925 N State Road 5
Shipshewana, IN 46565
www.braxtoncreek.com

OWNER'S MANUAL

BUSHWHACKER | FREESOLO

BRAXTON CREEK RV

We thank you and congratulate you on your purchase of a Braxton Creek RV. You have chosen a quality-built product that will provide you with many years of camping memories and family traditions.

Your product has been inspected by our trained inspectors and meets our high-quality standards. We are proudly RVIA certified.

Your selling dealership is happy to help you with any questions you may have or service that you may need.

Braxton Creek RV, LLC
0925N State Road 5
Shipshewana, IN 46565
260-768-7932

The terms ***NOTE, CAUTION*** , ***WARNING*** and **DANGER** have specific meanings in this manual as well as component manuals.
A ***NOTE*** provides additional information to make a step or procedure easier or clearer. Disregarding a ***NOTE*** could cause inconvenience, but would not be likely to cause damage or personal injury.
A ***CAUTION*** emphasizes areas where equipment damage could result. Disregarding a ***CAUTION*** could cause permanent mechanical damage. However, personal injury is unlikely.
A ***WARNING*** is giving notice to user that potential injuries may occur to a person from equipment and mechanical failure. Disregarding a **WARNING** may result in serious physical injury to the occupant.
A **DANGER** alerts areas where safety measures MUST be strictly adhered to, as such failures can be dangerous. Disregarding a **DANGER** could cause serious injury and possible loss of life.

Reporting Safety Defects

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying BRAXTON CREEK RV.
If NHTSA in addition receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer or BRAXTON CREEK RV.
To contact NHTSA, you may either call the Auto Safety Hotline tollfree at 1-800-424-9393 or write to:

NHTSA
US Department of Transportation
Washington, DC 20590

You can also obtain other information about motor vehicle safety from the Hotline.

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Safety When Emergency Stopping

It is wise to carry road flags and/or triangular warning devices to be used when necessary. When pulling off a highway, use your four-way hazard lights as warning flashers, even if only to change drivers. Pull off the roadway completely if at all possible to change flat tires or any other emergency.

Additional Safety Considerations

1. Sanitize the fresh water supply system periodically (see sanitizing instructions).
2. Keep water connection fittings from coming in contact with the ground or drain hose to reduce the chance of contamination.
3. Enlist services of a Qualified RV Technician to fix gas or electrical appliances, or any other gas or electrical system problem.
4. Always have a serviceable fire extinguisher placed in an easily accessible location.
5. Insure that tires are in good condition and properly inflated. Watch tire inflation closely. Under-inflated tires will overheat. Overheated tires are a potential hazard as they may throw rubber and cause a blow-out. Check the tire pressure before each trip while the tires are cold.
6. Check and tighten the wheel lugs regularly (every 50 miles when new until 200 miles are reached and then check the lugs every 500 miles).
7. Check the brakes in a safe area – not while traveling on a busy highway.
8. Always block the trailer wheels solidly before unhitching.
9. Before leaving a camp area with a trailer in tow, insure:
    a. The safety pin or locking lever is seated.
    b. The breakaway wire is attached to the tow vehicle.
    c. All jacks are raised so they cannot touch the ground.
    d. The 110-volt electrical cord is properly stored.
    e. The safety chains are connected.
    f. All interior lights are off.
10. Observe and obey the warning labels attached to your vehicle concerning propane, water, electricity, and loading.

11. Extinguish all campfires before leaving your campsite.

EXTENDED OR COLD WEATHER USE

Your BRAXTON CREEK RV recreational vehicle has been built for enjoyment in a recreational manner. This recreational vehicle is not intended to be used as full-time living quarters. Nor is this a four-season unit.
Using this unit in freezing conditions is not recommended. However, if unit is used in freezing weather, the following are guidelines to follow. Any problems resulting from freezing **are not covered** under warranty.

1. For winter use in freezing conditions, more protection may be required. Use skirting and/or insulation below floor level to provide additional protection.
2. Remember, water freezes at 32° Fahrenheit (0° Celsius) whether fresh or drainage. Proper care must be used to protect any system at 32°F/0°C or lower. Local recreational vehicle dealers and campground personnel may be able to advise you on needed protection.
3. Energy requirements, such as propane and electrical supplies must be adequate. Protect your propane regulator from freeze ups.
4. During cold weather, you will experience more condensation than normal. Using ventilation or a dehumidifier may be necessary.

CONDENSATION

Where it comes from, what causes it, and various solutions. Condensation is not a warranty issue.

Causes:

A. It occurs when warm moist air contacts a cold surface, such as rain touching the tent fabric with people breathing warm moist air against it from inside due to normal breathing.
B. When cooking food or taking a shower, warm moist air circulates throughout the coach attaching itself to cooler surfaces, forming beads and running down a wall or window.
C. Normal breathing will emit approximately 1/2 pint of moisture into the air per person, per day. The more occupants, the greater quantity of condensation you may find.

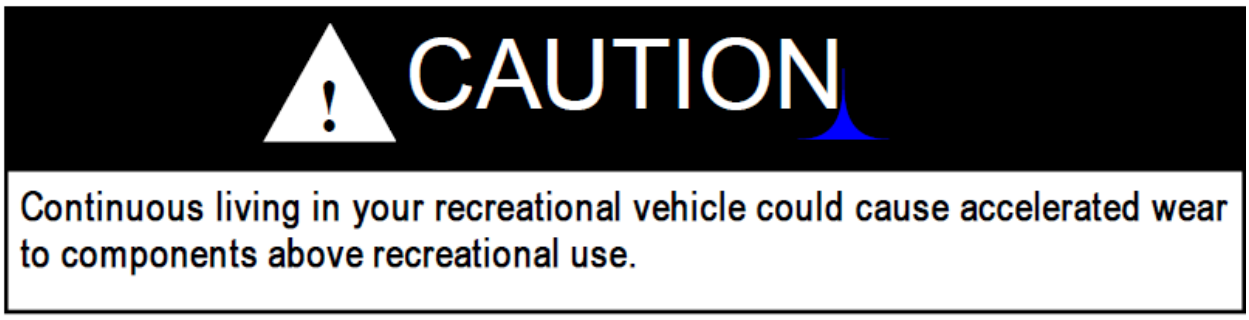
Solutions:
1. When taking a shower, open bath roof vent approximately ½ inch, allowing moisture to escape.
2. Use the power vent over the range when cooking.
3. If condensation is found in cabinet or closets, open door slightly to equalize temperature and provide ventilation.
4. Opening windows and roof vents, when possible, allowing warm moist air to escape is the best way to reduce condensation.
5. Under extreme conditions, you may need to use a dehumidifier to remove moisture in the air.

Uncontrolled condensation can cause dampness, mildew, etc., inside your recreational vehicle. Be sure to make strong efforts to control condensation.

INTERIOR VENTILATION

A new coach always has a peculiar aroma in it due to all the components used to build it, such as plywood, paneling, carpet and fabrics.

Allowing fresh air to move and circulate throughout a new recreational vehicle is very valuable as components used have chemicals in them that may cause possible irritation to the respiratory system of the human body.



Numerous ways are provided to exchange air in coaches:
1. Open windows on non-rainy days, allowing air exchange between inside and outside.
2. Power hood vent above cooking stove will send heat and food smell outside.
3. Roof vent; numerous types:
    a. Standard air flow using gravity flow method.

b. Power (12v or 110v) vents will move air faster.

c. Hi-volume power vents, operation in 12-volt power can exchange air in a coach in several minutes if windows are open accordingly. If there is a fan in the rear, open window(s) in front.

Carefully read the operating instructions, which are provided by the manufacturer, and can be found in your coach.

SERVICE PROCEDURES
BASIC SERVICE PROCEDURES

BRAXTON CREEK RV and Your BRAXTON CREEK RV Dealer have a strong and dedicated interest in maintaining the highest quality customer relations with its owners.

Your satisfaction with your BRAXTON CREEK RV recreational vehicle and your BRAXTON CREEK RV dealer is our primary concern. In addition to producing high quality products, we want to assure our customers that support with parts and service is available. **Our dealer network is the first line of communication to serve and supply your needs for your recreational vehicle**. Our authorized dealers will pleasantly assist in providing service maintenance needs, including part options and information concerning your recreational vehicle.

Should you experience a problem with service availability, please follow the steps in the order listed below:

1. Contact your selling dealer's service department for an appointment. Describe to the best of your knowledge the nature of the problem. Please keep appointments to establish a good, workable relationship.
2. Contact the owner or general manager of the dealership, should the initial attempt fails with the service department.
3. Contact: Customer Relations Department

BRAXTON CREEK RV
925 N. State Road 5
Shipshewana, IN 46565
Phone: (260) 768-7932
Hours: (8am - 4:00 pm E.S.T.)

E-mail: warranty@braxtoncreek.com
Website: www.BraxtonCreek.com

Give all the above information as requested along with the serial number of the coach in question. We will make every attempt to resolve your problem. Please bear in mind that most problems arise from misunderstandings concerning warranty coverage and service. In most instances, you will be referred to the dealer level and your concerns will be resolved with the dealer's facilities and personnel.

Dealer

Your authorized BRAXTON CREEK RV dealer has performed a PDI (pre-delivery inspection) on your recreational vehicle. Since your dealer is authorized to sell BRAXTON CREEK RV products, they are also there to supply parts, optional equipment, and provide service repairs, warranty or otherwise as needed.

First point of contact for warranty repairs will be your selling BRAXTON CREEK RV dealer. Other dealers can be used, however, prior approval is required.

Some recreational vehicle dealers may be authorized service centers for certain manufacturers of products warranted separately, such as appliances. Check with your dealer before contacting anyone else to reduce delays. If the dealer is not an authorized service center for the product in question, they can assist you in

BRAXTON CREEK

obtaining authorized service.

Factory

Service repairs can be performed at the manufacturing facility in Shipshewana, Indiana. Should your BRAXTON CREEK RV product be in need of major repairs and your dealer recommends factory repairs, please follow the steps provided below:

1. Your dealer **must** make an appointment with service personnel at the factory PRIOR to your arrival.
2. Any freight costs are the responsibility of the owner, as listed in the warranty coverage schedule.

Parts

Stocking of parts varies from dealer to dealer. Any authorized dealer can order required parts to be shipped into their dealership. All parts are obtained through authorized BRAXTON CREEK RV dealers only.

Owner's Responsibility

When owning and using a recreational vehicle, it is important to perform regular and normal maintenance. This is recommended twice a year, spring and fall, to prevent undesired deterioration of your coach. Weather elements play an important function on sealants and other components, requiring normal maintenance.

As an owner and operator, it is your responsibility and obligation to inspect and return your coach to an authorized dealer for repairs as required. Your authorized selling dealer is always your first point of contact. As your manufacturer, we recommend that inspection and service be performed by your selling dealership.

If you are traveling and are unable to locate an authorized BRAXTON CREEK RV dealer, or an authorized dealer for the component needing service, please call our customer service office at **(866) 472-5460**. Service at a non-authorized dealer MUST have prior authorization. You may be asked to return mechanical parts before reimbursement consideration is made. Unauthorized or improper repairs may void the warranty of that component. Always keep your owner's manual along with a copy of your warranty registration with you when traveling.

Seasonal Site

When placing your unit on a camp site in the spring and returning it in the fall to your home/place of storage, it's classed as a "seasonal site." Performing repair work on such a site is not recommended for numerous reasons: available parts, tools, space, weather conditions, etc.

Any service repairs which require a service technician also require the unit to be taken to a service facility, preferably your selling dealer.

Warranty coverage *does not* include trip or service call fees. It is the owner's responsibility to provide for such costs.

USING YOUR RV

In this section you will find three areas of useful information to assist you with correct equipment, traveling, and using your recreational vehicle.

EQUIPMENT

Tow Vehicle

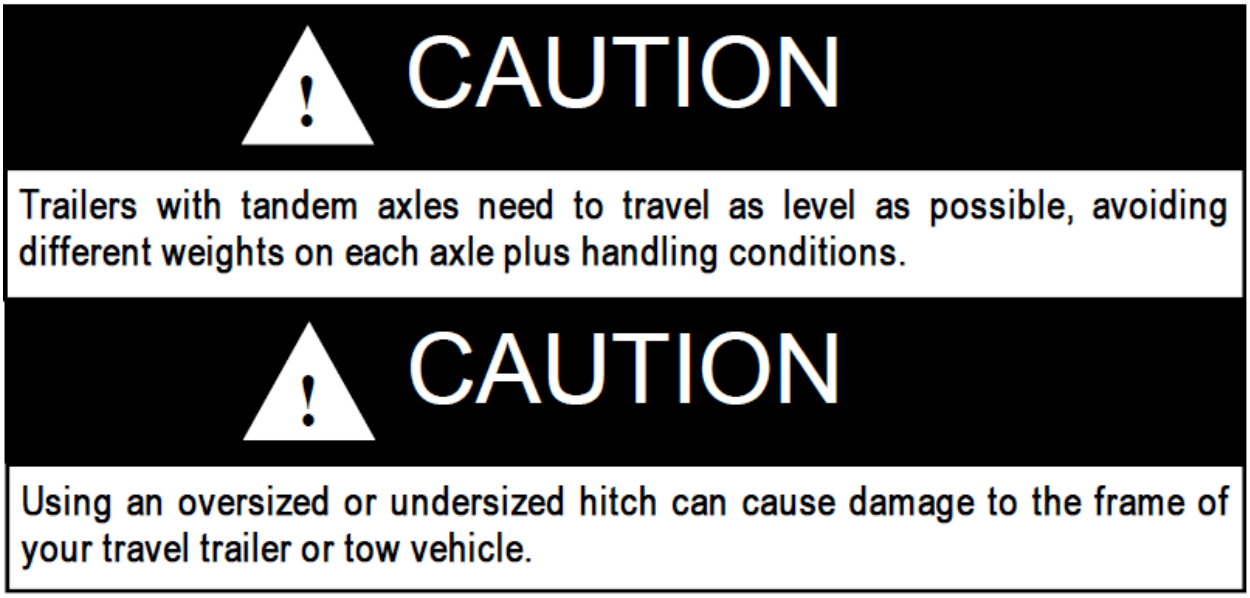
Begin your camping experiences by obtaining a tow vehicle that can adequately transport your recreational vehicle. Your most important measuring tool is the GVWR (Gross Vehicle Weight Rating) to cross match the capability of your selected tow vehicle.

Most auto and truck manufactures provide trailer towing guides for their products. Ask your local automotive dealer for a copy or call the factory's direct lines for information. Many tow vehicles, including mini-vans, have special towing package options available for small travel trailers. Tow vehicles with long wheel bases perform better than those with short wheel bases.
Understanding the GCWR (Gross Combined Weight Rating) is also important. GCWR refers to the total weight (or combined weight) of the tow vehicle and what it is towing. This information, supplied by the tow vehicle manufacturer, is related to the capability of the tow vehicle. The condition of the suspension in your tow vehicle is also an important factor. Ensure your tow vehicle is in good operating condition and follow the factory recommended maintenance guidelines.

Hitches – Travel Trailer

After obtaining your tow vehicle, it is very important to have the correct hitch system. Weight distributing bars may be necessary to accommodate your coach. This selection and installation should be done by a professional hitch service center, which may or may not be your selling dealer. Sway controls may be needed based on size and weight of coach, plus capability of your tow vehicle.

Weight distributing hitches apply leverage between the tow vehicle and trailer. This assists in equalizing the weight between vehicles, resulting in both vehicles traveling level. As a reminder, the condition of the tow vehicle's suspension system will affect the towing performance capability of your equipment.



Hitch Height Specifications – Travel Trailer
Due to axles being either straight or drop bars, the ball height will vary. To find the correct height for the ball hitch, set your trailer on a flat surface in level position. Begin measuring from the inside of the ball socket to the ground, approximately 18 to 22 inches, for correct spacing. You may wish to add 1 to 2 inches to this amount to compensate for sagging in the suspension of the tow vehicle when hooked to the tow vehicle.

Hook-Up (Travel Trailer)
Hooking up your travel trailer will become easier with practice. The following procedure will assist you in the process:

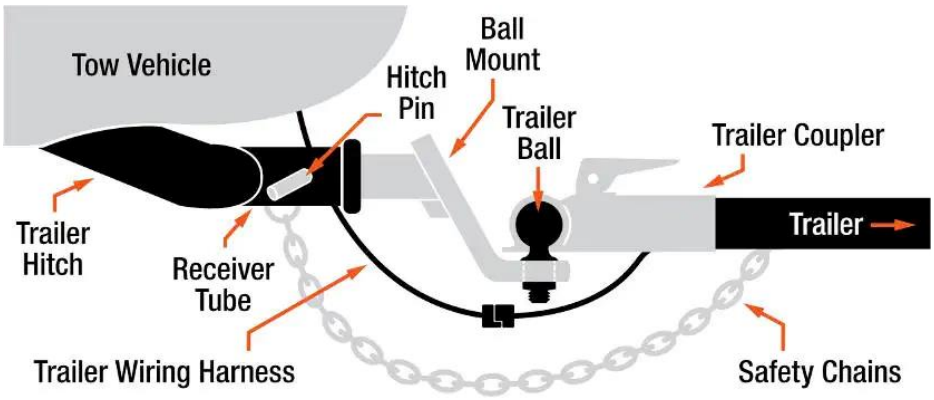
1. To raise the tongue of trailer above the hitch ball on hitch, turn the crank on the jack clockwise.
2. Open the coupler latch.
3. Back the tow vehicle into proper position.

4. Turn the crank on the jack counter-clockwise to lower the coupler onto the ball hitch.
5. Close the coupler latch after completely seated.
6. Install weight distributing bars (equalizer) when required, as recommended by hitch supplier.
7. Retract the tongue jack to its maximum height.
8. Attach the cable for the breakaway switch to the tow vehicle.
9. Attach safety chains as per your state laws.
10. Plug in your 12-volt, seven-way electrical connector from the tow vehicle to the trailer connector.
11. Inspect and test the following before traveling:
    - All lights are working on the outside of the coach.
    - Stabilizer jacks are in the retracted position.
    - Steps are in the retracted position.
    - Refrigerator door is latched completely.
    - Loose items are in a secure position.
    - Test the brakes for operation before entering the roadway.

The Safety Chain (Travel Trailer)

Safety chain requirements will vary from state to state. The chain supplied with your coach meets the SAE requirements for maximum gross trailer weight.

1. Cross the left chain under the coupler and attach/hook to the right mounting slot on hitch of the tow vehicle.
2. Bring the right chain under the coupler and attach/hook to the left mounting slot on the hitch of the tow vehicle.



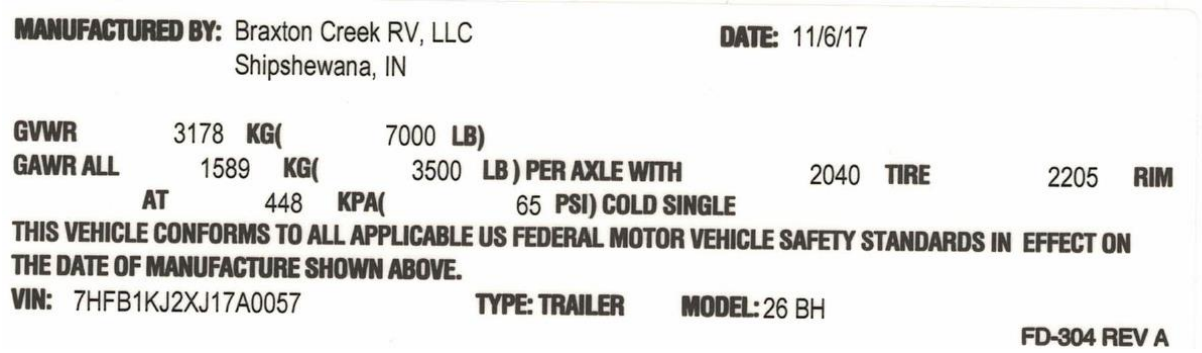
- Remember to leave enough slack to turn and hold the tongue up.
- Never allow chains to drag on the ground.
- Check chains regularly while traveling.

CAUTION

Remember – always have the safety chain attached to tow vehicle, as required in your state.

TRAVELING WEIGHTS

For safety reasons and federal regulations BRAXTON CREEK RV provides accurate weight specifications to owners. On the exterior left front corner of the coach you will find the Federal Vehicle Identification Number (VIN) sticker, as required by the federal government. This tag supplies information concerning your coach, such as: VIN number, date/ month of manufacture, tire size rating, and weights.



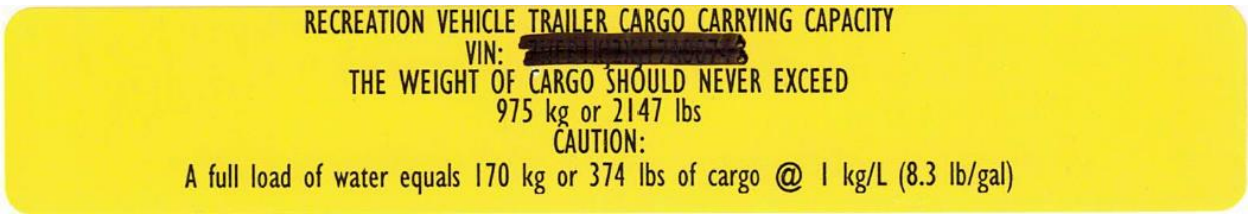
Gross Axle Weight Rating (**GAWR**) is the value specified as the load carrying capacity of a single axle system, as measured at the tire-ground interfaces.

Gross Vehicle Weight Rating (**GVWR**) is the maximum permissible weight of the trailer when fully loaded. It includes all weight at the trailer axle(s) and tongue. This weight number includes ALL cargo options and liquids.

Unloaded Vehicle Weight (**UVW**) is the weight of the trailer as manufactured at the factory. It includes all weight at the trailer axle(s) and tongue or pin. If applicable, it also includes full generator fluids, including fuel, engine oil, and coolants.
Cargo Carrying Capacity (**CCC**) is equal to the GVWR minus each of the following: UVW, full fresh (potable) water weight, including water heater and full propane weight.

Weighing Vehicle (Loaded or Unloaded)
The proper method to weigh the coach is to use a truck scale. Place the coach axles (tires) and tongue jack or landing jacks with front supports, 12” to 24” from the edge. Unhook the tow vehicle and move forward 6” to 8”. Now record total weight. Re-hook the tow vehicle and remove the weight from the front support. Be sure no part of towing vehicle is on the scale. Now record the axle weight only. The difference between the two weights is the hitch weight.
BRAXTON CREEK RV suggests to also weigh each side (2 tires) separately to find balance of pounds per side. It’s possible to have one side correct and the other side over-loaded. Often the slide out side or refrigerator side will be slightly heavier than the other.

The **second sticker** is provides the weight of the cargo placed in your coach. It is located on the inside of your coach, on the screen door or inside of a cabinet door. It provides the total allowable weight of cargo minus liquids allowed, water and propane.


RECREATION VEHICLE TRAILER CARGO CARRYING CAPACITY
VIN: [redacted]
THE WEIGHT OF CARGO SHOULD NEVER EXCEED
975 kg or 2147 lbs
CAUTION:
A full load of water equals 170 kg or 374 lbs of cargo @ 1 kg/L (8.3 lb/gal)

Loading the Trailer—Distribution
Your recreational vehicle has been engineered to make maximum use of the available space for living and storage areas. The equipment and supplies you take along while traveling can be carried safely, provided the additional weight is distributed properly.

Proper weight distribution within your trailer is an important factor in safety and efficiency of your trailer brakes, hitching, and how your tow vehicle will pull the trailer. DO NOT put excess weight in the rear only. Excessive weight in the rear area tends to develop sway and “fishtailing” of the trailer.
Lightweight and bulky items such as paper products, bedding, clothing, etc., should be stored in overhead cabinets and closets. Heavy items such as cooking utensils should be placed in lower cabinets. Canned goods need to be in a pantry, if so equipped, or in lower cabinets. Heavy items should be secured to avoid shifting during travel.
A reasonable principle in loading your coach is for every two pounds of weight loaded in front of the axle, one pound of weight must be loaded behind the axle. Also remember, improper side-to-side loading affects spring condition.
Excess weight behind the axle lightens the hitch weight and will tend to magnify any sway that may occur when passing trucks or when gusty winds are present. Uncalculated weight can and will affect road performance.

Towing
When towing your trailer, recognize the extra weight behind your vehicle. Below is a list of things to remember while traveling:

1. Slower acceleration will occur with a travel trailer and will require more distance to stop.
2. Wide turns are necessary when turning with a travel trailer in tow. Remember to use your turn signals for your own safety and the safety of others.
3. In passing or changing lanes, remember you will need a longer

distance to pass.
4. Use your rearview & side mirrors frequently to observe your trailer and traffic conditions.
5. When being passed by a large truck or bus, be prepared for displaced air as it may cause the travel trailer to sway.
6. When climbing and descending steep, long grades, use lower gears even before it seems necessary. Use your brakes smoothly and evenly.
7. Remember to drive slowly on wet and icy highways to keep control of your vehicle.

WARNING

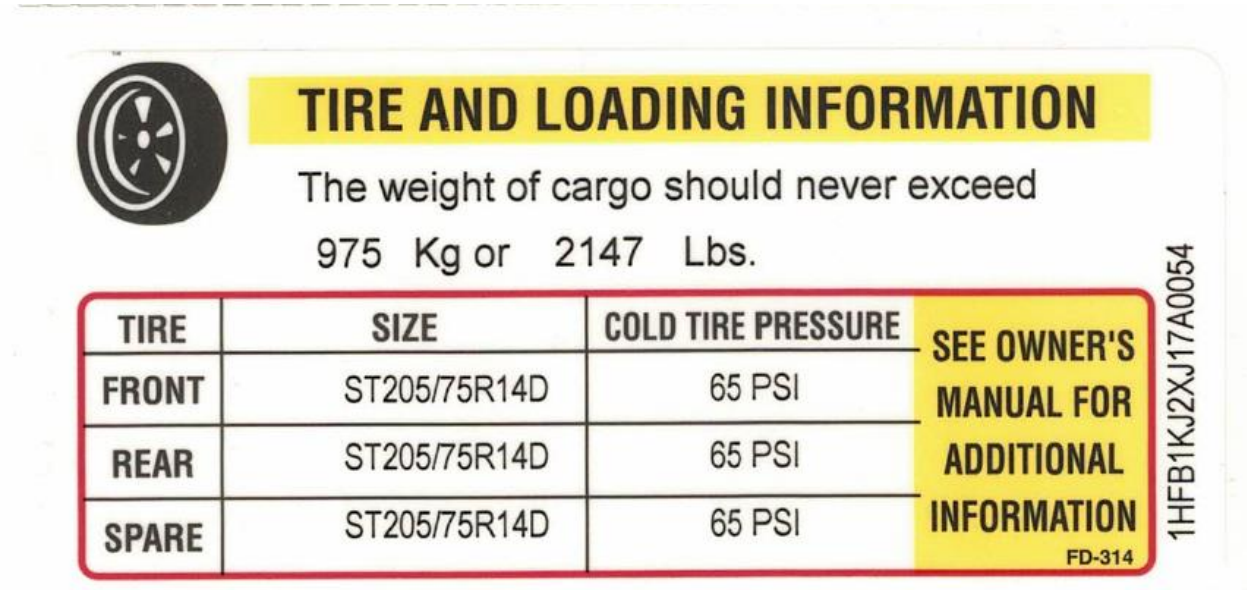
THIS STORAGE COMPARTMENT IS NOT DESIGNED FOR TRANSPORT OR STORAGE OF INTERNAL COMBUSTION ENGINE OR SUPPLEMENTARY MOTOR

WARNING

The rear bumper on the frame will only carry 100lbs, therefore only the spare tire carrier, and spare tire can be added to the bumper. Do not add any other components to the bumper, such as bike racks, generators, cargo containers, and etc. Such items could cause fatigue and weld stress, which is not covered under warranty. Any such failures could damage your property and endanger vehicles following your camper during travel, which could result in an accident.

Tires
All BRAXTON CREEK RV towable coaches are equipped with appropriate tires for recreational vehicles. Tires are rated to carry weight as listed to the GVWR. Tires are radial in design using components to offer excellent strength and mileage in all kinds of weather conditions.
Tires on your vehicle(s) are one of the most important components of the towing package.

Safety on the roadway is very important. With proper care, the tire performance and fuel economy will be maximized.



On the left front exterior corner of your coach, you will find the VIN Label, along with a placard supplying information on tires, including tire size and amount of air pressure (maximum).
Both stickers are permanently attached to the trailer on the front corner of exterior and easily readable from the outside of vehicle without moving any covers.
Due to weather elements, labels may fade over time. You may wish to record this information and keep it inside of vehicle, with the owner's manual.
Safety First –

Basic Tire Maintenance

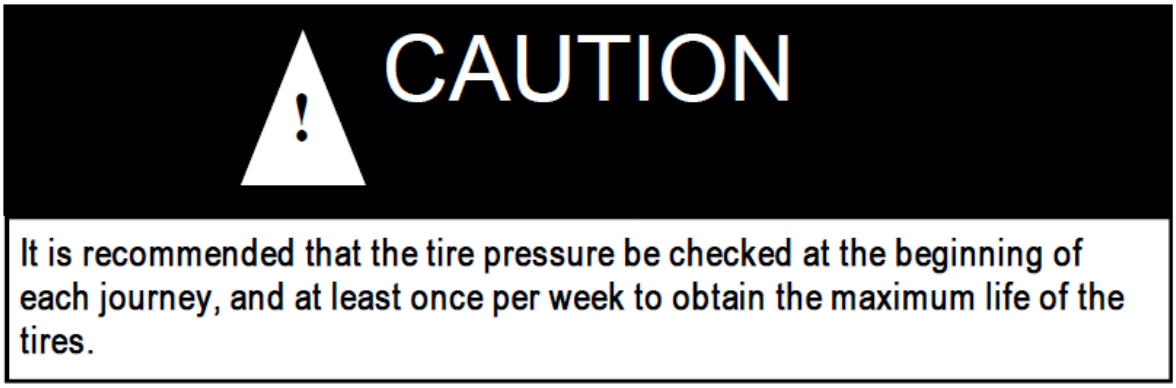
Properly maintained tires improve the steering, stopping, traction, and load carrying capability of your vehicle. **Under inflated tires and overloaded vehicles are a major cause of tire failure.**

Understanding Tire Pressure and Load Limits

Tire inflation pressure is the level of air in the tire that provides it with load-carrying capacity and affects the overall performance of the vehicle. The tire inflation pressure is a number that indicates the amount of air pressure, measured in pounds per square inch (PSI), a tire requires to be properly inflated.

You will also find this number on the vehicle information placard expressed in kilopascals (kPa), which is the metric measure used internationally.

Vehicle manufacturers determine this number based on the vehicle's design load limit, that is, the greatest amount of weight a vehicle can safely carry and the vehicle's tire size. The proper tire pressure for your vehicle is referred to as the "recommended cold inflation pressure." (As you will read below, it is difficult to obtain the recommended tire pressure if your tires are not cold, a cold tire is one that has not been driven on for at least three hours.)



Checking Tire Pressure

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

· Most tires may naturally lose air over time.

· Tires can lose air suddenly if you drive over a pothole or other objects. This can also occur if you strike the curb when parking.

· With radial tires, it is usually not possible to determine under

inflation by visual inspection.
For convenience, purchase a tire pressure gauge to keep in your vehicle. Gauges can be purchased at tire dealerships, auto supply stores, and other retail outlets.
The recommended tire inflation pressure that vehicle manufacturers provide reflects the proper PSI when a tire is cold. The term cold does not relate to the outside temperature. Rather, a cold tire is one that has not been driven on for at least three hours. When you drive, your tires get warmer, causing the air pressure within them to increase. To get an accurate tire pressure reading, you must measure tire pressure when tires are cold or compensate for the extra pressure in warm tires.

If you have been driving your vehicle and think that a tire is under inflated, fill it to the recommended cold inflation pressure indicated on your vehicle's tire information placard or certification label. While your tire may still be slightly under inflated due to the extra pounds of pressure in the warm tire, it is safer to drive with air pressure that is slightly lower than the vehicle manufacturer's recommended cold inflation pressure than to drive with a significantly under inflated tire. Since this is a temporary fix, don't forget to recheck and adjust the tire's pressure when you can obtain a cold reading.
It is recommended that the tire pressure be checked at the beginning of each journey, and at least once per week to obtain the maximum life of the tires.

Tire Size
To maintain tire safety, purchase new tires that are the same size as the vehicle's original tires or another size recommended by the manufacturer. Look at the tire information placards or the sidewall of the tire you are replacing to find this information. If you have any doubt about the correct size to choose, consult with the tire dealer.

Tire Tread
The tire tread provides the gripping action and traction that prevents your vehicle from slipping or sliding, especially when the road is wet or icy. In general, when the tread is worn down to 1/16 of an inch, they are not safe and should be replaced. Tires have built-in treadwear indicators that let you know when it is time for replacements. These indicators are raised sections

spaced intermittently in the bottom of the tread grooves. When they appear "even" with the outside of the tread, it is time to replace your tires.
FUN TIP: Place a penny in the tread with President Lincoln's head upside down and facing you. If you can see the top of President Lincoln's head, it is time for new tires.

Tire Balance and Wheel Alignment
Tires are not balanced on your unit, nor is it required. You may choose to balance the tires on your unit, however this will not be covered under warranty.
Wheel alignments may be needed periodically due to road hazards, such as potholes. This also is not covered under warranty, due to being an uncontrollable element. Wheel alignments will assist with getting the maximum life from your tires. Alignments require special equipment, and should be performed by a qualified technician.

Tire Repair
The proper repair of a punctured tire requires a plug for the hole and a patch for the area inside the tire that surrounds the puncture hole. Punctures through the tread can be repaired if they are not too large, but punctures to the sidewall should not be repaired. Tires must be removed from the rim to be properly inspected before being plugged and patched.

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

U.S. DOT Tire Identification Number
This 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 means the 31st week of 1997. The other numbers are marketing codes used at the manufacture's discretion. This information is used to contact consumers if a tire defect requires a recall.

Maximum Load Rating
This number 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.

Vehicle Load Limits
Determining the load limits of a vehicle includes more than understanding the load limits of the tires alone.

[For TT] On a trailer, there is a Federal certification label that is located on the forward half of the left (road) side of the unit.
The certification label will indicate the vehicle's gross vehicle weight rating (GVWR). This is the most weight the fully loaded vehicle can weigh. It will also provide the gross axle weight rating (GAWR). This is the most weight a particular axle can carry. If there are multiple axles, the GAWR of each axle will be provided.

[For TT] In the same location as the certification label described above, there is a vehicle placard. This placard provides tire and loading information. In addition, this placard will show a statement regarding maximum cargo capacity.

Cargo Capacities
[For TT] Cargo can be added to the vehicle, up to the maximum weight specified on the placard. The combined weight of the cargo is provided as a single number. In any case, remember: **the total weight of a fully loaded vehicle cannot exceed the stated GVWR.** Water and propane also need to be considered. 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 is a cargo weight and is treated as such. If there is a freshwater storage tank of 100 gallons, this tank when filled would weigh about 800 pounds. If more cargo is being transported, water can be off-loaded to keep the total amount of cargo added to the vehicle within the limits of the GVWR so as not to overload the vehicle.

Understanding this flexibility will allow for choices to be made that fit your travel and camping needs. When loading your cargo, be sure it is distributed evenly to prevent overloading front to back and side to side. Heavy items should be placed low and as close to the axle positions as reasonable. Too many items on one side may overload a tire. The best way to know the actual weight of the vehicle is to weigh it at a public scale. Talk to your RV dealer to discuss the weighing methods needed to capture the various weights related to the RV. This would include weights for the following: axles, wheels, hitch or pin (in the case of a trailer) and total weight.

How Overloading Affects Your RV and Tires

The results of overloading can have serious consequences for passenger safety. Too much weight on your vehicle's suspension system can cause spring, shock absorber, or brake failure. Handling or steering problems, irregular tire wear, tire failure or other damage may also occur.

An overloaded vehicle is hard to drive and hard to stop. In cases of serious overloading, brakes can fail completely, particularly on steep hills. The load a tire will carry safely is a combination of the size of tire, its load range, and corresponding inflation pressure. Excessive loads and/or under inflation cause tire overloading and as a result, abnormal tire flexing occurs. This situation can generate an excessive amount of heat within the tire. Excessive heat may lead to tire failure.

It is the air pressure that enables a tire to support the load, so proper inflation is critical. Since RVs can be configured and loaded in many ways, air pressures must be determined from actual loads (determined by weighing) and taken from the load and inflation tables provided by the tire manufacturer. These air pressures may differ from those found on the certification label. However, they should never exceed the tire limitation for load or air pressure. If you discover that your tires cannot support the actual weights, the load will need to be lightened.

Tire Speed Rating
Each original tire installed on BRAXTON CREEK recreational vehicles have a speed rating of 75 MPH or greater. Please note maximum load rating, tire pressure, and speed rating as imprinted on the sidewall of tire.

How to Change a Tire
1. Place blocking under main rail of frame with hydraulic jack on top of blocking in front of front spring, ALWAYS on main rail.
2. Break lug nuts loose before raising coach. DO NOT REMOVE lug nuts.
3. Raise coach with jack until wheel and tire is off the ground.
4. Place additional blocking under frame for security support. DO NOT depend fully on hydraulic jack.
5. Be sure coach is solid and will not move with wheel and tire off.
6. Remove lug nuts when tire is off the ground.
7. Replace with spare tire and wheel onto hub.
8. Reinstall lug nuts and tighten firmly.
9. Drop tire and wheel onto ground after removing supports.
10. Now fully tighten and torque lug nuts at 90 to 120 pounds.
11. Place all equipment onto coach or tow vehicle, blocking and jack.
12. Re-toque lug nuts after traveling 100 miles

Wheel Lugs
When the wheels are installed on your recreational vehicle, the lug nuts must be tightened at 90-120 foot pounds of torque. Powder coat painted wheels may require more torqueing attempts due to thickness of paint. You must re-torque the wheel lugs at 50 and 200 miles. A decal on the wheel may require torqueing earlier.

After your first trip, check the wheel lugs periodically for safety. The wheel lugs should then be checked after winter storage, before starting a trip or following extensive braking. The size of bolts or nuts is 13/16 inch standard and ¾ inch for chrome nut. **Over torquing will damage components, especially if torque wheel lugs go over 150 pounds. Normally the "nut" fails first, however the embossing on the wheel can also be flattened, and then fail to**

keep wheel tight.

Brakes – Electrical

Electric brakes on your recreational vehicle are designed to work in conjunction with the hydraulic brakes on your tow vehicle. This means to have the best brake performance on both systems, the trailer and the tow vehicle must perform and operate together. Any attempt to use either brake system alone, tow vehicle or trailer will cause accelerated wear and damage.

A brake control must be installed in your tow vehicle to activate electric brakes with 12-volt power either manually or by foot brake pedal.

The most popular type is an electronic controller, operating completely on electric current. *See operating instructions provided with the controller for adjustment and operation procedures.*

Your controller is to be installed below the dashboard of your tow vehicle. Use the foot pedal control for general operation on combined use of both brake systems. Manual control is to be used only in special situations, such as slow movement or icy road conditions. In open position, electrical current will flow to brake assemblies activating them.

Power from the battery is sent to the controller, the “switch” to provide the correct amount of current to brake assemblies on the coach. As you press harder on the brake pedal, more current will flow, applying brakes more, increasing braking capability.

Your battery in the tow vehicle is your primary power source to operate the brakes in your towable trailer. Keep your battery and charging system in working operation to ensure available energy when required.

Wiring to operate your brakes must be sized in both vehicles, suggesting a minimum of 14- gauge. Your camper has 14-gauge from front end to brakes. Brake assemblies are wired in parallel, never in a series. Being parallel, there will be equal voltage and amperage at each brake assembly for equal braking capability and/ or performance.

When applying brakes to stop the trailer, begin pressing slowly to avoid quick and sudden stops, or possible “jack-knife” when wet or slippery. Use lower gear ranges to minimize the need of brakes during extended or steep downgrades.

The brakes installed on your coach are self-adjusting. Self-adjusting brake assemblies will correct any looseness and improve operations as they will adjust in forward or backward motion as needed while the coach is being towed.

Breakaway Switch

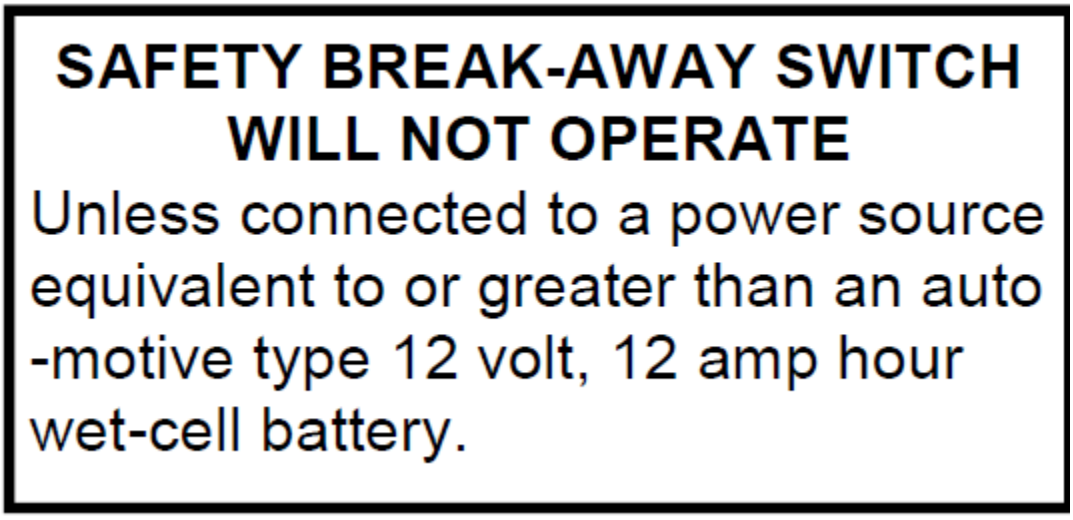
The breakaway switch is a safety part of your trailer's electric brake system. The very instant a breakaway occurs the pull pin, which is linked to the tow vehicle, is pulled from the switch. The two contacts automatically close to complete the electrical circuit and apply the trailer brakes. This system will apply the brakes of the trailer should it become loose or detached from the tow vehicle. A 12-volt battery installed on the coach is required to power the breakaway switch.

Never use this breakaway switch and trailer brake system as a parking brake. Doing so will cause an unnecessary high amp draw on the battery and converter, potentially causing damaged wiring, connectors, and breakaway switch.

CAUTION; Removing plunger with power to brake assembly could result in damage to brakes.

WARNING; Removing plunger while in storage could result in corrosion to unit points.

WARNING; A tag may be attached to a lanyard cable; DO NOT use as a parking brake.



CAMPSITE SETUP AND USING YOUR RECREATIONAL VEHICLE

We recommend that you select a level or nearly level place for camping. There are two reasons to be level. All components in your coach, such as your water drainage system and especially your refrigerator, are designed to operate in a level position.
Should a level site not be available, use short 2 x 6 inch blocks of wood to raise the low side wheels to a level position.
⚠ Before unhooking the trailer from the tow vehicle, be sure the jack foot is in place on the tongue jack and block the trailer wheels to keep the trailer from moving.
When on a surface other than cement, before lowering the tongue jack onto the ground, you may wish to place a wood block or hard support under the foot of the jack. This will help to prevent the jack from sinking into the dirt.

Unhooking Your Travel Trailer

1. Release the weight distributing bars (if used).
2. Release the safety latch on the coupler.
3. Raise the coupler on the A-frame by turning the tongue jack counter clockwise until the ball is free.
4. Disconnect the 7-way wire connector, safety chains, and the breakaway cable.
5. Raise front jacks until your tow vehicle will clear coach. Drive tow vehicle away.
6. Now raise/lower front end until coach is level.
7. Lower stabilizer jacks to desired position to stabilize coach.
8. Reverse procedure to hook up coach to your tow vehicle.

GENERAL SAFETY DETECTOR INFORMATION

Your new unit comes with 3 safety products. The safety detectors inside your unit will be actuated much sooner than in a residential home, due to less air volume inside the coach.
Each detector has its own manual and instruction sheet, providing more information for its use and maintenance. More information is available in the owners material supplied by the manufacture of each detector. The lifetime of the detector is 5 years, and needs to be replaced as per manufactures instructions, in the user’s guide.

SAFETY PRODUCTS & DETECTORS

Fire Extinguisher

A fire extinguisher is installed in each RV and is located near the entrance door. Be familiar with its location and operating instructions as printed on the extinguisher. Inspect your extinguisher at least two times per year or more as instructed on the extinguisher.

Propane/Carbon Monoxide Detector—COMBO

Any recreational vehicle which contains a propane fuel system with propane consuming appliances require a propane leak detection device for safety protection. Currently this detector also serves as a carbon monoxide protection device. A converter or auxiliary battery is required to supply 12-volt DC energy to operate the device. There is not a master cut-off switch to disengage detector.

WHAT IS CARBON MONOXIDE?

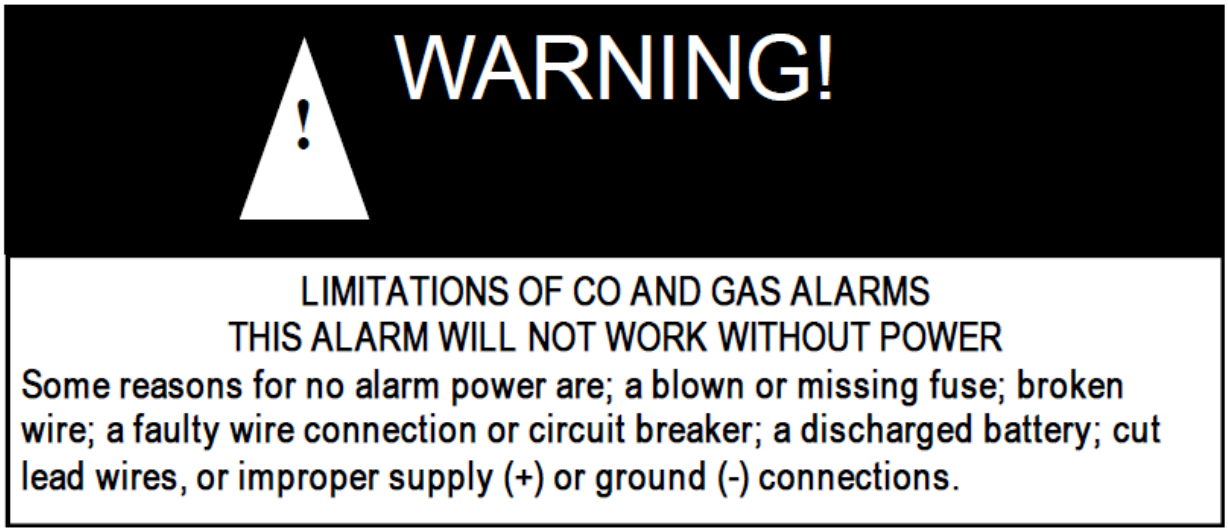
Carbon Monoxide (CO) is a highly poisonous gas which is released when fuels are burnt. It is invisible, has no smell and is therefore very difficult to detect with the human senses. Under normal conditions, in a room where fuel burning appliances are well maintained and correctly ventilated, the amount of carbon monoxide released into the room by appliances is not dangerous. These fuels include: wood, coal, charcoal, oil, natural gas, gasoline, kerosene, and propane. Such gases can build up in the blood, interfering with the body's ability to supply oxygen to itself.

Because CO is a colorless, odorless, tasteless, and highly poisonous gas that prevents the blood from carrying oxygen to vital organs, CO is 200 times more likely to replace oxygen in the blood. **It can endanger lives even at low levels of concentration.**

DUAL SENSOR TECHNOLOGY

The combination CO/Propane Gas Alarm is an alarm that combines into a single compact system. It is a powerful alarm that detects both Carbon Monoxide (CO) and Liquefied Petroleum Gas/Propane (LPG/LP). The sensor uses the latest microprocessor technology combined with two electronic self-cleaning sensors that operate independently

of each other. The combined unit can detect CO and explosive gases simultaneously.



OPERATION

When the unit is first powered up, the CO sensor requires a ten 10-minute initial warm-up period to clean the sensor element and achieve stabilization. The LED indicator will flash on and off during the 10-minute warm up period. The unit cannot go into a CO alarm during the warmup period. To test your unit during the warmup period, press the test button. See Test Procedure in this manual.

After the warmup period, the power ON indicator should glow continuously. If the ON indicator light does not turn on, see the section **Trouble-Shooting Guide** in the user's manual for further information.

Do not attempt to fix it yourself.

Gas Alarm: When you power the alarm, there will be a warmup period of approximately 1 minute. This unit cannot go into a gas alarm during the warmup period. After 1 minute, the alarm can detect explosive gases.

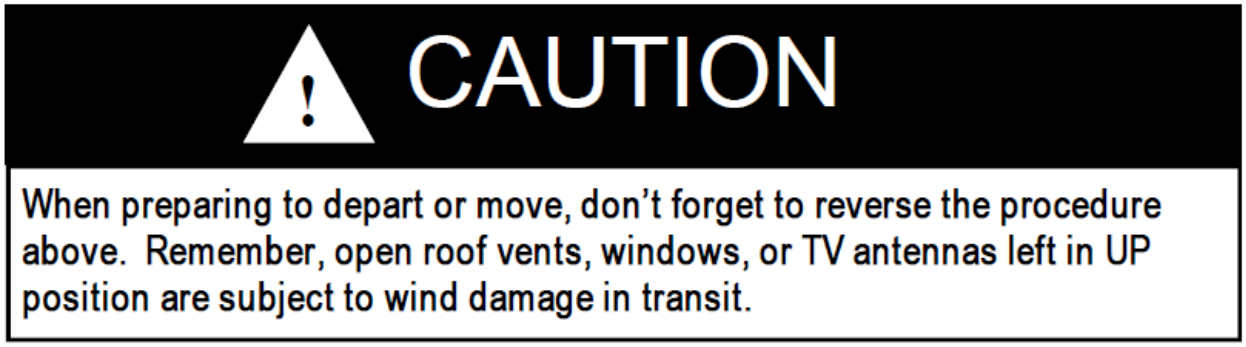
Simultaneous CO and Gas Alarms: Because the risk of a propane gas explosion is generally a more serious danger, your alarm unit gives the gas alarm a higher priority during simultaneous alarm conditions.

If your unit generates alarms for both Gas and CO at the same time, the gas LED will flash red and the beeper will sound. The CO LED will be a solid red until the CO is ventilated out of the RV, at which time the LED will not be lit up.

Brownout Protection
The unit can tolerate short power interruptions and brownouts where the circuit voltage drops as low as 1 VDC. If the brownout lasts too long, the unit will reset and operate as described above.

LOW POWER OPERATION
This alarm will operate normally down to 7 VDC. Do not operate this alarm below 7 VDC.

VISUAL AND AUDIBLE ALARM SIGINALS
This CO/Propane Gas Alarm is designed to be easy to operate. The alarm has two indicator lights that display for each monitored condition and a matching sound pattern for alarm conditions.



CO ALARM
The Red CO LED will flash and the alarm will sound 4 "BEEPS" then be silent for 5 seconds. These signals indicates that the CO level is over 35 ppm. **IMMEDIATE ACTION IS REQUIRED.** See the **Procedures To Take During An Alarm** in the user's manual that is supplied with the detector. This cycle will continue until the TEST/ Mute button on the front of alarm is pressed. Ventilate the RV immediately. The RED light will stay ON until the CO has cleared or the alarm will reactivate in approximately 4 minutes if the CO is still present. DO

NOT RE-ENTER THE RV. This alarm will return to normal operation after the RV's properly ventilated.

PROPANE GAS ALARM

The RED LED will flash and the alarm will sound 6 "BEEPS" in 1 second continually whenever a dangerous level of propane or methane gas is detected.

IMMEDIATE ACTION IS REQUIRED. See **Procedures To Take During A Gas Alarm.** The detector will continue to alarm until the Test/Mute switch on the front of the alarm is pressed. Ventilate the RV immediately. The alarm will continue to "BEEP" until the gas has cleared or the gas alarm will reactivate in approximately 4 minutes if the gas is still present. DO NOT RE-ENTER THE RV. This alarm will return to normal operation after the RV is properly ventilated.

MALFUNCTION/SERVICE SIGNAL

If any malfunction is detected, the Gas LED will remain off and the Operational/CO LED will Flash Red and the alarm will sound once every 40 seconds. Press the Test/Mute button. If the Test/Mute button does not clear signals, check the battery voltage. **If the battery voltage is not low and the unit will not return to normal operation, immediately remove the alarm and return for service or warranty replacement.**

OPERATION	AUDIBLE SIGNAL	VISUAL SIGNAL
NORMAL	NONE	STEADY RED
CO ALARM	4 BEEPS 5 SECONDS OFF	STEADY RED
PROPANE ALARM ALARM	CONSTANT 6 BEEPS EVERY 1 SECOND	STEADY RED
MALFUNCTION	BEEP EVERY 30 SECONDS	RED FLASHING
END OF LIFE	BEEP EVERY 30 SECONDS	BOTH CO/LP STEADY

End of Life Signal

All models include an End of Life (EOL) Signal indicating the sensor has reached the end of it's service life and you MUST replace the alarm. The signal is the LED flashing RED/RED with a beep every 25-30 seconds. The EOL signal may reset by pushing TEST/RESET button on the alarm. This will reset the EOL signal for a period of 48 hours. DO NOT DISCONNECT THE ALARM UNTIL YOU HAVE A REPLACEMENT ALARM AVAILABLE TO INSTALL.

Smoke Alarm

Smoke alarms are REQUIRED WHEN PROPANE IS IN THE COACH AND OPEN FLAME COOKING HAPPENS. The alarm is placed on the ceiling between the sleeping area and cooking area.

Operation

The smoke alarm is in operation once the battery is correctly connected. The LED will flash every minute to show the battery is supplying power to the alarm. When production of combustion is sensed, the unit sounds a loud alarm which continues until the air is cleared.

TESTING

Test the alarm by pushing the test button on the smoke alarm cover for at least three seconds, until the alarm sounds. The alarm sounds if all electronic circuitry, horn, and battery are working. If no alarm sounds, the unit has a defective battery or other failure and should be replaced immediately.

- Test each smoke alarm weekly to be sure it is installed correctly and operation is properly.
- Test smoke alarms after the recreational vehicle has been in storage, before each trip, and at least once a week during use.
- Stand at arm's length from the smoke alarm when testing. The alarm horn is loud to alert you to an emergency. The alarm horn may be harmful to your hearing.
- The test button accurately tests all functions. Never use an open flame from a match or lighter to test this smoke alarm. You may

ignite and set fire to the smoke alarm and your RV.
The life time of the smoke alarm is 10 years or as stated in the alarm's manual.

WARNING

Test safety alarm operation after vehicle has been in storage, before each trip, and at least once per week during use. Failure to comply may result in serious injury.

RV Steps (Two or Three)
Before entering your recreational vehicle, place your hand in the center of the step assembly. Pull the step outwards. The step assembly will raise slightly and then out, away from the coach. The lower step will unfold 180° to a useable position. The arm on the step will meet a positive stop. Step care, maintenance, and lubrication will be found in the maintenance manual.
Be sure there is antiskid material on each step to prevent anyone from slipping and falling.
Lubricate any pivot points in step movement to avoid seizure of any pins.

CAUTION

After lubrication, be sure no lubricant is remaining on step, causing a person to slip.

Windows
All windows are of slider opening design, solid picture window, or opening vent panels. Sliders may open horizontal or vertical as called for per floor plan. Egress windows have an unlocking handle

or two small hinged clips on each side. After unlatching, the panel will swing out on a top hinge. Some egress windows screens are attached to the swing out panel of window.

Doors

Locks on entrance doors have two lock mechanisms, a deadbolt in the frame section of lock and a standard lock in the handle. Both locks use the same key. Screen doors may have two types of latches. First, a "roller" latch and secondly, a "hook" latch which needs to be tripped to open.

Locks on trunk doors need a small quantity of silicone lubricant sprayed internally two times per year to keep functioning correctly.

TV Antennas (Standard Roof Mount)

Current TV antenna has a rigid base to mount receiver head which cannot be rotated or raised up. The base is attached to roof with four screws and antenna is attached with two bolts and nuts.

Inside of coach, on the wall, is a power supply with a brown cover where you hook-up to TV and satellite. There is an on/off button on the power supply to engage the booster, located inside the antenna head.

This antenna also serves as a radio receiver for the sound system in the coach.

Location of this power supply is:

1. On the wall, above the space for TV, free standing or wall mount.
2. Behind the TV.
3. Possibly on the ceiling close to TV.

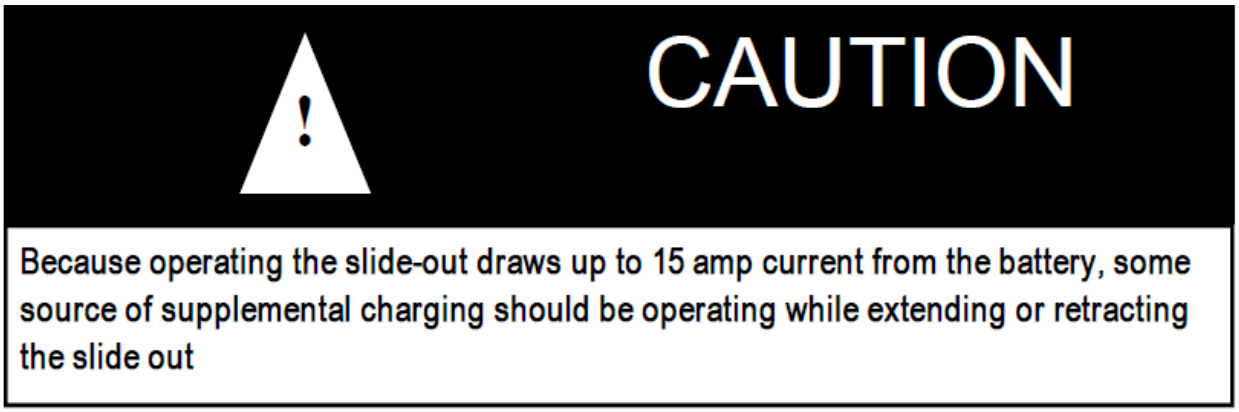
With out 12 volt DC power your signal will NOT be amplified

CAUTION

The power supply should be turned OFF when connecting/disconnecting cables to power supply and antenna, but should be turned ON when testing for voltage.

SLIDE-OUTS
Some BRAXTON CREEK RV units are built with a slide out system as listed, followed by descriptions. Several different vendors supply components, loose and/or attached to frames.

1. Below floor system: All metal components are external, located under the floor and in the frame.



POWER FOR OPERATION
All power slide systems operate on 12-volt DC power provided by a convertor, thru a 12-volt distribution load center, a 30 amp breaker is provided for each slide, feeding the operation switch to the motor. You may wish to supplement your convertor with an auxiliary 12-volt battery or use 12-volt power from a tow vehicle.

1. Hook up a 120-volt AC power cord to recreational vehicle for converter operation.
2. Use 12-volt power through the tow vehicle to the recreational vehicle battery or batteries.
Either of these methods will help ensure maximum electrical power for the slide-out motor, as well as maintain your battery.

TRAILER SET-UP REQUIREMENTS –
GENERAL FOR SLIDEOUTS
Note:
1. Before operating the slide-out room, level the trailer front-to-rear and side to side.
2. Extend all stabilizer jacks to make solid contact with the ground

and/or on solid blocks. Placing stabilizer jacks onto a hard surface allows the coach to remain square and assure a good weather-tight seal between the room and trailer sidewall.

BELOW FLOOR SLIDE SYSTEM

Mechanical Components.

Under floor slide-out mechanism steel bars are welded to the frame members. Norco system has a double track and gear.

As the motor turns, a ram moves the gear on the track. A cross shaft, front to rear ram connects the second ram, moving the opposite end of slide. Mechanism operates the same, flush or standard floor.

BRAXTON CREEK RV does NOT require or suggest blocking, supports, jacks, etc., to be used under slide outs during extended normal use.

CAUTION

When opening slide room, DO NOT over-extend. Fascia board can be distorted, loosened or bent from correct position

WARNING

Stand clear of the room's interior path and verify that the room's exterior path is clear before extending or retracting the room.

WARNING

- Always make sure that the trailer is level before operating the slide-out room.
- Always make sure there are no obstructions blocking the path of the room when it is moving.
- Always make sure that the room path is clear of people and objects before operating.
- Always keep away from the slide rails under the coach when the room is in motion.

FAILURE TO FOLLOW THESE INSTRUCTIONS COULD RESULT IN SERIOUS INJURY OR DEATH.

Electrical Components
A 12-volt DC motor is located under the frame. It may be inside of main rail on frame, or on some models it will be on the outer side on main rail along with front to rear shaft. On the above floor slide, it will be under the floor of the sofa or dinette.
Operational switch: This switch, is a three position, (off center, in or out) spring loaded switch. Select which direction you wish to move the room. Press on desired position and hold until room is seated, and gasket is slightly compressed. Do not force the room to move beyond sealed position, as damage could occur.

MANUAL OVERRIDE:
Should a power failure occur (no 120-volt AC power or the battery loses its charge), follow the directions listed below:
1. On Lippert rack and pinion frames, there is a 1/2" shaft coming through the main rail of frame. On the outer end is a small, 1/8" x 1-1/2" pin that goes through the shaft. Use an adapter along with a socket and ratchet to move the slide in or out. Some use 3/4" nut welded to shaft rather than pin.
2. On Norco there is a 1/2" shaft coming through the frame rail. On the end is a 3/4" nut attached to the shaft. Use a 3/4" socket extension and ratchet to move the slide.

ABOVE FLOOR SLIDE-OUT
Manual Override (Single or Double Rams)
Should 12-volt power fail and there is no 120-volt AC power available, follow the directions listed.
Access to the ram under the floor of slide, sofa or dinette, is from the front. Lippert Component System has a smaller motor, less draw, and requires a 5/8" socket, ratchet and probably an extension shaft.

BLINDS
Any blinds with loose cords, such as mini-blinds **CANNOT** be installed in bunks designed and built for young children.
Night shades, installed, have cords anchored to lower part of window and need to be secured for operation. BRAXTON CREEK RV recommends these shades be in the UP position for travel to avoid lower metal holder being in contact with garnish on window.

CAUTION : While traveling, all mini blinds need to be in the up position to avoid swinging and scratching paneling. Even with brackets at lower part of window, pull blinds up before traveling. Loose furniture, such as dinettes and free-standing chairs, need to be secured to prevent movement, contacting walls and causing wall and chair damage during travel.

Ladders—Exterior

A ladder is provided as an option on most coaches to climb onto roof areas. Ladders are rated to handle 200lbs at a time when climbing onto the roof. Do not store articles on the ladder during travel. If you do so, warranty will become void on the ladder.

SYSTEMS

WATER AND DRAINAGE PLUMBING

Your BRAXTON CREEK RV recreational vehicle has a complete water system to carry fresh water, as well as holding tanks for used water. Each group has its own explanation along with its own operation.

FRESH WATER SYSTEM

Tanks

Water containers are installed inside of the coach under the bed, Dinette, or sofa. On some models these containers are installed under the coach between frame members and protected with a cover.

All water containers have 3 exits (1) draw water with pump throughout the coach, (2) drain spigot for tank, (3) overflow line attached to fill vent.

Filling Fresh Water System

To place water into your coach‘s fresh water system, use one of the following methods:

A. City Water Fill, See Figure 1

1. Water is received into the system through a direct hookup, referred to as “city water fill”. Attach a hose to the hook up and supply line. Open the

faucet from the supply line. Enter the unit, and open any faucet, to allow air to escape, as there may be some air pockets.

B. Gravity Water Fill, See Figure 2

1. To place water into the fresh water tank, remove cap from fill. Insert the hose into the 1-1/4 inch flex tube 4 to 6 inches. Open the water supply faucet. DO NOT overfill the tank as it could burst. *It is not designed to hold pressure.* There is a small screen on the fill, located 1/2 inch at the 10 o'clock position. When water starts to come out **STOP FILLING NOW!**

Figure 1

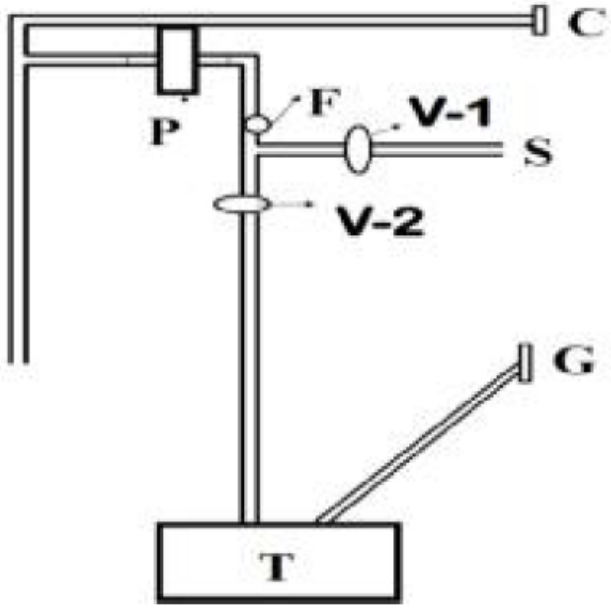
Figure 2

C. During the tank being filling process, check the Tank on Monitor panel (if applicable).

CAUTION

DO NOT leave tank unattended while filling, as an over filled tank will built pressure, causing tank to crack, rupture, and leak or even damaging supports holding it in place.

You have the option to use direct water from your city water hookup, or water from your fresh water tank.



S=Siphon hose– used to:
1. Winterize water system.
2. Sanitize water line system

P=Pump,12 volt DC. To supply coach with water when city water is not available.

F=Filter—Cap to be removed to clean out or replace.

G=Gravity water fill. To fill tank.

C=City water fill. To fill lines.

T=Tank – To hold water.

V1= Valve to be opened ONLY when using siphon hose as listed above.

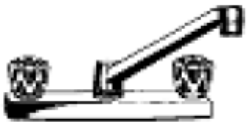
V2= Valve to be open to draw water from supply tank. Closed when siphon hose is used.

12-Volt Demand Pump

When water is desired and you are not hooked up to city water, your tank will be your supply. On your monitor panel is a switch to turn on the 12-volt demand pump. Energy for the pump is supplied by

the auxiliary battery or converter. The pump will self-prime when started, supply water, and continue to run until approximately 40 pounds of pressure is achieved. When the pressure drops to 20 pounds, the pump will restart. Some cycling in the pump may occur. A check valve is built within the pump to prevent water from flowing into the supply tank.
DO NOT leave tank unattended while filling, as an over filled tank with built pressure can cause damage to the supports holding it in place, the tank to crack, rupture, and/or leak.
The pump has a small filter attached on the “in port“ side to prevent any foreign matter from entering the pump. Removing the lower cup and cleaning it out 1-2 times a year, is recommended.
When the pump is not in use, turn the 12-volt power off at the switch.
Occasionally your water pump may start/stop quickly (within a second). This is referred to as “cycling”. There may be a noise that occurs at this time. It may be due to a slightly open faucet, water saver washer in the end of the faucet spout, plus other restrictive issues. If the pump cycles every 10 to 15 minutes, a slight water leak might have occurred somewhere, check valve in city water fill, plumbing fittings, and pressure valve in pump.

Faucet



The basic operation of a faucet is the same as in your home. Open the knobs or raise the single lever. Close faucets when sufficient water volume is achieved. It is normal to experience occasional air pockets in the system.

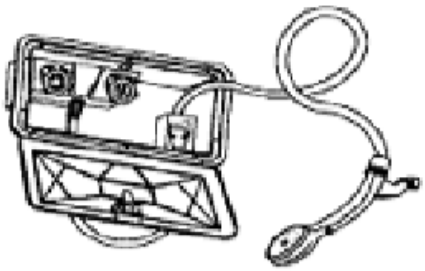
Bath and Shower

Your bathtub and shower are built with Vinyl, ABS or fiberglass material, similar to those in your home. Shower curtains are provided with the coach and must be used to prevent water from spilling onto the floor, possibly causing damage.

The shower head used in the bathroom has a non-positive shutoff valve and will drip slightly in shut-off position. A vacuum breaker is also built into the faucet to permit water in hose to drain out as a code requirement.

Before beginning your shower, be sure the water heater is lit. Adjust the faucet for temperature before entering the tub or shower. After shower use, be sure to turn the water off at the faucet.
Used water will drain through the plumbing pipes into the gray water holding tank. Remember the capacities of your water heater and gray water holding tank. Long showers in a recreational vehicle are NOT suggested due to the amount of water that is available. To conserve water, wet down, and turn water off while you soap up, then rinse.

Outside Shower



A convenient faucet assembly with hot and cold water is available on most units for exterior use washing or rinsing on the outside of camper, such as washing hands and utensils.
To operate the outside shower:

1. Open the door with key and allow lid to hinge down.
2. Remove the shower head and open valve.
3. Open the faucet valves and adjust to the desired temperature.
4. To end operation close valve(s) on the faucet and allow water to drain from the shower head.
5. Close the valve on the shower head.

Any water remaining in the hose will drip or run out of the vacuum breaker. This is NOT a leak but performs as intended. Water in the ABS plastic box will drain out along outer edge.
The shower head can be removed to drain the hose faster. Reassemble and place onto bracket. Keep the door closed when not in use for sanitary reasons.

Fresh Water Lines
Two lines, generally red for hot and blue for cold, transport water

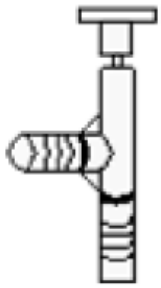
throughout the coach. Valves to direct flow are near the city water fill or pump area. Connector elbows and tees are plastic or copper, and are held together with compression rings for no leakage.

Low-Point Drains

Low-Point drains are placed on recreational vehicles to drain water lines, tanks, and water heater to prepare coach for winterization and sanitizing systems.

Fresh water supply tanks will have their own separate drains under the floor and/or frame, with a valve to be opened to drain, over flow drain line may be close by.

Plumbing lines also have Low-Point drains located in various areas. You may find them (2) for hot and cold coming out of storage areas, outer metal skirt, through under belly covers, control centers, etc. Water should always drain out to the ground, not into underbelly cover.



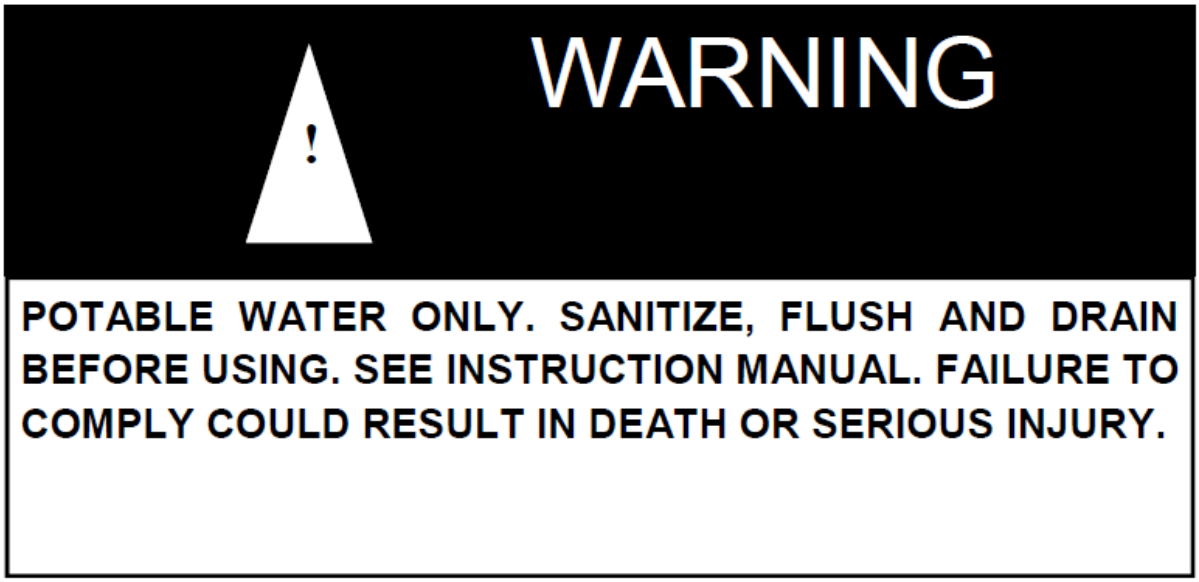
Sanitizing and Filling the Potable Water System

For your safety, you should sanitize your potable water system when your recreational vehicle is new or when it has been sitting unused for a period of time to prevent contamination.

Prepare a chlorine solution using 1/4 cup of bleach (5% sodium hypochlorite solution) to one gallon of water. Prepare one gallon of this solution for each 15-gallon capacity of the tank. As designed and constructed, this method will sanitize the plumbing system.

1. Close all the drains, tank, water heater and low points.
2, Place prepared sanitizing contents into supply tank.
3. Open faucets and start pump.
4. Turn pump on and allow to run until liquid comes through faucets.
5. Close faucets when air ceases to come out.
6. Allow liquid to remain in system for 3 hours.
7. Drain and flush with fresh water.
8. To remove any excess chlorine taste or odor, prepare a solution

of 1 quart vinegar to 5 gallons of water and allow this solution to agitate in tank for several days by vehicle motion.
9. Drain tank again and flush with fresh water.
10. Your water system is now ready to use.
11.Turn pump power off when not using it.



Drainage (Fresh Water)
All permanent fresh water tanks can be drained. Two types of drains are used, (1) a push/pull, (2) a turn valve with open/close position. To drain the supply lines and the entire system, follow the steps listed below. Locate the valve placed at the floor level or close to the floor, found under the dinette, storage cabinet, and/or sofa. These valves will be at the “lowest” point of the water lines.

To Drain System:
1. Open all faucets including optional exterior shower.
2. Open the fresh water tank drain.
3. Open the water heater drain.
4. Open all (two - four) low-point drains.
5. Open the toilet valve, hold or block if need be.
6. To empty the pump, start and allow to run up to 20 seconds.

Sanitation System

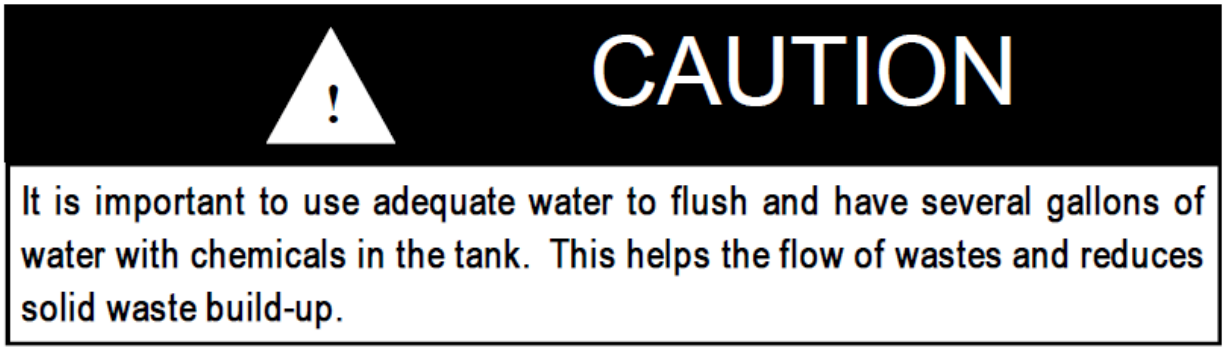
Toilets

Prior to using your toilet, be sure to add a proper amount of deodorant chemical into the toilet with water. Flush contents into tank plus two or three gallons of water.

Expect approximately 2 inches of water to remain in the bowl after each flush. This amount is fine for travel. For best operating function, keep 4 to 6 inches of water in the bowl while the unit is stationary. This assists in the flushing procedure. Always flush for 10 seconds or more to ensure all solids and waste move into tank and are not held in drainage pipes.

Using Toilet and Tank System

When camping you should always have 4 to 6 inches of water in the toilet bowl. The toilet system performs better when you run water 10 to 20 seconds after flushing to ensure wastes will proceed to the bottom of the tank. Unlike your toilet at home which uses 4 to 7 gallons per flush, the average recreational vehicle system uses 2 to 3 quarts. If there is not sufficient water used during flushing, waste materials may not evacuate properly from drain line to tank. Tank and pipes could eventually become clogged.



Vent

A very important part of your sanitation system is the vent system in your coach. These vents release air from holding tanks allowing water to enter. Vent pipes are attached to the holding tank, go through the walls and cabinets to the roof. On some models a portion of vent pipe may be part of the drainage system referred to as a “wet vent”. As air flows upward, water will be draining downward.

By keeping valves closed in holding tank(s), sewer gases are prevented from escaping through side vent opening. Absence of cabinetry from floor to ceiling is the cause of side vent usage verses roof vent.

Holding Tanks

The final parts of your sanitation system are the holding tanks for waste materials and water. These are located below the floor of your coach.

***Gray Tank*:** Waste water from the bath tub, shower, and sinks will drain into this container. No special preparation is required, however, you may wish to add baking soda or a Thetford chemical to reduce odors from food particles in the system.

***Waste Tank*:** The toilet drains into the waste or “black” holding tank. For correct preparation follow the listed steps:

1. Release 2 quarts of water into the toilet bowl.
2. Place the recommended quantity of chemicals for waste holding tank as per instructions on the bottle into the toilet bowl.
3. Flush liquids into the tank and allow up to 2 gallons of water to flow into the tank.

Each time you drain the tank, you should follow the instructions listed, before using.

All drain pipes will have a “P-trap” installed into each line. Water in these traps prevent odors from escaping into the coach. During travel, water from the P-traps may spill and permit odors into the coach. These odors come from fats and food particles decomposing in the tank. By adding water and using a RV approved deodorizing agent, contents will dissolve faster, keeping the drain lines and tanks clean and free flowing. These chemicals are available at an RV supply store.

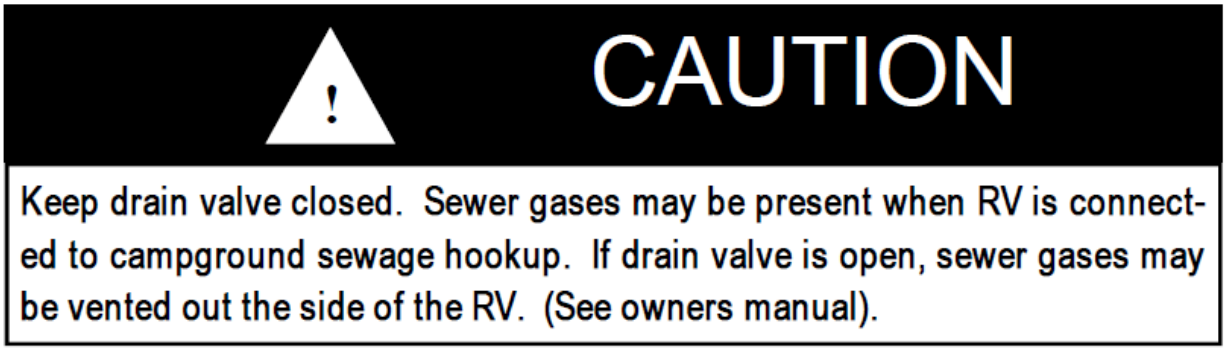
Draining the Tanks

A final part of your sanitation system is the drainage of holding tanks. Dump station set ups may vary. Place the coach as level as possible to make drainage easier. Some tanks drain from the center requiring the unit to be level or slightly up in front. Others will drain from the

end permitting a slight tilting to the side which drains are on.

Remove the cap and attach the adapter onto the valve housing.
Turn the adapter 10º to lock onto the pegs. Attach a flexible sewer hose to the adapter and secure it with a clamp. Place the other end into the approved sewer system.
You may now open the 3-inch drain valve to drain the sewage tank first. Open the valve on the gray water tank last to utilize water to wash and rinse the hose and drain lines.
Most states and parks have strict laws and regulations to prohibit dumping wastes of any kind into anything other than proper disposal facilities or sewer systems. Almost all privately owned parks have either a central pump facility or offer a campsite hook-up for sewage.

NEVER leave the gate valve of your coach's sewage tank open when hooked up to a park's sewer system. Open only when you wish to drain the system.



FLUSH SYSTEM
The flush system is designed and built to rinse the waste holding tank, AFTER waste tank has been drained completely of water and solids.
1. Attach a fresh water source to the connection marked "Sewer Tank Flusher". Be sure termination valves are open on tanks.
2. Open valve to release water into tank for rinsing and cleaning of your waste water holding tank.
3. Rinse for several minutes to remove any foreign matter from

tank and probes.
Remember the moisture content may give you a false reading on your monitor panel indicating it is full. Allow time to dry out tank or recharge for next usage.

Maintenance for Holding Tanks
The following maintenance is recommended by our holding tank suppliers to keep your tanks clean and keep the probes free of debris and build-up.
Gray (Waste-Water) Tank. Fill tank with 8-10 gallons of warm water. Add a degreaser such as a citrus cleaner or Dawn dish soap. Leave solution in tank while you are traveling. Rinse and drain tank.
Black (Sewer) Tank. Fill tank with 8-10 gallons of water. Add one bottle of drain cleaner, such as Drano or Liquid Plumber. Leave the solution in tank while traveling. Rinse and drain tank.

Winterizing Your Recreational Vehicle
Preparing your trailer for cold weather is very important for most of the United States and Canada. Failure to prepare your coach for cold weather will cause the water systems to freeze, resulting in breakage. Damages related to freezing are not covered under the terms of your limited warranty.

Two methods of winterizing your coach after draining and flushing your drainage system are listed below:

Method 1:
1. Open all faucets, low point drains, and toilet valve to drain all water. Leave these open during this procedure.

2. Start the pump and operate until all water has been removed, this may take about 10 – 15 seconds.
3. After water has been drained, use an air hose from compressor and an adapter attached to city water fill. All water will be blown out of system in approximately 3 – 5 minutes.
4. Pour non-toxic RV antifreeze into each P-Trap, remembering to also leave a small amount in the toilet to maintain the air seal. Follow the directions on your preferred RV approved antifreeze. Each sink has a P-Trap, as does the bathtub or shower.

Method 2:
The water heater bypass kit is designed and built to avoid having antifreeze in the water heater. This kit is standard on some models and optional on others.
1. Be sure to turn off the pump.
2. Drain the water heater and the entire water system.
3. Close the valve on the bottom of the bypass kit to prevent liquid from entering the water heater.
4. Place a siphon hose into container with antifreeze.
5. Open the valve V1 on the siphon hose. Be sure V2 is closed.
6. Turn on the pump to supply the fresh water system with antifreeze. It will take 2 gallons or more, depending on the size of the coach.
7. You may wish to place a container under the faucet to catch excess antifreeze.
8. The closest faucet to the pump will fill first. Turn faucets off as contents emit antifreeze.
9. Take contents in container and pour 1 pint into each drain to protect each P-trap.
10. Any leftover antifreeze in container can be retained for future use.
If you do not have a pre-built siphon hose in your coach, you could purchase or build a kit to attach to the “in” port of the water pump. A by-pass kit is NOT standard on all coaches.

BYPASS KIT
(See page 83 for water heater instructions)

Understanding the valve positions is important. Handles that are in the horizontal position allow water to flow to and from the water heater upon demand. The valve on bottom and top portions of the bypass are choice direction flow valves, not shutoff valves.
When the bottom valve is in vertical position, it will prevent water from flowing into the water heater. The valve on top of the bypass kit, when in vertical position, will not allow back flow into heater. Now you can send antifreeze liquid through the coach plumbing system without filling the water heater.

There are several reasons for not placing antifreeze into heater:
1. Cost. Doing so will take an extra 6-10 gallons of antifreeze.
2. Corrosive. Antifreeze can be corrosive to the anode rod.
3. Residue. It can leave sediment in the tank.

Using the Water System During Freezing Weather
(See page 112 for winterizing the water heater)
Your towable RV is not intended to be used during freezing weather unless special precautions are taken. As a reminder, water freezes at 32° Fahrenheit/0° Celsius.
There is no product that can be added to the water to ensure freeze protection when the system is in use, other than RV antifreeze.
DO NOT drink water which contains anti-freeze.

PROPANE FUEL SYSTEM

The fuel system in your recreational vehicle has numerous components such as, piping, copper tubing, brass connectors, hoses, regulators and appliances. Each of these components will be explained in its appropriate area.

Propane is the only fuel permitted to be used in a recreational vehicle and its appliances. This product is refined from crude oil through natural gasses. An agent has been added for detection should a leak occur or a valve accidentally be left open. It is important for a recreational vehicle owner to recognize and identify the smell of propane vapor. Other fuels are available but cannot be used in an RV.

NOTE:

→No orifices are available for appliances for either butane or natural gas fuels.

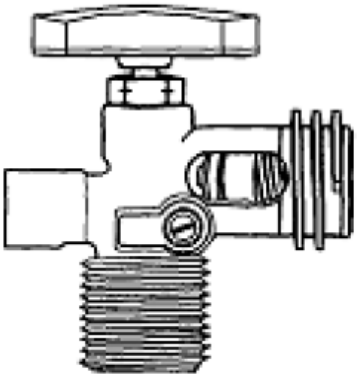
→Butane CANNOT be used below freezing temperature because the boiling point is 30° Fahrenheit.

Propane fuel is stored in liquid form under high pressure in special containers. The boiling point is -43.6°F/-44.°C, the temperature at which vapor ceases to flow. Fuel will change to vapor when released from the container. Appliances are not designed to operate with liquid. Liquid will damage o-rings in valves and leave a sticky, oily residue resulting in poor or no operation in the regulator.

For every 10° increase in temperature, the pressure of propane in the container rises 1.5%. Example: When a tank is filled at 0°F in the north, travels south to 80°F temperatures, the container will now be filled at 92%, resulting in a potential problem with a 10% valve spewing out propane vapor.

Propane Container

OPD Cylinder Valve



The propane cylinder is a D.O.T. approved container to hold liquid under high pressure, normally a 20 or 30 pound capacity.

The open/closing valve, referred to as an OPD cylinder valve, is to be closed at all times unless hooked up to a propane system or when filling the container.

Valve assembly actually has three valves in one body.

- The main pass-through portion to fill the container and draw propane from is controlled by the upper three-sided knob, known as the cylinder valve.
- The 10% valve is a small screw on the side of the main body and allows any air to be released and indicates when the container is full at 80%.
- The incoming positive seal valve MUST be pushed inward with the nozzle to fill or by a POL fitting to draw vapor out for appliance use.
- On the bottom/inside a float will be found, which closes when 80% of capacity has been reached. This permits expansion space in the tank when temperature rises.

See section on main hose (page 58).

At any point a container is disconnected, BE SURE to install the 'dust cap' over the OPD valve, (if so equipped).
Whenever the container is detached from the propane system, DO NOT allow the cylinder to move around or roll around during transportation to and from the gas supplier.

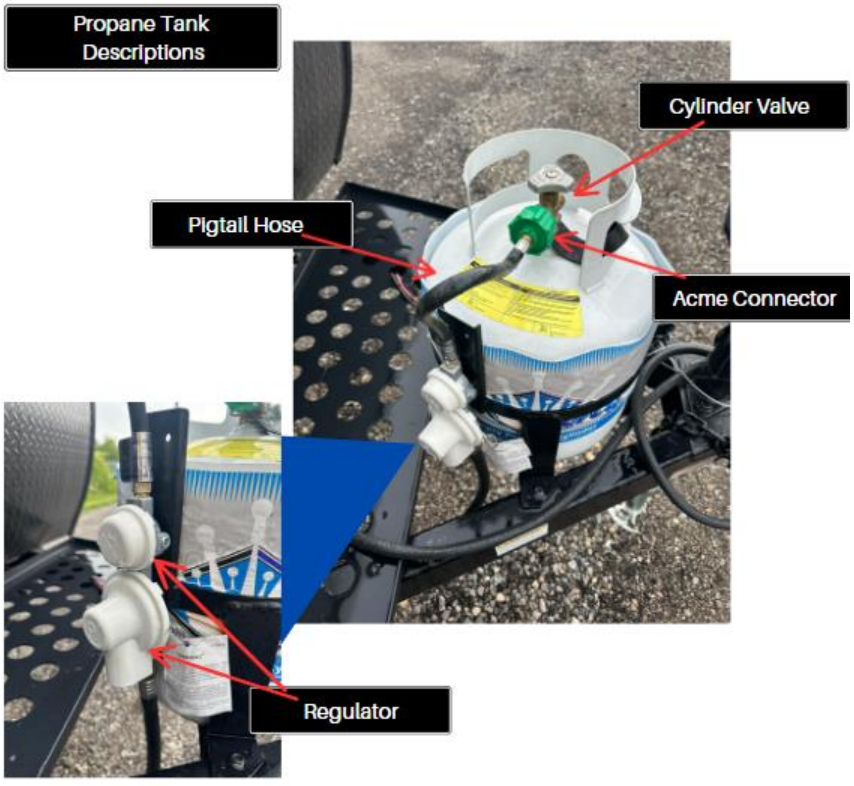
Servicing and Filling Propane Containers

Filling a propane container must be done carefully and correctly.
Only a qualified person, properly trained on inspection, filling, and safety procedures should fill containers.
A new container must be "purged" before placing into service and

must NEVER BE OVERFILLED. Purging is an operation performed by your dealer or propane agency to remove any atmospheric air.
As an owner you need not be concerned regarding this procedure unless you permit the valve to be in the OPEN position when empty.
Two overfill devices are built into the valve to prevent overfilling of the container. The first overfill device is the small brass “knob” or “screw” inside of the valve. This “10% valve” must be open when filling, allowing air to escape. When the container reaches 80% of the correct capacity, liquid appears. Shut the supply filling valve off. Close the 10% valve, as well as the top handle of the main valve.
Containers with OPD valves have a float on the inside that automatically shut off liquid flow when the 80% capacity has been reached.

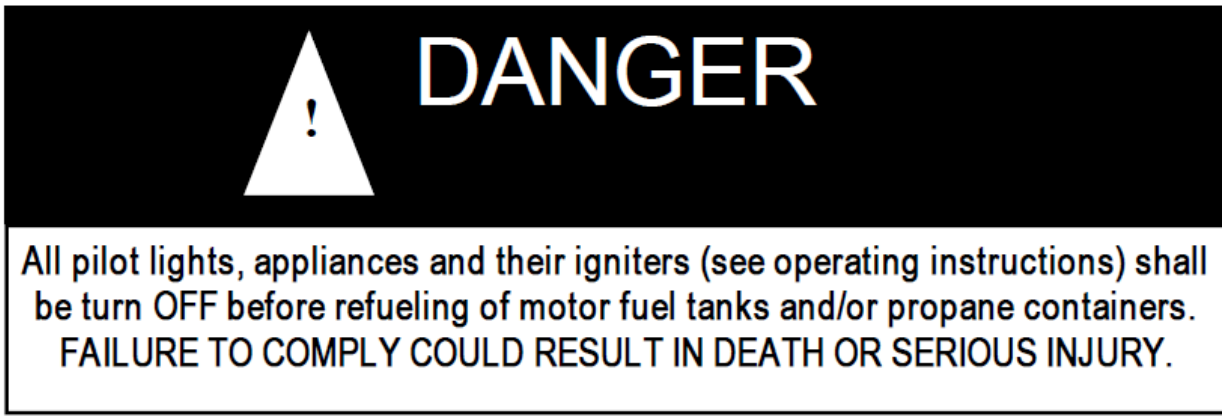
When refilling propane containers, they are generally removed from propane compartments or tie downs. BE SURE to reinstall correctly, as shown in installation instructions, and test for leaks.

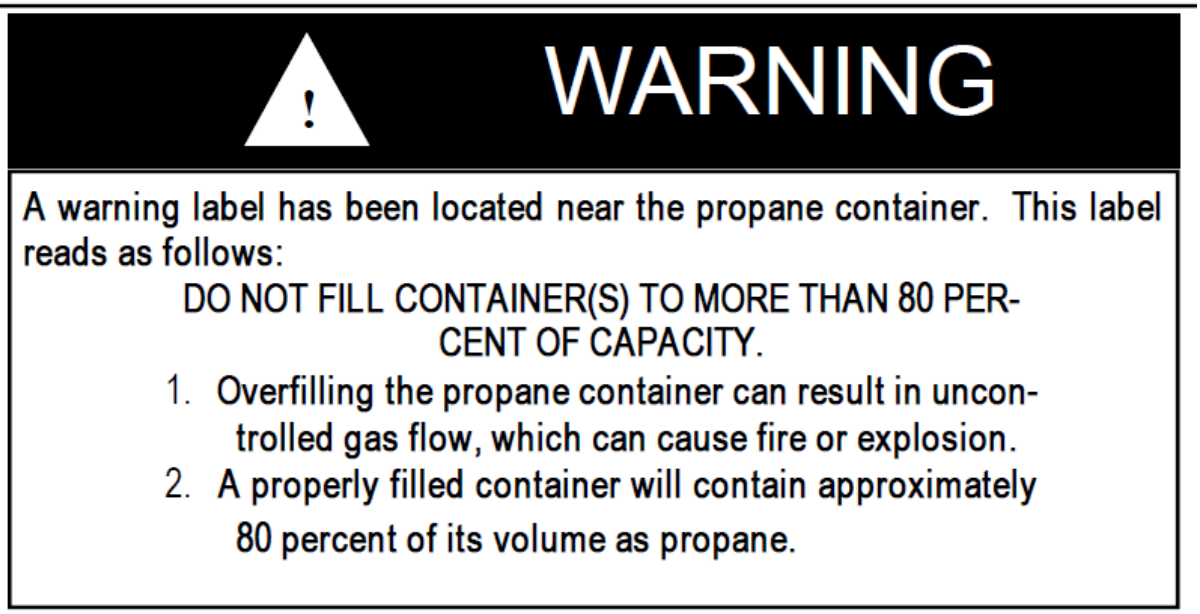
When propane containers are filled to 80% level there is available space for safe expansion of the vaporized liquid. Should your container become slightly overfilled, the hot sun may cause the overflow valve to “blow-off” and emit a small quantity of propane vapor. This can be detected by a strong odor around tanks. **KEEP OPEN FLAMES AWAY FROM THIS AREA**. It is best to remove the bottle, take it to a safe area, and “burn-off” the excess pressure with a torch for several minutes.

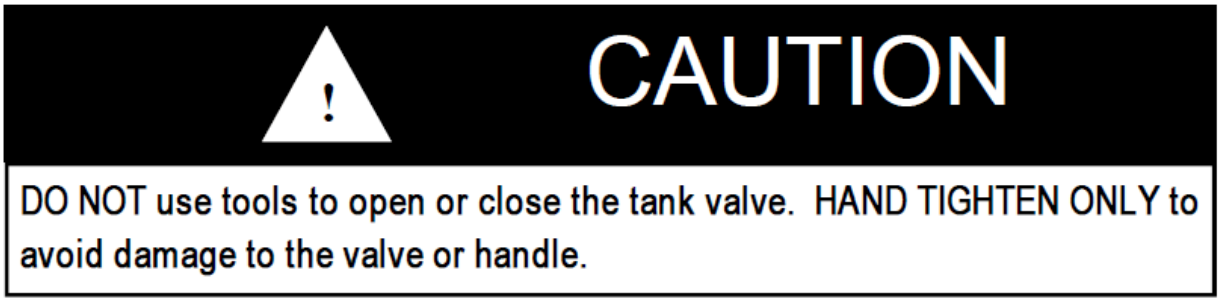


DISCONNECTING PROPANE CONTAINERS: Turn the acme fitting in a clockwise direction because left-hand threads are utilized. When reconnecting, turn connections

counterclockwise. Connections must be tight, however DO NOT over-tighten.



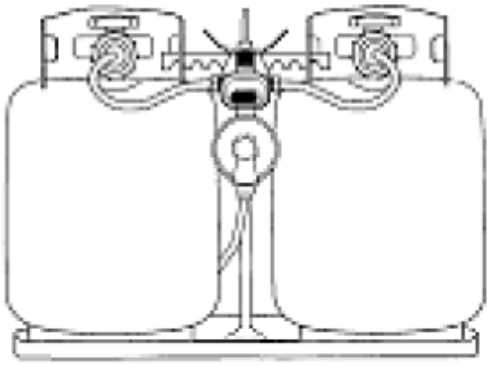


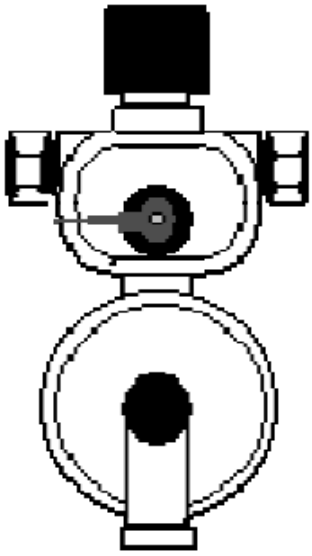


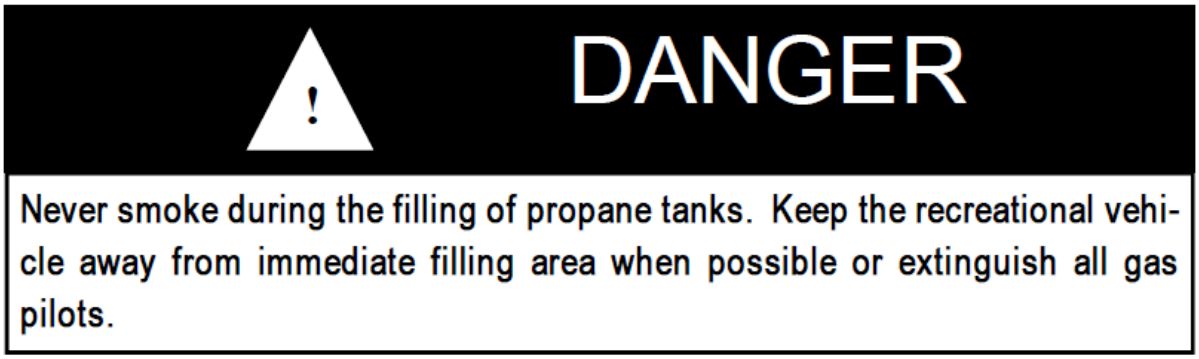
Installing Propane Containers

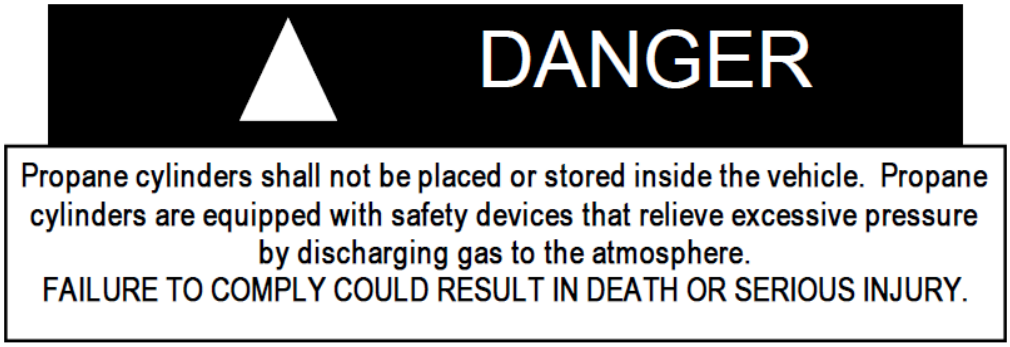
BRAXTON CREEK RV recreational vehicles are equipped with 20 or 30 pound propane containers, depending on floor plan models.
Mounting and attaching instructions are listed below:

1. Thread the long rod into the base plate.
2. Set both bottles into place as shown.
3. Drop the double hook bracket over the rod and hook onto the bottle.
4. Attach the wing-nut to hold the bracket and tighten to hold the bottle to the plate.
5. Attach the regulator with the vent down to the bracket.
6. Attach the main hose from the regulator to the manifold fitting in the frame.
7. Attach two short pigtail hoses to the regulator and bottles at the fitting.
8. Test all propane connections for leakage.



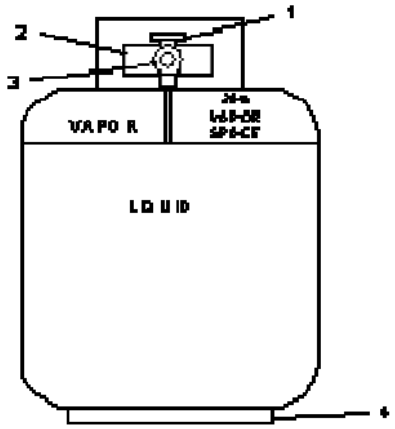






ALL GAS LINES HAVE BEEN CHECKED WITH AIR PRESSURE. DEALERS ARE REQUIRED TO RECHECK BEFORE DELIVERY TO RETAIL CUSTOMERS.

1. Knob to open and close main valve.
2. Complete valve assembly.
3. "10% valve", (small brass knob or slot screw).
4. Container mounting stand.



CAUTION

THIS GAS PIPING SYSTEM IS DESIGNED FOR USE WITH PROPANE ONLY. DO NOT CONNECT NATURAL GAS TO THIS SYSTEM.
Securely cap inlet when not connected for use. After turning on gas, except after normal cylinder replacement, test gas piping and connections to appliances for leakage with soapy water or bubble solution. Do not use products that contain ammonia or chlorine.

REGULATOR

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. Make sure that the regulator vent faces downward and that the cover is kept in place to minimize vent blockage that could result in regulator not operating correctly.
The regulator has the only moving components in the propane system. Its sole function is to reduce the high and varied pressure from the propane containers to safe and consistent low operating pressure.
The small inlet is the first stage, which reduces the container pressure to 10 – 13 pounds.

The second stage then reduces the 10 – 13 pound pressure to an operating

pressure of 11 inches W.C. (water column) or 6.35 ounces of outlet pressure to your appliances. The second stage is adjustable and may need to be adjusted for precise operation. **We suggest this to be normal maintenance and performed once per year. Do not make this adjustment without a manometer**. This instrument is required to read actual pressure.

If pressure is too high, it affects performance and safety. Should pressure be too low, appliances will not operate correctly. An authorized technician with proper equipment should perform such tests and adjustments, as may be required.

BRAXTON CREEK RV uses a standard two stage regulator with a brass T-check connector to mount two propane bottles. We suggest opening only one bottle at a time. Should you open both bottles, they will draw vapor together, resulting in both tanks becoming empty at the same time. This standard regulator is used on smaller coaches.

Do not forget to check for leakage each time you refill cylinder or disconnect any part on the propane system.

High Pressure Hoses with Acme Connectors

Propane leaves the container through a hose with an ACME connector attached to the bottle, also having a “flow-limiting device” designed to sense **excessive** flow. There are two functions of this device:

1. Stops the flow of propane, should the container valve be opened too quickly.
2. Reduces the flow down to Standard Cubic Feet per Hour (SCFH) in case of a rupture in propane line.

Main Supply Hose – Low Pressure

The main supply hose will be attached from the regulator to the brass manifold fitting in the frame of the coach. The swivel brass nut on the main hose will be your final attachment.

3/8" MPT x 1/2" Female Flare Swivel

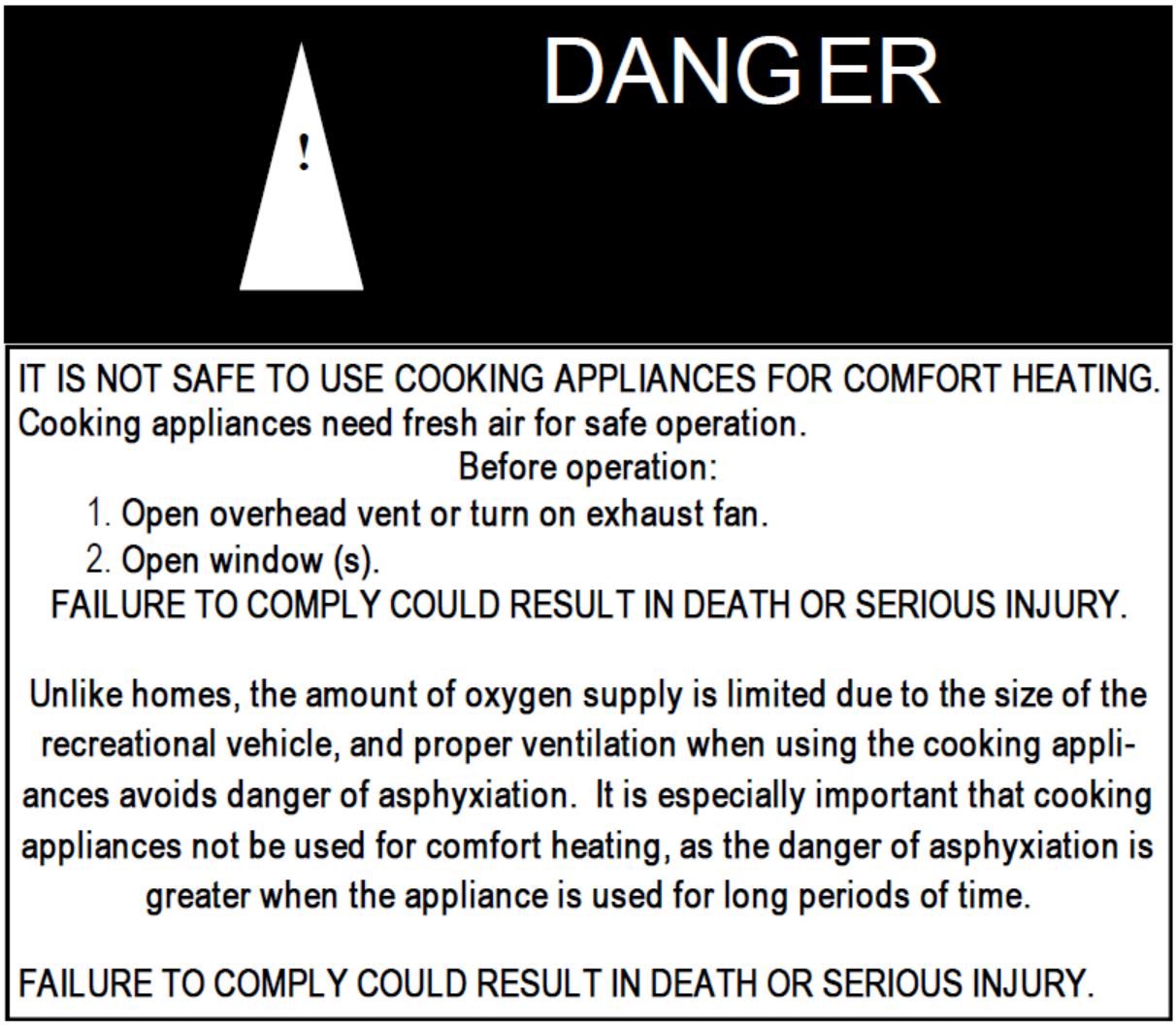
There are several things to remember each time the container is removed:

1. Be sure ALL fittings are tight. Always use two wrenches for brass connections.
2. Be sure ALL connections are tested for leakage.
3. Open the main valve slowly to avoid a fast rush of gas to flow limiting the device causing a gas "freeze-up".
4. A "hissing" sound longer than one second may indicate a gas leak. Close valve and search for leak.

Should you experience a propane "freeze-up", close the main valve and wait 15 minutes before trying again. Keep the container valve(s) closed when traveling. Some states prohibit traveling with the propane container valves open, especially in underground tunnels on expressways.

After the camper is completely set up and you are prepared for camping enjoyment, follow these steps for propane operation:

1. Be sure ALL burner valves, controls, and pilot light valves are closed.
2. Open main valve on propane container slowly to avoid a fast rush through excess flow valve causing a "freeze-up".
3. Listen carefully as propane begins to flow. If a "hissing" sound is heard for more than one or two seconds, close valve and search for a potential leak.



Checking for Leaks

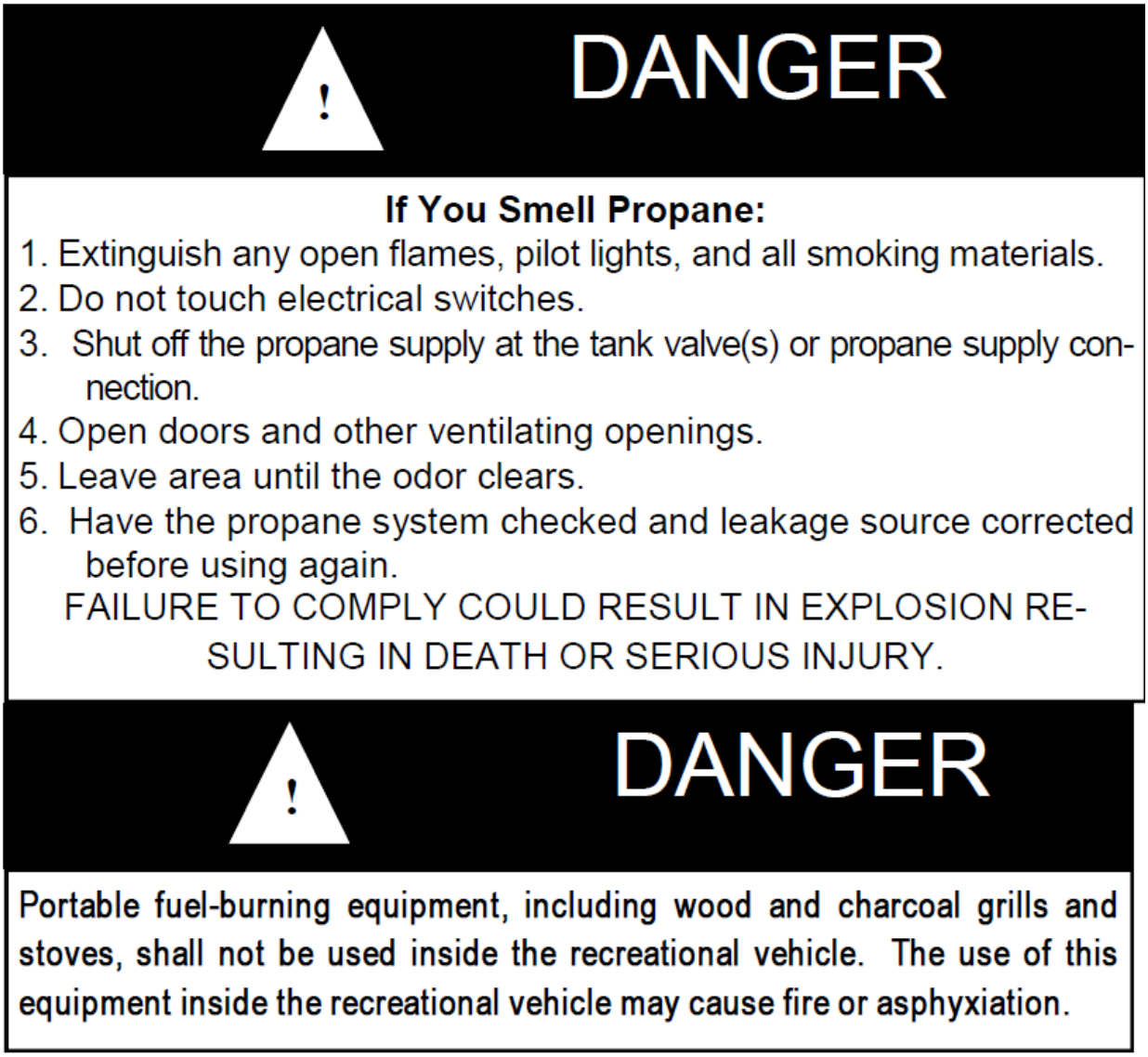
The entire propane distribution system and appliances have gone through complete factory and dealer tests for any leakage. When traveling with your RV, normal vibrations and road movement may cause connections to loosen and develop leaks.

For normal maintenance we advise all owners to test for leakage at least once per year or more often. You may request your dealer to perform a maintenance check each spring.

Should you encounter an odor, possibly propane, turn off any and all

open flames and begin a systematic search for leaks on the complete propane system. NEVER USE A MATCH. Use a soapy water solution which contains NO AMMONIA or CHLORINE content to check for leaks. If a leak is identified, bubbles will appear. ALWAYS use two wrenches when tightening brass connections to prevent twisting of copper.

For your own protection, the following warning label has been placed near the cooking area to remind you of the need of oxygen for combustion and breathing. Due to the smaller area in your recreational vehicle, there is less oxygen than in your home and proper ventilation is required when cooking.



It is especially important that cooking appliances **not be used for comfort heating,** as the danger of asphyxiation and unsafe levels of carbon monoxide are greater when the appliance is used for long periods of time.

Propane Consumption

All your propane appliances are operated intermittently. Your furnace is uses the most fuel, especially if freezing conditions are present outside. On a very cold and windy day it is conceivable that your coach could consume most of a 30 pound propane bottle.

Propane consumption depends mostly upon individual use of appliances and the length of time operated. Each gallon of propane produces about 91,500 BTUs of heat energy. The following is a list of typical appliance consumption when turned on fully for one hour of operation:

APPLIANCE	LP GAS CONSUMPTION
Water Heater	12,000 BTU
Furnace	20,000-35,000 BTU
Stove/Oven	6,500-9,100 BTU
Refer	1,200-2,200 BTU
Note: The above chart represents many different models.	

CAUTION

If you have double bottles and a standard regulator on your RV, use only one bottle at a time. Otherwise the gas supply will be drawn equally from both bottles until supply has been totally exhausted. Using one bottle until it is empty, then using the second bottle will allow you to fill the empty bottle at your convenience without being totally out of propane.

Electrical System

General Information

The Electrical system in your recreational vehicle is designed for using both 120-volt AC (alternating current) and 12-volt DC (direct current) capabilities. All installations and designs are built to comply with safety requirements of ANSI standard 1192 National Electric Code.

All coaches manufactured by Braxton Creek RV have 30-amp or optional 50-amp service.

CAUTION

A 50 amp service is a 240-volt hook-up. There is no appliance or other component requiring 240 volts in this coach. For more information, see the section later in this chapter, 50 Amp (Optional).

It is highly recommended that your RV electrical connection is not plugged into a household outlet.

Changes and Modifications

Any changes, alternations, additions, and/or modifications need to be performed by qualified electrical technicians, using only approved components which meet safety and code requirements. This includes owners, dealers, etc. who desire to make changes. The manufacturer is not responsible for any changes or alterations made to the 120-AC system of the coach.

120-Volt A/C System

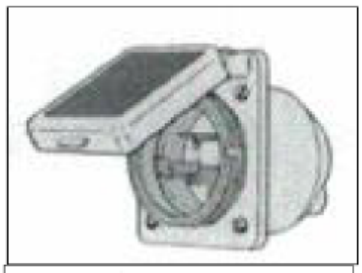
Power Cord 30 AMP or 50 AMP

The power cord for the current year is detachable and must be placed inside of coach for storage and transportation.

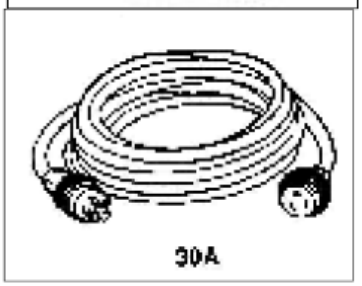
To use power cord, remove from storage and attach cord to 120-volt power source.

This cord places 120 AC volt power into your breaker distribution center, as built into your coach.

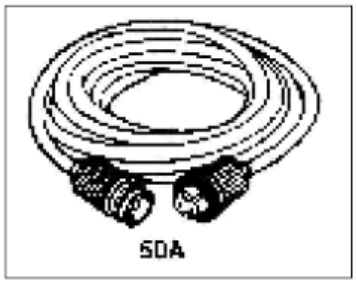
Energy will enter through the main breaker and is distributed through circuit breakers to the wall receptacles and appliances. This power cord will be approximately 26 to 28 feet in length. Each cord has the correct gauge of wire to carry the correct voltage to coach.



In some hook-ups the power cord may not be long enough and extension cords are required. Always use a cord with the gauge of wire equal to or greater then the power cord. Should you use a cord with a smaller wire gauge, overheating, loss of amperage, and possible melting could occur.



DO NOT leave any unused portion of an extension cord in a "coil" as it may overheat, short-circuit wires and potentially destroy your extension cord.



Circuit Breakers and Box

On a 30 amp system, a maximum of six distribution circuits are permitted. All breakers are sized according to power needs on each line.

The following generic drawing shows the circuit breaker alignment with number 1 being the main breaker on all floor plans.

Depending on the size, floor plan and options of your coach, circuit 3 - 6 will vary and possibly not all circuits will be used.

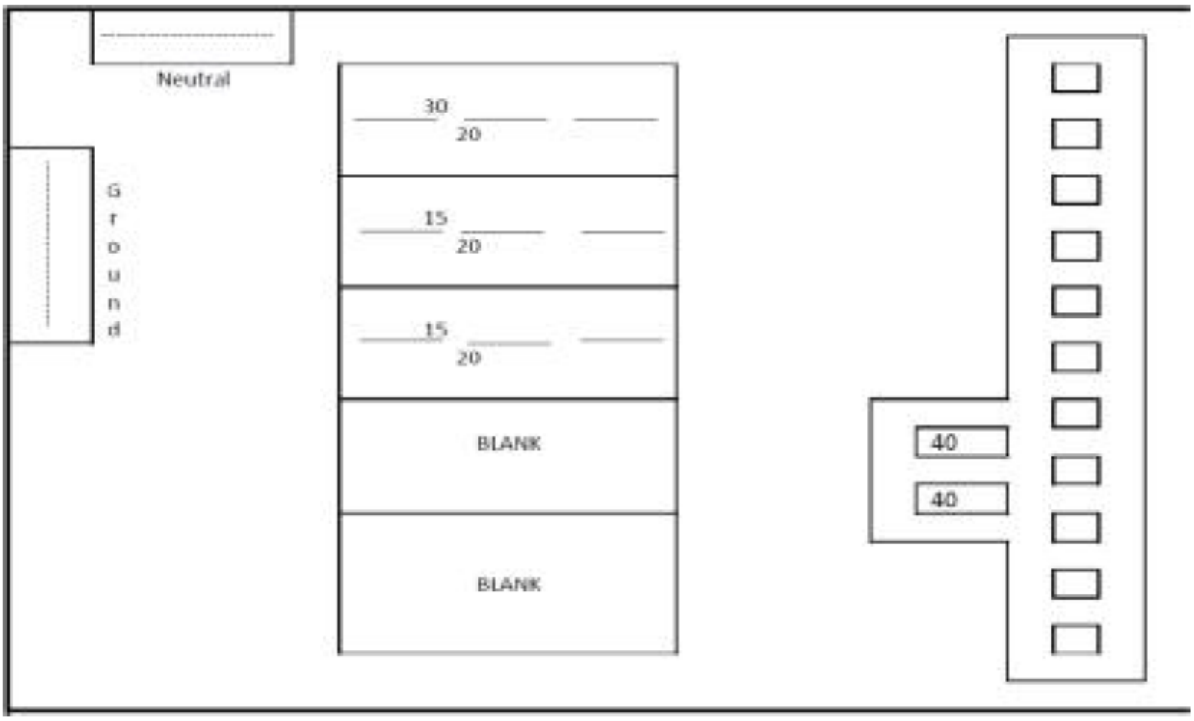
Number 2 is generally the 20 amp air conditioner circuit.

The coach is equipped with the availability of 30-amp service. Conserving and choosing which appliance has priority in consumption should be considered. *EXAMPLE: Running the A/C and microwave at once may cause a power outage. Consider turning off the A/C to use the microwave, while on 30 amps.*

Loose items such as toasters, electric skillets, and coffee pots also consume power. Include these items also in electrical consumption planning. 50amp service provides an additional option.

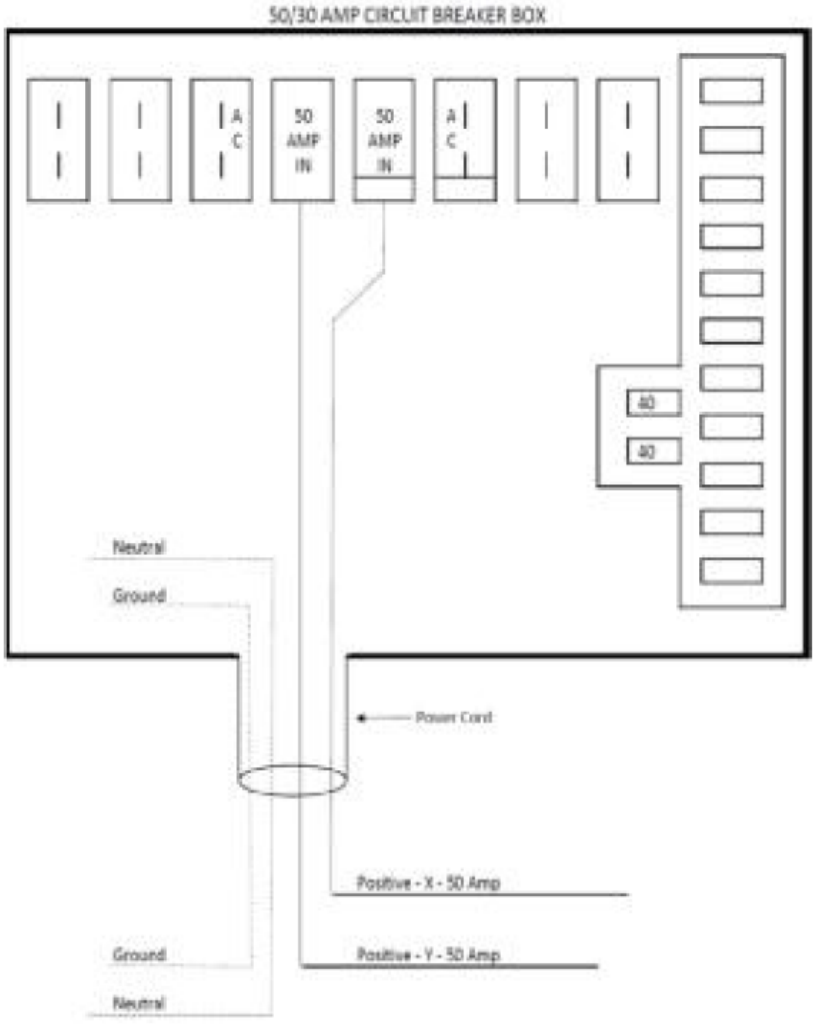
DANGER

Do not replace breakers or fuses with any that are rated at a higher amperage. Over fusing may cause a fire by overheating the wire.



WARNING

DO NOT connect 240 volt direct power to the coach through a reducing adapter. By doing so, "positive" power will be sent through neutral/white wire damaging appliances.



Actually these two positive wires added together are 240-volt AC service, yet serve two separate banks as the external sticker indicates. A 50 amp main breaker will distribute current to separate banks, verifying 240 volts are present. There are no 240 volt appliances in this coach.

If use of a "reducing" adapter or pigtail is needed because 50 amp/ four prong service is not available, several things must be remembered.

1. A reducing adapter prevents you from using 50 amp service as designed, permitting only 30 amps to enter.
2. Using a pigtail adapter may imply a 240-volt AC hookup, which

would cause damage to appliances because 120-volt positive power would be fed through the white/neutral wire.

GFCI Protection

Each coach has a GFCI (Ground Fault Correction Interrupter) protection receptacle installed into the circuitry. This GFCI device is designed to protect people from hazards of line to ground electric shock. The purpose is to reduce possible injury caused by electrical shock, resulting from faulty insulation, improper polarity and related to moisture and/or earth ground or using the wrong extension cord. The third “round” pin on the receptacle is very important for this safety device to function correctly. NEVER cut off this pin. When using an appliance in the receptacle without this provision, use an adapter with a pigtail to be attached to the receptacle box to complete the circuit.

This GFCI receptacle will not protect against short-circuits or overloads. The circuit breaker or fuse in the electrical panel which supplies power to the circuit provides this protection.

Polarity is extremely important. You should be certain that the polarity of the external power is not reversed, in order to avoid harm to appliances and personal electrical shock. Polarity testers may be purchased in most electrical and hardware stores with the GFCI tester built in.

During use of the recreational vehicle, it is suggested to test this receptacle once per month. To test, press the “TEST” button in.

The “RESET” button should pop out. The power should now be turned off at this receptacle and any receptacles down line. To restore power, push then release the “RESET” button.

WARNING

Never use a “cheater” plug or extension cord which breaks the continuity of the ground circuit to the grounding pin.

WARNING

NEVER, under any circumstances, remove a grounding pin in any cord or plug. It may mean the difference between LIFE OR DEATH.

12-Volt DC System

Most interior lights and appliances receive 12-volt DC power through converter output and/or the auxiliary battery. Exterior lights and brakes also use 12-volt DC power from the tow vehicle battery and/or auxiliary battery through the seven-way connecter and wire attached to the tow vehicle.

Converter

The heart of your 12-volt DC system is enclosed inside of the load center, including 12-volt fuse panel, 120-volt breaker panel, and the converter.

The fuse panel may have numerous fuse positions, depending on the output size of your converter.

All converters have solid state electronic components internally to produce “clean” 12-volt DC power.

This load center will have a brown plastic front with a small door to access fuses and breakers.

Some models have fuses and breakers in a distribution box, with the converter installed in a different location (not mounted into distribution box).

The function of a converter takes 120-volt AC power and transforms this energy into 12-volt DC power as used in your coach. 12-volt DC supplies power for some appliances and most interior lights. The floor plan and size of coach indicate the output size.

When the converter receives 120 AC power, it transfers power into 12-volt DC without any manual switches. The converter also charges the auxiliary battery(s) when installed on the coach and attaches to 120-volt AC power. The third function of a converter is to send 12-volt power to the fuse panel and throughout the coach.

Each converter has a built-in fan which operates through a load sensor control or temperature sensor. As more current is drawn, the fan will speed up or slow down, based on amp draw and/or temperature. If the fan is not running, it may be a result of the converter overheating. Overheating will cause it to cut out or stop running.

Auxiliary Battery (Optional on Some Units)
All travel trailers and fifth wheels are pre-built to accept a battery. Batteries are not standard equipment or offered as an option on units. They can be purchased from your dealer or battery store.

Deep-cycle batteries are recommended and provide the longer, slow consuming power needed, rather than cold-cranking power. A battery is always required for a break-away switch to function.

A battery requires routine maintenance for a long life. First, terminals need to be kept clean to avoid corrosion. Second, a battery used daily will consume water as long as the converter is in operation. Be sure to check the battery no less than every 30 days and keep the battery filled with distilled (rain) water. Most good deep cycle batteries are NOT maintenance free.

A converter will not overcharge a battery unless a battery has a dead cell or the converter has a malfunction. Some converters have full battery charge shut-offs. Other types reduce the rate of charge as battery conditions reach 12.7 volts DC or 1.265 specific gravity at 80°F. By electronic standards, a battery is discharged at 10.5 volts. Dropping voltage lower than 10.5 volts will begin damaging plates in the battery.

The interior lights will operate from the converter and/or auxiliary battery. Some lights will have wall switches and other lights have switches in the lights themselves.

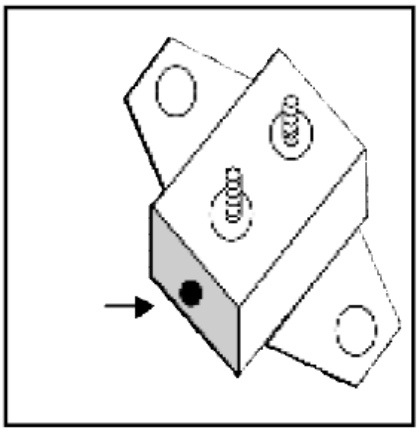
Circuit Breakers and Fuses—12 Volt DC

These two items have been installed in your coach to protect circuitry and components:

WARNING

DO NOT replace circuit breakers or fuses with a higher current rating than those supplied with your coach. Over-fusing can cause a fire hazard by overheating the electrical wiring.

Fuses are placed into the fuse panel with the converter or into a separate panel near the converter with access inside of coach. Fuses are placed in your electrical system to protect wiring and components when overloads appear or short circuits occur. Radios, stereos and possibly other components may have "in-line" fuses attached to their own wire harness.



Two 40 amp fuses are placed in converter, protecting convertor should you connect a battery up backwards. Fuses will blow rather than damage your convertor.

Circuit breakers are placed at several locations. An automatic reset breaker is placed within 18 inches of the auxiliary battery. The breaker will automatically reset upon "cool down", normally 60 seconds.

All wiring used in your coach meets correct amp rating correlated with fuses and breakers in respective panels as required by code.

The RV battery is placed in parallel circuitry with the battery on your tow vehicle. Care needs to be exercised not to drain both batteries together. There are two methods of avoiding this condition:

First, disconnect the tow vehicle when parked and/or using your coach.

Second, a battery isolator may be installed in your tow vehicle to prevent power drain from batteries in both vehicles. This device "isolator" has two useful purposes. First, it sends current from the alternator to both batteries simultaneously. Secondly, the isolator prevents draw from the recreational vehicle through the battery of the tow vehicle, preserving power to start the engine.

Contact your dealer should you desire an isolator for your protection.

There are two types available, mechanical type or solid state. The solid state isolator is often the recommended choice.

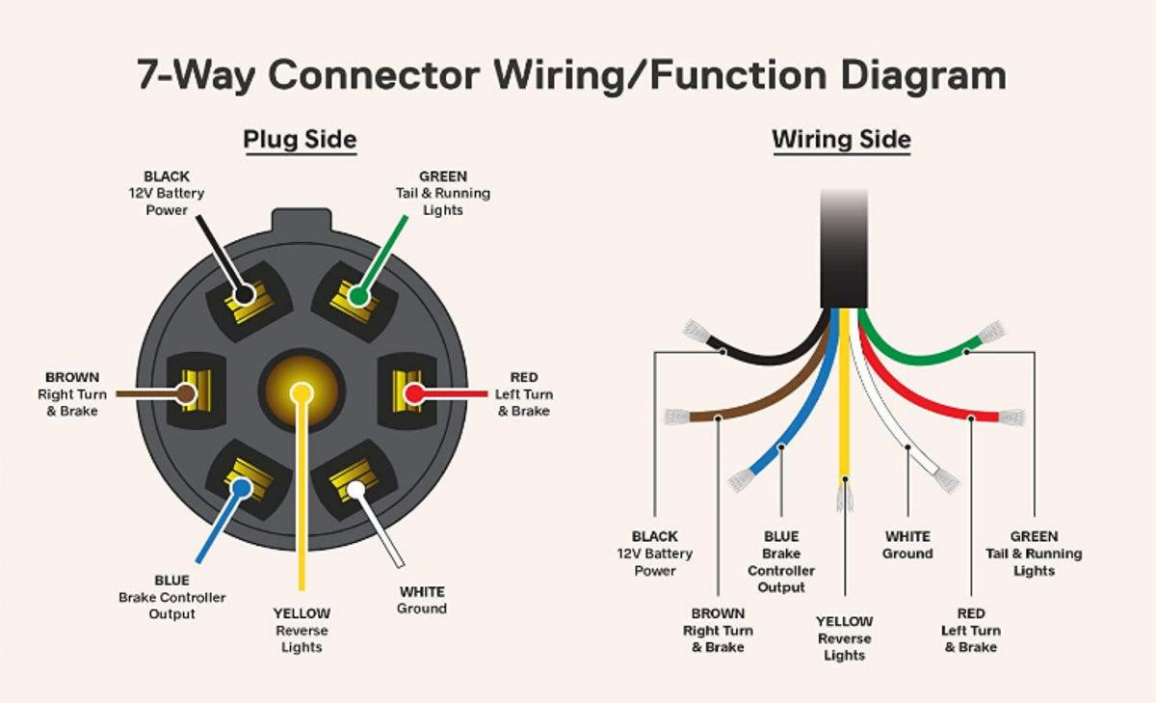
Exterior Lights and Connector- 12 Volt

Power for exterior lights, such as taillights, turn, clearance, and brake lights are supplied by the tow vehicle.

Note the diagram below showing the color code and numbers from the seven-way connector and how power is fed to the exterior lights. The positive red wire is attached to the battery to transfer power to the coach.

The connector between the recreational vehicle and the tow vehicle may build up corrosion due to moisture. You may need to clean these terminals occasionally to ensure good electrical contact.

(see next page)



Porch Lights

Porch lights may be placed on sidewalls on both the left and right sides of the door. Switches for these lights, depending on models, will be in the interior of the unit on the right and possibly left sidewall. Occasionally, the switch will be on the light itself.

Brake Wiring

Both 10- and 12-inch electric brakes operate on 12-volt power supplied from the tow vehicle, transferred through the blue positive and white negative in the seven-way harness. There are no fuses or breakers installed in this brake wiring. If you are experiencing any electrical problems, check the following items, fuses, breakers, and connections. If none of these items resolve the problem, contact your dealer for trouble shooting and needed repairs.

CAUTION

Any electrical installation that does not meet the criteria of the manufacturer's specification will VOID THE WARRANTY on the electrical system.

APPLIANCES

(Also see page 109)

BRAXTON CREEK RV places brand name, quality-built equipment, as guided by current codes and standards, in all recreational vehicles. Some appliances are built and equipped to operate on propane gas ONLY. DO NOT attempt to operate on natural, butane or methane gas. Each appliance has its own specific manual, written and published by its manufacturer. These manuals supply additional information about the appliances in your vehicle.

The first 4 appliances in this section, all use propane for their MAIN source of fuel, plus some use 12-volt DC and 120-volt AC energy also.

IT IS VERY IMPORTANT THAT AS AN OWNER AND OPERATOR YOU ARE FULLY AWARE WHAT THE SMELL OF PROPANE IS.

The danger information listed below is placed in the manual and a sticker located inside your coach.

DANGER!!!!

IF YOU SMELL PROPANE:

1. Extinguish any open flames and pilot lights.
2. Do NOT touch electrical switches.
3. Shut off propane supply at the container valve.
4. Open doors and windows for ventilation.
5. Leave the area until the odor clears.
6. Evacuate ALL persons from RV coach.

7. Have the system repaired before using again.

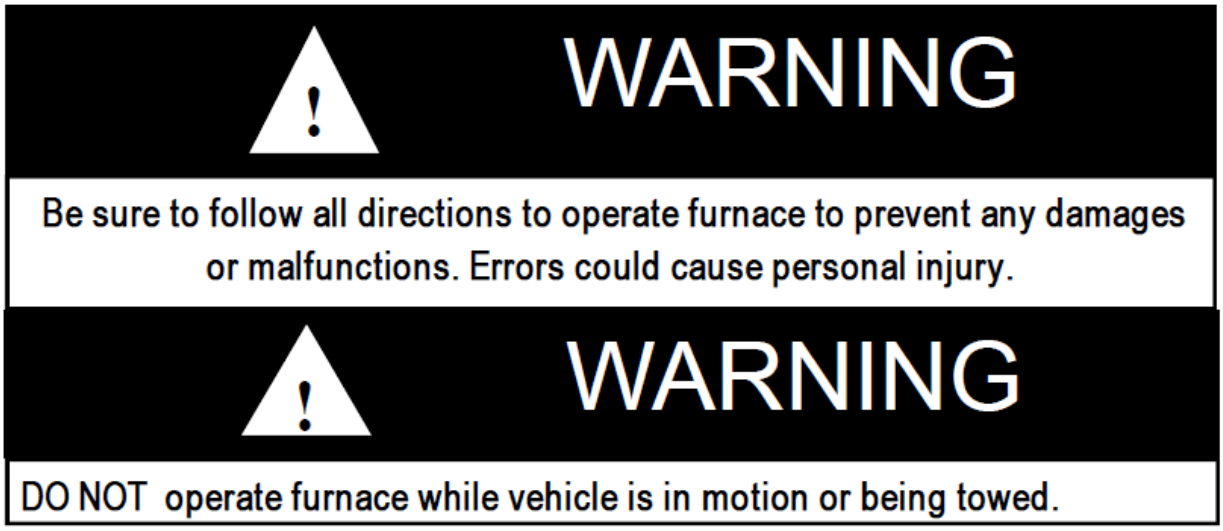
FAILURE TO COMPLY COULD RESULT IN SERIOUS INJURY, EXPLOSION OR DEATH.

FURNACE

(Also see page 110)

The furnace in your recreational vehicle requires 12-volt DC electrical current and propane gas energy for correct operation. The furnace receives 12-volt DC power from a fully charged battery and/or the converter in the coach. This power must be present before propane gas can enter through the control to the burner tube.

The combustion chamber is completely sealed to prevent any carbon monoxide from entering into the coach. Oxygen is drawn into the chamber through the upper vent and exhaust fumes expelled.



The basic operation of the furnace is performed by the thermostat mounted on the interior wall of your coach, for both ducted and blow through (without duct work).

THERMOSTAT - With air conditioning

OFF: Means all electrical current is turned off and nothing will operate until power becomes available for heating or cooling.
HEAT: In this position, the furnace will become active and push heat

inside of the coach.
COOL: Cool air will be produced from the air conditioner.
FAN: The fan only will be in operation; no heat or cooling.

Most thermostats installed will have a slide switch in the center of thermostat. This will set the temperature, as desired.

On the right side may be a switch for fan operation, with 2 speeds for the air conditioner, either low or high speed. The furnace has only 1 speed.

THERMOSTAT - Without air conditioner
The upper left side has an on/off switch to engage electrical current for operation. The same lever will also set the temperature, as desired. When the thermostat is turned to the on position, there will be a delay. This has been purposely built into the furnace to perform a purge cycle, preventing any possible gas vapor build-up in the chamber.

> **NOTE:** Different model furnaces are used for different unit floor plans. Each model furnace has its own user's manual. The following instructions may vary slightly from the instructions in your unit. Therefore, it is very important that you refer to the user's manual provided in your unit.

Operating Instructions
1. Before using your furnace, it is suggested to open the entrance door and windows to air out the camper for any unusual odors such as propane.
2. Be sure the propane container has fuel and the valve is open.
3. Release thermostat from OFF position and onto the HEAT position.
4. Set temperature 5 to 8 degrees above room temperature.
5. The blower will start within approximately 15 seconds, run for 30 seconds during the heat chamber PURGE cycle, removing any propane vapor.
6. Second cycle, blower continues to run, module board will
    (a) send spark to burner tube
    (b) open valve in control to release propane to burner tube
7. Ignition attempt will be for 7 seconds.
8. If failure to ignite, the board will make 2 more attempts to light and go

to lockout.
9. If after 3 attempts with no ignition, drop the thermostat to the lowest setting, wait 1 minute and repeat steps 4 to 7.
10. After the burner tube lights, set the thermostat to desired setting.
11. To shut burner down, move thermostat to lowest setting or OFF.
12. The blower will continue to run for about 2 minutes until heat is removed from chamber.

Turning Appliance Off
Set the thermostat to the lowest, then move lever to OFF position. Turn off all electrical power to the appliance.

All furnaces have a 12-volt switch built on the furnace and MUST be turned ON for the furnace to operate. Some models may have a wooden cover, in front of switch, making it difficult to have access to it.

External Vents
Always be sure these vents are clear of any objects like screens, duct tape, etc.

Ducting
Wall or floor registers, as well as return air grills, MUST be kept clear of any obstructions. Any such restrictions will prevent the furnace from correct operation. Closeable registers will reduce airflow. Never shut registers off completely, possibly causing furnace to limit out and shut down.

Propane pressure is extremely important (see pages 50 - 60 for more propane information). A dial gauge or U-tube manometer is required to perform tests and adjustments. Pressure must be set at 11 inches w.c. (water column) plus or minus 1/2 inch. Incorrect gas pressure can cause any appliance to operate inconsistently and cause poor combustion. Only qualified technicians with proper equipment should make any mechanical adjustments.

Voltage must be between 10.5-volts to 13.5-volts at the furnace during operation. Below 10.5-volts the furnace will shut down. Both high and low voltage places excessive wear on the motor and brushes.

WARNING

Do not install screens over the vents for any reason. Screens will become restrictions causing unsafe or inefficient operation.

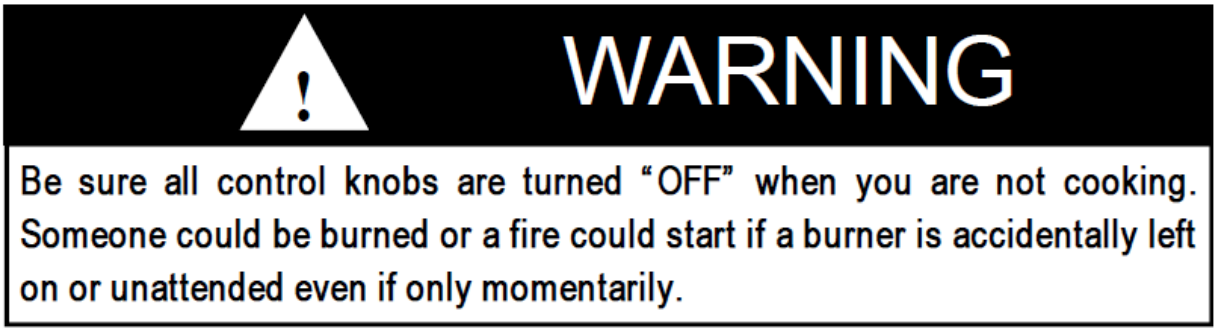
Any mechanical adjustments, such as electrode adjustments, should be performed by a qualified service technician.

Furnaces not attached to any A.C. systems are referred to as “blow through” type and will not have any duct tubing.

RANGE AND OVEN TOP BURNER OPERATION

There are several types of cooking appliances are used in BRAXTON CREEK RV products, such as a drop-in stove with two or three burners, a standard oven with three top burners or an oven with top burner piezo lighter. These appliances operate with propane gas only, NEVER natural gas or butane.

Before attempting to light the stove, top burners or oven, BE SURE the valve on your propane container is turned open.



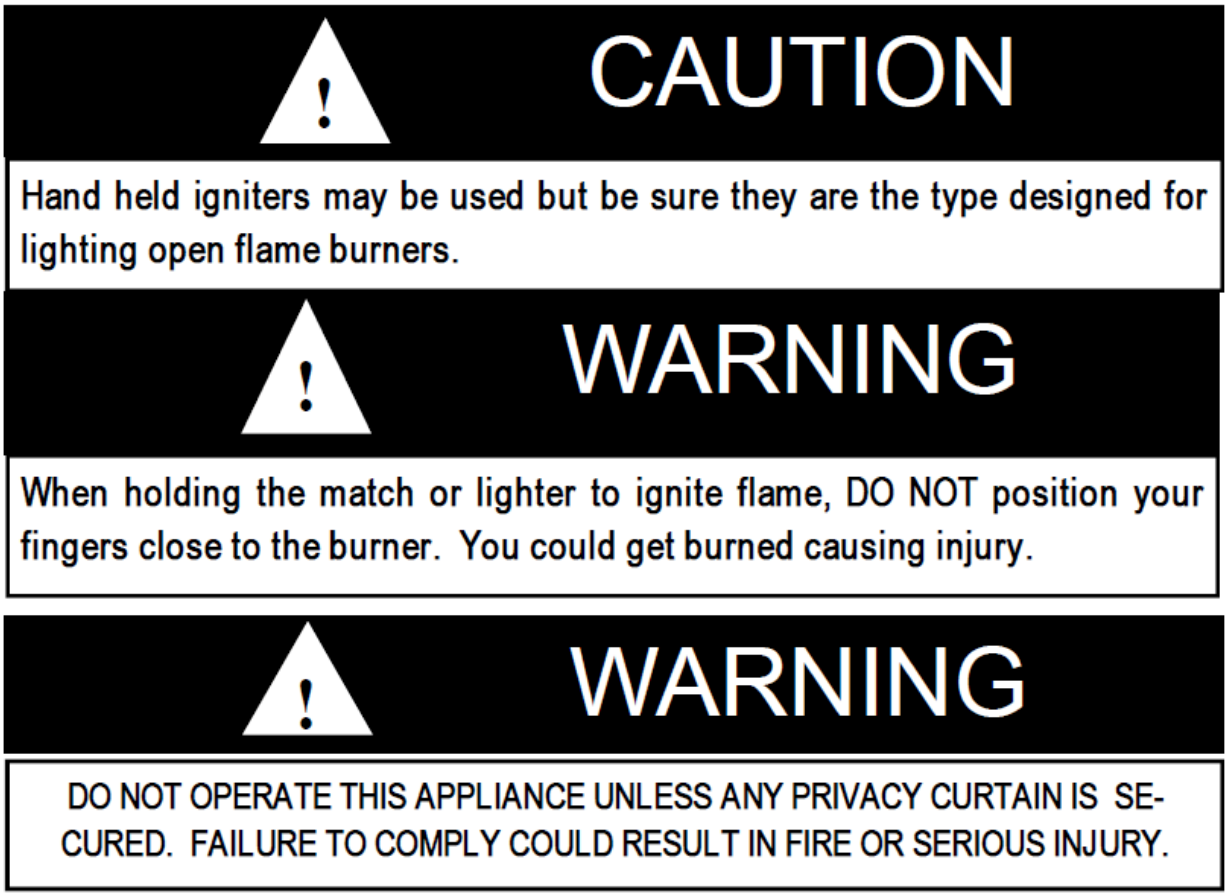
Drop-In Stove Option and Range Without Piezo Ignition
Operating Instructions

TOP BURNERS

1. Know which knob controls which burner. Always be sure all burners are turned off when the stove is not in use.
2. Verify sufficient propane supply before attempting to light the burner ports.
3. Depress knob and turn fully counterclockwise to "LITE" position.
    a. Air in the propane line will significantly delay burner ignition. The burner may light unexpectedly as the air in the lines clear and is replaced with propane. **This unexpected ignition could burn you.** Air in the propane lines may occur after the vehicle propane bottle and/or tank is refilled, during and after servicing other appliances on the same propane line, etc.
    b. Do not attempt to light more than one burner at a time.
    c. Immediately light the burner by holding a long match near the burner ports.
    d. If the burner should go out while cooking, or if there is an odor of propane, turn the control knob(s) clockwise to "OFF". Wait five minutes for the propane odor to disappear. If the propane odor is still present – **DO NOT** relight the burners. See instructions in the appliance manual.

Be sure all control knobs are turned "OFF" when you are not cooking. Someone could be burned or a fire could start if a burner is accidentally left

on or unattended even if only momentarily.
4. To turn the burner(s) off: turn the appropriate control knob clockwise to “OFF”.



Oven and Range Combination

Stove Top Ignition System
Top surface burners have two types of ignitions to light. Shorter 17” ranges may require manual lighting, matches, or a hand-held igniter. Longer 22” ranges have Piezo pilot less ignition.

1. Know which knob controls which burner. Always be sure all burners are turned off when the stove is not in use.

2. Depress knob and turn fully counterclockwise to “LITE” position. Turn knob clockwise to produce spark for ignition.

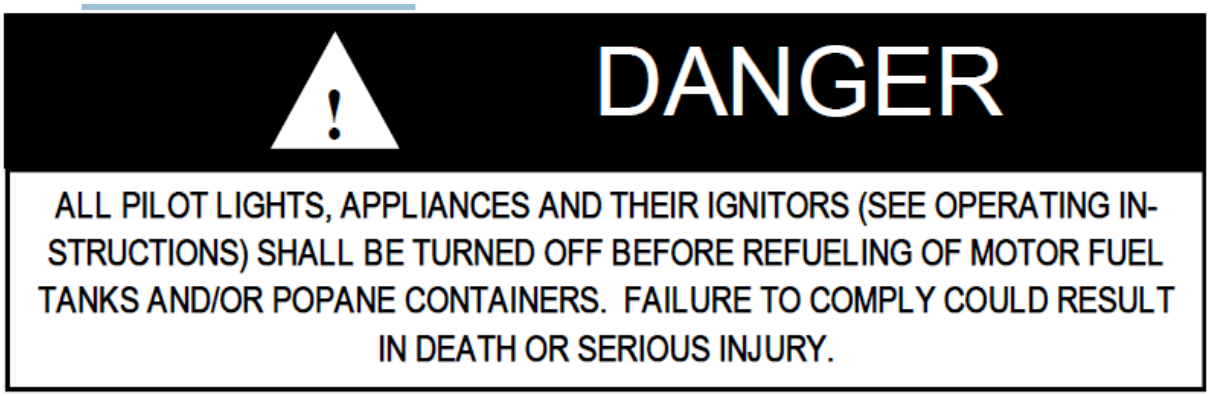
a. Verify sufficient propane supply before attempting to light the burner. Air in the propane line will significantly delay the burner ignition. The burner may light unexpectedly as the air in the line clears and is replaced by propane. This unexpected ignition could burn you. Air in the propane lines may occur after the vehicle propane bottle and/or tank is refilled, during and after servicing other appliances on the same propane line, etc.

b. Do not attempt to light more than one burner at a time.

3. If any burner should extinguish after initial lighting or due to accidental blow out, turn propane off by turning control knob clockwise to 'OFF". Wait five minutes before attempting to re-light the burner. Failure to follow these instructions could result in a fire or explosion.

If the burner should go out while cooking, or if there is an odor of propane, turn the control knob(s) clockwise to "OFF". Wait five minutes for the propane odor to disappear. If the propane odor is still present – DO NOT relight the burners. See instructions in the appliance manual.

4. To turn the burner(s) off, turn the appropriate control knob clockwise to "OFF"



Note: Before the oven burner will operate, the oven pilot must be lit.

1. Lighting Oven Pilot

a. Be sure ALL valves are in the “OFF” position. The oven control knob should be in the “OFF” position.
b. Be sure the main propane supply is on.
c. Open the oven door and search for propane odor. If you smell propane, STOP! Read and follow the instructions in your appliance manual.
d. If you do not smell propane, turn the knob to the pilot position. “Push In/Lite Pilot”.
e. Immediately light pilot with a match. Hold knob in at least 5 to 7 seconds, this allows propane to flow to the pilot and to heat the thermocouple. Release knob, pilot should stay on.

NOTE: If the appliance has not been operated for a long period of time, a longer waiting period for ignition of the pilot may be due to the air in the pilot and propane lines. If pilot goes out, repeat steps a, b, c, d.

2. Operation of Oven Burner

a. Turn the oven control knob counter-clockwise, to the desired setting. Oven burner will come on immediately and the oven burner will stay on until it reaches the desired setting. Then the oven burner flame will decrease in size. This is normal for this type of thermostat and this flame size will maintain a constant temperature within the oven.

3. To shut down the oven burner, turn the oven control knob clockwise to the “PILOT ON” position. At this position, the oven pilot will remain lit.

4. To shut down the oven pilot light turn the oven control knob to “OFF”, at this position, the oven pilot will go out.

CAUTION

When the recreational vehicle is not in use or while traveling, it is recommended that the propane supply also be turned off.

DANGER

If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

WARNING

Before attempting to operate any water heater, you must be sure the heater is full of water. Failure to fill with water will result in the tank warping and the element burning up. When filling water heater with water, don't forget to open the by-pass valve to fill tank.

CAUTION

Temperature setting on the control was factory set at the lowest setting to reduce risk of scald injury. Setting the temperature dial past the low position will increase the risk of scald injury. Children, disabled, elderly and diabetics are at highest risk of being scalded.

WATER HEATER

(See page 53 for bypass information)
(See page 110 for more information)

ON DEMAND WATER HEATER (GAS ONLY)

Only turns on when the hot water is turned on. This unit has a Flame Out Protection safety feature that will cut gas the supply immediately due to low propane pressure or burner malfunction. Scald protection is managed through an internal high temperature kill switch. The maximum temperature is 131°F

DSI MODELS

General Information

This appliance does not have a pilot. It is equipped with an ignition device which automatically lights the burner. Do not try to light the burner by hand.

Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any propane control which has been under water.

Before operating the water heater, check the location of the vent to make sure it will not be blocked by the opening of any exterior door on the trailer. If it can be blocked, do not operate the water heater with the door open.

OPERATING INSTRUCTIONS: DSI MODEL

1. Full operation and ignition occurs on the external side of this appliance. By removing the outside grill, it will evacuate any present odors or propane. Do not light with grill off.
2. Be sure propane supply and 12-volt DC Power are available.
3. Turn on electric power to the appliance.
4. Turn on propane supply.
5. Turn switch marked “WATER HEATER”, which is located on the

monitor panel, to the “ON” position. If the burner does not light, the system will automatically attempt two more tries for ignition before lock out. NOTE: Each ignition cycle will have a fifteen second purge before next spark cycle begins again, if the system is a three-try board.
6. If lock-out occurs before the main burner ignites, turn the switch to “OFF”, wait five seconds, and turn the switch to the “ON” position. This will restart the ignition cycle. The first start-up of the water heater may require several attempts before all air is purged from the propane lines.

If the burner will not come on, the following items should be checked before calling a service person:

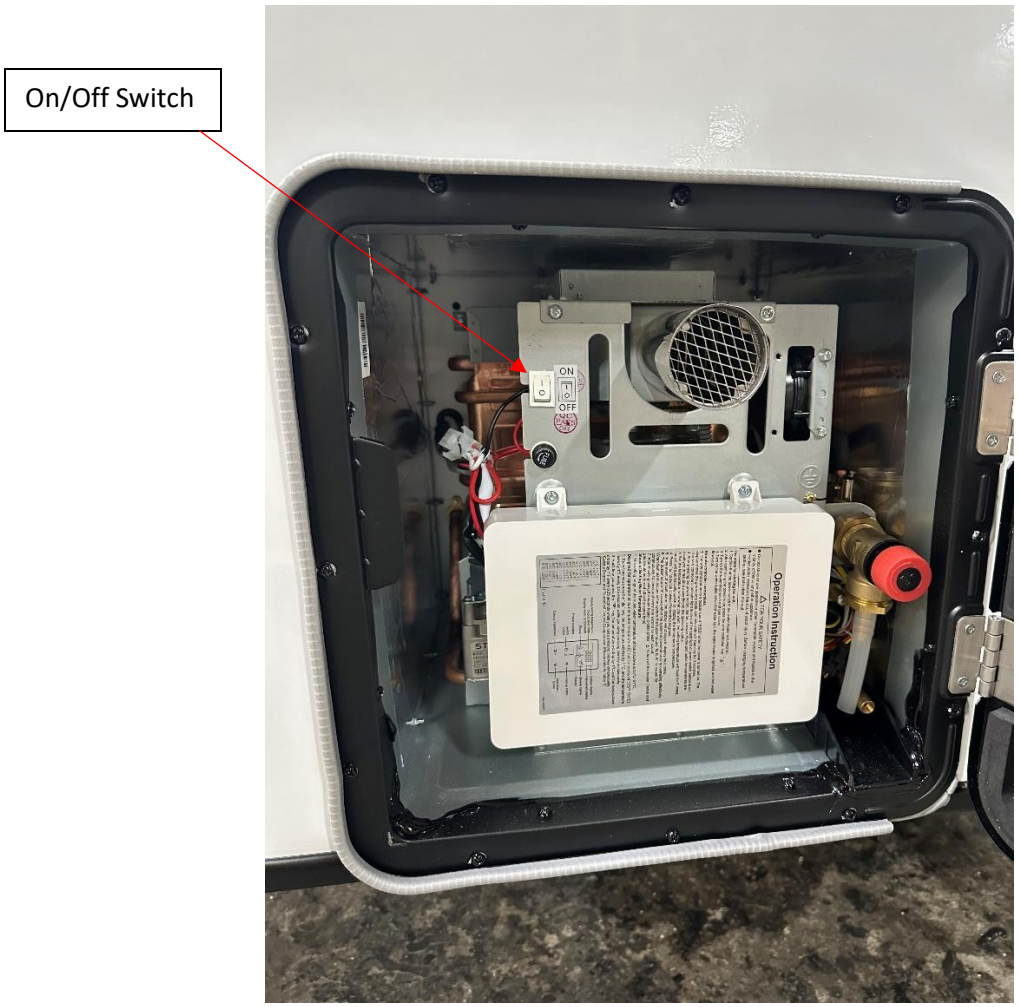
1. Switch turned off.
2. Propane supply to heater is empty or turned off.
3. Reset button on ECO is tripped.
*If burner fails to light after ensuring the steps above, call a Suburban Service center or a local RV Service agency.

Operating Instructions

Electric Element
Electric water heaters are designed to operate with a minimum amount of service problems, however proper operation and care is essential.

The most common trouble with electric water heaters results from energizing the water heater before it is filled with water. Even brief operation of the electric element without water in the tank will burn out the electric heating element.

Before the electric element will operate, the switch located behind the water heater door in the lower left corner of the control housing must be in the “ON” position.



(This model may differ from the one in your unit.)

To energize the electric element, locate the switch, which is on the bottom of monitor panel, flip the switch marked “ELECTRIC” to the “ON” position. The water temperature will be regulated by the thermostat.

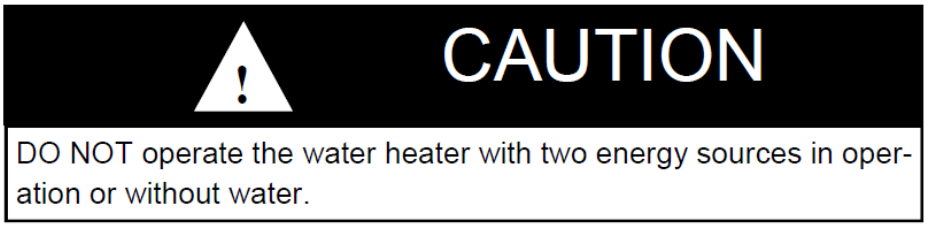
To Turn Off Water Heater

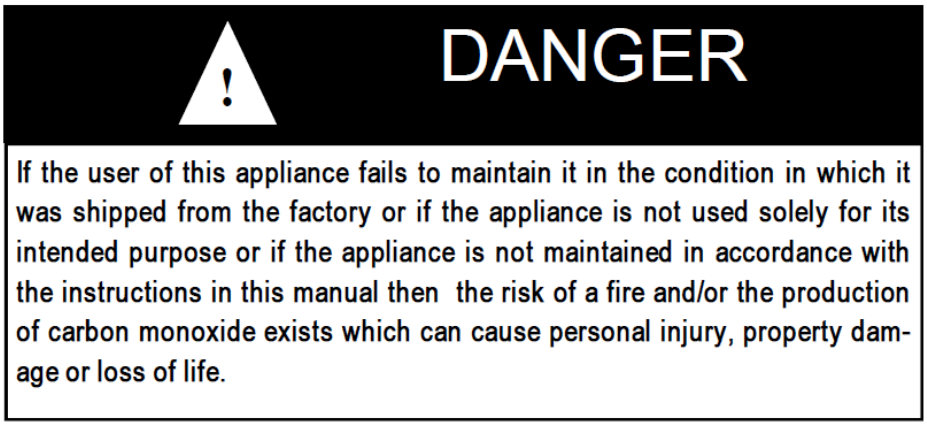
1. Turn switch to “OFF” Position.
2. Turn off the electric power to the appliance.
3. Turn off propane supply.
4. If the vehicle is to be stored or the heater is going to be turned off while subject to freezing temperature, drain the water heater.

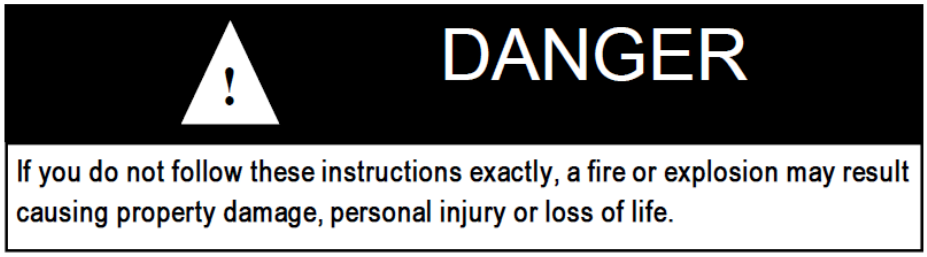
Winterizing your Water Heater

If your water heater plumbing system is equipped with a bypass kit, use it to close off the water heater. Drain the water heater completely and leave the water heater closed off (out of the system) in the bypass position, particularly if you are introducing antifreeze into the plumbing system.

Antifreeze can be very corrosive to the anode rod creating premature failure and leave sediment in the tank. If the plumbing system is not equipped with a bypass kit, and you intend to winterize by adding antifreeze to the system, remove the anode rod (storing it for the winter) and replace it with a 3/4 inch drain plug.







REFRIGERATOR

BRAXTON CREEK RV recreational vehicles use numerous brands, sizes, and model numbers of refrigerators operating on 120-volt AC, propane and/or 12-volt DC compressor. Performance of refrigerators depends on various factors, such as energy, venting, leveling, humidity, and atmospheric heat temperatures, though not limited to these. All refrigerators are designed with an absorption type or a compressor type of cooling units requiring careful leveling and venting conditions.

Leveling

For correct operation, the refrigerator MUST be level, or within three degrees of the level measurement. Continued operation outside of these limits will result in irreparable damage to the cooling unit in the refrigerator.

Venting

For an absorption unit to operate fully it MUST have two external vents. The lower vent serves as access to service components and allows air to enter flow upward, taking hot air out at the top. As the refrigerator heats up, warm air leaves through the upper vent in the roof or the side vent. The roof vent gives the best “chimney” results. However, with correct baffles, side vents are good. All vents MUST prevent birds and rodents from entering.

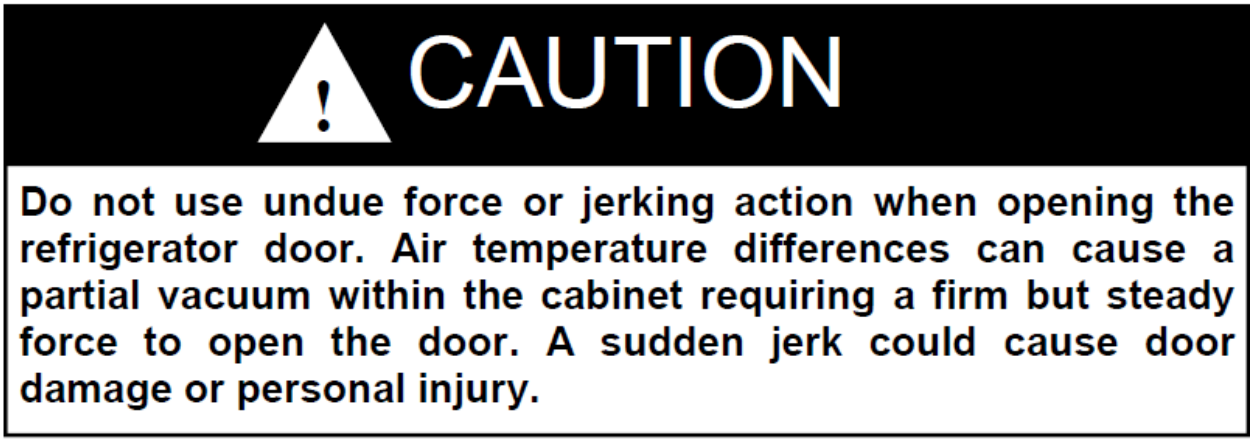
Units with two-side vents as in slide-outs, require a 12V fan to be in operation. When upper cooling fins reach 150° Fahrenheit, the fan will automatically start to operate. The positive wire has a **five amp** in line fuse installed. Access to the fuse is inside of the lower service vent door and upward, between the wall and coils.

Battery Drain Information

To control operating functions on several models of refrigerators, a 12-volt DC power source, battery, and/or converter are required. For gas operation .5 amp of energy is required through the power supply to keep the solenoid open to supply propane gas to the burner as needed to continue to cool.
When your RV is not being used, be sure to turn off any 12-volt items to prevent draining any battery.

Door Seal
To maintain cooling efficiency, the door must seal completely on all four sides along the door gaskets. Frequent frost build-up or reduced cooling are indicators of air leaks around the doors. To test the seal, place a strip of paper the size of a dollar bill between the flange and door gasket. Close the door and pull the paper out. There should be a light frictional drag indicating a proper seal. Should the paper feel loose, the gasket is not sealing well. Contact your dealer or service center.

Door Latch
A positive or full locking latch is not permitted through codes. Each latch has a rating by pounds of pressure, yet will prevent the door from opening during travel.



Operation in Transit
During camping or parking, the refrigerator must be level within 1 degree, for best operation. While traveling, the up and down hill, movement of the coach will not affect the performance of the refrigerator.

Defrosting and Cleaning the Refrigerator Interior
Your refrigerator is not frost free and will require periodic defrosting. To defrost, turn the refrigerator off. Empty the freezer and the fresh food compartments. Placing a pan of hot water in the freezer will reduce the defrosting time. Leave the drip tray under the cooling fins. After frost has melted, empty the drip tray and clean the refrigerator. Add a small quantity of mild dish detergent to lukewarm water and

wash the interior of the refrigerator. **Do NOT use abrasive cleaners, they can damage the interior surfaces of the refrigerator**.

Rinsing both compartments in a solution of baking soda and water (one tablespoon of baking soda to one quart of water) will freshen the interior and neutralize odors. Wipe the interior with a soft, dry cloth to prevent water spots. Clean the door gaskets in the same manner as the refrigerator interior. This will help to prolong the life of the gaskets.

OPERATING THE REFRIGERATOR CONTROLS - 6 & 8 cu. ft.

In order for proper operation and to achieve proper cooling, 12-volt DC power MUST be present at the power supply board for it to function. Power comes from a solid-state convertor, battery, or vehicle battery.

Both 811 and 611 models of refrigerators will have a letter “V” or ”X”. This indicates the type of operation. Both are listed as “automatic”.

X - Automatic means the unit will switch to “AC”, 120-volt as the first choice of energy source to be used even with propane available. To change the temperature, slide switch from 1 to 5, with 5 being the coldest.

V - Automatic means much the same as read above. However, to change, *always pre-cool* the refrigerator for 8 hours before placing cold food into the box.

Additional information will be found in the manual supplied by the manufacture of the refrigerator for all units.

RV MONITOR PANEL

Your panel through modern technology will supply the charge condition of your battery and water level information from your water tanks.

Operation requires 12-volt DC power, supplied by the battery or converter. Sensors, one negative and three positives, are attached to a resistor and feed information to the display panel. To operate, place a finger on the button and push. A light will illuminate, indicating the water level of tanks or charge condition of battery. The galley will light only when the floor plan includes the second gray water holding tank.

The switch on the lower left corner is for the water pump operation. When in the “ON” position, the pump will run until 40 - 45 PSI is achieved. The pump will shut off and restart at 20 pounds of pressure. Turn pump switch “OFF” when pump is not in use.

The red switch in the middle, at the bottom of monitor panel, is for an LP gas water heater. The red switch on the lower right-hand corner, is for an electric water heater.
When pushing the battery button, the highest light coming on indicates the battery condition:
C: Charge at 12.7-volts
G: Good at 11.9-volts
F: Fair at 11.2-volts
L: Low at 6.0-volts
Press only one button at a time, as one set of lights serves all functions.

RV Maintenance and Care

Undercarriage

Your Braxton Creek recreational vehicle is designed to be as maintenance-free as possible. However, all moveable vehicles require some care to reduce the possibility of unwanted breakdowns during travel. Maintenance of your RV may not seem necessary at the time of purchase, yet it is very important to keep your coach in its best condition for your enjoyment. Normal maintenance is required to maintain warranty coverage, reduce wear, and prolong the life of your coach.

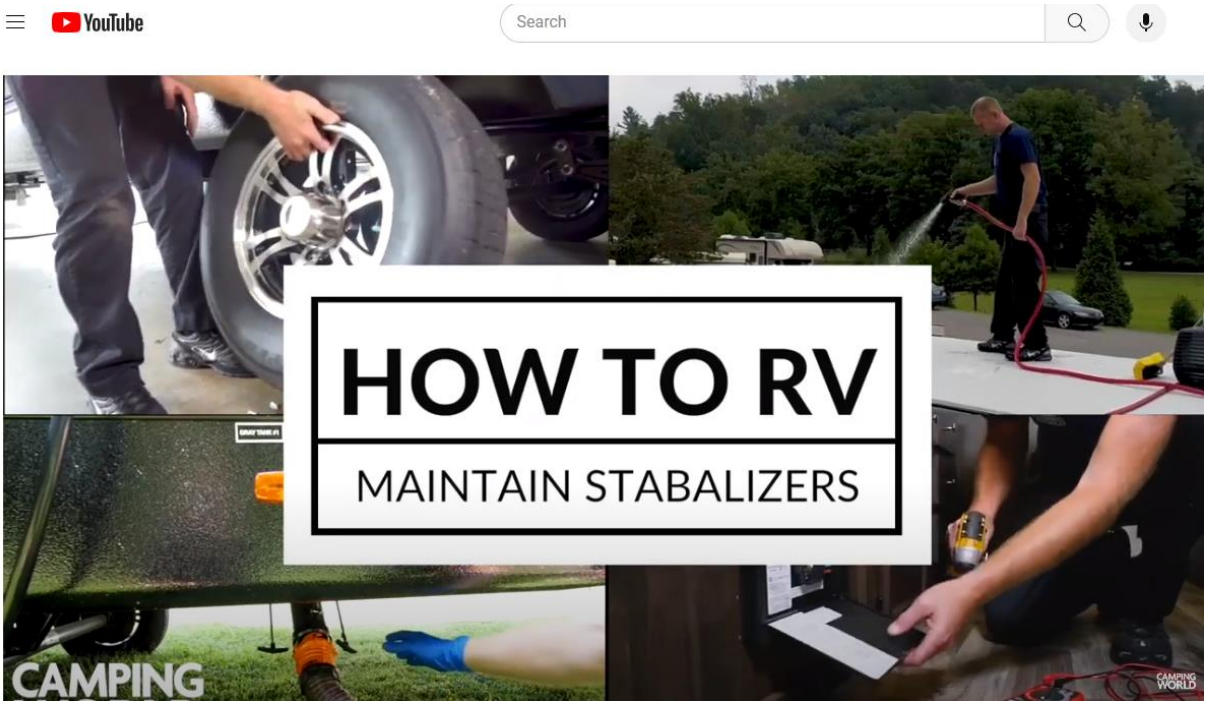
Frame

The steel frame on your Braxton Creek recreational vehicle is cleaned with a high-pressure phosphate spray wash that removes oils, dirt, and residue. After cleaning, the frame is placed in an oven at 200°F, high quality water borne paint is then applied. A final curing process is then applied to produce a quality paint application. No matter what quality or type of paint process is used, *it is important to remember that during travel the frame is exposed to stones, sand, road debris, and any other objects found on the road*. These items will cause scratching and chipping of the paint, inviting rust to begin from moisture. Your frame needs to be inspected and examined every year to touch up or repaint as normal maintenance. We suggest this be performed each fall before storage to guard against winter moisture. The paint to use is a gloss black, ozone safe exterior paint with no fluorocarbon, in a spray can. You may wish to purchase a commercial rust proof undercoating treatment, such as, Ziebart®. However, even such higher priced treatments are subject to road debris and damage.

Coupler (Travel Trailers)
For the ball on your hitch, use a light amount of chassis grease. Lubricate the coupler's pivot points with silicone spray. Avoid grease or oil as they will draw dirt, potentially damaging the coupler.

Jacks – Raising & Lowering Supports
There are many types of jacks used in constructing a recreational vehicle, such as stabilizer, tongue on travel trailer, and landing gear. Most of these have 12-volt DC power motors available, saving manual labor as an option. Should any frame parts of these jacks become dirty and rusty, first clean all parts, and then paint as needed to improve appearance. DO NOT paint any moving parts.

Stabilizer Jacks
Jacks are subject to all kinds of dirt and grim from the road. Clean all parts from dirt, dry out, and then lubricate with silicone spray, all pivot points and center main operating screw. DO NOT use oil or grease as it will attract dirt and grit causing gradual deterioration. Power jacks require the same instructions.



You may view the following video on YouTube from Camping World on maintaining stabilizers:
https://youtu.be/ih8-7DYcwY4

Weight rating on stabilizer jacks range from 1500 - 5000lbs per jack. They are NOT made to raise a side or corner of a trailer.

Travel Trailer Jacks

Tongue jacks, truck camper, and landing gear jacks should be extended to full length for cleaning. Clean all parts and spray silicone lubricant on the inner tubes. A metal cover is located on the top of the jack and attached with a wire spring clip or a screw. Remove the cover and inspect gears for grease. Regrease if there is no grease present or it has dried out. Only add grease if there is no grease visible. Some jack brands have a hole placed just below these gears to insert oil to lubricate the ram, so it will move smoothly. 10 - 20 drops annually will be sufficient. All jacks listed above have12-volt DC motors available as a maintenance-free option. All motors are pre-lubed and should not be taken apart. Be sure to inspect electrical connections for corrosion and looseness as loose terminals cause excessive heat. All motors are protected by a 30 amp fuse or circuit breaker; located in various places. If replacement is required, only use an equally rated item.

Lubricate cylinder rods of hydraulic jacks or rams when parked or unused for 30 days or more. Silicone spray is suggested to prevent rust. Operate the jacks to properly lubricate seals and the internal parts.

Tires

The tires installed on your RV are matched to the weight of your coach, plus the allowed cargo according to the rating of the tires. It is extremely important to inspect and test the air pressure in the tires no less than once per week, perhaps daily during travel. The correct PSI air pressure is listed on each tire as per rating. When air pressure is not maintained as specified on the tires, they will run hot, especially in summer months and blow outs can occur. Tire pressure must always be checked when tires are cold, preferably in the morning. DO NOT adjust or lower tire pressure when warm, as the pressure will actually be too

low when cool. All tire pressures rise when tires are moving on roadway. A tire is considered cold after 3 hours of not moving.

Beginning in the 2017 models, most tires will have nitrogen in them instead of air. A green stem cap will indicate these contents. Air may be mixed with nitrogen with no difficulties.

Tire Repair

If a tire puncture occurs, take it to a fully equipped repair center to ensure correct service. A tire plug or patch inside the well may be necessary.

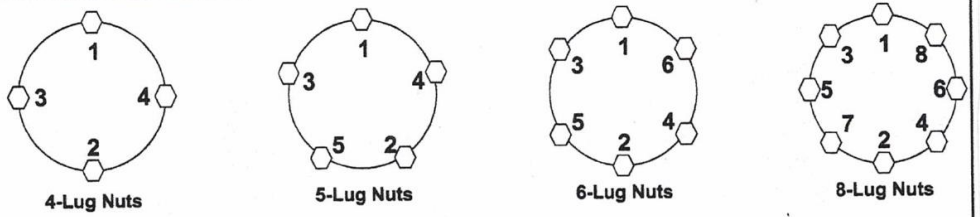
Wheels

Wheels are manufactured with steel or aluminum material meeting the load rating of the tires. Steel wheels are powder coated paint and should be cleaned and polished yearly to maintain a pleasing appearance. Should you find scratches or chips in the paint, clean and repaint to protect against rust and further damage.

Aluminum wheels require the same cleaning treatment: wash with mild soap and water, no paint. DO NOT use harsh soap or chemicals as they may discolor the wheel's finish.

When changing a tire and wheel, **always** start attaching nuts by hand before using any power wrenches. This will help to avoid cross threading. Wheel torque is preferred at 95lbs (120lbs maximum). Tighten lugs as listed below. Re-torque wheels at 100 miles and again at 300 miles. Do this

WHEEL LUG NUT DIAGRAMS:



WHEEL TORQUE INSTRUCTIONS:

1. Start lug nuts with fingers on studs to avoid cross threading.
2. Stage 1, Torque: Impact lug nuts in a star pattern* until snug to rim. *– See Wheel Lug Nut Diagram*
3. Stage 2, Torque: Use calibrated torque wrench to torque each lug nut, in a star pattern, to the values indicated. Wheels must remain stationary during torquing process for control purposes. *–See Wheel Lug Nut Torque Chart* and *Wheel Lug Nut Diagram*
4. Stage 3, Torque: Use calibrated torque wrench to torque each lug nut, in a star pattern, to the values indicated. Wheels must remain stationary during torquing process for control purposes. *–See Wheel Lug Nut Torque Chart* and *Wheel Lug Nut Diagram*

WHEEL LUG NUT TORQUE CHART:

Lug Nut	Stud Dia.	Rim	Type	Stage 1 Impact Gun	Stage 2 Clicker Setting (+/-3ft/lbs)	Stage 3 Clicker Setting (+/-3ft/lbs)	Acceptable Torque Range
4-Lug Nuts	1/2"	12"	Steel	40-50 ft/lbs	60 ft/lbs	70 ft/lbs	50-75 ft/lbs
5-Lug Nuts	1/2"	13"	Chrm/Steel	40-50 ft/lbs	60 ft/lbs	70 ft/lbs	50-75 ft/lbs
5-Lug Nuts	1/2"	14"	Chrm/Steel/Alum	40-50 ft/lbs	95 ft/lbs	115 ft/lbs	90-120 ft/lbs
5-Lug Nuts	1/2"	15"	Chrm/Steel/Alum	40-50 ft/lbs	95 ft/lbs	115 ft/lbs	90-120 ft/lbs
6-Lug Nuts	1/2"	15"	Chrm/Steel/Alum	40-50 ft/lbs	95 ft/lbs	115 ft/lbs	90-120 ft/lbs
6-Lug Nuts	1/2"	16"	Chrm/Steel	40-50 ft/lbs	95 ft/lbs	115 ft/lbs	90-120 ft/lbs
8-Lug Nuts	1/2"	16"	Steel/Aluminum	40-50 ft/lbs	95 ft/lbs	115 ft/lbs	90-120 ft/lbs

each time a wheel is removed and reinstalled.
Trim rings and center caps may be plastic or metal. Both require cleaning and polishing, as the plastic will tarnish and metal will rust if care is not performed.

Axles
The axle beam (tube) requires no maintenance unless it has become bent, causing unusual tire wear, camber, or toe in/out. If this occurs the beam needs to be replaced or realigned to prevent continuous tire wear. Special alignment equipment is required to realign an axle beam to correct this condition. Realignment will require an axle tube to be bent for correct alignment.

Bearings
ALL wheel bearings in your coach are pre-greased at the point of assembly. At 12 months or 12,000 miles of use, inspect the bearings for lubrication and wear.

Repacking Bearings
Before repacking bearings, take them out of the hub and wash all old grease and grime out with solvent cleaner. You may use compressed air for this process. DO NOT use compressed air to spin bearings during cleanout. It will damage both the casing and the bearings.

Inspect all cleaned parts for wear, pitting, and blue color, indicating heat. If such conditions are found, replace the bearing and cup.

Next, use a high temperature automotive type wheel bearing grease to carefully pack bearings by hand or with a “bearing packer.” Grease must be fully forced into ALL cavities between the rollers, cone, and cage of bearings. Use a high temperature automotive type wheel bearing grease produced by a reputable manufacturer. The soap type should be lithium complex or equivalent. Use NLGI Grade 2 products with a minimum dropping point of 440°F. Always replace bearings and races as a set. Install races (new hub/drums may have races already installed) using a mild steel drift punch or bar. Do not use hardened steel or brass bars as they may damage, chip or leave deposits on the races. The final setting of the race against the shoulder should be checked with feeler gauges and be within 0.002 inches of the shoulder in the hub/drum. After bearings have been packed with grease, place inner bearings into correct position, seated into race or cup. Place a new seal over bearings (NEVER reuse previous seal). Use a seal driver or hard rubber mallet and tap gently. Be sure the seal is seated fully and completely.

To get the proper “feel” for bearing clearance, the spindle nut must turn freely on the spindle and the brake must be readjusted so there is no drag on the drum. While slowly turning the hub/drum, tighten the spindle nut to approximately 20 ft/lbs, then loosen to first notch in nut. This is especially important if new bearing races have been installed. With drum stationary

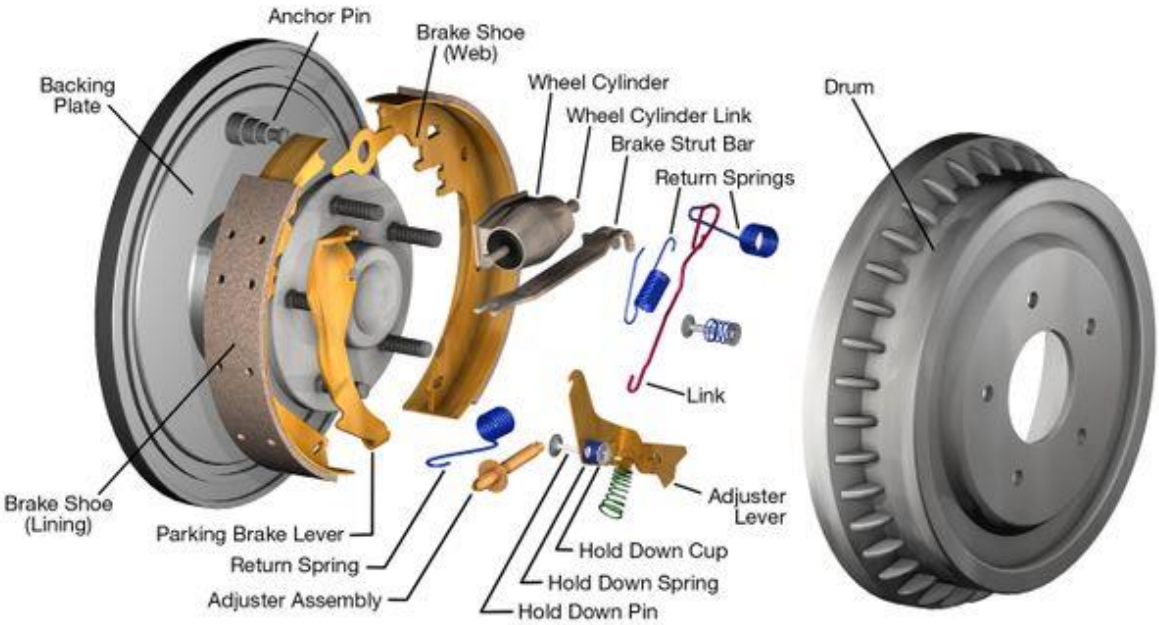
(do not rotate), retighten the spindle nut to 7 ft/lbs (zero clearance) then back off one slot (0.001”-0.010” end play) and align cotter pin hole. Insert cotter pin and bend both ends over end of spindle. Install the grease cap.

Brakes

The brakes on your coach are 10” – 12” in diameter depending on the weight of the trailer. They function from 12-volt DC power supplied through brake control from your tow vehicle. Brakefs on models 2012 are NOT self-adjusting. You will need to adjust brakes manually as outlined in the next several pages.

WARNING

Improper brake adjustment can result in reduced brake performance or loss of brakes. Reduced brake performance can lead to property damage, serious personal injury, or loss of life.



CAUTION

Always place stationary jack stands or blocks under frame to guard against jack failure.

When a coach's brake system is new, the brake shoes and drum are not completely meshed together. This first adjustment should occur at 200 – 1,000 miles or when brakes have been engaged 100 times, referred to as "burnishing". After the initial adjustment, brakes should be re-adjusted every 3,000 miles. Under adjustment can cause poor braking and the adjuster wheel to fall apart, resulting in having no brakes and possible damage to other components. Use a qualified technician to perform this maintenance procedure.

TO ADJUST

1. Lift trailer. **Do not remove the wheels or hub/drum assembly.**
2. Locate the adjusting slot at the bottom of the backing plate and remove the protective cover.
3. While spinning the wheel, use a standard brake adjusting tool or the blade of a screw driver to rotate the star wheel until there is a heavy brake drag.
4. Loosen brake shoes until the wheel turns freely about 3/4 to one full turn.
5. Replace the protective plug to keep dirt and moisture out.
6. Replace all parts and lower trailer.
7. Repeat procedure for other wheels. Never adjust just one brake. It is recommended that **all** brakes on the trailer, be adjusted at the same time.

Beginning in 2013 most models have brakes that are self-adjusting. As you drive forward OR backward each time brake,

WARNING

Brake shoes should always be replaced in pairs, both brakes on the same axle. Failure to replace in pairs can result in reduced brake performance or loss of brakes which could result in property damage, serious personal injury, or loss of life.

Brake assemblies will adjust automatically and keep your brake system at the best stopping ability. Axles and brake systems are from 2 different

suppliers. Be sure the parts are from same supplier as original manufacture.

Brake Shoes

While the hub/drum is removed, the brake shoes also require full inspection for normal wear (1/16" is minimum), cracking from heat (hairline heat fissures are not uncommon in bonded shoes and pose no cause for concern). If there are any questions concerning the severity of cracking, consult with an expert. If the lining is worn to 1/16" or less or shows irregular wear and/or contamination from foreign substances, the shoes should be replaced with original parts. If cracking is severe, replace the shoes on both sides—not one side only. Continue to inspect for dirt and other contaminants and ensure the springs are secure and have good tension.

Brake shoes are subject to daily use, absorbing normal wear. Shoes are warranted for workmanship but not for normal wear or failure to maintain.

Brake - Hub/Drum

While the hub/drum is removed for other service work, be sure to inspect the drum for cracks in casting (inside or outside), rough spots (may require sanding), heat distortion (bluish color), out of round drums (high spots), deep scoring of 0.030 inches and over. This requires use of a brake drum micrometer. Resurfacing of the drum may be required or replacement.

Resurfacing the Brake Drum

A standard drum lathe may be used to machine the shoe surface. Do not exceed the maximum diameter cast into the brake drum.

The drum should be replaced if it must be bored more than the maximum diameter cast in the brake drum. Armature surface machining is a difficult process with most drum lathes and is not recommended. If it is resurfaced

it should be machined to a 120 micro inch finish and must have 0.060 inches above the stud heads. Do not remove more than 0.030 inches of material. Be sure to remove any metallic chips and contamination resulting from drum machining.

Brake Magnets

This component transfers the 12-volt power into action by engaging itself to the armature causing the brake to engage with drum surface. Inspect the magnet for standard or abnormal wear. Generally, a magnet "works" or it is "dead", requiring replacement. Should a magnet be worn on a slant or angle and still works, replace it as its life is short. Each magnet draws about 3 amps.

SPRINGS / SHACKLES

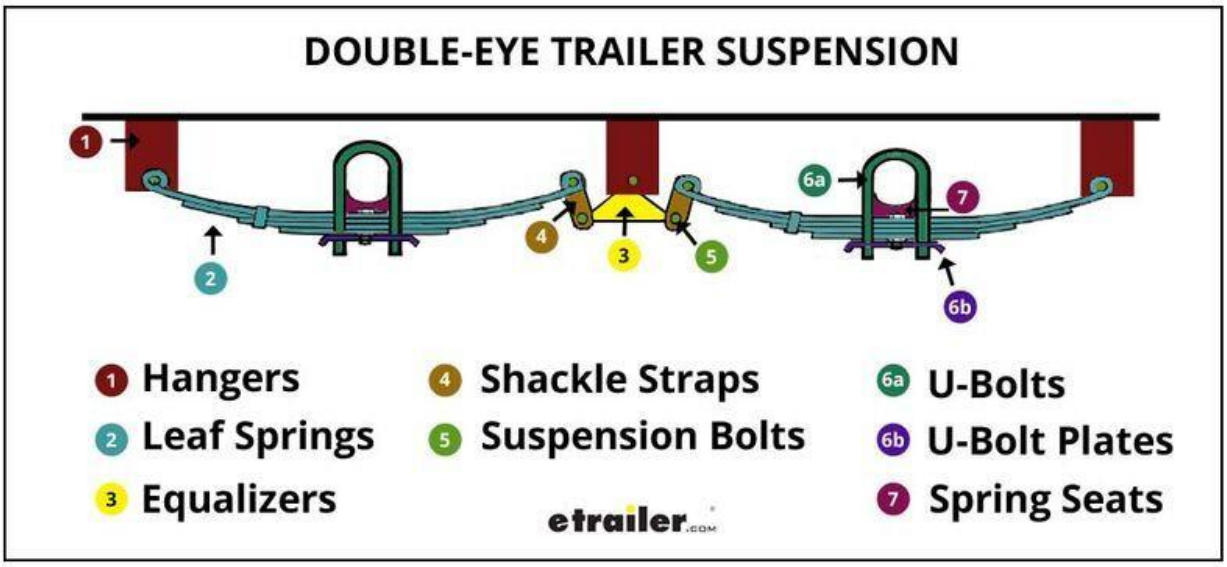
All suspension components should be visually inspected at least every 6 months or 6,000 miles. Check for loose fasteners and torque to proper values.

Springs require no maintenance other than inspection for breakage or cracks. Painting springs and other components retards rust, improving the appearance of the items. If spring(s) are broken, replace immediately as driving will cause additional strain on the other springs

Shackle bolts and shackle plates need to be inspected once per travel season or if you are traveling many miles. On the inside of shackle bolts there are serrations intended for the bolt head not to turn or move. Should these serrations become damaged or worn flat, the bolt will turn, wearing the nylon bushing and then the bolt will wear long gated holes in shackles into an oblong condition. The only solution is to replace shackles, bolts, and bushings.

When replacing these parts, be very sure to hold the bolt head and turn only the nut to prevent the bolt from turning, repeating the previous problem. **DO NOT** over tighten. This will prevent the spring from moving. Allow .050 inch of space between the spring and the hanger. From the original parts, there are two options:

1. Heavy duty shackle kit with brass bushings. They MUST be greased every 3,000 miles or they will seize up.
2. There is also an “Equa Flex” suspension kit available to replace the equalizer, giving your camper a smoother ride. See your dealer for these items and more information.



NOTE:
Paint on axles, springs, etc. has only a primer coat. You may wish to repaint as part of normal maintenance.

CAUTION

To prevent the possibility of a person slipping on the steps:

1. Lubricate ONLY the pivot points
2. Wipe off any excess lubricant and clean the step carefully to be sure no excess lubricant is on the step assembly.

Steps

The step assembly is subject to all weather elements and requires the following maintenance:

Covering nicks and scratches

1. Seal any nicks or scratches with an automotive grade primer to prevent rust.
2. Once the nick or scratch has been sealed, cover the damaged area with an automotive grade high-gloss paint.

Lubricating the mechanism (every 30 to 60 days)

1. Carefully clean the area around the pivot points (the rivets involved in the motion of the mechanism).
2. After cleaning, lubricate the pivot points (to pinpoint this area, locate the washer between the parts). An automotive grade, non - staining lubricant is recommended. Silicone spray or dry lubricant is suggested, use it monthly during travel use. We suggest lubricating the mechanism once each spring and fall, and once during summer use.

Exterior

Metal

Aluminum skin is pre-painted as it arrives from supplier with polyester automotive paint finish. To clean, use a mild detergent and water. Use an automotive type of wax or polish, same as you may use on your tow vehicle. By waxing your BRAXTON CREEK once per year, it will retain a new-like appearance.

Exterior Roof

The aluminum material is a smooth mill-finish requiring little care. Washing with soap and water, followed by a good rinse will be sufficient. I.E. Purple Power Heavy Duty Vehicle & Boat wash is recommended as well for washing the unit. There is not a hard substrate material underneath. Aluminum will show slight waves due to sun and heat causing expansion of the aluminum material. Perform inspections each spring and each fall before storing for winter.

Extrusions and Vents

All components installed on the exterior of your coach have some type of "putty tape" placed between the mounting flange or surface to guard against water entry and leakage. Additional sealant, referred to as "cap seal" is used to protect along the edges of extrusions or be a secondary surface sealant. All of these sealants are subject to weather elements such as UV rays from the sun, rain, snow, cold, heat, air pollution, frost, and other exposures causing dry-out, shrinkage and possible cracking.

Cap seal MUST be examined each year, preferably each spring and fall, for looseness, cracking, and separation from any attached surface. If upon inspection you find the above conditions, repairs must be made. These conditions will allow water to enter slowly and eventually cause major damage to your BRAXTON CREEK. Corner and roof extrusions have putty tape sealant between the components. This material can and will also dry and/or crack from weather elements, permitting leakage and eventually major deterioration. BRAXTON CREEK advises the owner to remove these extrusions, clean out old putty tape, and replace with new sealant material every five years. Windows, entrance doors, and cargo doors use a black closed cell foam tape for sealant needs, plus an inside butyl tape. These sealants may also deteriorate over time, lose their memory, and shrink with weather conditions, etc. over a period of five years.

Suggested Sealants

Extrusions: Putty tape with butyl content.
Doors & Windows: Putty tape with butyl content or closed cell foam tape with butyl liner on inside.
Cap Seal: This sealant must have good adhesive qualities along with expansion and contractions capabilities.

Vinyl Tire Covers (optional)

To clean vinyl tire covers use the same soap and water as used for washing your coach. Sun rays may cause a "bleed through" on the cover from the black rubber in the tire. To minimize this condition, use a separator such as a garbage bag or thin vinyl between the tire and cover.

Slide Outs
(Does not apply to newer models)

This system uses a rack and pinion system which means it runs on a cog track matched to a gear on the motor shaft. To lubricate the track: a) run room out fully, b) spray silicone spray or dry Moly lubricant onto track.

As with all slide outs, a hole is cut into sidewall to accept this movable room. With this convenience it gives another chance for moisture entry. Please pay attention to this potential problem

Seals on extrusions need to be inspected for proper fit, be sure there are no cuts or snags. Such imperfections may permit water to enter, causing moisture damage. Inspect these seals two times per year. Be sure slide outs fit well, as some times additional adjustments need to be made. Contact your dealer for such adjustments on all slide outs.
Ignoring any leakage will void and nullify warranty coverage.

Systems

Propane System
Your system to feed propane fuel thru your piping system needs to be inspected for leakage at least once per year, preferably in the spring before you begin your camping season. The best method to test the system is to use a manometer, an instrument used to measure the operating pressure at 11" of w.c., as well as leak testing. You may also use soapy water that does not contain chlorine or ammonia, applied on the brass fittings looking for bubbles indicating leakage. If LEAK IS FOUND, repairs MUST be made before using your coach for safety reasons. This system includes all copper lines, brass fittings to each appliance, hoses, regulator, and steel manifold lines with attached brass fittings. As a manufacturer we suggest you have your selling dealer's service center perform this test unless you have the proper equipment and full understanding of how to perform this

test. You may also wish to use a local reputable RV service center to perform this function, such as a "spring maintenance" special at a dealership.

Tests and inspections to be performed:

1. Propane regulators MUST have vent installed down at the 6 o'clock position and the regulator MUST be able to breathe.
2. Pressure needs to be set at 11" WC (water column). A manometer or u-tube MUST be used to perform this test and adjustment.
3. Should flame on your stove flutter, your regulator may have contamination inside, caused by fuel sediments. Replacement is your only solution.
4. If pressure is too high, it affects performance, efficiency, and safety. If settings are too low, your appliances will not operate correctly. Adjustment is needed (see #2). Proper equipment and knowledge is of the up most importance to perform these tests.

NOTE: Use "pipe dope" on steel thread -on pipes. Use "Teflon" tape on brass treads and fittings.

Plumbing System

Maintenance to plumbing system is minor, however, there are several items of importance.

1. Instructions to sanitize your portable water systems are found in your owners manual (*or page 45 in this document*). This request may not appear to be very important, yet the longer period of time you don't use the water tank the more important it becomes.
2. Fresh water lines and tanks easily pick up bacteria. Mold appears in places unseen.
3. Continually search for water leaks in the system.

Searching for a leak:

1. Place water into freshwater tank.
2. Fill the system with water.
3. Start the 12-volt water pump to full pressure until the pump shuts off.
4. If the pump cycles within 5 - 10 minutes, search for a water leak.

If the coach is equipped with an ice maker and/or water filter, don't forget to review these connections as well. Elbow and tee connections may be

found under cabinets, behind cabinets, or under faucets. Many faucets have “water saver” restriction washers in the spouts reducing flow.

Common toilet stool issues/causes:
A. Valve may be leaking B. Gasket at bottom of bowl may be allowing water to keep draining into tank C. Smell. Deodorizing is needed occasionally to guard against offending odors.

When cleaning your toilet, Thetford Aqua (Clean non-abrasive cleaner) is suggested with a soft bristle brush. DO NOT use any scouring powders, acids, or concentrated cleaners. These can damage surfaces.

Holding Tank
Maintenance for your holding tanks can be found on page 46 of this document.

Flush Kits
Flush kits are available to clean black holding tanks on many models. They are designed to rinse and clean your tank. NEVER attempt to flush a tank without draining tank first.

Electrical System
120-volt AC testing: Turn off all breakers, plug coach into 120-volt AC shore power, turn on 30 or 50 amp main breaker and then each breaker following. This procedure indicates your 120V system is working correctly and feeding power throughout your coach unless there is an open circuit somewhere.

GFCI
This device is designed to protect individuals from improper grounded conditions, especially on the outside while touching exterior components. To test the GFCI receptacle, press the test button. Press the “Reset” button to return to normal function. Should you not be able to reset this device, replace the receptacle or find an electrical technician. It is recommended to test this two times per camping season, to assure proper operation.

12-Volt DC
As a manufacturer, we suggest to inspect for any loose wires and/or loose connections in the load center each spring. Tighten them if any are loose.

Loose wire connections cause high heat and potential fire issues/concerns, especially in and around circuit boxes.

Inspect all fuses and be sure they are good for continuity and operation. There are 2 - 40 amp fuses or 4 - 20 amp fuses in the converter to protect it, should the battery be hooked up backwards. Be sure these are all in good condition and not blown.

Use a torque wrench with ¼ inch socket or screws for testing torque tightness on screws holding wire connectors and terminals.

Battery

A battery is not OEM supplied. A 12-volt battery (deep cycle preferred) is supplied by the dealer and require constant inspection and maintenance. To preserve a long life in any battery, there are three important functions to remember:

1. Charge battery every 30 - 60 days to keep it fully charged during non-use, especially during winter months.
2. Certain types require water to be checked and added as necessary. Keep water above cell mass to avoid permanent damage.
3. Store battery in a cool place when not in use, around 40°F/4.44°C.

A fully charged battery will measure at 1.265 specific gravity. A discharged battery will measure at 1.120 or o 11.7-volts DC specific gravity. A hydrometer is required to measure “specific gravity”. Most batteries with deep cycle rating require water to be added as needed. This depends on the amount of draw time that your converter is in operation. Using distilled water is recommended. Not keeping batteries charged will result in a shorter life expectancy. Should distilled water or rainwater, not be available, well water will suffice.

Battery Hydrometer Tester Specific Gravity Check Tool example.

Allowing a battery to drop below 10.5 volts will begin permanent damage to cells.

Be sure to keep ALL terminals clean at all times to ensure good contact.

Appliances
(See page 73)

FURNACE
The furnace in your BRAXTON CREEK will need minimal regular maintenance attention. It is recommended to do this each spring at the start of the camping season. Contact your selling dealer or a qualified service technician perform such an inspection. Your dealer may have a “spring special” to perform such inspections.

Exterior vents must be free from obstructions and properly vented to the atmosphere for best performance and health purposes. Inspect the following:

1. Vents for any insects which may have entered and built nests. Nests will cause improper operation. If soot is present around the vent, it indicates incomplete combustion or contaminated fuel. If soot is present, contact a qualified service center.
2. Inside the furnace cabinet. Check areas around the combustion chamber for any cracks or leaks causing the flow of exhaust gas being expelled into coach.
3. Inspect and test any propane connections and lines for signs of leakage.

4. Check all gaskets for leakage or deterioration. Replace if damaged. A furnace is safe only when there is no leakage from heat chamber.
5. Review the return air inlet openings to the furnace compartment. The furnace cannot operate if the return air is restricted from air flow. **DO NOT** store any items around furnace. The return air panel is installed in front of furnace to prevent storage around furnace. **DO NOT BLOCK** this panel.

Inspect the furnace monthly during the heating season for presence of soot on vent.

Operating the furnace under this condition could lead to serious insufficient operation. If soot is observed on the vent, immediately shut the furnace down and contact a qualified service agency for repairs.

WATER HEATER

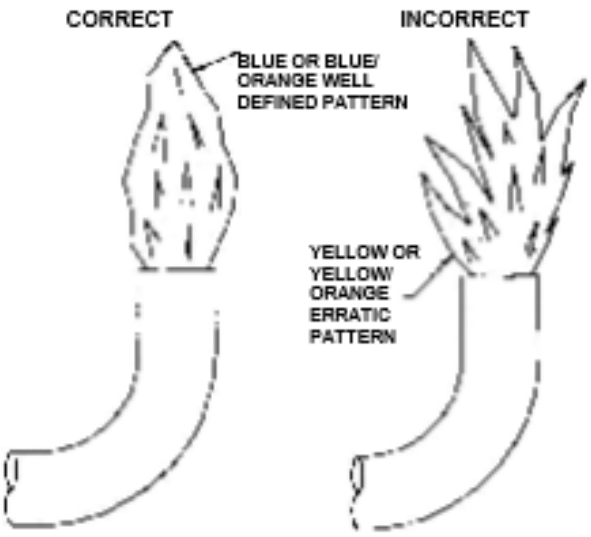
(Also see page 84)

Since this appliance has burner and pilot assemblies located in an exterior chamber, they are subject to insects and moisture contacts. Spiders especially enjoy the propane smell and may build a web across orifices of the pilot assembly and in main burner tube. This causes back flashes and sooty conditions of exterior wall and vent assembly. Should this occur, shut the system down and clean out any obstructions before continuing to operate.

Also inspect the screen on the door. It must be free of any obstruction including secondary screens. Any such obstructions will cause improper air flow to both intake and exhaust channels. Twice per year inspect the grommet around propane copper line entry through the heater jacket as it must be sealed to prevent fumes from carbon monoxide and potential propane leakage to enter coach.

Once per year inspect all wire connections for damage, frayed or looseness. Terminals which are not tight cause heat with potential to melt the wires.

This print shows the correct and incorrect flames in the burner tube. Adjustments may be required.



The anode rod serves two purposes, 1) a drain plug to release water from the tank to winterize, and 2) the element rod absorbs impurities and contaminates which may be in the water which could cause damage to the tank. This rod will "self-destruct" as it does its job and will need to be replaced. It is normal wear. The mineral content of your water will determine the life of the rod.

Photo shows what a new and full rod should be plus a 75% deteriorated rod now requiring it to be replaced.

Iron and mineral content levels in the water will determine the life of the anode rod.

Operating the water heater with out proper anode protection will decrease tank life and will void warranty on the tank, NOTE : Tank is drained by removing anode rod.

To extend life of anode rod, drain the water from tank when ever RV is not being used. Also refer to the section on winterizing.

This is actually a "sacrificial" item to save tank life. Rod should be removed for 2 reasons—for inspection and draining water heater.

Winterizing your Hot Water Heater
(Also see page 48)

When winterizing your hot water heater, you must first be sure that your water heater has not been in operation for 24 - 48 hours prior to the start of the winterization process. If your unit is equip with a DSI model water heater, make sure the ignition switch is in the off position. To drain the hot water heater, remove the anode rod from the water heater, and allow the water heater to drain complete.

Stove / Range / Cooktop
Each spring before camping season is the best time to inspect your propane consuming appliances for correct operation. Test all fittings for any possible propane leaks. You may prefer to have your selling dealer or a reputable dealer do a “spring checkup” on your coach.

During the use of your stove and oven, it is important to keep your equipment clean.

If there is an overflow accident, be sure to clean up as quickly as possible. Use warm water with a mild soap to clean grates, cook top, and painted or porcelain surfaces. DO NOT use a soap which contains ammonia. DO NOT use abrasive cleaning pads, steel wool or abrasive soap to clean any surface because of potential scratching of these items. Should any burner parts or orifice become plugged up, use special care: If a brush is used, be sure the bristles do not come loose and lodge in a burner or orifice, later causing clogging or a fire. Avoid using a wire brush or wire needles. The ends may break off. Steel items may enlarge the holes causing excess fuel usage, raising BTU’s, higher heat, and possibly a fire. Soap and warm water are your best solution.

Oven doors do not hold heavy weight. Excessive weight will cause the hinges to bend, springs to stretch, and will prevent the door from closing correctly and sealing when in use. There is a 10 pound maximum.

Thank you for choosing a Braxton Creek unit! We hope you have a wonderful camping experience. Enjoy and be safe out there!

BRAXTON CREEK