING

APPLIANCES NOT BE USED FOR COMFORT HEATING

AS THE DANGER OF ASPHYXIATION AND/OR CARBON MONXIDE POISONING IS GREATER WHEN THE APPLIANCE IS USED FOR PROLONGED PERIODS OF TIME.



DO NOT STORE LP GAS CONTAINERS, GASOLINE, OR OTHER FLAMMABLE LIQUIDS INSIDE THE VEHICLE, AS

A FIRE OR EXPLOSION MAY RESULT.



DO NOT FILL LP GAS CONTAINERS TO MORE THAN 80% CAPACITY.

#### If you smell gas:

- Extinguish any open flames, pilot lights, and all smoking materials.
- DO NOT touch electrical switches.
- Shut off the gas supply at the tank valve(s) or gas supply connection.
- Open doors and other ventilating openings.
- DO NOT USE THE RANGE HOOD.
- Leave the area until the odor clears.
- Have the system checked and leakage source corrected before using again.

#### FIRE SAFETY

Fire safety is an important part of owning a recreational vehicle. The following basic rules of fire prevention can help eliminate the possibility of a fire.

- 1. Never store flammable liquids in the recreational vehicle.
- 2. Never leave cooking food unattended.
- 3. Never smoke in bed and always use an ashtray.
- 4. Never allow children to play with LP gas or electrical equipment.
- 5. Never use an open flame as a flashlight.
- 6. Have faulty or damaged wiring and electrical components repaired immediately.
- 7. Never overload electrical circuits.
- 8. Locate any LP leaks and have them repaired immediately.
- 9. Keep cooking surfaces clean and free from debris.
- 10. Don't allow rubbish to accumulate.
- 11. Never clean with a flammable substance.
- 12. Spray fabrics annually with a flame retardant.
- 13. Be sure everyone in your RV is familiar with the location of the exits including the emergency exit.



Ensure everyone in your RV is familiar with the operation and location of all fire extinguishers.

In the event of a fire, get everyone outside, then determine if you should attempt to extinguish the fire. If it is a large fire or a chemical fire, DO NOT HESITATE! Leave the vehicle immediately and call the fire department.

If you decide it is safe to fight a fire with an extinguisher:

- Remove the tamper tape which covers the discharge push button.
   (Do not shake.)
- 2. Hold it upright and stand six to ten feet from the fire, with a clear path to an exit.
- 3. Press the button down completely, aiming at the base of the fire, and spray with a guick side to side sweeping motion.

Use the 'PASS' method. Familiarize yourself and all RV occupants with this procedure:



- 1. Pull the pin. (Some extinguishers may have a cartridge that you need to push).
- 2. Aim the nozzle at the base of the fire.
- 3. Squeeze the handle to release the extinguishing agent.
- 4. Spray the base of the fire. (If you aim at the flames, you won't extinguish the fire.)



**AWARNING** 

USE ONLY THE APPROVED FIRE EXTINGUISHER TO PUT OUT A FIRE. DO NOT ATTEMPT TO USE WATER.

WATER MAY SPREAD CERTAIN TYPES OF FIRE AS WELL AS INCREASE THE LIKELIHOOD OF ELECTROCUTION.

**AWARNING** 

AVOID INHALING THE DRY CHEMICALS FROM THE FIRE EXTINGUISHER. ALTHOUGH NON-TOXIC, THEY COULD

CAUSE TEMPORARY IRRITATION. WHEN THE FIRE IS OUT, CLEAN THE AREA AS SOON AS POSSIBLE. THE DRY CHEMICALS MAY CAUSE SURFACE DAMAGE IF LEFT TOO LONG.

**AWARNING** 

LP GAS REGULATORS MUST ALWAYS BE INSTALLED WITH THE DIAPHRAGM VENT FACING DOWNWARD.

REGULATORS THAT ARE NOT IN COMPARTMENTS HAVE BEEN EQUIPPED WITH A PROTECTIVE COVER. BE SURE THAT THE REGULATOR VENT FACES DOWNWARD AND THE COVER IS KEPT IN PLACE TO MINIMIZE VENT BLOCKAGE WHICH COULD RESULT IN EXCESSIVE GAS PRESSURE CAUSING FIRE OR EXPLOSION.

**ADANGER** 

PORTABLE FUEL BURNING EQUIPMENT, INCLUDING WOOD OR CHARCOAL BURNING GRILLS AND STOVES,

SHALL NOT BE USED INSIDE THE RV. DOING SO MAY CAUSE A FIRE, EXPLOSION, CARBON MONOXIDE POISONING, OR ASPHYXIATION.

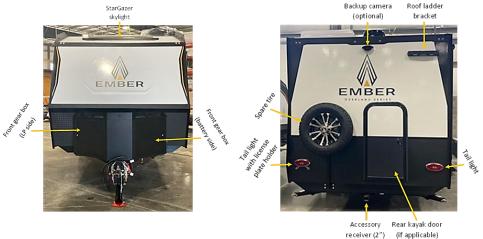
## Your Ember Recreational Vehicle

FIGURE 1: UNIT EXTERIOR WITH KEY FEATURES









#### TECHNICAL DATA AND GENERAL SPECIFICATIONS

Please look at your specific RV's weights and measures on the sticker located on the entry door. You can also visit www.emberrv.com for general weights and measures for your specific floorplan.

### Pre-Trip Preparation

Before leaving on your first trip with your new Ember Recreational Vehicle, read the information in this manual very carefully. After reading through the manual, run through the following checklist at least once.

### PRE-TRIP CHECKLIST LOADING Properly load and secure your trailer by carefully and evenly distributing the weight, properly following add-on equipment (Thule, Yakima, etc.) guidelines, and not exceeding the overall weight. (See Towing Guidelines) ☐ WHEEL LUG NUTS Check the torque on your wheels before your first trip. Recheck them at 25- and 50-mile intervals to be sure they remain secure. (See chapter 7) ☐ TIRE INFLATION Tires leave the dealer at the recommended pressure as indicated on the tire sidewall. To help ensure that you don't run into premature or uneven tire wear, always check the tire pressure before heading out on the road. (See chapter 7) ☐ TRAILER COUPLER Do a visual check to make sure the trailer coupler is securely latched to the tow vehicle's ball hitch and the indicator marker is in the "green" section. SAFETY CABLES Check that safety cables have been attached to your tow vehicle. (Cables should crisscross beneath the Tongue/Drawbar.) ELECTRICAL Attach the 4-wire connector to the tow vehicle's mating electrical outlet. Check to see that all camping trailer lights are functioning properly.

EXTERIOR
<ul> <li>□ Close the valves on the LP bottles.</li> <li>□ Empty gray/black holding tanks.</li> <li>□ Inspect all exterior baggage doors and lockers to ensure they are locked for travel.</li> <li>□ Inspect tires and check the pressures. (See Chapter 7)</li> <li>□ Check the wheel lug nuts. (See Chapter 7)</li> <li>□ Inspect the awning(s) to ensure they are properly retracted and secured.</li> <li>□ Turn the battery disconnect on.</li> <li>□ Remove all snow from the roof.</li> <li>□ Disengage the wheel brake.</li> <li>□ Disconnect all park connections and securely store.</li> </ul>
INTERIOR
<ul> <li>□ Close all vents and windows.</li> <li>□ Put the TV antenna in the down position.</li> <li>□ Retract all slide rooms.</li> <li>□ Inspect the interior of the RV to ensure all doors, including the refrigerator, are closed and secured.</li> <li>□ Verify that all safety devices are in working condition.</li> <li>□ Engage the deadbolt on the entrance door for travel.</li> </ul>
TOOL KIT ITEMS
Before leaving on your first trip, it is a good idea to put together your own tool kit that contains the following items:
<ul> <li>¾-inch lug wrench or ¾-inch socket (for lug nuts)</li> <li>Socket set with metric sockets (10, 13, and 17mm)</li> <li>Tire pressure gauge</li> <li>Phillips head screwdriver</li> <li>Small level</li> <li>Pliers</li> <li>Adjustable wrench (1-inch standard)</li> <li>Metric hex set (4, 5, and 6mm)</li> <li>Spare key to storage box</li> <li>Electrical tape</li> <li>Duct tape</li> <li>Repair kits for tent and mattress pads</li> </ul>

#### **HITCHING**

Ember RVs come equipped standard with a 2-inch diameter hitch ball mounted in a variable height coupler referred to as a VersaCoupler Hitching System. Figure 2 demonstrates how to change coupler height.







FIGURE 2: CHANGING VERSACOUPLER HEIGHT

Use of any other sized hitch ball will create an extremely dangerous condition that can result in separation of the coupler and ball, and/or hitch ball failure. Other than this crucial 2-inch diameter requirement, there are numerous trailer hitches and hitching components available to you for your trailer. Be sure to consult with your tow vehicle manufacturer for hitch and/or hitch assembly alternatives.

#### PRE-HITCH/COUPLING/TRIP CONSIDERATIONS AND INSPECTION

Be sure your hitch and tow vehicle are rated for the Gross Vehicle Weight Rating (GVWR) of your trailer. Remember that the hitch load rating must be equal to or greater than the coupler load (the hitch is attached to the towing vehicle, the coupler to the trailer). Be sure the hitch size matches the coupler size.

Examine all hitch components before hitching. Look for wear, corrosion, deformations, stripping, and cracks. Replace worn, corroded, or cracked hitch components before coupling the trailer to the tow vehicle. Be sure the hitch components are tight and that the ball-locking device works freely before coupling the trailer to the tow vehicle. Remember to also inspect the safety chains. Be sure to correct any noted problems or defects before towing the trailer.

Important Note: Be sure to raise all stabilization jacks and the tongue jack and close the RV fully before hitching (i.e., close all doors and windows and raise the step ladder).

Your trailer is equipped with a 7-pin connector which synchronizes the lights of your tow vehicle and trailer and can connect their respective braking systems.



THE PROPER SELECTION AND CONDITION OF THE COUPLER AND HITCH IS ESSENTIAL TO THE SAFE TOWING

OF YOUR TRAILER. A LOSS OF COUPLING MAY RESULT IN DEATH OR SERIOUS INJURY.



AN IMPROPERLY COUPLED TRAILER CAN RESULT IN DEATH OR SERIOUS INJURY.



USE OF A TOW VEHICLE WITH A TOWING CAPACITY LESS THAN THE LOAD RATING OF THE TRAILER CAN

RESULT IN LOSS OF CONTROL, AND MAY LEAD TO DEATH OR SERIOUS INJURY.

#### HITCHING STEPS AND INSTRUCTIONS

Hitching up your trailer will get easier with practice. The hitching steps described below are typical. However, we highly recommend that you also consult the hitching and unhitching instructions associated with your tow vehicle and hitching configuration.







FIGURE 3: HITCHING PROCESS

Raise the Flat Jack until the hitch coupler is raised enough to clear the tow vehicle.

- 1. Back the tow vehicle to the trailer until the hitch ball is directly under the trailer coupler. The use of a backing aid mirror may be helpful, especially if you are hitching alone.
- 2. Set the parking brake in the tow vehicle.
- 3. Be sure the coupler latch-locking lever is fully open and then lower the tongue jack until the ball is firmly seated in the socket.
- 4. Close the coupler latch and secure it with a locking pin or bolt.
- 5. Securely attach the safety chains in a crossing pattern to the tow vehicle and confirm that they are properly connected to the trailer. Do not fasten chains to any part of the hitch unless the hitch has holes or loops designed specifically for that purpose. Be sure the chains do not drag during towing.



IMPROPER RIGGING OF THE SAFETY CHAINS CAN RESULT IN THE LOSS OF CONTROL OF THE TRAILER

AND TOW VEHICLE, LEADING TO DEATH OR SERIOUS INJURY IF THE TRAILER UNCOUPLES FROM THE TOW VEHICLE.

- 6. Connect the breakaway switch. Attach and secure the breakaway switch cable to the tow vehicle bumper or frame independently of the safety chains. The following are guidelines for attaching the cable:
  - The cable should come straight out from the switch to attach to the tow vehicle.
  - The switch and cable should be located and secured on the same side of the trailer and tow vehicle.
  - Do not loop the cable over the hitch ball. The cable may bounce off while the vehicle is moving.
  - Before towing, you may test the breakaway assembly by pulling the pin out of the switch to confirm activation of the trailer electric brakes. See also the diagram/depiction in "Towing" section.



DO NOT CONNECT THE BREAKAWAY SWITCH LANYARD TO THE HITCH BALL OR ANY PART OF THE HITCH ASSEMBLY.

Note: Your breakaway switch will automatically engage the electric trailer brakes if the safety chains fail during uncoupling.

- 7. Connect the power cord between the tow vehicle and the trailer, leaving enough slack for the tow vehicle to turn without disconnecting the power cord.
- 8. Adjust side mirrors.
- 9. Check all lights on the trailer and tow vehicle, ensuring that they are communicating properly.
- 10. Confirm that the brakes are working properly prior to towing the trailer on a public road. You can, for example, check the operation of the trailer brakes by pulling forward and using the hand control.

You may, depending on your tow vehicle or intended usage of the trailer, want to consider the use of a weight distributing hitch and/or sway bars. These distribute the tongue weight of the trailer further away from the rear and can help in vehicle handling.

### Loading

The process of safely and properly loading your trailer should become easier with practice and experience. Please first get familiar with and understand the following terms related to your trailer's weight, carrying capacity, and rating:

#### GVWR (GROSS VEHICLE WEIGHT RATING)

The maximum permissible weight of the fully-loaded RV.

#### GAWR (GROSS AXLE WEIGHT RATING)

The allowable weight, including cargo, that can be safely supported by each axle.

#### **UVW (UNLOADED VEHICLE WEIGHT)**

The weight of the trailer as manufactured at the factory. It includes all weight at the trailer axle(s) and the tongue or pin. If applicable, it also includes full generator fluids including fuel, engine oil, and coolants.

#### CCC (CARGO CARRYING CAPACITY)

Equal to GVWR minus the following:

- UVW
- Full fresh (potable water-for drinking and cooking) water weight (including water heater)
- Full LP gas weight

#### **TONGUE WEIGHT**

The weight of the tongue as it bears down on the hitch of the towing vehicle. Tongue weight should be determined with the RV fully loaded as it would be for travel. DO NOT assume that you can fill all tanks and all storage areas and still be within the GVWR.

The weight of fully-filled propane containers is considered part of the weight of the RV before it is loaded with cargo and is not considered part of the disposable cargo load. Water, however, is a cargo weight and is treated as such. If there is a freshwater storage tank of 100 gallons, when filled this tank would weigh about 800 pounds. If needed, water can be offloaded to keep the total amount of cargo added to the vehicle within the limits of the GVWR. Understanding this flexibility allows you to make choices that fit your travel and camping needs.

#### **CARGO CAPACITIES**

Determining the weight of a vehicle includes more than understanding the load limits of the tires. A weight certification label, located on the forward half of the roadside of the unit, will indicate the gross axle weight (GAWR). This is the most weight that the fully-loaded vehicle can weigh. To weigh your unit yourself, search for local gravel pits, storage companies, or recycling facilities to find certified scales. Call in advance to determine if they offer public weighing service, their fees if any, and hours of operation.

NOTE: WHEN ESTABLISHING THE CARGO CAPACITY, WEIGH WITH ALL WATER TANKS AS EMPTY AS POSSIBLE. (DO NOT ALLOW ANYONE TO BE IN THE RECREATIONAL VEHICLE WHEN WEIGHING THE UNIT.)

NOTE: CARGO CAN BE ADDED TO THE VEHICLE UP TO THE MAXIMUM WEIGHT SPECIFIED ON THE WEIGHT LABEL. THE COMBINED WEIGHT OF THE RV AND ITS CARGO CAN NOT EXCEED THE STATED GVWR.

#### HOW TO WEIGH YOUR RV

- 1. Pull onto the scales until only the RV axles are on the scale. Record axle weight.
- 2. Unhook the RV on the scale to get a total weight of the RV.
- 3. To determine hitch weight, subtract the axle weight from the total weight.
- 4. Note: To calculate suspension weight ratings, it is necessary to subtract the hitch weight. This weight is being carried on the tow vehicle, not by the suspension of the RV.



IF THE TOTAL WEIGHT OF THE RV EXCEEDS THE GVWR, THE RV IS OVERLOADED. OPERATING YOUR RV WHILE

EXCEEDING THE SPECIFIED WEIGHT RATINGS INCREASES THE RISK OF A CRASH, PERSONAL INJURY, AND DEATH. IT IS NECESSARY TO REMOVE CARGO (EQUIPMENT, PERSONAL BELONGINGS, WATER, ETC.) UNTIL THE TOTAL WEIGHT OF THE RV NO LONGER EXCEEDS THE GVWR BEFORE OPERATING THE RV.

IF THE WEIGHT ON THE RV AXLES EXCEEDS THE GAWR, THE AXLES ARE OVERLOADED. OPERATING YOUR RV WHILE EXCEEDING THE SPECIFIED WEIGHT RATINGS INCREASES THE RISK OF A CRASH, PERSONAL INJURY, AND DEATH. IT IS NECESSARY TO REMOVE OR REARRANGE CARGO (EQUIPMENT, PERSONAL BELONGINGS, WATER, ETC.) UNTIL THE AXLE WEIGHT NO LONGER EXCEEDS THE GAWR BEFORE OPERATING THE RV.

NOT OPERATING YOUR RV WITHIN THE DESIGNED WEIGHT RATINGS CAN CAUSE DAMAGE TO YOUR RECREATIONAL VEHICLE WHICH IS NOT COVERED UNDER ANY OF EMBER'S WARRANTIES.

### Towing

#### **GUIDELINES**

We want your towing experiences and practices to be safe and enjoyable. Please take your time, avoid being in a rush, and give special attention to all safety matters prior to and during the towing of your trailer.

We recommend that you practice towing your Ember RV in an empty parking lot before going on your first camping trip. This initial trial is fun, great practice, and will help you get accustomed to and familiar with your Ember RV's systems and operation. Please also make note of any questions, issues, or problems that arise during your pre-travel towing practice, and then inquire with your dealer. You can also visit our website (www.emberrv.com) for current contact information. Please also refer to the "Overview of Safety Precautions" and "Pre-Travel Checklist" sections before towing your trailer.

#### SAFETY CHAINS

We have equipped your trailer with safety chains; make use of them. Safety chains serve to maintain the connection between your trailer and the tow vehicle in the event of separation of the ball and trailer coupling. Be sure to hook the safety chains to the frame of the tow vehicle (not the hitch), crossing them under the trailer's tongue. Also, remember to inspect the length of the chains once they are attached to the tow vehicle frame. A proper chain length will allow turns and prevent the chains from dragging on the road.

#### **BREAKAWAY SWITCH**

Your trailer is equipped with a breakaway switch. For every Ember RV, the breakaway switch is wired to the Ember RV's internal battery. Breakaway switches are designed to activate the electric brakes in the event your trailer disconnects/uncouples from the tow vehicle. Your trailer battery powers this braking. Ideally, the safety chains will prevent your trailer from disconnecting if the coupler comes off the hitch ball. However, if the safety chains fail, the breakaway pulls the pin out of the switch which fires the brakes and serves as a last line of defense against a runaway trailer. The breakaway switch cable needs to be secured to the tow vehicle bumper or frame independently of the trailer safety chains. The following are guidelines for attaching the cable:

The cable should come straight out from the switch to attach to the tow vehicle.

- The switch and cable should be located and secured on the same side of the trailer and tow vehicle. Do not loop the cable over the hitch ball; the cable may bounce off while the vehicle is moving.
- 2. Before towing you may test the breakaway assembly by pulling the pin out of the switch to confirm activation of the trailer electric brakes.

#### TIRE PRESSURE

You are responsible for maintaining proper tire pressure in the tires of your trailer and tow vehicle. Always check your tire pressure and refer to the "Tires" discussion herein before traveling.

#### **BRAKES**

You are responsible for inspecting and maintaining both your trailer and tow vehicle brakes before towing. Do not tow your trailer unless you have confirmed your brakes are in good condition and operating properly. Be sure to have a qualified technician perform all brake adjustments, service, and maintenance. Please also refer to the "Brakes" discussion herein before traveling.

#### LIGHTS

Be sure to check all electrical connections to ensure all lights on the tow vehicle and trailer are functioning properly before traveling. The brake lights and hazard and turn signals should be in synchronization with the tow vehicle.

Stay level—the trailer and tow vehicle must be level when hitched. Dragging may occur if the hitch is too low. Conversely, if the hitch is too high, the rear of the trailer is exposed to striking higher points in the road.

#### **GENERAL TOWING AND DRIVING**

Drive defensively, anticipating stops, braking early, and never following closely. We recommend maintaining a length of at least three cars and a trailer (approximately 65 ft.) between you and the car in front of you for every 10 mph of speed you are traveling (for example, at 60 mph, you should maintain approximately 390 ft of distance between your vehicle and the vehicle in front of you). This should give you adequate time to safely complete a proper avoidance maneuver (i.e. come to a safe stop, change lanes, etc.) in the event of, for example, an abrupt stop or emergency.

Longer stopping distances are required when towing a trailer, so remember to start braking sooner than you would if driving without your trailer. Begin slowing down well in advance of anticipated street/road dips and depressions.

It also takes longer to accelerate when towing a trailer. Thus, remember to account for both the slower acceleration rate and the combined length of your tow vehicle and trailer when passing another vehicle and then safely returning to your lane. In summary, always pass, allow others to pass, and change lanes with care. We do not recommend using cruise control or overdrive when towing/travelling.

#### SWAY AND FISHTAILING

Excessive sway or fishtailing of your trailer can lead to the rollover of the trailer and tow vehicle, and thus, serious injury or death. The tendency for the vehicle to sway increases with speed. Thus, reduce speed as needed and in inclement or harsh weather conditions (i.e., high winds, rainstorms, slippery roads, etc.). The following are a few tips for reducing sway or fishtailing when they occur and are not exhaustive: (1) slow down gradually—do not jam/slam on the brakes or press on the accelerator, both of which may make the situation worse and result in severe injury or death. Instead, remove your foot from the accelerator and reduce your speed gradually whenever possible; (2) minimize and avoid quick steering movements. Quick steering movements will cause increased sway and loss of control.

Keep both hands on the wheel and hold the wheel as straight as possible until stability is regained; and as soon as practicable after regaining control—pull over and check tire pressures and cargo weight distribution and inspect the trailer and tow vehicle for any signs of failure or defect. If you suspect a mechanical failure, we recommend that you not tow until the problem is identified and remedied. If you choose to travel, do so at reduced speeds and with heightened caution until the problem can be identified and remedied.



SIDE TO SIDE MOTION (SWAY) THAT BEGINS AS YOU REACH A CERTAIN SPEED WILL LIKELY BECOME

WHIPPING AT HIGHER SPEEDS. AS SOON AS YOU NOTICE SWAY, SLOW YOUR VEHICLE BY LETTING OFF THE GAS PEDAL. THEN STOP TO CHECK THE TRAILER AND TOW VEHICLE AS SOON AS IT IS SAFE TO DO SO.

#### WINDING NARROW ROADS

Stay in the center of the lane. This reduces the likelihood of the tires/wheels dropping onto the shoulder, another potential cause of hazardous sway. Do not cross the centerline unless safely changing lanes.



IF A WHEEL GOES OFF THE PAVED ROADWAY DO NOT STEER SHARPLY AND DO NOT BRAKE. LET OFF THE

GAS PEDAL AND SLOW DOWN BELOW 25 MPH AND THEN STEER GRADUALLY BACK ONTO THE ROADWAY. PROCEED WITH CAUTION ENTERING TRAFFIC.

#### SHARP TURNS

Minimize the suddenness of sharp turns by anticipating them, slowing down well in advance of them, and taking them at low, substantially reduced speeds.

#### STEEP AND LONG GRADES

Like sharp turns, be sure to anticipate steep grades. Down-shift into a lower gear or range in advance to assist your braking on a descent and to add power on a climb.

Note: Avoid situations that require excessive and prolonged use of the brakes. If unavoidable, apply and release brakes at short intervals to give them a chance to cool. Downshift your tow vehicle to reduce braking needs on long downgrades of highway.

#### SLIPPERY AND ICY PAVEMENT

Reduce speed and drive slowly. Remember that skidding/hydroplaning can occur with minimal moisture on the road. If skidding occurs, remove your foot from the accelerator and then gently apply the trailer brakes only.

#### FREEWAYS AND HIGHWAYS

Try to pick and stay in the far-right hand slow(er) lane.

#### **CORNER TURNS**

Trailer wheels do not follow the path of your tow vehicle's wheels during corner turns. The trailer will make a closer, tighter turn than the tow vehicle. Compensate by moving further into the intersection before turning so that the trailer clears any objects in or near the road, such as but not limited to the curb and parked vehicles. Left turns require a wider than normal turn to help prevent the trailer from edging into an opposing lane. Use your turn signals early for the traffic behind you, and begin slowing down well in advance of your turn.

#### MUD AND SAND

When going through mud or sand, accelerate gently, if at all, and try to remain in the path of the previous vehicles. Let the momentum of the tow vehicle and trailer carry you through the problem area. If stuck, the trailer and tow vehicle should be towed out while hitched. On dirt, gravel, or washboard roads, go slow and use caution. Your trailer will move and vibrate more than the tow vehicle. A good rule of thumb is 25 mph or less, and less than 25 mph on severely rutted roads.

#### **PARKING**

Whenever possible, avoid parking on a grade. If unavoidable, turn the front wheels of your tow vehicle into the curb and set the parking brake for the tow vehicle. For added safety, engage the wheel brake on the trailer wheels.

#### ADDITIONAL TOWING AND SAFETY INFORMATION

Find more information on the National Highway Traffic Safety Administration's website: http://www.nhtsa.dot.gov/Cars/problems/Equipment/towing/Towing.pdf

### Tires

#### **GENERAL INFORMATION**

Your Ember RV uses LT225/75R16 load rating E tires.

Properly maintained tires improve the steering, stopping, traction, and load-carrying capability of your vehicle. Underinflated tires and overloaded vehicles are a major cause of tire failure. Maintaining proper tire pressure, tire, and vehicle load limits, avoiding road hazards, and regularly inspecting tires for cuts, slashes, and other irregularities are important steps in avoiding tire failure such as tread separation, blowout, and flat tires. These steps, along with other care and maintenance activities, may improve vehicle handling, help protect you and others from avoidable breakdowns and accidents, improve fuel economy, and increase the life of your tires. You are responsible for making tire safety a regular part of your tow vehicle and habitat maintenance routine. Remember that the time you spend on tire safety is minimal compared with the inconvenience and safety consequences of tire failure.

#### TIRE FUNDAMENTALS

Federal law requires tire manufacturers to place standardized information on the sidewall of all tires. This information identifies and describes the fundamental characteristics of the tire and provides a tire identification number for safety standard certification and recall matters.

#### SIDEWALL MARKINGS AND IMPORTANT TERMS

Your tires are marked with a designation of "LT." The "LT" indicates Light Truck Service and are designed to be used on vehicles that can carry heavy cargo.

Maximum load rating is the maximum load in kilograms and pounds that each tire can carry.

Maximum permissible inflation pressure is the greatest amount of air pressure that should be put in the tire under normal driving conditions.

Maximum load single kg (lbs) at kPa (psi) cold indicates the maximum load and tire pressure when the tire is used as a single in unactive state.

Load range identifies the tire's load-carrying capabilities and its inflation limits.

#### TIRE TREAD

The tire tread provides the gripping action and traction that helps prevent your vehicle from slipping or sliding, especially when the road is wet or icy. Generally, tires are not safe and should be replaced when the tread is worn down to 1/16 of an inch, or if a US penny shows a space above Abraham Lincoln's head when inserted in the tread.

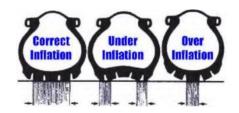
#### PRESSURE AND LOAD LIMITS

Tire inflation pressure is the level of air in the tire that provides it with load-carrying capacity and affects the overall performance of the vehicle. Because tires naturally lose air over time, or when driven over trails or objects such as potholes or curbs, it is important to check tire pressure monthly and before every trip.

The tire inflation pressure number indicates the amount of air pressure – measured in pounds per square inch (psi) – a tire requires to be properly inflated. Vehicle manufacturers determine this number based on the vehicle's design load limit, that is, the greatest amount of weight a vehicle can safely carry and the vehicle's tire size. Excessive loads may lead to abnormal tire flex, tire overheating, and ultimately, tire failure. As travel trailers may be set up and loaded in varying ways, proper air pressure should be determined by referencing the information on your tire. Please also refer to the Tire and Loading Information sticker located on the inside of the entry door of your trailer.

#### CHECKING TIRE PRESSURE

The proper tire pressure for your vehicle is referred to as the "recommended cold inflation pressure." Proper pressure depends on many conditions – terrain, temperatures, altitude, etc. A "cold" tire in this sense is



one that has not been driven on for at least three hours. When you drive, your tires get warmer, causing the air pressure within them to increase. Therefore, to get an accurate tire pressure reading, you must measure tire pressure when the tires are cold or account for the extra pressure in warm tires.

Improper tire pressure can quickly lead to excessive wear and dangerous situations.

Because tires are designed to be used on more than one type of vehicle, tire manufacturers list the 'maximum permissible inflation pressure' on the sidewall. The number is the greatest amount of air pressure that should ever be put in the tire under normal driving conditions.

#### WHEEL NUT TORQUE

Proper wheel nut torque is essential to safe towing. The tires used on your Ember RV are rated for Light Truck Duty. However, their usage is much different than a truck. These are not used to steer and are subjected to high side load stress when making tight turns around corners. This tends to flex the wheel and loosen the wheel nuts. Wheel nut torque requirements vary depending on the size and manufacturer of the wheel.

#### TORQUE ADJUSTMENTS

#### Setting Torque Value on a Dial Indicator Wrench

Make sure your indicator needle is set to "0." As you apply clockwise pressure to the wheel nut, both needles will show the current amount of torque being applied. When you reach your desired torque value, stop applying pressure and your indicator needle will stay at the highest torque value reached.

#### Setting Torque Value of Adjustable Dial Wrench

Unlock the handle and set the dial to your desired torque value. Lock the handle back in place. As you apply clockwise pressure to the lug nut, you will hear an audible "click" when the desired torque wrench value is reached. Do not apply further pressure once you hear the "click."

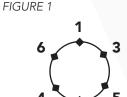
#### Pre-trip Torquing Procedure

Torque the wheel nuts to 115 +/- 5 ft-lbs. Follow the torque sequence shown in Figure 1.

Stage 1: Set your torque wrench to the 1st stage value on the Wheel Nut Torque Table. Begin with the appropriate bolt and apply torque to all wheel nuts following the star pattern as shown in Figure 1.

Stage 2: Increase your torque wrench setting to the 2nd stage value on the Wheel Nut Torque Table. Begin with the appropriate bolt for your wheel and apply torque to all wheel nuts following the star pattern. Following stage 2, the wheel can support the weight of the habitat and may be lowered off the jack stands.

Stage 3: Increase your torque wrench setting to the 3rd stage value on the Wheel Nut Torque Table. Begin with the appropriate bolt for your wheel and apply torque to all wheel nuts following the star pattern. If the wheel was replaced, check the torque again at every 50 miles for the first 500 miles and prior to each trip thereafter.



#### WHEEL NUT TORQUE TABLE

1st Stage	60-65 ft lbs.
2nd Stage	100-105 ft lbs.
3rd Stage	115-120 ft lbs.

#### TIRE SAFETY CHECKLIST

- Check tire pressure regularly (at least once a month and before any extended trip/travelling), including spare tires, if any. Note: When checking air pressure, be sure that all tires have both the correct and identical pressure before getting on the road.
- 2. Check and torque wheel lug nuts regularly.
- 3. Inspect tires for cuts, slashes, punctures, and other irregularities at least monthly and before every extended trip/travelling.
- 4. Remove any foreign objects (i.e. pieces of glass or metal, etc.) wedged in the tread.
- 5. Confirm all tire valves have valve caps.
- 6. Do not overload your tow vehicle or habitat.
- 7. Slow down when having to go over a pothole or other object in the road and avoid running over curbs or other foreign objects in the road and when parking if you can safely do so.
- 8. Replace tires when tread depth approaches and/or reaches 1/16 of an inch.
- 9. Have a qualified technician perform tire service, maintenance, and adjustments as needed.

#### TRAVEL TRAILER SET UP AT DESTINATION

#### SITE REQUIREMENTS AND SELECTION

#### Leveling

Once you have arrived and parked in your campsite, before removing your RV from your tow vehicle, it needs to be on as level ground as possible to assure proper operation of certain features. Using wood to make leveling boards to take along with you is a good idea.

- 1. Choose a site that is as level as possible. Avoid soft ground and make sure the site will support the weight of the jacks and/or other support devices.
- Before unhitching the RV from your tow vehicle, level the unit from side to side with the appropriate length of wood, being sure to use wheel chocks or wood blocks in front of the wheels to prevent the trailer from rolling.
- 3. Once the RV is level side to side, you may unhitch and then level it front to back.
- 4. Once the RV is level side to side and front to back, you can engage the wheel brake and/or put wheel chocks in place so the RV can't move.

- 5. If equipped, lower the stabilizing jacks until they firmly engage. Be sure all jacks have about the same pressure on them as to not put the RV in a twist. Doing so can cause slide-outs doors, etc. to not operate properly. Do NOT attempt to lift the RV with the stabilizer jacks. They are not designed to bear weight, only help stabilize the unit.
- 6. Before resuming travel, be sure the stabilizer jacks are fully retracted.

#### Stabilizing Jacks

The function of the stabilizer jacks is to stabilize the RV while it is parked for camping. Do not attempt to lift the RV with the stabilizer jacks. These are only meant to help stabilize the RV, not bear weight. Please refer to the manufacturer instructions supplied with the RV for care and operation.

#### Hook Ups

After you have safely leveled and stabilized your RV, you may continue with set-up. If you plan to use campsite hook ups, read through the following:

- Connect the shore-line cord to an external 120V 30 to 50-amp (depending on needs) outlet.
- 2. Open the step.
- 3. Inside, set the thermostat to the desired temperature.
- 4. Open a roof vent and turn on the fan to create an air exchange.
- 5. Turn on the refrigerator.
- 6. Turn on the LP.
- 7. Connect the water hose, sewer hose, and park cable (if applicable).
- 8. Open slide-outs.
- 9. Set up any remaining features as needed.

## External Equipment and Systems

#### **EUROPEAN WINDOWS**

Your Ember RV comes with European-style, dual-pane acrylic windows. These windows are different from the windows normally found in recreational vehicles made in North America. Be sure and seal the European windows correctly to avoid leaking when closing the windows. The lever should rotate fully inside of the coach to the outside of the catch and not rest inside the middle of the catch. Please read fully the manufacturer's information on their use and care.

#### **OPTIONAL OBSERVATION SYSTEM**

Your Ember RV may come equipped with an observation camera system. Please see the user manual for use and care.

#### INDEPENDENT SUSPENSION

Overview: One of the key features of your Ember RV is the Curt Brand Independent Suspension. This suspension is designed to handle the unique stress, strain, and vibration that comes with rough terrain. Please review the user guide from Curt on the unique features of this suspension system.

#### **GEAR BOX**

One of the unique features of your Ember RV is the aluminum/steel LP gas and battery compartment mounted on the A-Frame. This compartment is separated by a bulkhead into two areas. The driver-side section can store up to four non-vented lithium-ion batteries. Please see the manufacturer's information for the proper storage, usage, and care for lithium-ion batteries.



ALWAYS ENSURE THAT BATTERIES AND LP GAS CONTAINERS ARE PROPERLY SECURED BEFORE

TRAVEL. LEAVING EQUIPMENT LOOSE OR NOT PROPERLY FASTENED MAY RESULT IN SIGNIFICANT DAMAGE TO PLUMBING, HARDWARE, BATTERIES, OR WIRING, AND MAY RESULT IN A FIRE OR EXPLOSION.



DO NOT USE THE GEAR BOX TO STORE ANYTHING OTHER THAN BATTERIES OR LP GAS. EQUIPMENT THAT

BECOMES LOOSE DURING TRAVEL MAY DAMAGE THE BATTERIES OR LOOSEN OR SHORT THE ELECTRICAL WIRING. ANY DAMAGE TO BATTERIES OR WIRING HAS THE POTENTIAL TO RESULT IN BOTH A SHOCK HAZARD AND A SERIOUS FIRE IN THE FRONT OF THE COACH.

The passenger side area can store two 20lb LP gas containers. Please see the "Propane" section of this manual for additional details.

#### **OUTDOOR KITCHEN**

#### **GRIDDLE**

Your Ember RV may come equipped with a griddle in the outdoor kitchen. Please refer to the manufacturer's instructions supplied in the Owner's Packet for care and operation.



WHEN USING THE OUTDOOR COOKING AREA:

- THE VEHICLE MUST BE LEVEL AND STABILIZED
- ENSURE THE AWNING IS IN THE TRAVEL POSITION
- DO NOT VIOLATE MANUFACTURER INSTRUCTIONS ON REQUIRED CLEARANCES FOR COOKING APPLIANCES DURING USE
- DO NOT STORE COOKING APPLIANCES UNTIL COOL TO THE TOUCH

THESE SITUATIONS CAN LEAD TO A FIRE AND EXPLOSION AND RESULT IN DEATH OR SERIOUS INJURY.

#### **COOLER**

Your Ember RV may come equipped with a 12V cooler in the outdoor kitchen. Please refer to the manufacturer's instructions supplied in the Owner's Packet for care and operation.

#### REFRIGERATOR

Your Ember RV may come equipped with a refrigerator in the outdoor kitchen. Please refer to the manufacturer's instructions supplied in the Owner's Packet for care and operation.

#### **TELEVISION**

Your Ember RV may come equipped with a television in the outdoor kitchen. Please refer to the manufacturer's instructions supplied in the Owner's Packet for care and operation.

## Internal Equipment and Systems

#### **APPLIANCES**

In this section of the manual, we defer to the component manufacturer's manuals, which have been supplied with your Ember RV, for detailed operating instructions. Ember is only able to provide a summary operational description and recommends you review each of the component manuals before use of the component. Each appliance in your RV is warranted by its manufacturer and it is very important that you review all the information provided in the Owner's Packet.

#### **SAFETY**

Always follow the manufacturers' instructions on the use of all appliances and observe all safety warnings and instructions included.

Before camping, all campers should review and understand the locations of all safety equipment inside the unit and all emergency exit windows as well as doors. An escape plan for emergencies, whether at home or camping, is always a good idea.



WE RECOMMEND THAT THE DIAGNOSIS AND REPAIR OR REPLACEMENT OF YOUR RV'S APPLIANCES BE

PERFORMED BY A DEALER OR PROPERLY CERTIFIED RV TECHNICIAN. IMPROPERLY DIAGNOSED, REPAIRED, OR REPLACED APPLIANCES AND/OR THEIR PARTS COULD LEAD TO AN INCREASED RISK OF DEATH OR SERIOUS INJURY.

#### PROPANE APPLIANCE MAINTENANCE

Be sure to follow the instructions and warnings below along with those noted in the appliance and equipment owner's manual.

- Annual maintenance should be conducted on the propane appliances and equipment by an authorized dealer or repair facility.
- Insects can build nests in the burners of the various appliances and equipment.
  The burner and burner orifice of the propane appliances and equipment should
  be cleaned out by an authorized dealer or repair facility any time circumstances
  or conditions warrant, but no less frequently than annually.

#### **OPERATING APPLIANCES AT HIGH ALTITUDE**

All gas appliances experience lowered efficiency (or rating) at high altitude. This is a direct result of lower atmospheric pressure and oxygen levels and is not a defect of appliance. See component manual for each appliance.

#### AIR CONDITIONER

For an RV equipped with an air conditioner, either roof-mounted or sidewall-mounted, they operate on 120V AC power. Different sizes and variations are available depending on the RV. An air conditioner takes a sizable amount of power to operate. It may be necessary to reduce other loads when using air conditioning to reduce the chance of overload and possibly tripping the main breaker. In climates that experience high temperatures, a second air conditioner may be necessary to maintain a comfortable indoor temperature. Adding a second air conditioner requires 50-amp service. Please refer to the air conditioner manufacturer's instructions supplied in the Owner's Packet for care, operation, and warranty information.

In the optimal situation, the roof-mounted air conditioner will cool the air it receives by 20 degrees Fahrenheit. To maintain a desired inside temperature of the RV, reducing the heat gain of the RV is critical as the capability of the air conditioner is directly affected by the heat gain of the RV. If extremely high outdoor temperatures are a factor, heat gain of the RV may be reduced by:

- Parking in a shaded area.
- Keeping the blinds shut.
- Operating on high fan/cooling mode.
- Using shade to block direct sunlight.
- Avoiding use of heat-producing appliances.
- Providing a boost by turning the air conditioner on early in the morning.

Note: Never run the air conditioner without a filter. This could affect performance by plugging the RV evaporator substantially.

#### TRUMA COMBI ECO PLUS

Please refer to the manufacturer's instructions for the TRUMA Combi Eco Plus water heater/furnace combo.

### THERMOSTAT - WALL-MOUNTED

If equipped with a wall-mounted thermostat, please refer to the manufacturer's instructions supplied in the Owner's Packet for care and operation.

#### THERMOSTAT - REMOTE CONTROL

Please refer to the manufacturer's instructions for a remote-controlled thermostat supplied in the Owner's Packet for care and operation.

#### **DUAL-ZONE THERMOSTAT**

If equipped with dual zones, the main air conditioner and furnace are typically programmed in Zone 1 and the second air conditioner to Zone 2. Please refer to the manufacturer's instructions supplied in the Owner's Packet for care and operation.

### **TELEVISION**

Please refer to the television manufacturer's instructions which were supplied with the RV in the Owner's Packet for care and operation.

# TV SIGNAL BOOSTER

For good station reception, the TV signal booster must be turned ON to view local television stations. Turning the TV signal booster ON sends 12V DC through the cable to the TV roof antenna. The voltage energizes the transistors in the antenna head amplifier.

Turn the TV signal booster OFF to view cable or satellite television or to use a DVD.

### ANTENNA (TV)

Your Ember RV may be equipped with an antenna and can only be used when the RV is parked. Please refer to the manufacturer's instructions which were supplied with the RV in the Owner's Packet for care and operation.

#### CABLE HOOK-UP

Cable hook-ups are in Ember's Nautilus system. Please refer to the manufacturer's instructions which were supplied with the RV in the Owner's Packet for care and operation.

#### **SATELLITE**

Satellite hook-ups are in Ember's Nautilus system. Please refer to the manufacturer's instructions which were supplied with the RV in the Owner's Packet for care and operation.

#### **AWNING**

Ember RVs use several styles and sizes of awnings. Some are manual, and some are electric. Primarily they are designed to protect from the sun and rain. During any rain, it is necessary to tilt one end of the awning for proper water run off or store the awning away completely. Typically, the end of the awning farthest away from the entry door is tilted so the door won't hit and damage the awning fabric when it is opened and closed. Please refer to the manufacturer's instructions supplied with the RV in the Owner's Packet for care and operation.

# AWNING, ELECTRIC

If equipped with an electric awning, this awning can be extended and retracted electrically. This awning may or may not have tilt functionality. If it does not have tilt functionality, it must be stored during any rain. For awnings with tilt functionality, it is necessary to tilt one end of the awning during any rain for proper run off or store it away completely. Please refer to the awning manufacturer's instructions supplied with the RV in the Owner's Packet for care and operation.

NOTE: Awning damage from wind or rain is not covered under the Limited Warranty.

#### REAR OBSERVATION MONITORING SYSTEM

If equipped, the rear observation monitoring system will allow you to see behind your RV. Please refer to the manufacturer's instructions supplied with the RV in the Owner's Packet for care and operation.

#### EMBERLINK™ SMART SYSTEM

The EmberLink system is a smart system control for your RV. Using a display commander and a body control module, you can sync with a mobile application on any smart device to monitor and operate many features of the RV. Please refer to the manufacturer's instructions supplied with the RV in the Owner's Packet for care and operation.



DO NOT OPERATE ANY MOVING PARTS (INCLUDING, BUT NOT LIMITED TO, AWNINGS, JACKS, AND SLIDES),

UNLESS YOU HAVE A CLEAR LINE OF SIGHT TO THE MOVING PART. THE MOBILE APPLICATION, DISPLAY COMMANDER, OR BODY CONTROL MODULE MAY BE USED ONLY IF YOU ARE GIVING INSTRUCTIONS TO AND RECEIVING INSTRUCTIONS FROM ANOTHER PERSON AT LEAST 18 YEARS OR OLDER WHO CAN CLEARLY SEE THE MOVING PART. FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN SERIOUS PERSONAL INJURY OR PROPERTY DAMAGE.

#### MICROWAVE/CONVECTION OVEN

If equipped, microwaves operate on 120V power. Please refer to the manufacturer's instructions supplied with the RV in the Owner's Packet for care and operation.

### General Use:

- Do not attempt to defeat or tamper with safety interlocks.
- Do not allow residue to build up on sealed surfaces.
- Do not operate if door seals are damaged, if door is bent, or if door hinges are loose or broken.
- Do not operate when empty.
- Do not use anything other than microwave- or oven-safe materials.

# COOK TOP (RANGE)/OVEN

If equipped, the cook top and/or oven can be used for general cooking and baking. It requires propane gas to operate. Some models require a pilot to be lit while others light electronically using 12V. Please refer to the manufacturer's instructions supplied with the RV in the Owner's Packet for care and operation.



DO NOT USE COOKING APPLIANCES FOR COMFORT HEATING. IT CAN LEAD TO CARBON MONOXIDE

POISONING WHICH CAN LEAD TO DEATH OR SERIOUS INJURY.

GAS COOKING APPLIANCES NEED FRESH AIR FOR SAFE OPERATION.

#### **BEFORE OPERATING:**

OPEN VENTS OR WINDOWS SLIGHTLY OR TURN ON AN EXHAUST FAN PRIOR TO USING A COOKING APPLIANCE. GAS FLAMES CONSUME OXYGEN WHICH SHOULD BE REPLACED TO ENSURE PROPER COMBUSTION. IMPROPER USE CAN RESULT IN DEATH OR SERIOUS INJURY.



NEVER LEAVE ITEMS UNATTENDED ON THE COOKTOP. THE HOT AIR FROM THE VENT MAY IGNITE

FLAMMABLE ITEMS AND MAY INCREASE PRESSURE IN CLOSED CONTAINERS
WHICH MAY CAUSE THEM TO BURST. KEEP THE AREA AROUND THE APPLIANCE
CLEAR AND FREE FROM COMBUSTIBLE MATERIALS, GASOLINE, AND OTHER
FLAMMABLE VAPORS AND MATERIALS.

#### **RANGE HOOD**

Range hoods operate on 12V power and should be used to ventilate the RV while cooking. Fan and/or light switches for operation can be found on the front panel of the range hood. Please refer to the manufacturer's instructions supplied with the RV in the Owner's Packet for care and operation.



WHEN USING OUTDOOR COOKING, THE VEHICLE MUST BE LEVEL AND STABILIZED. DO NOT VIOLATE

THE MANUFACTURER'S INSTRUCTIONS ON REQUIRED CLEARANCES FOR COOKING APPLIANCES DURING USE. DO NOT STORE COOKING APPLIANCES UNTIL COOL TO THE TOUCH. IMPROPER USE CAN LEAD TO A FIRE AND EXPLOSION AND RESULT IN DEATH OR SERIOUS INJURY.



DO NOT LEAVE THE COOKTOP UNATTENDED WHILE IN USE. IF WINDY CONDITIONS CAUSE THE FLAME

TO INVERT TO THE COOKTOP, STOP USING IMMEDIATELY. CONTINUED USE WILL RESULT IN HEAT BUILD UP IN THE COOKTOP CAUSING DAMAGE TO THE COOKTOP AND INCREASED RISK OF FIRE.

FOLLOW ALL WARNING LABELS ON THE COOKTOP AND IN THE MANUFACTURER'S INSTRUCTIONS SUPPLIED WITH THE RV.

### REFRIGERATOR

Depending on the type, refrigerators can operate on 120V, 12V, or LP gas (requires 12V to light). The RV must be level to operate properly. The refrigerator will operate most efficiently when:

- The RV is level.
- It is allowed four hours to cool prior to putting any items in it.
- The items are already cold or frozen before putting them in the refrigerator.

Please refer to the manufacturer's instructions supplied with the RV in the Owner's Packet for care and operation.



ALL PILOT LIGHTS, APPLIANCES, AND THEIR
IGNITORS (SEE OPERATING INSTRUCTIONS) SHALL

BE TURNED OFF BEFORE THE REFUELING OF ANY FUEL TANKS AND/OR PROPANE CONTAINERS. FAILURE TO COMPLY COULD RESULT IN DEATH OR SERIOUS INJURY.

#### **ROOF VENTS (POWER AND MANUAL)**

The RV may have a powered ceiling vent fan, which runs on 12V power. This equipment is an excellent tool to keep the RV ventilated and help manage indoor air quality. Please refer to the manufacturer's instructions supplied with the RV in the Owner's Packet for care and operation.

# **SOLAR PREP**

If equipped, a solar prep quick connect will be mounted on the exterior sidewall or roof. An aftermarket solar panel kit can be purchased to utilize this feature. Please refer to the manufacturer's instructions supplied with the RV in the Owner's Packet for care and operation.

#### **SOLAR READY**

A solar panel kit may be provided with your RV. Please refer to the manufacturer's instructions supplied with the RV in the Owner's Packet for care and operation.

### **ELEVATED BEDS**



EACH VEHICLE WITH ELEVATED BEDS HAS A WARNING LABEL LISTING THE MAXIMUM LOAD CAPACITY.

FAILURE TO COMPLY WITH THE LOAD CAPACTIY COULD CAUSE BED FAILURE WHICH MAY RESULT IN INJURY. ELEVATED BEDS MAY PRESENT A FALL HAZARD WHICH MAY RESULT IN INJURY. PLEASE FOLLOW THE GUIDELINES BELOW REGARDING ELEVATED BEDS AND THE USE OF BED RAILS.

#### STANDARD ELEVATED BEDS

Various Ember RVs feature standard built-in elevated beds or bed loft areas. These beds are typically enclosed on one, two, or three sides and sometimes even partially on a fourth side and can be anywhere from four to five feet above the floor. With many different elevated bed designs and potential uses for these elevated beds, bed rails may not come with the RV.

#### USE OF BED RAILS

Ember feels that the owner of the RV is best equipped to determine if a bed rail system is necessary based on the intended use, actual users, and comfort level of the actual users of the elevated bed.

For those who would prefer using bed rails with the elevated bed, there are numerous bed rail styles, sizes, heights, and designs available, which can be purchased at various retail locations or on the Internet. For these bed rails, please be sure to follow the manufacturer's installation instructions carefully and fully. Remember to consider the height of the mattress or bunk mat, so the height of the rails is appropriate as RV mattress and bunk mat sizes often differ in size from residential mattresses. Please also allow for adequate space to easily get in and out of the elevated bed after installation of the bed rail, especially in the case of an emergency.

#### TIPS FOR SAFE ELEVATED BED USAGE

• Use your best judgement when allowing children to sleep in any elevated bed. Generally, it is not suitable for children under the age of six to sleep in an elevated bed area.

- Discuss proper usage of elevated bed with those using it, especially children, and make sure they are supervised in playing in the elevated bed. You should never allow horseplay on or under the elevated bed and no items such as hooks, belts, jump ropes, etc. should hang from any part of the elevated bed.
- Make sure to follow the weight restrictions for the elevated bed.

# **MURPHY BEDS**

Safe and responsible operation of the Murphy bed, if your RV is so equipped, is important. Please be aware that a crush hazard exists. Do not allow anyone under the Murphy bed when lowering the bed. Likewise, do not allow anyone on the bed when it is being put into its stowed position. Beware of pinch points that exist between the bed and sofa when lowering the bed and between the storage compartment when raising (stowing) the bed. Use caution when moving the bed from one position to another. If in stowed position during travel, make sure the latch is connected correctly and in its locked position.



UNDER NO CIRCUMSTANCES SHOULD AN ADULT, CHILD, OR PET BE ON THE BED WHEN RAISING IT TO

ITS UPRIGHT, STOWED POSITION. IN THE EVENT THAT A PERSON COULD BECOME TRAPPED, SERIOUS PERSONAL INJURY OR DEATH COULD RESULT.

BE SURE TO NOT EXCEED THE MAXIMUM CAPACITY FOR THE MURPHY BED.

#### MURPHY BED SETUP AND STORAGE

- 1. Before lowering the Murphy bed, be sure that the sofa is folded down correctly and that no person is below the bed.
- 2. Use one hand to brace the bed as the other hand locks the bed from the latch installed in the center of the bed. Make sure to have a steady grip on the bed at this point.
- 3. Lower the bed slowly and beware of pinch points.
- 4. The bed is ready for use.
- 5. When the bed needs to be stored, ensure no person or pet is on the bed.
- 6. Lift the bed into its upright position, watching for pinch points.
- 7. Secure the bed in place with the installed latch at the center of the bed.
- 8. Put the sofa back into its sitting position.

# Electrical System

Your Ember RV is powered by both a 12V DC and 120V 60 Hz AC electrical system rated at 30 amps. These systems are connected via an AC to DC converter. All installations have been made in compliance with industry standards applicable on the date of manufacture. Because the electrical equipment and associated circuitry are engineered into a dedicated system specific to your RV, we recommend you do not make unauthorized changes or add fixed appliances to it. Changes or additions made after delivery may result in a hazardous condition.

Service and/or modification of the electrical system should only be performed by qualified electrical technicians using approved materials, components, and methods meeting current safety and code requirements. Please consult your dealer's service department for assistance. To read more about the various components incorporated into the RV electrical system, please refer to the information contained in your Owner's Packet.

# **ELECTRICAL SYSTEM MAINTENANCE**

Always disconnect the shore power cord and disconnect the negative 12V DC battery terminal before working on the electrical system. Always make sure the power converter, is turned "off" before disconnecting the battery.

# 120-VOLT ALTERNATE CURRENT SYSTEM

Your Ember RV is equipped with a 30-amp 120V 60 Hz AC electrical system. Exposure to voltages higher or lower than a nominal 120V AC may damage or shorten the service life of the electrical system and appliances. This system can be powered by the 120V 60 Hz utilities found in RV campgrounds or by 120V 60 Hz generator power.

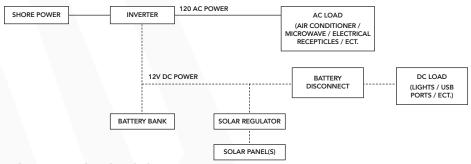


FIGURE 4: ELECTRICAL SYSTEM

The following electrical components (if equipped) operate off 120V AC:

- All receptacles (USB, wall outlets)
- Air conditioner
- Microwave
- Truma Combi Furnace and Water Heater
- 120V AC to 12V DC power converter

# 12-VOLT DIRECT CURRENT SYSTEM

The following electrical components (if equipped) operate off 12V DC:

- Kitchen and living area lighting
- Refrigerator
- Truma Combi Furnace and Water Heater
- Lippert One Control System
  - Awning
  - Water pump
  - Miscellaneous internal and external lighting

# **CONVERTER**

The power converter converts 120V AC power to 12V DC power when the shore power cord is connected to an external power source. The converter has a built-in protective thermal breaker that will shut it down should overheating occur. Overheating can be caused by operating the converter above its maximum power output for an extended period, or by an obstruction to its ventilation air flow. To reduce converter heat build-up, keep unnecessary 12V lights and motors turned "off." Keep the converter cooling fins and fan clear of obstructions.

#### CONVERTER INSPECTION AND MAINTENANCE

If the 12V power converter is not working (auxiliary battery not being charged) check the reverse polarity fuse(s) in the converter fuse panel. There are no customer serviceable parts inside the converter case and the manufacturer's warranty will be void if the case has been removed. If you have further concerns, contact your dealer.

# EMBERLINK™ SMART SYSTEM

Your Ember may be equipped with an EmberLink Smart System. The control panel for the smart system is located at the entrance to the coach. The panel and the systems it controls are powered by the DC electrical system.

Functions controlled may include:

- Slide-out deployment and retraction
- Awning deployment and retraction
- Internal and external lighting
- Holding tank monitoring
- Water pump
- Awning



# **SOLAR POWER SYSTEM AND BATTERIES**

Your Ember RV comes equipped with a standard 190-watt solar panel. If your unit has the optional solar package, please see the manufacturer's instructions for maintenance, care, and use. You also may have one or more lithium-ion batteries installed at the factory. These batteries are either located in the gear box or inside the coach, depending on the floor plan. As with the solar panel system, please see the manufacturer's instructions for maintenance, care, and use.



IF YOUR UNIT HAS A LITHIUM-ION BATTERY INSIDE THE COACH, DO NOT REPLACE WITH A VENTED

BATTERY. VENTED BATTERIES PRODUCE HYDROGEN GAS WHICH MAY RESULT IN AN EXPLOSION AND/OR FIRE WHICH MAY CAUSE DEATH OR SERIOUS INJURY.

# Propane System

#### **OVERVIEW**

The liquid propane (LP) gas system in your Ember RV provides the fuel for cooking, heating, and hot water only and is plumbed to the indoor stovetop, the outdoor griddle, and the Truma Combi Eco Plus.

LP is a clean, efficient, and safe form of energy when proper handling and safety precautions are observed. The gas is stored with extreme pressure in the tank, with space in the tank to allow for expansion into vapor. This vapor is reduced in pressure by passing through a regulator. This reduction in pressure is a two-step process which assures consistent pressure for use, regardless of outside temperatures, weather, or altitude.

# **REGULATOR**

LP gas is under high pressure in the tank. The purpose of the regulator is to reduce the pressure inside the tank to allow for safe use. A two-stage automatic regulator, most used on dual tanks, offers the convenience of instant, automatic changeover from the empty to the full tank.

**DO NOT** adjust or repair the regulator. It is preset at the factory to certain specifications and should only be adjusted by a qualified propane service technician. To avoid potential problems, have your LP gas system checked at least once a year by an authorized service center and after each extended trip.



NEVER TEST FOR A LEAK BY LIGHTING A MATCH OR HAVING AN OPEN FLAME WHERE YOU SUSPECT A LEAK.

#### **REGULATOR FREEZE-UP**

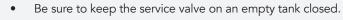
The term 'regulator freeze-up' is a misleading one. Regulators and LP gas do not freeze. However, the moisture that can be contained in the gas will freeze as the gas expands and cools passing through the regulator. This freezing of the moisture in the gas can build up and partially or totally block the passage of the gas through the regulator. Freezing can also occur when outside temperatures are low enough to contribute to the freezing of the moisture in the gas.

The source of the moisture is varied. It can occur at the refinery or gas bulk plant, in the cars used to transport the gas, or even within your own LP tanks. Moisture in an LP tank can occur when a tank service valve is left open, allowing moist air to enter, and become trapped.

A two-stage regulator helps reduce the possibility of freezing up because of its larger orifice size and that heat is being transferred through the walls of two regulators instead on only one.

# Tips to help prevent regulator freeze-up:

- Make sure your LP tank is free of moisture before refilling.
- DO NOT overfill the LP tank.



- If freezing occurs, have your LP dealer purge the LP tank before refilling.
- Check with your dealer to determined what deicing agent is approved to add to the LP tank.
- Keep the regulator always covered.

NOTE: IF FREEZE-UP DOES OCCUR, SHUT THE LP GAS OFF AT THE TANK. A FROZEN REGULATOR MAY PERMIT LP GAS TO FLOW AT HIGH PRESSURE, RESULTING IN LEAKS AT APPLIANCES OR IN THE LINES. NEVER ATTEMPT TO THAW WITH AN OPEN FLAME. A SMALL LIGHT BULB CAN SOMETIMES BE USEFUL TO PROVIDE HEAT AND AID THE THAWING PROCESS. ONCE THAWED, BE SURE TO TAKE THE PROPER STEPS TO PREVENT A REOCCURENCE. HAVE THE SYSTEM CHECKED BY YOUR LP GAS SUPPLIER.

# OTHER COLD WEATHER FACTORS

As outside temperatures drop, the BTU value of the LP gas is lessened. The colder liquid LP requires heat from the surrounding air to vaporize. This lowering of BTU value can significantly affect the performance of the system. Keeping your LP tanks as full as possible in cold weather and reviewing the BTU/hr rating plates on LP appliances will help ensure proper LP management.



### LP PIGTAIL

The LP pigtail is a hose used to connect to the regulator on the tank through which the LP fuel flows. This safety feature is generally recognized by the large green nut that attaches to the outside of the valve on the regulator. It limits excessive gas flow and prevents gas from flowing unless the connection is tight.



**NOTE:** THE CONNECTION AT THE LP TANK WILL SHUT DOWN IN EXTREME HEAT (240°-300° FAHRENHEIT).

# LP GAS DETECTOR

#### IN THE EVENT OF AN ALARM:

If the detector senses the presence of LP gas, the light will turn from green to red, accompanied by an audible alarm. If the alarm sounds:

- 1. Immediately evacuate all occupants from the recreational vehicle.
- 2. Extinguish any open flames, pilot lights, and all smoking material.
- 3. DO NOT touch any electrical switches.
- 4. Shut off the gas supply at the tank.
- 5. Open doors and windows to ventilate.
- 6. DO NOT USE THE RANGE HOOD OR OTHER POWER VENTS.
- 7. The alarm will continue to sound if LP gas is detected or until turned off.

**NOTE:** THE ALARM MAY SOUND AT TIMES WHEN NO LP GAS IS PRESENT DUE TO HOUSEHOLD PRODUCT USE SUCH AS AEROSOL HAIRSPRAY, CERTAIN CLEANERS, ADHESIVES, ALCOHOL, PERFUME/COLOGNE, ETC.



To avoid false alarms, ventilate the area where these common household products are used: aerosol hairspray, adhesives, alcohol, perfume/cologne.

# Plumbing System

There are one or two different water systems in your Ember RV: The Overland has a freshwater system and a wastewater system, while the Overland Micro has a freshwater system only. The freshwater system consists of the freshwater holding tank, freshwater connections, the Nautilus™, water pump, outside shower assembly (if so equipped), water heater (Truma Combi), faucets, shower or tub, and water purification system (if so equipped). The wastewater system consists of the wastewater holding tank, sewage holding tank, drains, and toilet.

- Check all fittings, pressure, and waste, for leaks before each trip or before
  vehicle storage as part of your normal maintenance. Inspect all faucets and sink
  connections (including drain baskets or filters).
- Inspect connections at the water pump and water heater. At the end of every trip, you should drain any unused water from the freshwater system.



THE TRUMA COMBI COMES EQUIPPED WITH ITS OWN LOW POINT DRAIN. THIS IS NORMALLY LOCATED ON

THE FLOOR ADJACENT TO THE APPLIANCE. PLEASE SEE THE TRUMA OWNERS MANUAL FOR ADDITIONAL INFORMATION.

# FRESHWATER SYSTEM

All water contains contaminant and mineral particles that can cause freshwater system odors. Untreated well water is a major source of water system odors. The freshwater (or potable water) system needs periodic sanitization and winterization to take care of all the components within the plumbing system and help discourage the growth of bacteria and other organisms that can contaminate the water supply.

# MONITORING TANK STATUS

The EmberLink panel mounted at the entrance to the RV allows you to monitor the fill status of the freshwater, greywater, and blackwater tanks. The monitor panel operates on 12V DC power supplied by either the converter or auxiliary battery. Sensors installed in the holding tanks connect to a resistor assembly relaying an electronic message to the display.



# **NAUTILUS**

Your Ember RV may come equipped with a Nautilus water management system located in the passthrough storage area on the off-door side of the coach. For specific instructions on usage please see the manufacturer provided manual.

The Nautilus allows you to perform the following functions:



- 1. Power-fill your freshwater tank for remote or dry camping.
- 2. Use your pump to supply water to fixtures from freshwater tank.
- 3. Use your pump to siphon fill or sanitize your freshwater tank from a bucket.
- 4. Connect to city water at the camping site to supply water to fixtures.
- 5. Winterize your plumbing lines and fixtures.
- 6. Rinse the blackwater tank to help control odors and prevent sewage buildup.

# PLUMBING CONTROL CENTER

Your Ember RV may come equipped with a plumbing control center. This includes:

- Nautilus Water Management System
- Outside shower fixture
- Tank valve controls for black and galley (fresh water) tanks
- Bypass control for the water heater



Never push the check valve on "CITY WATER" connection with pressure in line. This WILL cause irreparable damage to the check valve function.

# **EXTERNAL SHOWER**

Your Ember RV may come equipped with an external shower hook-up located in the plumbing control center on the off-door side of the coach. No shower head or hose is provided with your Ember RV; they will need to be purchased separately. Please read the shower head and hose instruction manual before attaching to the external hook-up.



# Warranty, Repair, and Service

### **GENERAL CARE AND MAINTENANCE**

Regular care and maintenance of your Ember RV is essential in furthering safety and dependability. Keep good records of all service and maintenance performed on your Ember RV. These records may be necessary for limited warranty purposes or may assist in future repairs. Always refer to the manufacturers' care and maintenance recommendations for installed appliances.

# **CLEANING THE INTERIOR**

Performing regular maintenance and cleaning with the proper materials and procedures is key to the longevity and value of your RV. Using the wrong cleaner may result in damage to the surfaces in your RV. Check each component manufacturer's information for the recommended cleaning agent or test a small area to see if the cleaner will cause any damage. You can also contact your Ember dealer for guidance. Do not use flammable liquids or sprays to clean the inside of your RV.

#### **EXTERIOR FINISH**

Ember RV's exterior uses durable, easy to maintain laminated composite panels Proper maintenance can help lessen wear over time. Cosmetic marks are possible with laminated walls and do not constitute a fault in material or defect in workmanship. Routine maintenance is the best way to minimize and guard against cosmetic changes due to weathering. Wash the exterior with a soft cloth, warm water, and soap thoroughly, paying particular attention to the graphics. Never use strong solvents or abrasives when cleaning. Also, be aware that power buffers and high-pressure washers may damage or remove the graphics.

See also the following summary of do's and don't's:

- Do use soft cloths to clean.
- Do be careful around graphics, washing with the graphics, not against them.
- Do not use products containing ammonia or caustic, harsh cleaning agents.
- Do not use high-pressure washers, rotating brushes (i.e., in-car wash facilities), or power buffers.
- Do not dry wipe surfaces.
- Do not use rubbing compounds.

#### FRAME AND CHASSIS

Over time, various weather and climate conditions may lead to corrosion of your Ember frame and chassis. Remember to inspect for evidence of rust routinely. Be sure to rinse the unit's undercarriage, wheel wells, hitch, and bumper of all dirt, oil, tar, salt, and other debris periodically and as needed. Rinse frequently when camping in or near coastal regions to avoid salt corrosion.

#### HITCH COUPLERS

Inspect hitch couplers before each trip. Clean and lubricate the ball socket and clamp monthly using wheel bearing grease. If hitch assembly and coupler appear damaged in any way, contact your dealer, and resolve the problem before travel.

# **SAFETY CHAINS**

Inspect safety chains before each trip. Replace them before traveling if they are damaged or compromised in any way.

#### **JACKS**

Inspect and test the jacks before each trip. Clean and lightly apply oil periodically and as needed. If your jack needs repair or other services, see a qualified technician.

#### TIRES AND WHEELS

Inspect your tires, checking air pressure regularly and before each trip. Keep them inflated to recommended pressure located on the tire sidewall. Keep a tire gauge in your tow vehicle or unit. The tires should be rotated by a qualified technician at least every 5,000 miles.

#### **BRAKE ADJUSTMENT**

You should have your electric brakes adjusted after the first 200 miles. Test the brake drag every three months or 3,000 miles, whichever is earlier. When adjusting brakes on any vehicle, either replace or adjust all brakes at the same time or at least both brakes on the same axle. Qualified service personnel should perform all necessary work on brakes.

#### **SEALANTS**

Inspect all sealants/seals (i.e., doors, windows, plumbing components, undercarriage) every ninety (90) days, when the seasons change, and before each trip. During your inspection, look for cracks, voids, shrinkage, and any other sign of deterioration. Replace sealant where necessary, using the same type of sealant. Contact your dealer or Taxa Inc. for suggestions concerning replacement sealants.

# CEILING, INTERIOR WALLS, COUNTERTOP, TABLETOPS

Clean with soap or other mild, non-abrasive cleaner, warm water, and a damp cloth. Do not use harsh chemicals when cleaning. Avoid using abrasive pads and scouring powders, which may dull surfaces and increase exposure to future staining. Take care to limit water/moisture exposure to the ceiling and walls when cleaning, as it may cause damage. Thoroughly dry the ceiling and walls after cleaning.

Remember to use a chopping block or cutting board when using knives on the countertop. Pots and pans straight from the burner or oven should be placed on lined hot pads and not directly on the counter surface.

#### **FAUCETS AND FIXTURES**

Use only a damp soft cloth or sponge to clean. Do not use abrasive cleaners or materials, as they may damage the finish.

### **FABRIC AND UPHOLSTERY**

Use only a damp soft cloth or sponge to clean. Do not use abrasive cleaners or materials as they may damage the finish. Water-based cleaners are best for vinyl upholstery as solvents may have an adverse reaction to the specific backing of the upholstery fabric. Blot the spot but do not rub or saturate the area.

# Required Maintenance Schedule

MAINTENANCE ITEM	Every Trip	Monthly	Every 3 Months	Every 6 Months	Annualy	Before/After Storage	As Required	PROCEDURE TO BE PERFORMED: Maintenance schedules are minimum requirements. Extended use, extreme tempuratures, high humidity, or other extreme conditions will require more frequent maintenance.
					Х	Х		Check settings & adjust per manufactureres guide
Appliances		Χ				Χ		Make sure burner tubes/vents are clean/unobstructed
					Х	Х		Clean & sanitize
Awning(s)						Χ		Wash with warm water & mild detergent
					Х	Х		Clean & lube moving parts w/WD40
Axles/Suspension						Χ		Check U-bolts, springs & hangers for damage
					Х	Х		Check torque - all bolts (see axel MFG guide for specs)
Baggage Doors		Χ				Χ		Confirm that doors seal tight and are not leaking
				Χ		Χ		Spray lock tumblers with graphite
Brakes/Wheel Hubs					Χ			Check amp draw/shoe wear/adjustment (see MFG specs)
bi akes/ writeel Hubs					Χ		Χ	Lube bearings (as needed)
	Χ		Χ			Χ		Check and service batteries
Electrical System			Χ		Χ	Х		Test all GFI outlets
					Χ	Х		Service generator (if equipped) per MFG manual
	Χ					Х		Make sure door latches & locks function properly
Entry Door(s)				Х		Х		Lube hinges w/light oil or WD40 (or comparable)
				Х		Х		Adjust screen door latch
Entry Steps				Х		Х		Clean and lubricate (lithium spray)
Exterior			Х			Х		Wash with warm water & mild detergent
Fiberglass/Metal				Х				Apply non-abrasive wax (except on decals)
Exterior Moldings			Х			Х		Inspect sealant for voids/gaps/cracks and reseal
					Х	Х		Check for damage, loose wires, debris, ect. and clean
Frame/Underbelly			Х			Х		Check frame for rust and touch up if necessary
Hitch/Coupler					Х	Х		Check for damage & wear - clean & lubricate (grease)
					Х			Have system tested for leaks by qualified dealer
LP System					Х			Have pressure & regulator settings checked by dealer
			Χ		Х	Х		Check hoses, fittings, pipes for leaks - tighten as req.
Plumbing System					Х	Х		Lubricate termination gate valve cables (WD40 or lithium grease)
					Х			Winterize system (cold weather locations)
			Х			Х		Inspect for sealant voids/gaps/cracks and reseal
Roof & Roof				Х		Х		Clean roof with water & mild detergent
Attachments					Χ	Х		Clean and lube roof vent mechanisms w/light oil
	· ·			٧.				Check operation of detectors - R&R batteries every 6 months
	Х			Х		Х		if equipped
Safety Equipment				Χ	Χ			Test & check fire exstinguisher for proper charge
	Х	Х			Χ			Test & confirm egress (exit) windows function properly
Slide Rooms			Χ		Χ	Χ		Check slide roof for debris - clear
Jiiue Kooms			Χ		Χ	Χ		Check and clean all seals
	Х		Χ			Х		Check wheel lugs for proper torque
Wheels & Tires			Χ			Χ		Inspect tire for wear/damage/ect.
	Х		Х			Х		Check tire inflation pressure (see tire label for pressures)

# Winterizing and Storage

Properly winterizing and storing your RV is important to its longevity and value. Please read through the following tips carefully so you fully understand how to best store your RV.

# WINTERIZING YOUR RV

It is necessary to winterize the water system in your RV when storing it for periods of freezing weather in an unheated environment. If proper winterization steps are not taken, damage to water system components will result and will not be covered by warranty.



NEVER USE AUTOMOTIVE ANTIFREEZE IN YOUR FRESH WATER SYSTEM. AUTOMOTIVE ANTIFREEZE IS TOXIC AND NOT FOR USE IN POTABLE (DRINKABLE) WATER SYSTEMS.

- 1. Purchase 4-6 gallons of RV-approved non-toxic antifreeze.
- 2. Drain all holding tanks - fresh water and sewage.
- Turn water heater bypass valve to 'bypass' position.
- 4. Drain the water heater.
- If you have a water filter system installed, remove the filter from the assembly and discard. (You will need to purchase a new one and install it when dewinterizing your unit.)
- Fill the tank above minimum water pump operation level with the RV antifreeze. (Use of a long funnel may be helpful.)
- Turn the pump switch 'ON' and open the cold-water side of all faucet fixtures. Leave the faucets open until the antifreeze, (generally pink in color), flows out of the faucets. Repeat for the hot water side.
- Flush toilet until antifreeze is visible inside the bowl and pour one gallon of antifreeze down the toilet to winterize the black holding tank.
- Pour antifreeze down each shower/tub, lavatory sink, and kitchen sink to fill p-traps.
- 10. To winterize gray tank(s), pour one gallon down each related sink drain.

### DEWINTERIZING YOUR RV



DO NOT ATTEMPT TO TURN ON THE WATER HEATER OR USE THE PLUMBING SYSTEM ONCE THE SYSTEM

HAS BEEN WINTERIZED. DEWINTERIZE THE WATER SYSTEM, FLUSH, AND SANITIZE PRIOR TO USE.

- 1. Drain all holding tanks fresh water and sewage.
- 2. Attach garden hose to fresh water fill and fill tank.
- 3. Turn 'ON' pump switch and open cold water side of all faucet/shower fixtures. Leave open until the water runs clear, (no pink residue). Repeat for the hot water side.
- 4. Flush toilet until clear water runs into bowl.
- 5. Dump tanks again.
- 6. Sanitize the water system.
- 7. If a water filter has been installed, drain the lines, remove the assembly, clean, and install using a new filter.
- 8. When ready to use the water heater, turn the bypass valve to open position to allow water to enter and fill the hot water heater tank.

# STORING YOUR RV

- 1. Park your RV on a level surface.
- 2. Winterize the chassis as outlined in the chassis owner's manual.
- 3. Clean your RV thoroughly inside and out as previously explained in this manual.
- 4. Turn off all electrical switches, appliances, and components.
- 5. Close all shades to protect the interior from sun fade.
- 6. Securely close all windows, doors, and vents. Cover exterior appliance vents to prevent any moisture and insects from getting in during storage.
- 7. It is recommended that you check on your RV periodically while in storage to be sure no leaks have developed, or condensation has not formed. This could cause damage to the interior components of your RV. To reduce the risk of condensation, regularly air out the RV during storage.
- 8. Be sure that the batteries have the proper electrolyte level and that they are fully charged to avoid damage to the battery while in storage.
- 9. Be sure the tires are inflated to the correct pressure and check periodically.
- 10. Keep the roof free from snow and ice.
- 11. Winterize the water systems and protect exterior hoses and lines from freezing.
- 12. Follow all component manufacturers' instruction manuals found in the Owner's Packet for proper winterization and storage of each component.

# Serial Number, VIN, Decals

A vehicle data card is supplied with your Ember RV listing manufacturer, model, and serial number information for major factory installed appliances and equipment. The VIN (vehicle identification number) label is mounted on the A-frame of the travel trailer. The VIN is also on the Federal Certification label located on the off-door side under the front corner. This information is useful to you in the event of theft, vandalism, or disaster. Certain service functions may also require it.

# **DECIPHERING THE VIN**

DIGIT LOCATION	FUNCTION	KEY			
1st, 2nd, 3rd	World Manufacturers Identification (WMI) – Assigned by SAE	7RV 7 = United States of America RV = Ember RV			
4th	Trailer to towing vehicle connection type. Trailer Make is always Ember Recreational Vehicles, INC. Trailer Body Type is always Enclosed Travel Trailer.	T = Ball Type Pull F = Fifth Wheel C = Others			
5th	Model Designator	V = Overland Series			
6th	Number of Axles	1 = 1 Axle 2 = 2 Axles			
7th, 8th	Length of the RV	Length in feet – always two digits. If less than 10 feet, a zero will be used for the first digit.			
9th	Check Digit	Calculated. See 49 CFR 565.15 (c)			
10th	Model Year	M = 2021 T = 2026 1 = 2031 6 = 2036 N = 2022 V = 2027 2 = 2032 7 = 2037 P = 2023 W = 2028 3 = 2033 8 = 2038 R = 2024 X = 2029 4 = 2034 9 = 2039 S = 2025 Y = 2030 5 = 2035			
11th	Plant Location	1 = Plant 1, Bristol, Indiana			
12th – 17th	Serial Number	Sequential six-digit serial number			

Decals and data plates placed throughout the RV aid in its safe and efficient operation, while others give service instructions. Read all decals, data, and instruction plates before operating your recreational vehicle. If any decal, data, or instruction plate is damaged, painted over, or removed, it should be replaced.

# Warranty

### **OBTAINING WARRANTY SERVICE**

Service must be obtained within a reasonable time after discovery of the defect, but prior to the applicable warranty expiration period. To help ensure your dealer provides the level of service you expect, here are some suggestions:

#### CALL AHEAD

Do not wait until you are ready to use your RV as your dealer may not be able to schedule it in immediately. Generally, your dealer's service department is busiest on Mondays, Fridays, and before the holidays.

#### BE PREPARED

Have your warranty paperwork available and provide the service center with any past repair history as it may assist the dealer technician in diagnosing the current issue.

#### MAKE A LIST

Provide a written list of repairs needed in specific order of priority and be reasonable with repair expectations. If you need your RV returned by a specific time, discuss the situation with the dealer's service management, as a second appointment may be necessary for work not completed or parts that may need ordered.

#### WHILE WAITING

Drop your RV off if possible. Do not be surprised if you are told that you cannot watch work being done: Some insurance requirements forbid admission of customers to the service area.

#### INSPECT THE WORK PERFORMED

After a repair is performed, inspect it thoroughly. Notify the dealer's service management immediately of any dissatisfaction. If you cannot return your RV immediately for repair, make an appointment as soon as possible. In the event the issue should re-occur after you have left the dealership, contact the repair center and Ember RV Customer Service as soon as possible, so the situation can be resolved expediently.

# **OBTAINING EMERGENCY WARRANTY REPAIR**

A roadside emergency can happen at any time, whether your RV is new or old. If you are traveling, using the following guidelines can help get you back on the road faster.

- 1. Use the "Dealer Locator" on our website to locate the nearest authorized repair center.
- If you cannot locate an authorized dealer near you, ask the campground staff for referrals, or check the local telephone Yellow Pages. You can also contact Ember Customer Service or your selling dealer for assistance in locating a repair facility.

# **SERVICE & WARRANTY**

- Contact the RV repair facility to discuss your situation and make an appointment. Ask how their billing will be handled. They may choose to bill Ember directly; otherwise, you are expected to pay them.
- Have the RV repair facility inspect your RV. Either they or you MUST call Ember Customer Service to discuss applicable warranty coverage prior to any repair work being performed.
- 3. Ember Customer Service will issue an authorization number upon warranty repair approval and advise if any original parts must be returned.
- 4. After the authorization number has been issued, the repair center may begin actual repair on your RV.
- 5. Inspect the completed repair work thoroughly. If you are not satisfied, communicate that to the RV repair facility management. Make sure you are satisfied with the repair before you pay or leave the premises.
- 6. For reimbursement, either you or the RV repair facility must send a copy of your itemized repair bill and all requested return parts by UPS (UPS Ground, freight pre-paid) to Ember within 60-days of the completed repair date. To expedite processing your warranty claim, include your name, address, phone number, RV 17-digit VIN, and authorization number. If returning parts, include a copy of your freight bill.

# OBTAINING WEEKEND OR AFTER BUSINESS HOURS EMERGENCY REPAIR ASSISTANCE

If an authorized Ember dealer is not located nearby, contact your selling dealer for assistance. If your dealer is closed, check with the campground staff or telephone Yellow Pages for an RV repair facility. Have the item repaired and contact Ember Customer Service immediately the following business day.

# AN IMPORTANT NOTE ABOUT ALTERATIONS AND WARRANTIES

Installations or alterations to the original equipment vehicle as distributed by Ember are not covered by the Limited Base and Structural Warranties. The special body company, assembler, equipment installer, or upfitter is solely responsible for warranties on the body or equipment and any alterations (or any effect of the alterations) to any of the parts, components, systems, or assemblies installed by Ember. Ember is not responsible for the safety or quality of design features, materials, or workmanship of any alterations by such suppliers.

# HAVE THE FOLLOWING AVAILABLE WHEN YOU CALL:

- Your name, location, and a phone number where you can be reached
- Your RV 17-digit VIN
- Date of purchase
- Contact information for the RV repair facility or dealer
- Detailed description of the concern

If applicable, the component description, serial, and model numbers.

# The 1-2-3 Limited Warranty

This document contains important information regarding your limited warranties. You should read this document very closely **prior** to your purchase.

# **IMPORTANT DEFINITIONS**

As used herein, the following definitions apply:

- LIMITED BASE WARRANTY means the Two (2) Year Limited Base Warranty set forth herein.
- DEFECT means the failure of the workmanship performed and/or materials used to conform with the design and manufacturing specifications and tolerances of Ember.
- DAMAGE is caused by such things as collision, misuse, or lack of maintenance that occurs after the RV is delivered to the owner.
- EMBER means Ember Recreational Vehicles, Inc.
- STRUCTURAL means the RV's (i) main steel frame and steel support members (outriggers and cross members) (ii) laminated exterior sidewalls, including fiberglass, and wall studs (iii) floors, laminated or non-laminated, including decking and floor joists (iv) roofs, laminated or non-laminated, including decking, roof rafters, and roof material installation (v) fiberglass cap(s) including paint application, and windshield installation, if applicable (this structural warranty item does not cover damages to the cap(s) such as impact, rock chips, dents, scratches, or failure to maintain all as addressed in the disclaimers below and elsewhere in this Owner's Manual), and (vi) slide-out box exterior sidewalls/end walls/roofs/floors, skeletal framing, decking, and roof material installation.
- LIMITED STRUCTURAL WARRANTY means the Three (3) Year Limited Structural Warranty set forth herein.

# WHAT IS A 1-2-3 LIMITED WARRANTY AND HOW TO OBTAIN WARRANTY SERVICE

Ember Recreational Vehicles, Inc., ("Ember") provides a 1-2-3 Limited Warranty with this recreational vehicle ("RV"). Simply stated, one (1) time, Ember's Two (2) Year Limited Base Warranty and Ember's Three (3) Year Limited Structural Warranty may be transferred to a subsequent retail purchaser within the first year of ownership. Each Limited Warranty is separate from the other.

Below you will find what is covered under the Limited Warranties, what is not covered under the Limited Warranties, and what Ember will do if a defect exists.

To obtain service, please contact your dealer where you purchased the Ember RV for warranty service. If you encounter any difficulty obtaining warranty service, please contact Ember's Ownership Experience Department at:

# EMBER RECREATIONAL VEHICLES, INC.

Attn: Ownership Experience Department

710 Commerce Drive Bristol, Indiana 46507 Tel: +1 (844) 732-4204

Email: warranty@emberrv.com

# EMBER'S TWO (2) YEAR LIMITED BASE WARRANTY

Ember's Limited Base Warranty covers this RV for a period of **two (2) years** from the date of purchase by the first retail owner. The Limited Base Warranty covers defects in materials and workmanship supplied by and attributable to Ember's manufacturing and assembly of the RV. This Limited Base Warranty does not cover the items excluded under the section entitled "What is Not Covered By the Ember Limited Warranties."

The LIMITED BASE WARRANTY will expire on the second-year anniversary date from the date of the first retail purchase.

NO EXTENSION TO FUTURE PERFORMANCE: THIS LIMITED BASE WARRANTY DOES NOT EXTEND TO FUTURE PERFORMANCE AND ONLY SETS FORTH WHAT EMBER WILL DO IF A DEFECT EXISTS DURING THE TWO (2) YEAR WARRANTY PERIOD. Ember is not responsible for any promises, obligations, service agreement, or warranty beyond what is expressly set forth in this Limited Base Warranty.

LIMITATIONS AND DISCLAIMERS: THE LIMITED BASE WARRANTY IS PROVIDED EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE, AND IN LIEU OF ALL OTHER OBLIGATIONS OR LIABILITIES ON THE PART OF EMBER. IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, IF ANY, GIVEN BY LAW, WILL BE LIMITED TO AND DO NOT EXTEND BEYOND THE SCOPE OF COVERAGE AND DO NOT EXTEND BEYOND THE DURATION OF THE ABOVE WRITTEN TWO-YEAR LIMITED BASE WARRANTY. ORAL STATEMENTS ABOUT THE RV OR STATEMENTS CONTAINED IN ANY ADVERTISING, PAMPHLETS, OR BROCHURES DO NOT CONSTITUTE WARRANTIES AND DO NOT MODIFY THIS WARRANTY IN ANY WAY.

EMBER WILL NOT BE RESPONSIBLE OR LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND OR NATURE THAT RESULT FROM ANY DEFECT IN THE RECREATIONAL VEHICLE. THE DISCLAIMER OF CONSEQUENTIAL AND INCIDENTAL DAMAGES IS NOT DEPENDENT UPON THE LIMITED BASE WARRANTY FULFILLING ITS ESSENTIAL PURPOSE. EMBER'S AGGREGATE LIABILITY UNDER THIS WARRANTY TO BUYER, OWNER, AND ANY THIRD PARTY AND BUYER, OWNER'S AND ANY THIRD PARTY'S EXCLUSIVE REMEDY AGAINST EMBER WILL BE REPAIR, REPLACEMENT, OR REFUND AS SET FORTH HEREIN.

SOME STATES DO NOT ALLOW LIMITATIONS OF HOW LONG AN IMPLIED WARRANTY LASTS OR ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSIONS MAY NOT APPLY TO YOU.

**ONE TIME TRANSFERABILITY:** This Two (2) Year Limited Base Warranty may be transferred one (1) time by the first retail purchaser to a subsequent retail purchaser within the first year of first retail purchaser's ownership. The Two (2) Year Limited Base Warranty does not extend beyond the two (2) year coverage period. After the second retail purchaser purchases the RV, the second retail purchaser must, to receive the unexpired balance of the Limited Base Warranty coverage as described above, provide Ember your VIN, name, address, phone, and email address (proof of purchase may be requested) by phone at +1 (844) 732-4204 or by email at warranty@emberrv.com.

# EMBER'S THREE (3) YEAR LIMITED STRUCTURAL WARRANTY

The Ember Limited Structural Warranty covers this RV for a period of **three (3) years** from the date of purchase by the first retail owner. This Limited Structural Warranty covers defects in materials and workmanship supplied by and attributable to Ember's manufacturing and assembly of the "structural" (as defined below) portions of the RV, when the RV is used solely for its intended purposes of recreational camping. This Limited Structural Warranty does not cover the items excluded under the section "What is Not Covered Under the Ember Limited Warranties." The Limited Structural Warranty will expire on the third-year anniversary date from the date of the first retail purchase.

NO EXTENSION TO FUTURE PERFORMANCE: THIS LIMITED STRUCTURAL WARRANTY DOES NOT EXTEND TO FUTURE PERFORMANCE AND ONLY SETS FORTH WHAT EMBER WILL DO IF A DEFECT EXISTS DURING THE THREE (3) YEAR WARRANTY PERIOD. Ember is not responsible for any promises, obligations, service agreement, or warranty beyond what is expressly set forth in this Limited Structural Warranty.

LIMITATIONS AND DISCLAIMERS: THE THREE (3) YEAR LIMITED STRUCTURAL WARRANTY IS PROVIDED EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE, AND IN LIEU OF ALL OTHER OBLIGATIONS OR LIABILITIES ON THE PART OF EMBER. IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, IF ANY, GIVEN BY LAW, WILL BE LIMITED TO AND DO NOT EXTEND BEYOND THE SCOPE OF COVERAGE AND DO NOT EXTEND BEYOND THE DURATION OF THE ABOVE WRITTEN THREE (3) YEAR LIMITED STRUCTURAL WARRANTY PERIOD. ORAL STATEMENTS ABOUT THE RV OR STATEMENTS CONTAINED IN ANY ADVERTISING, PAMPHLETS, BROCHURES DO NOT CONSTITUTE WARRANTIES AND DO NOT MODIFY THIS WARRANTY IN ANY WAY.

EMBER WILL NOT BE RESPONSIBLE OR LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND OR NATURE THAT RESULT FROM ANY DEFECT IN THE RECREATIONAL VEHICLE. THE DISCLAIMER OF CONSEQUENTIAL AND INCIDENTAL DAMAGES IS NOT DEPENDENT UPON THE LIMITED STRUCTURAL WARRANTY FULFILLING ITS ESSENTIAL PURPOSE. EMBER'S AGGREGATE LIABILITY UNDER THIS WARRANTY TO BUYER, OWNER, AND ANY THIRD PARTY AND BUYER, OWNER'S AND ANY THIRD PARTY'S EXCLUSIVE REMEDY AGAINST EMBER WILL BE REPAIR, REPLACEMENT, OR REFUND AS SET FORTH HEREIN.

SOME STATES DO NOT ALLOW LIMITATIONS OF HOW LONG AN IMPLIED WARRANTY LASTS OR ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSIONS MAY NOT APPLY TO YOU.

**ONE TIME TRANSFERABILITY:** This Three (3) Year Limited Structural Warranty may be transferred one (1) time by the first retail purchaser to a subsequent retail purchaser within the first year of first retail purchaser's ownership. The Limited Structural Warranty does not extend beyond the three (3) year coverage period. After the second retail purchaser purchases the RV, the second retail purchaser must, to receive the unexpired balance of the Limited Structural Warranty coverage as described above, provide Ember your VIN, name, address, phone, and email address (proof of purchase may be requested) by phone at +1 (844) 732-4204 or by email at warranty@emberrv.com.

# PROVISIONS APPLICABLE TO BOTH LIMITED WARRANTIES

#### REMEDIES

**Primary Remedy:** If within the stated Limited Warranty periods as set forth above a defect in materials or workmanship is found to exist that is not excluded from coverage, whether under the Two (2) Year Limited Base Warranty or the Three (3) Year Limited Structural Warranty, your primary remedy shall be the repair of the defect.

**Secondary Remedy:** If the defect cannot be repaired, after receiving a reasonable opportunity to repair and after a reasonable number of repair attempts, Ember may, at its option, either (i) pay you the diminution in value damages, or (ii) provide a similar replacement recreational vehicle, less a reasonable allowance for the owner's or prior owner's use of the original RV. Ember RV must fail to provide you with the primary remedy or the secondary remedy before you can sue Ember for breach of contract or the breach of any express or implied warranty.

The discretionary performance of repairs to those portions of your RV excluded from coverage or outside of the stated coverage periods are "good will" repairs and do not alter the obligations imposed by the Limited Base and Limited Structural warranties.

# WHAT IS NOT COVERED BY THE EMBER LIMITED WARRANTIES

The Limited Base and Limited Structural Warranties Do Not Apply To:

- Any owner of the RV that is not the original consumer purchaser or permitted one time transferee as set forth in the Limited Warranties.
- Recreational vehicles that are not originally purchased through an authorized dealer.
- Recreational vehicles purchased through auction, repossession, salvage, or an otherwise damaged or distressed condition.
- Recreational vehicles used for business, rental, residential, commercial, or disaster relief purposes, or any purposes other than recreational use in travel and camping.
- Recreational vehicles licensed, registered, or primarily used outside the USA or Canada.
- Equipment, products, components, appliances, or accessories not manufactured or installed by Ember.
- Routine maintenance including, without limitation, caulking, re-caulking, and waxing of
  the body of the RV, tightening screws, brake squeak/lock-up/adjustment, latches, locks,
  combustion systems, changing fuses, or light bulbs, and maintaining the air conditioning
  and heating systems.
- Adjustments to all doors, drawers, locks, latches, slide-outs, awnings, and window treatments beyond 90 days after retail sale.
- Fading or die lot changes of fabrics or carpet or cosmetic issues with the roof material(s) or its installation.
- Design defects; redesign/re-construction of any part of the RV.
- Anything related to wheel or axle alignment.
- Rust or corrosion due to the environment.
- Any broken glass damages.
- Water leaks or related consequential damages that (1) are a result of improper maintenance or (2) arise after the Two (2) Year Limited Base Warranty expires (water leaks are only covered under the base warranty and not the structural warranty).
- Any injury, loss, or damage due to mold or fungi.
- Damage or loss caused in whole or in part by (1) the misuse, abuse, neglect, theft, vandalism, product modification, improper customer or dealer installation, improper stowing of equipment, overloading or improper balancing of the load, low or high voltage, unauthorized repair or failure to follow instructions supplied with the recreational vehicle; (2) the unauthorized attachments, modifications or alterations to the structure, body, or frame of the RV including but not limited to trailer hitches for towing, or platforms for supporting cargo; (3) animals, exposure to natural or atmospheric elements, corrosive chemicals, ash or fumes generated or released by vehicles, collision, road hazards, rock chips, condensation, or any other source; impact, rock chips, dents, scratches, or failure to maintain (4) the willful or negligent acts of the driver of the vehicle pulling the RV, an accident involving the RV, or the condition of any road surface; or (5) the tow vehicle selected by the owner, owner's operation or use of the tow vehicle, improper selection or installation of towing hitch on tow vehicle, weight distribution, sway control or equalizer equipment, or damage to the owner's tow vehicle;
- Acts of God or any other circumstances or occurrences beyond Ember's control.

# APPLIANCE AND COMPONENT MANUFACTURER WARRANTIES AND ADMINISTRATION

Appliance and component manufacturer warranties, if any, are separate from the above Ember Limited Warranties. Ember administers the separate appliance and component warranties only during the Ember Two (2) Year Limited Base Warranty coverage period, except for tires, batteries, generators, and any supplied electronics (those items are not only excluded, but Ember does not administer those components' separate warranties). All warranty service claims on components must therefore be directed during the Two (2) Year Limited Base Warranty coverage period to Ember through an authorized Ember dealer or service center. After the Ember Two (2) Year Limited Base Warranty coverage period expires, all appliance and component warranty claims must be directed to the respective appliance and component manufacturers. Ember does not warrant any appliances or components and Ember's Limited Warranties shall not be construed, modified, or amended by this provision to include warranties of appliances or components.

### **LEGAL REMEDIES**

ANY ACTION FOR BREACH OF CONTRACT, BREACH OF ANY WARRANTY, OR TO ENFORCE ANY PORTION OF THE LIMITED BASE OR LIMITED STRUCTURAL WARRANTIES, OR ANY IMPLIED WARRANTY, MUST BE COMMENCED WITHIN SIX (6) MONTHS AFTER EXPIRATION OF THE ABOVE STATED RESPECTIVE LIMITED WARRANTY PERIODS OR THE ACTION WILL BE BARRED BECAUSE OF THE PASSAGE OF TIME. ANY PERFORMANCE OF REPAIRS WILL NOT SUSPEND THIS LIMITATION PERIOD.

SOME STATES ALSO DO NOT ALLOW THE REDUCTION IN THE STATUTE OF LIMITATIONS, SO THIS PROVISION MAY NOT APPLY TO YOU.

EXCLUSIVE JURISDICTION FOR DECIDING LEGAL DISPUTES RELATING TO AN ALLEGED BREACH OF CONTRACT, BREACH OF WARRANTY, OR REPRESENTATIONS OF ANY NATURE MUST BE FILED IN INDIANA, WITHOUT REGARD TO CONFLICT OF LAW OR CHOICE OF LAW PRINCIPLES. ALSO, THE ABOVE LIMITED WARRANTIES WILL BE INTERPRETED AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF INDIANA. ANY AND ALL CLAIMS, CONTROVERSIES, AND CAUSES OF ACTION ARISING OUT OF OR RELATING TO AN ALLEGED BREACH OF CONTRACT OR THE ABOVE LIMITED WARRANTIES, WHETHER SOUNDING IN CONTRACT, TORT OR STATUTE, WILL BE GOVERNED BY THE LAWS OF THE STATE OF INDIANA, INCLUDING ITS STATUTE OF LIMITATIONS, WITHOUT GIVING EFFECT TO ANY CONFLICT OF LAW RULE THAT WOULD RESULT IN THE APPLICATION OF THE LAWS OF A DIFFERENT JURISDICTION.

THE ABOVE LIMITED WARRANTIES GIVE YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

# Accepting Delivery

There is one form the dealer will complete concerning your new recreational vehicle, the PDI (Pre-Delivery Inspection sheet)/Warranty Registration form. If you do not have a copy in your Owner's Packet, request a copy of this form for your records. It is an important part of the history of your RV. A qualified dealer representative will perform a 'walk-through' demonstration, which will provide you with important information regarding the operation of your unit. Be sure you fully understand the information given and the proper functioning of your unit to ensure you have the best camping experience possible. Your dealer will fully explain all the system functions and will supply component information for items used in the manufacture of your recreational vehicle.

# **DEFECT HOTLINE – NHTSA (REPORTING SAFETY DEFECTS)**

#### UNITED STATES

If you believe your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying Ember Recreational Vehicles.

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or Ember Recreational Vehicles.

To contact NHTSA, you may call the Vehicle Safety Hotline toll-free at 1-888-327-4236 (TTY: 1-800-424-9153); go to www.nhtsa.gov; or write to: Administrator, NHTSA, 1200 New Jersey Ave. SE, Washington, DC 20590. You can also obtain other information about motor vehicle safety from www.nhtsa.gov.

#### CANADA

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately contact the Motor Vehicle Safety Enforcement Division of Transport Canada and Ember Recreational Vehicles.

To contact Transport Canada, call the Road Safety and Motor Vehicle Registration Directorate toll-free at 1-800-333-0510 (or 1-819-994-3328 if calling from the Gatineau-Ottawa Region or Internationally); go to www.tc.canada.ca; or write to: Motor Vehicle Safety Enforcement, Transport Canada, 330 Sparks Street, Ottawa, Ontario K1A 0N5.



We're Ember. It's time to glow.

Copyright © 2021 Ember Recreational Vehicles

