

ESCAPE RV Travel Trailer Manual



WELCOME!

Thanks for selecting an ESCAPE RV product! Congratulations for choosing a lifestyle that will provide you the freedom to enjoy recreation virtually anywhere.

This manual is for all ESCAPE travel trailers. The manual refers to these units as:

- Traveler
- Unit
- RV
- Recreational vehicle
- Travel trailer

This Owner's Manual is designed as a Quick Reference Guide for the operation and care of your new travel trailer. For more complete instructions regarding safety, maintenance, and operation of the components used in the manufacturing of your RV, carefully read the booklets supplied by the manufacturers. All information contained in this manual may not relate to your specific model; however, booklets supplied by the component manufacturers and included in your Owner's packet will provide any additional information needed.

Your installation person or sales person should be able to answer any questions or concerns you have regarding your new product. If they are unable to do so, please feel free to contact our Customer Service department for assistance at service@escapehomes.us.

Your recreational vehicle was built using the high standards and following the strict guidelines set forth by the Recreational Vehicle Industry Association (RVIA) as well as complying with the requirements of all applicable state and federal laws and regulations. All units are designed primarily for recreational or seasonal use and not as permanent dwellings.

Please carefully read the Limited Warranty in the front of this manual. ESCAPE RV has no other expressed or implied warranties of any type. You, as the owner, are responsible for providing proper maintenance as outlined in the manual and as set forth in the component manufacturer's booklets.

NOTE: FAILURE TO PROPERLY MAINTAIN YOUR UNIT COULD RESULT IN LOSS OF WARRANTY COVERAGE

Several of our component manufacturers carry their own warranties and require separate warranty information to be filed with them. Please read all component manufacturer owner's manuals provided with your RV and file appropriate component warranty cards as required.

You have joined an elite group and we wish you many exciting and adventurous days of RV'ing!

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ESCAPE RV MANUFACTURER'S LIMITED WARRANTY

All sales and purchases of RV travel trailer units (each, a "Unit") manufactured by Private Properties LLC d/b/a Escape RV ("Manufacturer") are expressly governed by the following limited warranty and terms and conditions of sale (collectively, the "Limited Warranty"). For purposes of this Limited Warranty, "Purchaser" shall mean the initial purchaser of the Unit.

WHAT IS COVERED

1. **General Coverage.** Manufacturer warrants for a period of two (2) years after transfer of title of the Unit to Purchaser that: (i) the Unit shall be free from material defects in materials and workmanship and shall comply with all written specifications Manufacturer provides to Purchaser with respect to the Unit prior to delivery; (ii) the Unit will be free from Latent Defects (as hereafter defined). For purposes of this Limited Warranty, Unit includes all parts manufactured by Manufacturer and excludes components installed in the Unit which are not manufactured by Manufacturer. No agent, sales representative or other employee of Manufacturer shall have any authority to modify or expand this express warranty. For purposes of this Limited Warranty, a Latent Defect is a defect in materials and workmanship of the Unit not apparent at the time of transfer of title that has been directly caused by Manufacturer's failure to construct in accordance with NFPA 1192 (the standard of construction for RV travel trailers published by the National Fire Protection Association), as amended from time to time. Breaches of the foregoing limited warranty shall be considered a "Defect" hereunder.

WHAT IS NOT COVERED

1. In General. Manufacturer shall not be obligated to repair or replace, and Manufacturer's warranties shall be null and void as to, any Unit which is not used for the purpose for which it is normally intended, are not used in accordance with applicable instructions and usage constraints, or are damaged by improper use, abuse or neglect. This warranty also does not include normal wear and tear, flaws or adverse conditions related to failure of the Purchaser to perform routine repairs or maintenance, or other issues related to the ordinary weathering or deterioration of construction materials.
2. Specific Types of Non-covered Items. This Limited Warranty does not cover certain types of items or issues, such as, but not limited to, the following:
 - a. Appliances, equipment or other products manufactured by a third party that may be incorporated into, attached to or packaged with the Unit, which may be covered by a third party manufacturer's warranty. Manufacturer agrees to make such third party manufacturer's warranties available to Purchaser upon request.
 - b. Defects which are the result of characteristics common to the materials used, including but not limited to warping and deflection of wood, mildew and fading, cracks due to drying and curing of concrete, stucco, plaster, bricks, stone and masonry; drying, shrinking and cracking of caulking and weather stripping; and conditions resulting from condensation on, or expansion or contraction of materials.
 - c. Defects due to design or materials supplied by Purchaser or installed at Purchaser's direction, or defects caused by anything not built into, or installed as part of, the Unit pursuant to contract between Manufacturer and Purchaser.
 - d. Damages due to ordinary wear and tear, abusive use, transportation, storage, modifications, unauthorized repair or lack of proper maintenance of the Unit.
 - e. Loss or injury due to the elements, insects or varmints.
 - f. Non-uniformity of appearance of used construction materials.
 - g. Chips, scratches, or mars in flooring, woodwork, walls, porcelain, plumbing fixtures, plastic laminate, and glass not expressly identified to Manufacturer prior to transfer of title.
 - h. Minor toilet adjustments.
 - i. Defects or damage caused by settling, back filling, slumping, movement, shifting, expansion, or plasticity of the soils beneath the Unit once the Unit has been delivered to Purchaser.

GENERAL DISCLAIMER OF WARRANTIES

EXCEPT AS EXPRESSLY PROVIDED IN PARAGRAPH 1 ABOVE, MANUFACTURER DISCLAIMS ALL WARRANTIES AND REPRESENTATIONS OF ANY KIND, AS TO THE UNIT AND ITS CONTENTS, INCLUDING ANY (a) WARRANTY OF MERCHANTABILITY; (b) WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE; (c) WARRANTY OF TITLE; OR (d) WARRANTY AGAINST INFRINGEMENT OF INTELLECTUAL PROPERTY RIGHTS OF A THIRD PARTY, WHETHER EXPRESS OR IMPLIED BY LAW, COURSE OF DEALING, COURSE OF PERFORMANCE, USAGE OF TRADE OR OTHERWISE. TO THE EXTENT IMPLIED WARRANTIES ARE NOT ABLE TO BE DISCLAIMED UNDER APPLICABLE LAW, THE DURATION AND REMEDIES OF ALL IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE TO THE DURATION OF THIS EXPRESS LIMITED WARRANTY. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. IF A TYPE OF DEFECT, A PART OF THE UNIT, OR OTHER CATEGORY OR TYPE OF ANY PORTION OF THE UNIT IS NOT EXPRESSLY COVERED HEREIN, THEN SUCH IS NOT WARRANTED HEREUNDER.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

CLAIMS PROCEDURE

1. Should it appear that a possible Defect has developed within the warranty period set forth above, Purchaser shall outline pertinent details in writing and deliver the same to Manufacturer within thirty (30) days after discovery thereof. Following receipt of such notice, Manufacturer may choose to make an inspection to verify Purchaser's claim that there is a Defect. If a Defect exists, the Manufacturer will (at the Manufacturer's sole option) either 1) repair, 2) replace, or 3) pay to Purchaser the reasonable cost of such repair or replacement due to such Defect(s); however, Manufacturer shall not be obligated to spend more than the purchase price of the Unit.
2. All warranty work shall be scheduled during normal weekday working hours except in emergencies.
3. THE REMEDIES SET FORTH HEREIN SHALL BE PURCHASER'S SOLE AND EXCLUSIVE REMEDY AND MANUFACTURER'S ENTIRE LIABILITY FOR ANY BREACH OF THE LIMITED WARRANTIES SET FORTH HEREIN.
4. Any and all controversies or claims between Purchaser, Manufacturer and/or Dealer arising out of or relating to the Unit, including its sale, use or condition shall be determined by binding arbitration. Arbitration shall occur before a single arbitrator, who shall be an attorney selected by the parties. If the parties are unable to agree upon an arbitrator, a Circuit Judge from Barron County Circuit Court Wisconsin, upon application of any party to the controversy, shall appoint an arbitrator. Arbitration shall be held pursuant to the provisions set forth in Chapter 788, Wisconsin Statutes. Arbitration, unless otherwise agreed to between the parties, shall occur in Rice Lake Wisconsin, and Wisconsin law shall apply. Judgment on the award rendered by the arbitrator, may be entered in the court wherein the order was granted.

LIMIT OF LIABILITY

1. IN NO EVENT SHALL MANUFACTURER BE LIABLE FOR ANY CONSEQUENTIAL, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR PUNITIVE DAMAGES, LOST PROFITS OR REVENUES OR DIMINUTION IN VALUE, ARISING OUT OF OR RELATING TO ANY BREACH OF THIS LIMITED WARRANTY, WHETHER OR NOT THE POSSIBILITY OF SUCH DAMAGES HAS BEEN DISCLOSED IN ADVANCE BY PURCHASER OR COULD HAVE BEEN REASONABLY FORESEEN, REGARDLESS OF THE LEGAL OR EQUITABLE THEORY (CONTRACT, TORT OR OTHERWISE) UPON WHICH THE CLAIM IS BASED, AND NOTWITHSTANDING THE FAILURE OF ANY AGREED OR OTHER REMEDY OF ITS ESSENTIAL PURPOSE.
2. IN NO EVENT SHALL MANUFACTURER'S AGGREGATE LIABILITY ARISING OUT OF OR RELATED TO THE SALE OF THE UNIT OR THIS LIMITED WARRANTY, WHETHER ARISING OUT OF OR RELATED TO BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE) OR OTHERWISE, EXCEED THE TOTAL OF THE AMOUNTS PAID TO MANUFACTURER FOR THE UNIT.
3. The Manufacturer shall not be liable under this Limited Warranty unless written notice of the Defect shall have been given by Purchaser to Manufacturer within the two (2) year warranty period. Steps taken by the Manufacturer to correct any defect or defects shall not act to extend the warranty period described hereunder.
4. The Purchaser shall have ninety (90) days after the expiration of the two (2) year warranty period to bring any legal action hereunder.
5. The manufacturer may charge reasonable fees for travel to a customer's site.

PURCHASER'S RESPONSIBILITY

To receive the full benefits of the Warranty, Purchaser must at Purchaser's expense:

1. To receive the full benefits of the Warranty, Purchaser must at Purchaser's expense:
 - a. Have the Unit serviced regularly as recommended by the Manufacturer.
 - b. Keep a record of maintenance and keep receipts and work orders showing date and service performed. For services done by Purchaser, keep personal maintenance record with date and services performed including any receipts for products purchased to carry out that aforementioned maintenance.
 - c. Comply with the claims procedure set forth herein.

TRANSFER OF RIGHTS

1. To the extent permissible, Manufacturer shall assign to Purchaser all of Manufacturer's rights, if any, under third party manufacturer's warranties on appliances and items of equipment included as part of the Unit. Manufacturer shall assume no responsibility for such manufacturer's warranties and Purchaser shall follow the procedures in these warranties if defect appear in such appliances and items of equipment.
2. This Limited Warranty is extended only to the Purchaser named herein. It is not transferable to subsequent purchaser or transferee of the Unit.

Component Warranties

The following list of components has been compiled to help you know which products installed on your recreational vehicle may have their own warranties. If you have any of these components on your RV, be sure to check the manufacturer's literature supplied with your RV Owner's packet to confirm whether they require you to register your purchase with them to validate their warranty. These warranties usually apply only to the first owner of the recreational vehicle. We recommend that you send the various warranty registration cards immediately before any time constraints on registration expire.

Manufacturer's literature is supplied by each component company according to the specific items used in the production of your RV. This information is part of the Owner's packet you received with your RV. Only those products which are used on your unit will be included in this packet. Inspect this literature with your dealer during the pre-delivery inspection and report any literature shortage to ESCAPE RV at that time.

Appliances

- Range
- Water Heater
- Microwave
- Refrigerator
- Ice Maker
- Split System
- Heaters
- TV/DVD

Water & Drainage

- Faucet
- Toilet
- Propane
- Propane Tanks & regulator

Electrical

- Panel and Breakers
- Solar Charger and Panels

Miscellaneous

- Fire Extinguisher
- Smoke/CO Detector
- Propane Detector
- Flooring & Windows

Chassis

- Hitch
- Stabilizing Jacks

NOTE: A component manufacturer is one who produces a product which is used in the production of your RV.

Taking Delivery

A qualified ESCAPE RV representative will perform a 'walkthrough' 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 ownership experience possible.

ESCAPE RV Responsibilities

1. ESCAPE RV is responsible for inspecting installed components for proper operation. This is known as the pre-delivery inspection and systems check.
2. The owner's information packet should be presented at this time. This information should include all warranty cards, component information, operation, and maintenance instructions relating to your new ESCAPE.
3. Ask any questions you may have before your representative leaves your location.

Customer's Responsibilities

1. Regular and proper maintenance - As the owner, you have the responsibility to properly maintain your ESCAPE RV. Be sure you have service performed in a timely manner; don't ignore a problem. Many times a phone call is all that is needed. Be sure the unit stays level.
2. Familiarize yourself with your ESCAPE RV. Observe all the component manufacturers' instructions regarding the use and service of their products.
3. Complete and send in all the warranty cards. Doing so may help you avoid conditions arising from neglect that are not covered under warranty.

NOTE: Modifications to your ESCAPE RV, without written authorization from ESCAPE RV, could result in reduction or loss of warranty coverage. Contact ESCAPE RV before making such changes.

The following is a list of suggestions to assist you in avoiding most warranty issues:

1. Read your warranties and review them with your representative. The representative's obligation is to educate you regarding the proper and safe operation of your Traveler and all its components.
2. Be sure to inspect the entire unit and note any issues.
3. Locate all paperwork and ask any questions you may have before your representative leaves.

NOTE: ESCAPE RV wants you to have the best possible experience with your RV. To get the most enjoyment out of your ESCAPE RV and to ensure you fully understand how your RV operates, please address immediately any questions or concerns you may have regarding your RV with your representative before using your ESCAPE RV for the first time.

How to Contact Us

ESCAPE RV
1740 20 ½ St.
Rice Lake, WI 54868

email: service@escapehomes.us
Phone: (844) 696-3722

Identification & Safety

LEGEND

Listed below are symbols and descriptions you will find throughout this manual. They are used to alert you to possibly dangerous or hazardous situations. When you see these symbols, please read them carefully and follow the instructions to help prevent damage to your recreational vehicle and for your personal safety.



DANGER!

Indicates a hazardous situation which, if not avoided, will result in death or serious injury.
This sign is commonly RED.



WARNING

Indicates a hazardous situation which, if not avoided, could result in death or serious injury.
This sign is commonly ORANGE.



CAUTION

Indicates a hazardous situation which, if not avoided, could result in vehicle damage or minor to moderate injury.
This sign is commonly YELLOW.

Vehicle ID Decals and Plates

- The recreational vehicle VIN (vehicle identification number), label is mounted on the front lower road side of the hitch.
- The recreational vehicle VIN is a computer generated number based upon pertinent facts about your RV.
- Decals and data plates, placed throughout the recreational vehicle, aid in its safe and efficient operation or give service instructions. Read all decals, data and instruction plates before operating your Traveler. If any decal, data, or instruction plate is damaged, painted over or removed, it should be replaced.

NOTE: Please have model, year, and the recreational vehicle VIN information ready when calling ESCAPE RV.

Safety Regulations and Propane

The following warnings are posted throughout your ESCAPE RV to provide information on propane safety. They have been installed not only because of the requirement to do so, but also as a constant reminder to exercise proper caution when using or being around propane appliances and equipment. We are listing them here so you may study them and be sure that you and your family understand and follow them.



WARNING

Do not place propane cylinders inside the vehicle. Propane cylinders are equipped with safety devices that relieve excessive pressure by discharging propane to the atmosphere. Propane is highly flammable. Failure to comply may lead to fire or explosion and result in death or serious injury.



DANGER

Propane cooking appliances need fresh air for safe operation. Before operating:

Open vents or windows slightly or turn on the exhaust fan prior to using the cooking appliance.

Propane flames consume oxygen which must be replaced to ensure proper combustion. Improper use may result in death or serious injury.

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

**DANGER**

Do not store propane containers, gasoline, or other flammable liquids inside the vehicle as a fire or explosion may result.

**DANGER**

A warning label is located near the propane container. This label reads: Do not fill propane container(s) to more than 80 percent capacity.

A properly filled container will contain approximately 80 percent of its volume as liquid propane. Overfilling the propane container can result in uncontrolled propane flow, which can cause fire or explosion and result in death or serious injury.

**DANGER**

Do not use propane cooking appliances for comfort heating. Failure to comply may lead to carbon monoxide poisoning which can lead to death or serious injury.

**DANGER****IF YOU SMELL PROPANE:**

1. Extinguish any open flames and all smoking materials.
2. Shut off the propane supply at the container valve(s) or propane supply connection.
3. Do not touch electrical switches.
4. Do not light any appliance.
5. Do not use any telephone in the unit.
6. Open doors and other ventilating openings.
7. Leave the area until the odor clears.
8. Have the propane system checked and leakage source corrected by a propane supplier or qualified service center before using again. Ignition of flammable vapors could lead to a fire explosion and result in death or serious injury.
9. If a propane dealer or qualified service center cannot be reached, call the local fire department.

Safety Devices



WARNING

Never ignore alarms on safety devices. If the alarm sounds get everyone out of the recreational vehicle immediately.

- Always have a plan of escape. Update and practice your escape plan every six months.
- Have a meeting and discuss the plan, showing everyone what to do including guests.
- Do not waste time by picking up valuables or getting dressed. Sometimes seconds count!
- Vacuum any dust off the alarm weekly using the soft brush attachment.
- DO NOT spray cleaning agents or waxes directly onto the detector as it may cause damage to the sensor.



Smoke/CO Detector

- Smoke alarms may not have time to alarm before the fire causes damage, injury or even death.
- A smoke detector works for only detecting smoke, not fire.
- The alarm will sound only if smoke reaches the sensor.
- Check the batteries at least once a month.
- This unit will not alert residents who are deaf. Special alarms with flashing strobe lights are needed.
- Smoke alarms have a limited life and are not foolproof.
- Never attempt to repair this unit; replace if faulty.
- Never disconnect the battery to silence the alarm.
- The carbon monoxide detector is designed to detect carbon

monoxide from any source of combustion. It is NOT designed to detect smoke, fire or any other gases.

- DO NOT remove batteries except for replacement.
- Test alarm each month. Press the 'TEST' button. If the alarm fails to sound, replace the unit immediately. DO NOT attempt to repair.
- For more information, please consult the component Owner's Manual.

Propane/LP Detector

- This detector senses propane in the air, not smoke or fire or other gases. It detects the presence of propane at the sensor; explosive gas may be present in other areas.
- Test your propane detector weekly. These detectors are very sensitive and have a tendency to go off without any threat to you...please contact ESCAPE immediately if this happens.
- DO NOT attempt to repair the detector. If it fails the test, change batteries. If it still does not function properly, replace the entire unit.
- For more information, please consult the component Owner's Manual.



WARNING

Smoke, propane and CO alarms may have an expiration date. Please consult the component Owner's Manual for the smoke detector and the propane detector.

Fire Safety

- Fire safety is an important part of owning Traveler. The following basic rules of fire prevention can help eliminate the possibility of a fire.
- Never store flammable liquids in an ESCAPE RV.
- Never leave cooking food unattended.
- Never smoke in bed and always use an ashtray.
- Never allow children to play with propane or electrical equipment.
- Never use an open flame as a flashlight.
- Have faulty or damaged wiring and electrical components repaired immediately.
- Never overload electrical circuits.
- Locate any propane leaks and have them repaired immediately.
- Keep cooking surfaces clean and free from debris.
- Don't allow rubbish to accumulate.
- Never clean with a flammable substance.
- Spray fabrics annually with a flame retardant.
- Be sure that everyone in your RV is familiar with the location of all exits, including exit windows.
- Make sure everyone is familiar with the location and proper operation of all fire extinguishers.



WARNING

DO NOT ATTEMPT TO USE WATER TO PUT OUT A FIRE. Water can spread some types of fire, and electrocution is possible. Leave your ESCAPE RV immediately and call the fire department!

Propane 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 propane pressure causing fire or explosion.



WARNING

Portable fuel burning equipment, including wood or charcoal burning grills and stoves, shall not be used inside an ESCAPE RV. Doing so may cause a fire, explosion, carbon monoxide poisoning, or asphyxiation.

If you decide to fight a fire with an extinguisher:

- Remove the tamper tape which covers the discharge push button (do not shake).
- Hold it upright and stand six to ten feet from the fire with a clear path to an exit.
- Press the button down completely, aiming at the base of the fire, and spray with quick side to side sweeping motion.
- Read the instructions for using the fire extinguisher and become familiar with its parts and operation.

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

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

**DANGER**

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.

Do not use water to extinguish a fire. Water can spread some types of fire, and electrocution is possible.

Underwriter Laboratories classifies fires into three types:

1. Class A: Fires in wood, paper, fabric, rubber and certain plastics.
2. Class B: Flammable liquids such as grease, cooking oils, gasoline or kerosene.
3. Class C: Electrical fires started from live electrical wires shorted motor/switches.

Tire Safety

Use the following information to make tire safety a regular part of your vehicle maintenance routine.

**CAUTION**

Safety First- Basic Tire Maintenance

Properly maintained tires improve steering, stopping, traction, and load-carrying capability of your vehicle. Under-inflated tires and overloaded vehicles are major causes of tire failure. Therefore, to avoid flat tires and other types of tire failures, you should maintain proper tire pressure, observe tire and vehicle load limits, avoid road hazards and regularly inspect your tires. Follow any maintenance requirements for tires established by the manufacturer.

Tire Pressure and Load

Finding Your Vehicle's Recommended Tire Pressure and Load Limits

The tire information and vehicle certification labels contain information on tires and load limits. These labels referred to as "tire placards" indicate the vehicle manufacturer's information including:

- Recommended tire size
- Recommended tire inflation pressure
- Gross Vehicle Weight Rating (GVWR – the maximum occupant and cargo weight a vehicle is designed to carry.)
- Front and rear gross axle weight ratings (GAWR – the maximum weight the axle systems are designed to carry.)

At least once a month, inspect the tires thoroughly and be sure there are no cracks in the grooves and no wires showing. Cracks in the sidewall could indicate interior damage or separations in the tire.

Understanding Tire Pressure and Load Limits

Tire inflation pressure is the level of the air in the tire that provides it with load-carrying capacity and affects the overall performance of the vehicle. The tire inflation pressure is a number that indicates the amount of air pressure, measured in pounds per square inch (psi), a tire requires to be properly inflated. (This number is also expressed in kilopascals (kPa) which is a metric measuring system used internationally.)

Vehicle manufacturers determine this number based on the vehicle's design load limit, which is the greatest amount of weight a vehicle can safely carry, and the vehicle's tire size. The proper tire pressure for your vehicle is referred to as the 'recommended cold inflation pressure'. Tire pressure should always be measured when the tire is cold to get an accurate measurement. A cold tire is one that hasn't been driven on for at least three (3) hours. As you drive, your tires get warmer, causing the air pressure within the tire to increase. Therefore, you cannot get an accurate measurement of tire pressure unless the tire is cold.

Checking Tire Pressure

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. This number is the greatest amount of air pressure that should ever be put in the tire under normal driving conditions.

NOTE: It is important to check your vehicle's tire pressure at least once a month for the following reasons:

- Most tires naturally lose air pressure over time.
- Tires can lose air suddenly if you drive over a pothole or strike the curb when parking.
- With radial tires, it is usually not possible to determine under inflation by visual inspection. For your convenience, purchase a tire pressure gauge to keep in your vehicle.

Preventing Tire Damage

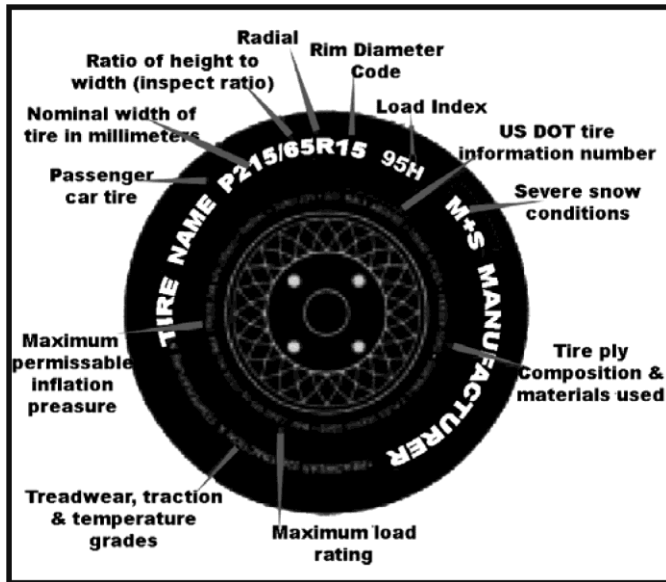
- Slow down if you have to go over a pothole or other object in the road.
- Do not run over foreign objects in the roadway, and try not to strike the curb when parking.

Tire Safety and Maintenance Checklist

- Check tire pressure regularly (at least once a month), including the spare.
- Inspect tires for uneven wear patterns on the tread, cracks, foreign objects, or other signs of wear or trauma.
- Remove bits of glass and any other foreign objects wedged in the tread.
- Make sure your tire valves have valve caps.
- Check tire pressure before going on a trip.
- Do not overload your vehicle. Check the tire information placard for the maximum recommended load for the vehicle.
- If you are towing a trailer, remember that some of the weight of the loaded trailer is transferred to the towing vehicle.

Tire Fundamentals

Tire Identification Numbers



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 also provides a tire identification number for safety standard certification and in case of a recall.

P

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

Next (3 digit) Number

- Gives the width in millimeters of the tire from sidewall edge to sidewall edge. In general, the larger the number, the wider the tire.

Next (2 digit) Number

- Gives the tire's ratio of height to width (known as the aspect ratio). Numbers of 70 or lower indicate a short sidewall for improved steering response and better overall handling on dry pavement.

R

- 'R' stands for radial. Radial ply construction of tires has been the industry standard for the past 20 years.

Next (2 digit) number

- This is the wheel or rim diameter in inches. If you change your wheel size, you will have to purchase new tires to match the new wheel diameter. Next number

Next (2 or 3 digit number)

- This number is the tire's load index. It is a measurement of how much weight each tire can support. If you are unsure, contact a local tire dealer.

NOTE: You may not find the following information on all tires since it is not required by law.

M+S

- 'M+S' or 'M/S' indicates that the tire has some mud and snow capability. Most radial tires have these markings; hence, they have some mud and snow capability.

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

DOT

- This number begins with the letters "DOT" and indicates that the tire meets all federal standards. The next two numbers or letters are the plant code where it was manufactured, and the last four numbers represent the week and year the tire was built. For example, the numbers

3197

- Ex. means the 31st week of 1997. The other numbers are marketing codes used at the manufacturer's discretion. This information is used to contact consumers if a tire defect requires a recall.

Tire Ply Composition and Materials Used

- The number of plies indicates the number of layers of rubber-coated fabric in the tire. In general, the greater the number of plies, the more weight a tire can support. Tire manufacturers also must indicate the materials in the tire, which include steel, nylon, polyester, and others. Maximum Load Rating

Load rating

- Indicates the maximum load in kilograms and pounds that can be carried by the tire.

Maximum Permissible Inflation Pressure

- This number is the greatest amount of air pressure that should ever be put in the tire under normal driving conditions.

Treadwear Number

- This number indicates the tire's wear rate. The higher the treadwear number is, the longer it should take for the tread to wear down. For example, a tire graded 400 should last twice as long as a tire graded 200.

Traction Letter

- This letter indicates a tire's ability to stop on wet pavement. A higher graded tire should allow you to stop your car on wet roads in a shorter distance than a tire with a lower grade. Traction is graded from highest to lowest as 'AA', 'A', 'B', and 'C'.

Temperature Letter

- This letter indicates a tire's resistance to heat. The temperature grade is for a tire that is inflated properly and not overloaded. Excessive speed, under inflation or excessive loading, either separately or in combination, can cause heat buildup and possible tire failure. From highest to lowest, a tire's resistance to heat is graded as 'A', 'B', or 'C'.

Tire Safety and Tips



WARNING

TIRE TIPS

- Make sure all lug nuts are secure. Use a torque wrench. Do not guess.
- Inspect tires for uneven wear patterns on the tread, for cracks, for foreign objects or for other signs of wear or trauma.
- Trailers should have the wheel bearings repacked after being in storage for long periods of time.
- Do not overload your vehicle.
- Check the tire information placard for the maximum recommended load for the vehicle. Never exceed the wheel manufacturer's recommendations.
- It is important to maintain proper wheel nut torque to provide safe and secure attachment of the wheel to the hub/drum.



DANGER

Be sure to use wheel nuts that are compatible with the coin in the wheel. Improperly torqued wheel nuts can cause the wheel to separate from the wheel mounting surface during operation. This could result in property damage, serious personal injury or loss of life. Do not over torque!

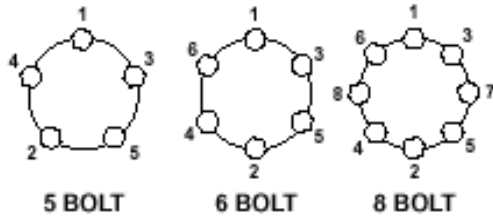


WARNING

Do not place a jack against the trailer underbelly when changing a tire. To avoid damage to your unit, be sure the jack is placed firmly against the chassis frame and place it as close to the spring hangers as possible.

Lug Nuts

Tighten Each Lug Nut in the Order Shown



Typical torque stages

1ST STAGE 20 TO 25 ft./lbs.

2nd STAGE 55 TO 60 ft./lbs.

3rd STAGE 85 TO 95 ft./lbs.

NOTE: Start all lug nuts by hand to prevent cross threading. Wheel nut torque requirements vary depending on the size and manufacturer of the wheel. Always use the wheel manufacturer's recommendation but do not exceed 100 ft./lbs. on 1/2 inch studs, or 130 ft./lbs. on 9/16 inch studs. Unless otherwise specified by the wheel manufacturer, use a final torque of 85-95 ft./lbs.

NOTE: It is recommended that wheel bearings be repacked yearly.

Weighing, Loading, and Towing

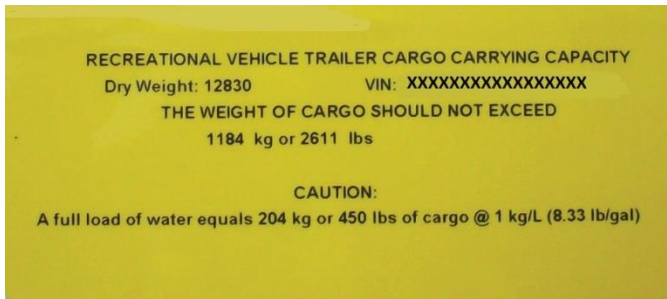
Cargo Carrying Capacity

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 road side of the unit, will indicate the gross axle weight (GAWR). This is the most weight the fully loaded vehicle can weigh. If there are multiple axles, the GAWR of each axle will be provided. Look in your Yellow Pages under 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, assuming your unit has 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 cannot exceed the stated GVWR.

Vehicle Load Limits



Weight Terminology

GVWR (Gross Vehicle Weight Rating)

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

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 each of the following:

- UVW Full fresh (potable water for drinking and cooking) water weight (including water heater) and full propane 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 fresh water storage tank of 100 gallons, when filled this tank would weigh about 800 pounds. If needed, water can be off-loaded 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.

NOTE: Before filling the fresh water tank, empty the black and gray tanks. Most campgrounds supply dump stations for this purpose. Doing this will provide more cargo capacity.

NOTE: If you find that you have exceeded the GVWR of the recreational vehicle, you will have to remove items until you are within the specified limits. After you have determined how much weight you can safely carry, make a list and keep it for future reference. This will limit the amount of time it takes you to get ready for the road.

Weighing Your ESCAPE RV

Weighing Tips

- Weights of stored items will vary greatly and will affect total weight of your recreational vehicle. Always weigh the recreational vehicle at a certified weigh station equipped with platform scales.
- Check the telephone directory or with local authorities for the location of weigh stations in your area. If you find that you have exceeded the GVWR of the recreational vehicle, you will have to remove items until you are within the specified limits. If you find that either of the GVWR's has been exceeded, you will need to redistribute the load within the recreational vehicle to meet the specified limits. Plan ahead before loading your RV to ensure that items will be evenly distributed. Not only will the recreational vehicle handle and ride better, you will also have reduced tire wear and increased fuel economy.
- When weighing the recreational vehicle, weigh both right and left hand sides separately. This will ensure that you have not overloaded one side or the other, affecting handling. To avoid possible damage, DO NOT store heavy items near the extreme front or rear ends of the RV.
- Empty the holding tanks before leaving on a trip and as often as possible when traveling to help keep weight reduced. Try to carry only as much water as you will need while traveling. Sometimes, the water tanks can be used to help balance the weight in the recreational vehicle (a gallon of water weighs 8 pounds).
- Secure all items stored inside and outside the recreational vehicle, and be sure all doors and drawers are secure.

NOTE: Do not attach any type of rack or frame to any recreational vehicle frame, bumper, or chassis part. The alteration to length and/or weight distribution may result in unstable handling, be a safety hazard, or could damage the RV components. Alterations of the sort, without the RV manufacturer's express written consent, may affect the RV warranty.

How to Weigh Your ESCAPE RV

- With full fuel tanks and a typical passenger load, weigh the tow vehicle separate from the trailer.
- Before weighing the trailer, fill the propane tanks. If you plan to travel with fresh water on board, the fresh water tank should also be filled to the level you intend to carry when traveling.
- Hitch the trailer and weigh both the trailer and the tow vehicle. Drive onto the scale so that only the tow vehicle (with full fuel and passengers) is on the scales. This weight minus the tow vehicle's weight equals the hitch weight.
- Drive the tow vehicle and the trailer fully onto the scale to get the Gross Combined Vehicle Weight. This weight minus the tow vehicle weight equals the trailer weight. The Gross Vehicle Weight Rating (from the manufacturer's sticker) minus the trailer's weight equals the amount of supplies and personal gear you can carry.

NOTE: If you have dual axles, you can get a weight for each axle by stopping on the scale with the first axle on the scale and noting the weight. Then drive so that both axles are fully on the scale and note that weight as well. (Weigh masters are accustomed to this procedure and, if you explain what you intend to do, will usually work with you.)

NOTE: For information regarding hitching to the tow vehicle, please refer to your selling dealer.

Computing Your Load and Load Distribution

To avoid overloading, you must understand that the GVWR is the most weight your unit was designed to carry. The GVWR is the weight of the entire contents of the unit and the full weight on the axles, on the tongue or hitch. **DO NOT EXCEED THE GVWR OF THIS UNIT.** This information is listed on the "Trailer Weight Information" sticker located on the driver's side (or road side) front corner of the unit. To determine how much cargo weight you can put in your unit, make sure the unit is fairly empty and all tanks have been drained. Take your unit to a weigh station and have the entire unit weighed on the scale. The total weight from the scale subtracted from the GVWR will give you the amount of cargo weight you can load into your unit. If you are still unsure of overloading, you can take the fully loaded unit to a weigh station and have it weighed the same way. The total weight of the unit should never exceed the GVWR of the unit.

Travel Trailer Hitch and Sway Control

To safely tow your new travel trailer, we recommend having a weight distributing hitch with a 2 5/16 inch ball. It is very important to choose a hitch designed for the particular tow vehicle and have it properly installed. Choosing the correct hitch for use with your unit will enhance the stability and maneuverability of your unit and tow vehicle combination.

A weight distributing hitch is one in which leverage is used to distribute the tongue weight of the trailer between the trailer and the tow vehicle. It consists of the hitch receiver, which attaches to the tow vehicle, and spring bars that provide the necessary leverage for load distribution. A hitch of this type properly installed and matched to your tow vehicle will provide a level ride that can improve braking and steering control, as well as reduce towing strain. Pay particular attention to the relationship between the tongue load limits of your tow vehicle and the hitch that you purchase. Another consideration when choosing a hitch is the addition of a sway control system. Friction and cam-action are the two main types of sway control systems available. Be sure to discuss the addition of sway controls with your dealer and hitch supplier when making the decision to purchase a hitch for your tow vehicle.



DANGER

This unit may become unstable and/or unsafe if towed without proper weight distribution and sway control systems. These should be installed as per the weight distribution and sway control manufacturers' instructions.

This will form a cradle that catches the hitch coupler should it come loose. The end connectors should always be connected to the hitch base plate or another location specifically provided for this purpose. NEVER attach safety chains by looping around the ball hitch. If the chains are too long, simply twist them until the desired link is obtained.

NOTE: It is very important to lower the latch and insert the safety pin into the hole.

NOTE: At no time should the weight of the fully loaded unit exceed the tow vehicle's maximum weight rating.

Safety Chain Installation Instructions

On travel trailers, safety chains should always be connected by crossing them under the trailer tongue. The right chain attaches to the left side and the left chain attaches to the right side.

NOTE: When leveling your travel trailer

- DO NOT use the stabilizer jacks to raise or lower the trailer.
- DO NOT use the stabilizer jacks to support the total weight of the trailer.

NOTE: The jacks are only meant to stabilize your trailer in a level position. Attempting to raise the trailer by use of the stabilizer jack can cause damage to the jack, frame or both.

NOTE: Aftermarket stabilizer stands must be placed only under chassis frame rails.

NOTE: Always fully retract the jacks before towing the RV.



WARNING

Before using the jacks, be sure to chock the wheels on both sides. Place chocks both in front of and behind the wheels.

Loading Tips

1. After you have determined what cargo makes up the allowable GVWR, make a loading diagram of your properly loaded RV.
2. Store emergency items, flashlights, flares, tools, electrical cords, first aid kit, etc., in an easily accessible storage compartment, taking care to keep those items in a waterproof container.
3. When loading your RV, remember to distribute the weight evenly so you get the proper amount of weight on the axle(s) and hitch. Remember to also consider the weight of any items you may purchase on your trip.
4. Do not place heavy items in the overhead cabinets. They could shift and fall during travel.
5. Luggage and similar cargo stored inside the RV must be secured to prevent possible damage if it should become necessary to make a sudden stop.
6. Heavy items should be stored close to the floor in the center of the unit. Avoid loading heavy items near either end of the RV or on the rear bumper. Adjust cargo, as needed, to keep the side to side wheel loads equal.

Packing for Travel

- Following is a list of items you may find useful to take along:
- First Aid Kit
- Spare fuses
- 12-volt automotive type battery
- Tool kit with suggested items:
 - Phillips, square head and regular slotted screw drivers, pliers and crescent wrench, a bubble level, open-end wrenches (that fit the water and gas line fittings), a good tire pressure gauge, electrical tape, and a flashlight.
- Water hose (minimum of 25 feet) used to fill water tank and to connect to city water.
- Three or four prong extension cord- MUST be rated for the load for which your recreational vehicle was designed, either 30 or 50 amp.
- Holding tank chemicals
- Registration and insurance information (for recreational vehicle and tow vehicle)
- Spare set of keys
- Three pieces of 2" thick x 6" wide x 10" long pieces of wood for leveling the vehicle in uneven camping areas. Even if you have leveling jacks built in, they may come in handy. The wood can also be used as chocks to help prevent the unit from rolling forward or backward if you are parked on an uneven site.
- Throw rug to protect the entry area carpet.
- Emergency Contact Phone Numbers

One Final Check

After you have loaded your unit for your trip, weighed it, and made sure you are within the specified weight limits, there's one final check you need to perform. Starting on the outside of the vehicle, perform a visual walk-around check.

Here are some things to look for:

- All exterior storage doors and hatches are securely shut and latched.
- Tail lights, brake lights, headlights, and turn signal lights are functioning properly.
- City water hose is disconnected and stowed. The connection cap has been tightly secured.
- Holding tank valves are closed with dump outlet cap securely fastened and sewer hose is stowed.
- Power cord is unplugged and stored.
- TV/satellite antenna is lowered (if equipped).
- Tire pressure is within specified limits. (Always check tire pressure when tires are cold at least three hours after being driven on.) Releasing air from a heated tire is dangerous.
- Lug nuts are tight and wheel covers are secure.
- All liquid levels are adequate (chassis engine oil, transmission fluid, engine coolant, battery fluid, and windshield washer solution).
- Roof vents are closed.
- Fresh water tank, sewage holding tank, and propane tank are at correct levels.
- Entrance door is securely closed and locked, and entry step is retracted.
- Check the campsite for items left behind and that you left it clean and safe for the next campers.

Hitting the Road and Selecting a Site

Campsite Parking

Selecting a campground is one of the first things you should consider doing before beginning your trip. RV campground maps with directions and available amenities are available at most camping stores for a small fee. Below are some tips to help you choose the best campground for your needs.

- Decide how long you intend to stay at the campground. If you intend to stay for a prolonged period of time, a reservation would ensure your stay at the campground of your choice and that your site is reserved, no matter what time you arrive. As with most reservations, a deposit may be required to hold your space. Most campgrounds provide a 'drop box' where they will place your paperwork if you will be arriving after hours. Your campsite should be marked on the campground map, and you may find literature for local places of interest, shopping locations, and restaurants in the area.
- If you have a preference, you may request that your campsite be close to the pool, playground, lake, showers, or camp store, if available. Or, you may prefer to park away from those more populated areas. If you have researched prior to your trip, you will know what type of amenities the campground has to offer and will be able to make a decision based upon your personal wants or needs.
- Be sure the campground you choose offers the correct electrical hookup needed for your recreational vehicle. It will be either a 30 or 50 amp service.
- Determine if the campground can accommodate the size of your recreational vehicle. Know the length of your recreational vehicle before making a choice. (Smaller, older parks may not be able to accommodate larger recreational vehicles.)
- Ask if the parking site for your recreational vehicle is a PULL-IN or a BACK-IN site. If you have a problem backing your unit, or if you will be arriving after dark to an unfamiliar campground, you may want to request a PULL-IN site. Definitely request a PULL-IN site if you are towing an object behind your recreational vehicle. Keep in mind, during peak traveling seasons, reservations may be the best way to ensure you get the type of site that will suit your needs.
- Other items you may like to take are lawn chairs, extra towels for the pool, sunscreen, and bug repellent. If staying for a length of time, consider bringing a small roll of indoor-outdoor carpet to put by your recreational vehicle door, to cut down on the amount of dirt and debris that may be tracked into your recreational vehicle, and a small vacuum cleaner. A small, portable handheld vacuum cleaner draws less amperage than standard size ones.
- It's best to arrive at the campground before dark especially if you are unfamiliar with the campground and if you need to back into a site. Before parking on your site, inspect it for rocks, slopes or uneven areas. When pulling onto your site, watch for posts, large rocks, low hanging limbs, or other obstacles. If possible, pull into the site so the electrical outlets and plumbing connections are on the driver's side of the recreational vehicle (most of your recreational vehicle's connections are on the driver's side). Doing so will enable the driver to maneuver the recreational vehicle more easily into a position where it will not interfere with these connections. The driver will also be able to see any obstructions more clearly, which could interfere with the slide rooms or awnings when fully extended.

Leveling Your RV

FOLLOW ALL SAFETY WARNINGS LISTED BELOW BEFORE ATTEMPTING TO OPERATE THE JACKS,



WARNING

Never lift the recreational vehicle completely off the ground using only the leveling jacks. Doing so will create an unstable and unsafe condition. It could cause damage to the jacks, your RV as well as serious personal injury.



WARNING

Never expose hands or other parts of the body near hydraulic leaks. High pressure oil leaks may cut and penetrate the skin, causing serious injury.



CAUTION

Keep people and pets clear of the recreational vehicle while the leveling system is in use.



CAUTION

Park the recreational vehicle on solid, level ground and clear the site of debris and obstructions. Avoid parking over holes or depressions in the ground. If parking on soft surfaces, utilize load distribution pads under each jack.



WARNING

Never use the leveling jacks to raise the recreational vehicle to change a tire or to perform any other type of repair work. Always use proper equipment or contact a professional.

Leveling Jacks Operation

It is critical for the operation of your unit that your unit is level. You need to regularly check the unit when it is parked in place to be sure the unit stays level.

1. Your unit comes with two bubble levels which are permanently installed on your unit. They are located on the back and on the left side of the unit when looking from the hitch end. In addition, we recommend having a third level, such as a 4' level, to further check that the unit is level in all directions.
2. Since your unit has two axles, cut or purchase three lengths of 2"x8" wood (with no knots or cracks). Some manufacturers recommend 2" x 6" pieces of wood. (Since your tires should never hang over the edge of the leveling boards, the 2" x 8" gives you a little more room to maneuver.) If you prefer, there are heavy-duty plastic blocks you can purchase to use in place of the wood.
3. To determine the length of board needed, measure the distance between the axle hubs and add 18" to 24". (The board should be long enough to allow the tire to rest completely on the board.) If you have difficulty controlling the rig when backing onto the boards, add extra length. The second board should be 5" longer than the first one and the third board should be 5" longer than the second one. You may need various sizes of smaller boards for use under jacks and stabilizers. Another possibility is using plastic blocks that can be purchased at almost any RV camping store. Smaller trailers also may be able to use leveling ramps instead of the boards, but note the weight restrictions on the ramps and compare it to the weight of your trailer.
4. Choose a site that is as level as possible. Be sure the ground is not soft and will support the weight of the trailer.
5. Before unhitching the trailer from the tow vehicle, level the unit from side to side with the appropriate length of wood, being sure to use chocks or wood blocks in front of the wheels to prevent the trailer from rolling. Once it is level side to side, you may unhitch and remove the chocks then level it front to back. Sometimes if you move the RV a foot or two, it will be level enough not to need the wood plank.
6. If additional leveling is necessary, using the leveling boards you made before your trip, place one or more in front of or behind the low side tires. Drive onto the boards and recheck the level. If you use more than one board, stagger them so the wheels roll up the one board at a time.
7. Use the tongue jack to adjust your front to back level; lower the stabilizers to the ground to help prevent rocking. After stabilizing the unit, be sure the frame is not twisted, buckled, or stressed. Be sure that all doors and windows operate freely. If they do not, the unit is not level.
8. The stabilizer jacks that are attached to the unit are NOT intended to lift the unit, only level it. Trying to lift the unit with the jacks will result in damage to the jacks and could invalidate the warranty.

NOTE: When it rains, water may collect in the bottom of the window frame and drain out of the weep holes, made for that purpose. If your unit is not level, the water may not drain out properly. This could cause water damage to the window or wall and could breed mold due to condensation.

NOTE: Before moving your RV, be sure all stabilizers (and steps) are removed or fully retracted.

Living Quarters

Condensation and Humidity

Condensation is the change of water from its gaseous form (water vapor) into liquid water. Just as moisture collects on the outside of a glass of cold water during humid weather, moisture can condense on the inside surfaces of your ESCAPE RV.



WARNING

Mold occurs when condensation is left for prolonged periods of time and is extremely difficult to kill. Controlling condensation inside your unit is the best way to avoid not only mold but dampness as well, both of which can cause damage to your ESCAPE RV and/or its contents.

Condensation can infiltrate the insulation, motors, and working parts of appliances or plumbing pipes to name a few. Even though you may not see condensation, it may be inside the walls, cupboards or under the floor, so it is best to take every precaution to avoid it occurring. Generally, an area that is dark, and where moisture can accumulate, is the most likely spot for mold to grow.

It is especially important when storing your ESCAPE RV or if you do not anticipate using it for an extended period of time to air it out. Empty the refrigerator and freezer and dry them completely. Dry the inside of the shower and shower head.

Check for any leaks at the kitchen sink, toilet and bath- room sink. It's also a good idea to check your unit periodically to ensure there is no condensation forming on the windows, which would indicate there is too much moisture in your unit.

If you see signs of excessive condensation, take the necessary steps to remove the moisture to prevent possible damage to the contents or the ESCAPE RV itself.

Below are tips to help contain humidity in your trailer:

1. Keep indoor humidity low- if possible, below 60% (ideally between 30% and 50%) relative humidity. Relative humidity can be measured with a moisture or humidity meter. The meter is a small, inexpensive (\$10 - \$50) instrument available at most hardware stores.
2. Consider using a small dehumidifier to help rid the unit of moisture or use your split system.
3. Avoid allowing wet clothing to hang, creating a potential breeding ground for mold.
4. When showering or bathing, open the windows or leave the vent fan on to allow steam and moisture to escape.
5. Be sure there are no obstructions in any vents and that all vents are properly sealed. Pay particular attention to appliances that produce moisture, such as air conditioners, shower, ovens, washer/dryer units.
6. Try to recirculate the air by using vent fans or small oscillating fans or your Split System and/or ceiling fan. If condensation occurs, keep the windows clean in order to prevent the growth of mold and mildew.



WARNING

Damage caused by mold or mildew is a maintenance issue and is not warrantable. You as the owner, are responsible for proper maintenance of your ESCAPE RV. Controlling humidity inside your ESCAPE will help to prevent damage which may occur due to neglect.

If you have water and/or mold damage caused by sewage or other contaminated water, it is best to call in a professional who has experience cleaning living spaces damaged by contaminated water.

Propane



DANGER

DO NOT bring or store propane cylinders, gasoline or other flammable liquids inside the vehicle. A fire or explosion could result.



DANGER

NEVER use any other type of propane container than the one furnished with your RV. If the tank must be replaced, check with your dealer for specifications.



DANGER

Propane regulators must always be installed with the regulator vent facing downward. Regulators that are not in compartments have been equipped with a protective cover. Be sure the regulator cover is kept in place to minimize vent blockage that could result in excessive propane pressure, causing fire or explosion.



DANGER

DO NOT fill container(s) to more than 80% capacity. Overfilling the propane tanks can result in uncontrolled propane flow which can result in an explosion or fire.



DANGER

DO NOT rely upon being able to smell propane leaks as the odor may not be strong enough to detect.



DANGER

DO NOT use butane or butane mixtures in your propane tank. When you fill your tanks, be sure to use propane only



DANGER

DO NOT make repairs to the propane tank supply at the propane tank (or source). Except for simple maintenance and occasional tightening of a connection, always take your vehicle to an authorized dealer for propane problems.



DANGER

Do not turn on the propane supply until the propane leaks have been repaired.



DANGER

Do not attempt to adjust or repair the regulator. Adjustments and repairs require specialized training and tools. Contact a qualified propane Service Technician. Failure to follow these instructions could result in fire or explosion.

**DANGER**

Do not modify your propane system. Do not remove components or replace with components that are not of equal value. The propane system in your recreational vehicle furnishes the fuel for cooking, heating and hot water. Propane can also be used as an alternate energy source for refrigeration. It is a clean, efficient and safe form of energy when properly handled and safety precautions are observed.

**WARNING**

Always have an authorized propane supplier fill your propane tanks. When the propane container is being filled, DO NOT smoke, strike a match or ignite a lighter. A spark or flame could ignite fumes. Also be sure all burner and pilot flames are out and the service valve is closed.

**WARNING**

If you detect a sulfur or 'rotten egg' odor, DO NOT turn on any appliances. Shut off all operating appliances. Extinguish any open flames, including cigarettes. DO NOT touch any electrical switches. Open windows and doors and exit the vehicle. Shut off the propane and contact a propane supplier or qualified service center to inspect the propane tank. If one cannot be reached, call the local fire department.

Propane Regulator

The propane 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 ensures consistent pressure for use, regardless of outside temperatures, weather or altitude. The purpose of the regulator is to reduce the pressure inside the tank to allow for safe use. A two-stage automatic regulator, most commonly used on dual tanks, offers the convenience of instant, automatic changeover from the empty to the full tank.

**WARNING**

NEVER test for a leak by lighting a match or having an open flame where you suspect a leak. Take your recreational vehicle to an authorized service center.

**WARNING**

To avoid potential problems, have your propane system checked at least once a year by a qualified LP service person and after each extended trip.

Regulator Freeze-Up

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

The source of the moisture is varied. It can occur at the refinery or propane bulk plant, in the cars used to transport the propane, or even within your own propane tanks. Moisture in a propane 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 freeze-up because of its larger orifice size and that heat is being transferred through the walls of two regulators instead of only one.

NOTE: If freeze-up does occur, shut the propane off at the tank. A frozen regulator may permit propane 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 reoccurrence. Have the system checked by your propane supplier.

Other Cold Weather Factors

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



Propane Pigtail

The propane pigtail is a hose used to connect to the regulator on the tank through which the propane 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 propane flow and prevents propane from flowing unless the connection is tight.

NOTE: The connection at the propane tank will shut down in extreme heat (240° - 300° Fahrenheit).

Propane Detector



DANGER

If the detector senses the presence of propane, 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 propane 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 as long as propane is detected or until turned off.
8. Contact a propane supplier or qualified service center to inspect the propane tank. If one cannot be reached, call the local fire department.

NOTE: The alarm may sound at times when no propane is present due to household product use, such as aerosol hairspray, certain cleaners, adhesives, alcohol, etc.

Electrical System Control



DANGER

Connecting the power cord to a non-grounded or improperly grounded power source can result in a dangerous and possibly fatal electric shock.

NOTE: The electrical power supply provided for the recreational vehicle is a dual system, operating with 120VAC and/or 12VDC.

The 120VAC power may be provided by either connecting the recreational vehicle to an outside power source when parked, or by use of a recreational vehicle generator. When the 120VAC system is operational, power also passes through a system converter, allowing the full use of all 12VDC functions in the ESCAPE RV. •

When not connected to 120VAC power, the 12VDC system functions can be supplied by batteries. Batteries are recharged by the power converter when the RV is attached to an outside 120VAC power source, or by the generator. (Be sure you turn the power switch ON; the generator will not charge the batteries or otherwise operate when the power switch is in the OFF position.)

Connecting to an Outside Power Source

A 30 amp or 50 amp power cord is provided to connect the RV to a grounded power source. The electric utility service connections are located on the driver's side near the rear. The power cord is stored inside the electric utility service compartment. (Depending upon the type of RV you have, the power cord will either be permanently mounted or detachable.)



WARNING

Never use a two wire extension cord, a cheater adapter with the ground pin removed, or put a lower amperage plug on your power cord in place of the molded plug. It is also critical to use a surge protector to be sure your electrical system is protected. Your unit should be plugged into the surge protector.



DANGER

Due to potential danger in failing to heed this warning, the recreational vehicle manufacturer cannot be held responsible should damage, injury or death result from failure to connect the power cord to a properly grounded power source.

General Electrical Information

The electrical power supply provided for the recreational vehicle is a dual system, operating with 120 volt AC and/or 12 volt DC. The 120 volt power may be provided by either connecting the recreational vehicle to an outside power source when parked or by use of a recreational vehicle generator. When the 120 volt system is operational, power also passes through a system converter, allowing the full use of all 12 volt functions in the recreational vehicle.

120 volt functions in the recreational vehicle include the refrigerator, ice maker, roof-mounted air conditioner(s), TV and VCR, microwave oven, converter, outlets for 120 volt operated conveniences, and some lights. Some refrigerators also have the option of running on propane when 120 volt power is not available. All other electrical functions in the RV are supplied with 12 volt power.

When it is not possible to access 120 volt power, the 12 volt system functions can be supplied by the auxiliary batteries. The auxiliary batteries are recharged by the power converter when the recreational vehicle is attached to an outside 120 volt power source or by the generator when it is running.

Batteries

The batteries can be located in a separate compartment or in a battery box located on the 'A' frame or bumper. It is important to be sure the batteries are kept charged. Take time to turn off all lights or other 12 volt conveniences when not in use. Connect the recreational vehicle to a 120 volt power source when possible to prevent draining the batteries. Do not let the battery or batteries go completely dead as this can damage and/or shorten the life of the battery or batteries.

Battery Maintenance

While ESCAPE RV may not have installed your battery, we want to provide you with the following information. Battery maintenance is important. Checking the condition of a battery at regular intervals will help ensure its proper operation. Here are some recommendations for checking and servicing the batteries.

1. Keep the battery mounted securely. Excessive vibration can cause early battery failure.
2. Check the electrolyte level of the auxiliary batteries at regular intervals. Keep each cell filled with distilled water to just above the plates. Once the plates have dried out, they cannot be reactivated, and the capacity of the battery is reduced in direct proportion to the area of plate surface that has become dry. This kind of damage can occur quickly.
3. Keep the battery clean. Corroded terminals make poor contact. Battery sulfating occurs when the battery has been standing in a discharged condition over a long period of time or when the battery has been operated continually in a state of partial discharge.
4. Check the outside condition of the battery. Look for cracks in the case or vent plugs. If the case is cracked, the battery must be replaced. If the vent plugs are cracked, they must be replaced.
5. Watch for overcharging. Three ways to spot overcharging are:
 - a. Active material on the vent cap (heavy deposit of black lead-like material on the underside of the vent cap).
 - b. Excessive use of water.
 - c. By testing voltage regulator output.
6. Make sure the battery hold-downs and carrier are kept clean and free of corrosion.

NOTE: Consult the component owner's manual for instructions related to battery maintenance and safety precautions.

NOTE: Some batteries are not serviceable; consult the manufacturer's information on the battery you own.

NOTE: When removing a battery, disconnect the ground battery clamp first. When installing a battery, always connect the grounded battery clamp last. When a battery needs to be replaced, make sure to replace it with a battery of the same characteristics as the original equipment. Consult your dealer for advice on battery replacement.

Battery Safety



WARNING

Always shield your eyes when working near batteries. Batteries can explode. Do not smoke or expose battery to electric spark or flame. When charging or discharging, batteries generate hydrogen. Hydrogen and air is a very explosive mixture.

**WARNING**

Do not short across the battery terminals. The spark could ignite the gases. Do not wear metal jewelry or a watch when working on a battery.

**DANGER**

Disconnect the battery cable and the 120 volt power cord before working on electrical system. Do not reconnect the cables until all work has been completed.

**DANGER**

Battery electrolyte is a corrosive, poisonous sulfuric acid. Avoid contact with skin, eyes, clothing or any painted surface.

Battery Charging

The converter also operates as a battery charger when it is connected to a 120 volt power source. If the battery is below its full charge, the converter charger will begin operation at a rate that reflects the level of discharge. When the battery is again fully charged, the converter charger drops its charging level back to a maintenance level to keep the battery fully charged. Battery charging is fully automated. When charging a battery remotely (outside the RV), follow these safety precautions:

**DANGER**

1. Disconnect the battery from the recreational vehicle.
2. Check electrolyte status before charging. Be sure each cell is properly filled with distilled water.
3. Use care when connecting and disconnecting the cables from chargers. A poor connection can cause an electrical arc, which can result in an explosion.
4. Remove the battery vent caps before charging and be sure that the electrolyte solution does not splash out as a result of charging too quickly. NEVER attempt to open a maintenance free battery.
5. Read the literature supplied by the battery manufacturer and follow all their warnings or precautions as stated in their manual.

Power Converter/Inverter

The converter is used to switch 120 volt electricity, from an external supply or from the generator, to 12 volt electricity. Under normal conditions, the converter requires no maintenance. If the converter does not have a 120 volt supply to convert to 12 volt, it automatically switches the batteries into the electrical circuit to power 12 volt functions. When reconnected to a 120 volt power source, it will again operate from that source.

NOTE: The converter will run warm, which is normal. If, however, it gets too hot, it will turn itself off. After it cools, it will come back on. In most cases, shut down occurs due to poor ventilation.

NOTE: A slight hum during operation is also normal for the converter. If you have no 12 volt power and no hum, check to see if 120 volt power to the converter has been interrupted.

Fuses and Circuit Breakers

Ground Fault Circuit Interrupter

The 120VAC outlet in some possibly wet locations is equipped with a protective circuit interrupter. The ground fault circuit interrupter (GFCI) is designed to break the flow of current to the protected outlet when an imbalance of current is detected. Imbalances include electrical leakage in an appliance, such as a shaver or hair dryer that has developed a weak spot in electrical insulation. The possibility of electrocution exists when using a faulty appliance while at the same time being in contact with an electrical ground, such as water, plumbing, or the earth.

If an imbalance is detected, the GFCI will trip and shut off power to the outlet. Even with GFCI protection, the electrical shock will still be felt, but to a lesser degree. It also does not protect against short circuits or system overloads. Circuit breakers in the main panel, which supply power to the circuit, will trip if either of these conditions exists. The GFCI receptacle should be tested initially when the recreational vehicle is purchased and a least monthly thereafter.



DANGER

Even with GFCI protection, persons with severe heart or other health problems may still be seriously affected by an electrical shock. The GFCI outlet is not a substitute for good electrical safety. It does not protect against contact of the hot and neutral wire at the same time. (The GFCI does not protect any circuit other than the one to which it is connected.)

To test the circuit, use the following procedure:

1. Make sure power to the circuit is ON.
2. Push the test button.
3. The reset button should pop out.
4. All power should be interrupted to outlets protected by the GFCI.
5. Verify by plugging in a light at these outlets and pushing in the red reset button. If the button does not pop out after pushing the test button or GFCI circuit continues to trip, immediately turn off power at the circuit breaker panel and have a qualified electrician service it.

Circuit Breakers

The 120VAC system is protected by circuit breakers. These breakers automatically trip if the circuit load is too heavy or a short circuit occurs. If a circuit breaker has been tripped, do not reset the breaker until the cause of the problem is identified and corrected.

- The generator may have one (4.0 KW) or two (5.5 KW & larger) breakers and a DC fuse on the generator control panel. If an interruption in generator operation occurs, check to see if any of these have been tripped; consult the manuals provided with the generator before attempting maintenance on the generator.
- To Disconnect from the Outside Water Source:
 1. Turn off the outside source of water.
 2. Disconnect the hose from the supply valve and the recreational vehicle inlet.
 3. Remove the hose and store it.
 4. Reinstall the cap on the recreational vehicle inlet.

Plumbing System

When an outside source of water is unavailable, and assuming your unit has a water tank, water can be drawn from the fresh water storage tank in the RV. The tank is filled through a gravity controlled water spout on the exterior of the vehicle.

Filling the Fresh Water Tank if applicable:

1. Remove the water fill cap.
2. Water can now be added directly to the tank through the fill spout using a known clean hose or bucket, used only for this purpose.
3. When the tank is full, replace the water fill cap. Fill Cap is for filling the tank. The City Water Fill connects to campsite water.

Toilet

The toilet installed in your recreational vehicle is connected to the water system.

Be sure to hold the flush lever down long enough to release the contents of the bowl, but not longer than necessary as this will result in excessive water usage.

If your unit has tanks, frequent flushing of the toilet will quickly deplete your fresh water supply and fill your holding tank. If the black water tank becomes full, you will no longer be able to flush the stool until the tank can be drained. Be sure all occupants and guests understand this operation. Always use deodorizing agents specifically designed for use in holding tank systems and a good biodegradable tissue paper. These products are available directly from any store that sells camp supplies.

Never use chlorine or caustic chemicals such as drain opener or laundry bleach in your toilet.

Never allow foreign objects (non-dissolving items) to be flushed through the toilet.

Don't allow a problem to go unsolved. As soon as you detect a problem, take the necessary steps to correct it. It is also a good idea to carry a few spare parts that will correct a small problem that may develop. These parts can be obtained from your dealer or larger campground stores. Refer to the toilet manufacturer's information in your Owner's packet to determine which part you may need, its correct name and part number. **If you have a different toilet than the one described, follow the manufacturer's recommendations for cleaning and maintenance.**

Winterization and De-winterization

When storing your recreational vehicle through periods of freezing weather in an unheated environment, it will be necessary to winterize the water system. Damage to the water system components will result if the proper winterization steps are not taken.



WARNING

Never use automotive antifreeze in your fresh water system. Automotive antifreeze is toxic and not for use in potable (drinkable) water systems.

Winterizing With Antifreeze Only

1. Purchase 4-6 gallons of RV approved, non-toxic antifreeze.
2. If applicable, drain all tanks (fresh water and sewage tanks).
3. Turn water heater bypass valve to bypass position. For LP on demand water heaters, turn power off and run antifreeze through them.
4. For electric tank water heaters, please drain them..
5. 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 de-winterizing your unit.)
6. Fill the tank above minimum water pump operation level with the RV antifreeze. (Use of a long funnel may be helpful.)
7. 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.
8. Flush toilet until antifreeze is visible inside the bowl and pour one gallon of antifreeze down the toilet to winterize the black holding tank.
9. 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.

De-winterizing Your RV

NOTE: Do not attempt to turn on the water heater or use the plumbing system once the system has been winterized. De-winterize the water system, flush and sanitize prior to use.

1. Drain all holding tanks if applicable (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. (Refer to that section in this manual.)
7. IF a water filter has been installed, drain the lines, remove the assembly, clean and reinstall using a new filter.
8. When ready to use the water heater, turn bypass valve to open position to allow water to enter and fill the water heater tank.

Fresh Water Holding Tanks

Due to the array of floor plans and the necessary rearranging of plumbing systems, locations will vary, but in general, the holding tanks are located approximately beneath the bathroom area. Drain valves and drain hose storage are usually located on the driver's side.

The storage tanks are constructed of strong, lightweight polyethylene, which minimizes both weight and maintenance. Some models may have two gray water tanks and one black water tank.

Each tank has a separate drain line and dump valve, which permits dumping tanks individually or together. Each tank should be emptied often at dump stations designated for this purpose. These dump stations are found at most campgrounds and are well marked. Many service stations, particularly along interstate highways, also have these facilities. Campground directories list dumping station locations across the nations.

If possible, dump holding tanks before a trip to reduce the gross vehicle weight. Enough water should be kept in the black water tank to cover the bottom to prevent hardening of any residue that may remain. Never dump black water tank until it is $\frac{3}{4}$ full. This practice ensures that enough water is in the tank to flush all wastes into sewer line. If necessary, fill the tank to the $\frac{3}{4}$ mark with additional water before draining.

Never put anything in the holding tanks other than normal drain water, wastes and biodegradable products. Paper wrappers, gum, cigarettes, etc., no matter how small, should NEVER be placed into either the gray or black tanks.

NOTE: You can find biodegradable paper products at most stores that sell camping supplies and at campgrounds that have a store on the premises. You can also find chemical substitutes to deposit into the waste tanks if you prefer.

NOTE: It is important to note that harmful and toxic materials can accumulate if the holding tanks are not regularly drained and thoroughly rinsed. It is also important to use holding tank deodorizing and cleaning agents in the waste water tanks to reduce odors and keep the lines open and free flowing.

Empty the Holding Tanks

1. Remove the sewer drain hose from its storage compartment on the side of the recreational vehicle.
2. Remove the cap from the RV drain and connect the drain hose to it.
3. Attach the other end of the flexible drain line to the dump station inlet. Be sure both ends of the flexible drain line are securely attached.
4. Drain the black water tank first by pulling the termination valve handle toward you. Be sure to allow sufficient time for the tank to completely drain, and then rinse the tank with several gallons of water by depressing the stool pedal or hand flush handle. Close the valve on the stool and let it fill before releasing to the tank. This creates additional force to flush the tank more completely.
5. Drain the gray water tank by pulling the termination valve handle toward you. Draining the gray tank last uses the soapy water in the tank to rinse the drain and flexible hose.
6. When tanks are emptied, close termination valves by pushing handles back to closed positions.
7. Remove flexible drain hose and wash it thoroughly with clean water. Remove the other end from the dump station inlet and replace it in its storage compartment. Secure the sewer hose storage cover, and replace the caps on both the recreational vehicle outlet and the dump station inlet.

NOTE: Follow these guidelines to help ensure trouble-free operation:

- Never put anything in the black water tank other than biodegradable RV toilet paper.
- Do not put automotive antifreeze, household toilet cleaner or drain cleaners, or any solid material into the waste water system.
- Always use chemicals in the black water system that are made especially for this purpose.
- When cleaning components of the waste water system, use cleaners made for RV systems.
- Always keep the drain cap in place and termination valves close.
- After every third time the holding tanks are emptied, fill and flush both tanks with clean, fresh water a couple of times to keep them clear and clean.

Keeping the black water tank clean allows the monitor panel to accurately assess the status of the tank. Always remember to clean up the dump site before leaving. Never empty your holding tanks directly on to the ground or into a river or stream. **Do not pollute!**

Water System Maintenance and Troubleshooting

As with any mechanical system, your plumbing is subject to the development of problems. Most of these problems can be greatly reduced, if not eliminated, by following a schedule of planned inspections and maintenance. Neglect of proper maintenance procedures is the usual cause of most water system problems.

Road vibrations and shocks, as well as excessive pressure from some city water sources, are the main physical causes of water system damage. It is important to inspect all plumbing joints and fittings often for cracks and leaks. If left unchecked, water leaking from a plumbing joint can cause considerable damage.

A leak in the fresh water system should be suspected if the pump is running and all faucets and valves are closed. When the leaking fitting has been identified, attempt to stop the leak by tightening the fitting. **DO NOT** overtighten. Plastic fittings rarely need to be tightened with a wrench. If these fittings leak after tightening by hand, disconnect the fitting and check for dirt, scale, or other foreign substances which may be causing the leak. Clean the fitting thoroughly and reinstall. If leaking persists, shut off the water supply until the fitting can be properly replaced. Check with your dealer for the correct method of replacement and replacement parts.

Proper winterization procedures of plumbing systems will normally be all that is necessary to prevent the damage caused by freezing. Freezing damage can harm any component of the system, including the water tanks, toilet, pump and all piping. Be sure to follow the winterization procedures outlined in this manual. Also be sure to discuss with your dealer or repair center any additional precautions that should be taken to winterize your RV's plumbing system. Local climates vary and winter maintenance needs may be affected.

Be sure to read the literature supplied with plumbing components, such as the water pump, for troubleshooting tips. Also remember that it is possible for an electrical problem to cause water system problems. Lack of power to the pump can be caused by a variety of reasons.

If you are unsure of how to locate and/or repair a plumbing problem, it is best to have your dealer or a qualified plumber who is familiar with the RV water system to inspect the system and perform any repairs needed.

APPLIANCES

Due to the variety of floor plans available at ESCAPE RV and the various shapes and sizes of recreational vehicles, we use many different brands of appliances, designed to fit into the designated space in each recreational vehicle. Therefore, all appliances used cannot be listed in this section. While we will attempt to touch on the major ones, please keep in mind your best resource is the specific appliance's manual that came with your Owner's packet. It will detail the product used in the manufacture of YOUR recreational vehicle. (If, by chance, you don't have the manual you need, many times you can find it online, where you will have the option of reading it or printing it for your future use. Be sure you have the model and serial number of your specific appliance handy so you get the most accurate information.)

It is important that you read the manufacturer's information provided, regarding both operation and maintenance of the appliance. Pay close attention to all safety precautions given, and follow them closely. Keep all literature, including this manual, with the recreational vehicle for easy reference. If service on any appliance is required, contact your dealer or an authorized service representative of the appliance manufacturer. For your convenience, most appliance manufacturers have toll-free service telephone numbers.

Kitchen Range/Oven

Below are excerpts from the appliance manufacturer's user manual regarding important safety instructions. Refer to the oven/range manufacturer's user manual for more complete instructions.

Read all instructions before using this appliance. The following instructions are based on safety considerations and must be strictly followed to eliminate the potential risks of fire, electric shock or personal injury. Have your appliance installed and properly grounded by a qualified installer and according to the installation instructions. Have the installer show you the location of the gas shut off valve and how to shut it off in an emergency. To ensure proper operation and avoid possible injury or damage to the unit, do not attempt to adjust, repair, service, or replace any part of your appliance. All other servicing should be referred to a qualified installer or service center. Always disconnect power to appliance before servicing.

**WARNING**

To Prevent Fire or Smoke Damage

1. Keep area around appliance clear and free from combustible materials, gasoline, and other flammable vapors and materials.
2. If appliance is installed near a window, take proper precautions to prevent curtains from blowing over burners.
3. Never leave any 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.
4. Avoid use or storage of aerosol cans near an appliance. Many are explosive when exposed to heat and may be highly flammable.
5. Do not leave plastic items on the cooktop as they may melt or soften. If this occurs, discard the container and contents as the food could be contaminated.

**WARNING**

Never turn exhaust fan on with filter screen removed. Exposed fan blades pose an injury threat. Dirt and grease deposits which are normally trapped by the filter are free to build up in the range hood exhaust duct, creating a fire hazard.

**DANGER**

It is not safe to use cooking appliances for comfort heating.

**WARNING**

The propane oven and burners are operated using propane. Cooking appliances need fresh air for safe operation. Before operating this appliance:

- Open overhead vent or turn on exhaust fan, and open a window.

**DANGER**

Unlike homes, the amount of oxygen supplied is limited due to the size of the recreational vehicle, and proper ventilation when using the cooking appliance(s) will avoid dangers of carbon monoxide poisoning or asphyxiation.

**WARNING**

When the recreational vehicle is not in use or while traveling, turn all knobs to the off position and turn off the main propane supply. When using the oven, do not cover bottom or entire rack with aluminum foil.

Heating/Cooling

Furnace

**WARNING**

Before operating the furnace, check the location of the furnace vent to be sure it will not be blocked by the opening of any door on the truck camper (or by exterior items such as a bush or a tree).

**DANGER**

Read the furnace manufacturer's user manual. If the information in the manual is not followed exactly, a fire or explosion may result, causing property damage, personal injury, or loss of life.

**DANGER**

Tips to ensure continued safe operation of the furnace

1. Inspect furnace venting. Venting must be free of obstruction and soot.
2. Periodically observe the main burner flame to ensure it is burning with a hard blue flame. If the flame appears yellow or lazy, shut the furnace down. The burner may need to be cleaned or replaced.
3. Keep the furnace area clear of any combustible materials, gasoline or other flammable vapor and liquids.

NOTE: To properly observe burner operation, the furnace must be removed. This should only be done by your dealer or qualified service center.

**WARNING**

Do not install screens over the vent for any reason. Doing so can cause unsafe furnace operation.

**WARNING**

Should overheating occur or the propane supply fails to shut off, shut off the manual propane valve to the appliance before shutting off the electrical supply.

**WARNING****IF YOU SMELL PROPANE:**

1. Extinguish any open flames and all smoking materials.
2. Shut off the propane supply at the container valve(s) or propane supply connection.
3. Do not touch electrical switches.
4. Do not light any appliance.
5. Do not use any telephone in the unit.
6. Open doors and other ventilating openings.
7. Leave the area until the odor clears.
8. Have the propane system checked and leakage source corrected by a propane supplier or qualified service center before using again. Ignition of flammable vapors could lead to a fire explosion and result in death or serious injury.
9. If a propane dealer or qualified service center cannot be reached, call the local fire department.

**DANGER**

Do not turn on the propane supply until the propane leak(s) has been repaired. You, as the owner/user, should inspect the furnace monthly during the heating season for presence of soot on the vent. The presence of soot indicates incomplete combustion. Operating the furnace under this condition could lead to serious property damage, personal injury or loss of life. If soot is observed on the vent, immediately shut the furnace down and contact a qualified service center.

NOTE: Be sure the furnace and all ignition systems are off during refueling and while the vehicle is in motion.

Thermostat

Many factors influence the ambient temperature inside your RV. The purpose of a thermostat is to keep the air temperature at the level you have selected.

There are several things you can do to help manage the inside temperature to avoid over-stressing your heating and cooling appliances.

Heating

1. Check to be sure there are no gaps in windows or doors that would allow loss of heat.
2. Park the RV so the front or rear of the unit takes the brunt of wind force.
3. Have your furnace checked to ensure it is operating at its highest capacity.
4. Keep all vents free of obstruction.

Setting the temperature and leaving the thermostat on AUTO will allow the device to detect changes in temperature. While some people lower the temperature at night or when leaving the RV, when you return and reset the thermostat, the furnace or air conditioner has to run longer to reach the new temperature you set. It is recommended to set it at a comfortable temperature and leave it.

Cooling

1. Park the RV in a shaded area.
2. Use window shades, blinds, or curtains.
3. Keep windows and doors shut or minimize usage.
4. Avoid the use of heat producing appliances.
5. Installing window awnings will reduce heat gain by removing direct exposure to the sun.

Starting the air conditioner in the morning and giving it a head start on the expected high outdoor ambient temperature will greatly improve its ability to maintain the desired indoor temperature.

Whether using the HEATING or the COOLING function of your thermostat, condensation is always an issue. Maintaining your RV at a constant temperature helps keep condensation at a minimum. For more information on the effects of condensation on your RV, refer to Living Quarters section.

For more information, please consult the component owner's manual.

Air Conditioner

Your recreational vehicle may be equipped with a Split System or optional roof-mounted air conditioner. It operates on 120VAC power and is located in the living/dining area. Your RV may have come factory equipped with the wiring and necessary bracing for the insertion of an air conditioner even if it was purchased without the air conditioner installed at the factory. Check with ESCAPE RV for additional information.

Refer to the air conditioner manufacturer's users' manual for complete operating and service instructions. Efficiency when using the air conditioning can be increased by closing all windows and curtains and parking your RV in the shade. Air conditioning consumes a large portion of the electric power available in the recreational vehicle and efficient operation can be an important consideration.

Even though your recreational vehicle is equipped with 30 or 50 amp capabilities, be aware that some campgrounds may offer less than 30 amp service. Check with the campground before utilizing excessive power, which may create a fire hazard or trip breakers, in either the recreational vehicle or the outside power source.

NOTE: Always turn off the air conditioner (and all electrical appliances) before disconnecting the RV from its 120VAC power source.

NOTE: If you cover the outside portion of your air conditioner during periods of storage, be sure to remove protective cover before reusing.

NOTE: If you have a Split System, be sure the condensation drain line is open. The drain line sticks below the unit normally in the back corner or directly below your RV. The line can become plugged with dust and debris if not used for extensive periods of time.

Water Heater

Carefully follow the water heater manufacturer's detailed instructions regarding the correct operation of your water heater. Failure to do so could void your warranty.

Water heaters require very little care. However, the most common cause of problems with your water heater is initiating operation before the tank is filled with water. Even running it for a brief period of time without water will damage the electric heating element.

Prior to operating the RV's water heater for the first time, be sure there is water in the water heater tank. Be sure the switch is on and that the water heater bypass valve, if installed, is open to allow water flow into the tank. Next, connect the RV to a water source or turn on the onboard water pump. Open a hot water tap and wait until water is flowing with no air in the line. When water is flowing from the tap, the water heater tank is full, and it is safe to operate the water heater.



DANGER

Do not store or use gasoline or other combustible materials or liquids near or adjacent to the water heater or any other appliance.

Automatic Shut Off

The water heater is equipped with a high temperature limit switch, which will shut down the water heater if the temperature reaches above 180° F. If the limit switch should fail, the water heater is equipped with a pressure relief valve which is designed to open if the temperature of the water reaches 210° F or if excessive pressure builds up. The valve will close automatically once the pressure falls below 50 PSI. Until the pressure falls below 50 PSI, dripping may occur. This is normal and indicates the pressure relief valve is functioning properly by releasing pressure, causing temporary dripping.

Winterizing Your Water Heater

If your water heater plumbing system is equipped with a bypass kit, use it to close off the water heater, drain it completely and leave it closed (in the bypass position). If you are introducing antifreeze into the system, be aware that it can be very corrosive to the anode rod causing premature failure and leaving heavy sediment in the tank (if so equipped). It is critical that you winterize the water heater if you are leaving the unit without heat and power in the winter or it can freeze...this is not covered by any warranty.

Water Odor

Odor from the water is not a warranty or service issue. Many water supplies contain enough Sulphur to produce a 'rotten egg' odor. It is not harmful, only unpleasant. The solution is to chlorinate the water. You may add about 6 ounces of common household liquid bleach per 10 gallons of water in the tank.

Run the chlorinated water throughout the system, opening each faucet one at a time until you smell the chlorine. Do not operate the water system for a couple hours, allowing the chlorine to take care of the problem; however, then you must remove the chlorine by flushing the system with fresh water. You may need to do this more than once. If this process does not remove the smell from the water, you may need to replace the anode rod. You may also consider adding a filtering system as a preventive measure.

Sanitization

For more information, please consult the component owner's manual.

**DANGER****IF YOU SMELL PROPANE:**

10. Extinguish any open flames and all smoking materials.
11. Shut off the propane supply at the container valve(s) or propane supply connection.
12. Do not touch electrical switches.
13. Do not light any appliance.
14. Do not use any telephone in the unit.
15. Open doors and other ventilating openings.
16. Leave the area until the odor clears.
17. Have the propane system checked and leakage source corrected by a propane supplier or qualified service center before using again. Ignition of flammable vapors could lead to a fire explosion and result in death or serious injury.
18. If a propane dealer or qualified service center cannot be reached, call the local fire department.

Turn Off Water Heater

1. Turn switch to OFF position.
2. Turn off electrical power to the appliance.
3. Turn off propane supply.
4. If vehicle is to be stored or heater is going to be turned off while subject to freezing temperatures, drain the water heater and water lines completely.

Storage and Draining

If your RV will be stored during winter months, drain the water heater to prevent damage from freezing.

1. Turn off electrical power to water heater either at the switch or the breaker.
2. Shut off propane supply to water heater.
3. Turn off water pump on main water system.
4. Open both hot and cold water faucets.

Entertainment/Electrical

Television

Due to the selection of televisions used in the manufacturing of ESCAPE RV's, it is impossible to list all of them in this manual. Therefore, you will find general information that will be applicable to almost all televisions.

For more detailed information regarding the specific television installed in your RV, please refer to the television manufacturer's user guide for your unit. For more information, please consult the component owner's manual.

Your RV is prewired for cable. Televisions run on 120VAC power. Your recreational vehicle must be connected to shore power or have the generator (optional) connected for the TV to operate. For more information, please consult the component owner's manual.

Power Converter

The power converter is designed to supply the nominal 12VDC filtered power for all 12VDC operated devices. Although the converter is an excellent battery charger, the converter does not require a battery to be connected to it for proper operation. Average charge rate will depend on several variables such as condition of the battery(s), temperature, and the length of time the battery(s) is connected to the converter.

NOTE: When installing a battery(s), always observe polarity. Connecting a battery with reverse polarity will blow the power converter output fuses.

Care and Maintenance

Periodic maintenance and cleaning of your recreational vehicle are necessary to retain the dependability, safety and appearance that will provide you with trouble free operation as well as protecting your investment.

Keep good records of maintenance functions performed and be sure to follow all owner obligations as may be required by the manufacturer to keep your warranty in force.

Preventative maintenance will pay for itself many times over by catching or preventing problems before they occur. Many repair costs are greatly increased by ignoring problems when they are small ones, allowing them to build into larger problems and possibly voiding your warranty due to neglect, misuse or abuse. If left unattended, small problems may also begin to affect other parts and systems of the recreational vehicle.

Windows and Doors

Check the seals around the windows regularly (at least every 6 months) if sealant is present. Follow the above instructions for care and maintenance of window and door seals and repair as necessary and if applicable.

Adjust and lubricate latches and moving parts annually to ensure windows remain operative. Also check the condition and operation of door locks, adjusting and lubricating as necessary.

Vinyl seals around windows and doors should be cleaned regularly and kept flexible by using a silicone spray or lubricant. Be sure to follow the directions on the product container.

NOTE: If your roof should become punctured or ripped, cover the puncture or tears to seal out moisture and have it repaired immediately.

Frame/Roof

Inspection of roof components at least twice a year is very important to make sure seams and seals are not cracked or worn. Proper maintenance is necessary to keep moisture from entering and causing severe damage such as rot, mold or mildew. Check with ESCAPE RV for the type of caulking required for rubber roofs and correct methods of resealing or replacing. A mild household soap solution and a soft brush can be used to clean a rubber roof.



WARNING

Use caution when storing items on the roof. If a factory installed roof rack and/or ladder are present, the roof has been reinforced. If you have an aftermarket roof rack or ladder, use extreme caution when on the roof. Chances are that your roof has no reinforcement, and you may need to use boards across the roof for temporary reinforcement. (Remember to remove the boards when leaving the roof area.)



WARNING

If your roof should become punctured or ripped, cover the puncture or tear to seal out moisture and have it repaired immediately.

Propane System

To ensure proper operation, have the propane system checked frequently for leaks and road damage. The entire system, including regulator pressure, should be checked annually or sooner if you suspect a problem. Have the system checked by a qualified propane service technician using proper equipment. The method of checking the system for leaks and propane safety precautions can be found in the Identification and Safety section.

NOTE: Line pressure for propane appliances should be checked at least every six months. Most propane suppliers have equipment to test the lines. The optimum line pressure for all RV propane appliances is 11 inches of water column pressure.

Lights

Check the operation of exterior lights often. Check clearance, turn signal, brake and backup lights to be sure they are working correctly. Replace any cracked, broken, or missing light covers to avoid moisture infiltrations and possible damage to the electrical system.

Siding and Trim

Check the siding and trim frequently for any issues (minimum every 3 months). The wood siding on your tiny home/rv has never seen the weather and will need to be monitored for cleaning, re-staining, and caulking. The climate can do a number of things to the wood and caulk, including but not limited to:

- Sun exposure can cause the wood to fade and crack.
- Extreme temperatures can cause the wood to expand and contract, which can lead to cracks and splits.
- Wind can cause the wood to warp and bend.

It is important to inspect your tiny home/rv regularly for signs of damage and to take steps to protect the wood from the elements. Here are some tips for protecting your tiny home/rv's wood siding:

- Clean the wood regularly with a mild soap and water solution.
- Apply a sealant to the wood to protect it from the sun and water.
- Repair any cracks or splits in the wood as soon as possible.
- Check the caulking around windows and doors regularly for cracks or gaps. Reapply caulk where needed to prevent water damage.

By following these tips, you can help to keep your tiny home/rv's wood siding looking its best for years to come. Again, preventative maintenance will pay for itself many times over by catching or preventing problems before they occur. Many repair costs are greatly increased by ignoring problems when they are small ones, allowing them to build into larger problems and possibly voiding your warranty due to neglect, misuse or abuse. If left unattended, small problems may also begin to affect other parts and systems of the recreational vehicle.

Storage Tips

1. Park your RV on a level surface.
2. Winterize the chassis as outlined in the chassis and the owner's manuals.
3. Clean your recreational vehicle thoroughly, inside and out, as previously outlined in the section.
4. Turn off all electrical switches and appliances.
5. Close all shades and curtains.
6. Be sure all windows, doors and vents are securely closed. Cover exterior appliance vents to prevent moisture and insects from entering during storage.
7. Check the interior of the RV periodically to be sure leaks have not developed or that condensation has not formed, causing damage to interior components. Condensation can most readily be observed as moisture accumulation on windows and mirrors. To reduce the possibility of condensation, air out the RV occasionally during storage.
8. Be sure that both the chassis and auxiliary batteries have the proper electrolyte level and that they are fully charged. A discharged battery will freeze and crack the case. In storage, a battery will gradually lose charge after 30–45 days, even when disconnected by the battery disconnect switch. We recommend that you check the battery for charge once a month. If the charge is 80% or less, it must be recharged. You may wish to remove the battery and store it in a heated area.
9. Be sure the tires are inflated to correct pressure and check periodically.
10. Keep the roof free from snow and ice. Check it periodically and after a heavy snowfall.

Weatherizing

Winter Precautions

- **Water Systems** - In severe cold, it is wise to monitor the water temperature in the tank and take steps to drain and winterize if necessary. It is also a good idea in severe cold to open lower cabinet doors in the kitchen and bath to allow warm air to circulate around water fixtures. To minimize freezing damage, insulate drain lines exposed to the outside.
- **Food Storage** - If left in an unheated RV for a period of time, canned goods and other foods packed in water should be stored as high as possible since heat rises. Refrigerators can also be used for storage, even when unplugged, as they are well insulated.
- **Heating** - Use only the RV furnace for heating as it is properly vented to the outside. **NEVER USE THE RANGE FOR HEATING AS FIRE, CARBON MONOXIDE OR ASPHYXIATION COULD RESULT.**
- **Condensation** - Moisture can collect on inside surfaces during cold weather when inside humidity is high. While the trailer is in use, a family can vaporize up to three gallons of water daily through daily living. Consider using a dehumidifier to remove moisture. Refer to Living Quarters section for additional tips regarding condensation.
- **Winterize the water systems and protect exterior hoses and lines from freezing.** Follow the winterizing procedure outlined in the Plumbing section. Also follow all component manufacturers' instructions regarding their particular products. (If their procedure differs from this manual, follow the component manufacturer's instructions.)

Storage Preparation

When storing your RV for the winter, certain precautions need to be taken to protect your unit. Be sure to talk with your local dealer concerning any special requirements for storage in your particular geographic location. The charts on the following page are general to RV's and your dealer can help you choose those which steps are most appropriate for your needs.

Care and Maintenance Charts

Before Each Trip

Item	Procedure
Windows and Doors	Check vinyl seals when washing exterior.
	Check seals for damage and repair as needed.
	Lubricate door hinges and step components with WD40.
	Adjust and lubricate window latches with WD40.
	Lube all door locks and strike pockets.
Water and Drainage	Check drainage systems for leaks and road damage.
Electrical System	Check GFCI circuits.
Appliances	Remove food and ice from refrigerator after each trip.
Safety Equipment	Test all detector components.
Carpeting	Vacuum after each trip.
Weight and Distribution	Keep within specified load limits.

Monthly

Item	Procedure
Exterior	Check siding and repair/stain as needed.
Water and Drainage	Check hoses, fittings and connections for leaks and wear.
Appliances	Clean fan blades and wash filter on range exhaust hood.
	Check for obstructions and dirt on ext. appliance vents.
Safety Equipment	Check fire extinguisher pressure and condition.
Wood Surfaces	Clean prefinished panels and wood with wood cleaner.

Every 6 Months

Item	Procedure
Exterior	Stain and repair siding as needed
Roof and Roof Components	Inspect and reseal as needed.
Axles	Torque mounting bolts to 145-150 foot pounds.
Brakes	Check operation.

Yearly

Item	Procedure
Roof and Roof Components	Lubricate roof vent mechanism with light oil and clean completely.
Propane System	Have qualified service center check pressures and complete system.
Water and Drainage	Winterize system depending on local conditions.
Safety Equipment	Clean all detector components.
Bearings	Repack wheel bearings yearly.

As Required

Item	Procedure
Propane System	Check for leaks and road damage.
Water and Drainage	Sanitize system.
Electrical System	Maintenance on generator per generator manual.
	Check and service battery/s.
Flooring	Clean per manufacturer's instructions.
Seats	Lubricate all mechanisms and inspect for proper operation.
	Check all seat belt buckles, release mechanisms and webbing.
Chassis and Components	Follow chassis lubrication and maintenance procedures.
Bearings	Repack wheel bearings yearly.
Brakes	Check operation

HELPFUL TERMS TO KNOW

Accessory weight: the combined weight (in excess of those standard items which may be replaced) of automatic transmission, power steering, power brakes, power windows, power seats, radio, and heater, to the extent that these items are available as factory-installed equipment (whether installed or not).

Curb weight: the weight of a motor vehicle with standard equipment including the maximum capacity of fuel, oil, and coolant, and, if so equipped, air conditioning, and additional weight optional engine.

Maximum loaded vehicle weight: the sum of-

- Curb weight
- Accessory weight
- Vehicle capacity weight
- Production options weight

Light truck (LT) tire: a tire designated by its manufacturer as primarily intended for use on lightweight trucks or multipurpose passenger vehicles.

Non-pneumatic rim: a mechanical device which, when a non-pneumatic tire assembly incorporates a wheel, supports the tire, and attaches, either integrally or separable, to the wheel center member and upon which the tire is attached.

Non-pneumatic spare tire assembly: a non-pneumatic tire assembly intended for temporary use in place of one of the pneumatic tires and rims that are fitted to a passenger car in compliance with the requirements of this standard.

Non-pneumatic tire: a mechanical device which transmits, either directly or through a wheel or wheel center member, the vertical load and tractive forces from the roadway to the vehicle, generates the tractive forces that provide the directional control of the vehicle or does not rely on the containment of any gas or fluid for providing those functions.

Non-pneumatic tire assembly: a non-pneumatic tire, alone or in combination with a wheel or wheel center member, which can be mounted on a vehicle.

Normal occupant weight: 68 kilograms times the number of occupants.

Occupant distribution: distribution of occupants in a vehicle.

Passenger car tire: a tire intended for use on passenger cars, multipurpose passenger vehicles, and trucks, that have a gross vehicle weight rating (GVWR) of 10,000 pounds or less

Production options weight: the combined weight of those installed regular production options weighing over

2.3 kilograms in excess of those standard items which they replace, not previously considered in curb weight or accessory weight, including heavy duty brakes, ride levelers, roof rack, heavy duty battery, and special trim.

Rim: a metal support for a tire or a tire and tube assembly upon which the tire beads are seated.

Rim diameter: nominal diameter of the bead seat. Rim size designation = rim diameter and width.

Rim type designation: the industry of manufacturer's designation for a rim by style or code.

Rim width: nominal distance between rim flanges. Vehicle capacity weight = the rated cargo and luggage load plus 68 kilograms times the vehicle's designated seating capacity.

Vehicle maximum load on the tire: the load on an individual tire that is determined by distributing to each axle its share of the maximum loaded vehicle weight and dividing by two.

Vehicle normal load on the tire: that load on an individual tire that is determined by distributing to each axle its share of the curb weight, accessory weight, and normal occupant weight divided by 2.

Wheel center member: in the case of a non-pneumatic tire assembly incorporating a wheel, a mechanical device which attaches, either integrally or separable, to the non-pneumatic rim and provides the connection between the non-pneumatic rim and the vehicle; or in the case of a non-pneumatic tire assembly not incorporating a wheel, a mechanical device which attaches, either integrally or separable, to the non-pneumatic tire and provides the connection between the tire and the vehicle.

Other regulatory definitions:

Cold Tire Pressure: the tire pressure measured when the tire has not been driven on for at least three (3) hours.

Recommended Tire Pressure: the vehicle manufacturer's recommended cold tire pressure with the vehicle fully loaded.

Thanks again for choosing an ESCAPE RV!