

**Model Year 2008**

*Jay Feather*



**Travel Trailer  
Owner's Manual**



**AMERICA'S MOST LIVEABLE RVs**





**WARNING: Read all instructions in this manual and component manufacturer supplied information before using your RV.**

This manual has been provided by Jayco, Inc. for the sole purpose of providing instructions concerning the operation and maintenance of this vehicle and its components. Nothing in this manual creates any warranty, either expressed or implied. The only warranty offered by Jayco, Inc. is as set forth in the limited warranty applicable to this vehicle.

The owner's failure to provide required service and/or maintenance could result in the loss of warranty. The owner should review Jayco's limited warranty and the limited warranties that apply to specific components that are offered with this vehicle.

Instructions are included in the manual for operating various components which are optional on some vehicles. In addition, the owner should refer to individual manufacturer's operating instructions contained in the owner's packet.

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**Congratulations!** Thank you for selecting a Jayco RV. We are excited to welcome you to our growing RV family. Jayco is the largest privately held manufacturer of recreation vehicles in the world. We are committed to being the most respected name in RVs. We invite you to drop by our Visitors Center located in Middlebury, Indiana. To book a group tour or check our scheduled factory tour times (free admission, closed holidays) please call 1-800-RV-JAYCO.

## ABOUT THIS MANUAL

This manual is a guide to the operation and maintenance of your RV. Jayco RVs are available in several sizes and models, so accessories and components may differ. Some equipment described in this manual may not apply to your RV. If you find the components vary significantly from what is described, contact your dealer to ensure you have the correct information. Nothing in this manual creates any warranty, either expressed or implied, nor does it cover every possible detail of equipment, standard or option, installed on or in your RV.

*Information, illustrations and specifications in this manual reflect the most current available at the time of publication approval, are subject to change and not intended to indicate actual size.*

## THE GOODIE BAG

The Goodie Bag contains original equipment manufacturer (OEM) operator manuals, warranty cards and/or registrations. It is important you complete and mail the warranty cards and registrations within the prescribed time limits to avoid loss of warranty coverage. This manual and the Goodie Bag should be considered a permanent part of the RV. If the RV is sold, they should remain with the RV for the next owner.

## SAFETY ALERTS

Your safety, and the safety of others, is very important. To help you make informed decisions, we have provided operating procedures and other information on safety

labels affixed to your RV and in this manual. Please call your dealer or Jayco Customer Service if you are unsure how to proceed. Always use the appropriate safety gear when servicing or maintaining your RV.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

### DANGER

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

### WARNING

This indicates a potentially hazardous situation which, if not avoided, will result in death or serious injury.

### CAUTION

This indicates a potentially hazardous situation which, if not avoided, will result in minor or moderate injury.

### CAUTION

This indicates a potentially hazardous situation which, if not avoided, may result in property damage.

## REPORTING SAFETY DEFECTS

### In the United States

If you believe that your RV has an alleged defect that could cause a crash or cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) and Jayco.

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



or Jayco. For additional information, please refer to the NHTSA website at [www.safercar.gov](http://www.safercar.gov).

*To contact NHTSA by phone:*

Call the Department of Transportation (DOT) Vehicle Safety Hotline at 1-888- 327-4236 and a NHTSA representative will record your complaint information (TTY: 1-800-424-9153 or 1-202-484-5238).

*To contact NHTSA by mail:*

U.S. Department of Transportation  
National Highway Traffic Safety  
Administration  
Office of Defects Investigation NVS-211  
400 7th Street SW  
Washington, DC 20590

### **In Canada**

If you believe your RV has an alleged safety defect, you should contact Transport Canada and Jayco. Transport Canada prefers to be called instead of posted mail or email as it enables their investigators to confirm that your information is correct, and to answer your questions accurately. For additional information, please refer to the Transport Canada website at [www.tc.gc.ca](http://www.tc.gc.ca).

*To contact Transport Canada by phone:*

Call 1-800-333-0510 (or 1-613-993-9851 if you are calling from the Ottawa region) and ask to speak to a defect investigator.

*To contact Transport Canada by mail:*

Road Safety and Motor Vehicle  
Regulation Directorate  
Transport Canada  
Tower C, Place de Ville  
330 Sparks Street  
Ottawa, Ontario K1A 0N5

## **MANUFACTURING PROCESS**



Jayco recreation vehicles are manufactured for use as temporary living quarters for recreation, camping and travel uses, all as defined by the bylaws of the Recreation Vehicle Industry Association (RVIA).

This recreation vehicle is not intended for use as a full-time residence or for commercial use. Commercial use means using the RV as a business asset such as a mobile office or using the RV for lease or rental purposes.

*Jayco reserves the right to discontinue or change specifications or design at any time without notice and without incurring any obligation whatsoever. RV's built for sale in Canada may differ to conform to Canadian Codes.*

## **CUSTOMER RESPONSIBILITY**

It is important you read and understand the information in this manual and your Goodie Bag before using your RV.

Familiarize yourself with the applicable warranties. You are responsible for ensuring the procedures for obtaining warranty repair are followed properly. It is your responsibility and obligation to return your RV to your dealer for warranty service repair.

As the owner of the RV, you are responsible for regular and proper maintenance performed in accordance with this manual and the OEM manuals. Regular and proper maintenance will help prevent conditions arising from neglect that are not covered by warranty.

As with your other personal belongings, it is important to protect yourself and others with insurance coverage. Your insurance agent can assist you in obtaining the appropriate insurance coverage for personal liability, theft, collision, property damage, etc.

## **DEALER RESPONSIBILITY**

At the time of sale of the new RV, your dealer is expected to:

- ❑ Deliver your RV in the best condition possible. Your RV must pass the dealer's pre-delivery inspection (PDI), including all systems tests.
- ❑ Provide orientation of the RV, its systems, components and operation.

- ❑ Request that you read all warranty information and explain any provision not clearly understood.
- ❑ Ensure you receive the Goodie Bag. Your dealer can assist you in completing the OEM warranty cards or registrations, and locate any required component model or serial numbers.
- ❑ Complete and return the “Warranty Registration and Customer Delivery Form” to Jayco within 10 days of delivery to activate the applicable warranty coverage.

The **Towable Limited Warranty** is activated only after Jayco receives a signed and dated “Warranty Registration and Customer Delivery Form” from your dealer. If it has been more than 60 days since the purchase of your new RV and you have not received a confirmation letter from Jayco, please contact Jayco Customer Service.

## SUGGESTIONS FOR OBTAINING SERVICE

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The independent dealers authorized to sell Jayco RVs are also there to provide service after the sale. We work closely with them in an effort to keep you satisfied. To help ensure your dealer provides the level of service you expect, here are some suggestions we would like to make:

**Contact your dealer at once...** Do not wait until you are ready to use your RV. Your dealer may not be able to service it immediately and/or the repair may require parts be ordered. The dealer’s service department is busiest on Mondays, Fridays and before the holidays.

**Prepare for the appointment...** If you are having warranty work performed, be sure to have the right papers with you. Take your warranty folder and have your vehicle information available. Not all the work to be performed may be covered by the warranty; discuss additional charges with the dealer’s service management.

**Prepare a list...** Provide your dealer with a written list of specific repairs needed. It is important that you provide any vehicle repair

history to the dealer’s service manager. Keep a maintenance log of your RV service history. This can often provide a clue to the current issue.

**Be reasonable with your requests...** If you leave a list with several items and you need your RV returned back by a specific time, discuss the situation with the dealer’s service management and list your items in order of priority. This may include making a second appointment for work not completed or parts that the dealer may need to order.

**Don’t expect to look over the technician’s shoulder...** Please do not be offended if you are told you cannot watch the work being done. Some insurance requirements forbid admission of customers to the service area.

**Inspect the work performed...** Finally, check out the service or repair job when you pick up your RV. Notify the dealer’s service management immediately of any dissatisfaction. If you cannot return your RV immediately for repair, make an appointment as soon as possible.

*Please be aware that all repair businesses require notification of any issues with their repairs within a specified time limit. Make sure you are familiar with your dealer or RV repair center’s repair policies.*

## CUSTOMER RELATIONS

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Jayco, has empowered its dealers to make warranty and repair decisions. If a special circumstance occurs that requires information from Jayco, we have asked your dealer’s service management to make the contact on your behalf. **This is why you should always talk to your dealer’s service management first.**

Most issues arise from misunderstandings about warranty or service needs. We recognize that, on some occasions, you will not be totally satisfied with a dealer’s decision or actions. If this is the case, you should write or call Jayco Customer Service. Our hours are Monday – Friday, 8:00 a.m. – 5:00 p.m. EST (closed holidays).



Please provide the following information:

- ❑ Your name, location and phone number.
- ❑ Your RV 17-digit vehicle identification number (VIN).
- ❑ Your date of purchase.
- ❑ The name of your selling dealer.
  - If different from above, the contact information for the RV repair facility you are contacting Jayco to discuss.
- ❑ A detailed description of the concern.
- ❑ If applicable, the component description, serial number and model number.

**Mailing address**

Jayco, Inc.  
Customer Service  
P.O. Box 460  
903 S. Main Street  
Middlebury IN 46540

**Shipping address**

Jayco, Inc.  
Customer Service  
100 Bontrager Drive  
Bldg 42 Door 4220  
Middlebury IN 46540

Phone (toll-free)

(800) 283-8267

Phone (local)

(574) 825-0608

Fax (toll-free)

(866) 709-9139

Brochure request

[info@jayco.com](mailto:info@jayco.com)

Parts email

[parts@jayco.com](mailto:parts@jayco.com)

Service email

[service@jayco.com](mailto:service@jayco.com)

Website

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

**An important note  
about alterations and warranties**

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

**UPDATE YOUR CONTACT INFORMATION**

Help keep your contact information current so that, in the event of a recall or customer notification letter, you are notified. Please copy and mail your completed "Change of Address or Ownership, Stolen, Totaled or Destroyed" form to Jayco.

*If you purchased your RV as "used," include proof of ownership (i.e., a copy of your bill of sale, insurance policy, etc.).*

**THE JAYCO TRAVEL CLUB**

All owners of Jayco RVs are eligible for membership in the Jayco Travel Club. The club promotes family camping and the active use of your RV with others who have similar interests in the RV lifestyle.



One "International Rally" is held each year in various locations around the United States and Canada. In addition, the club offers a variety of local and regional activities throughout the year.

By belonging to the Jayco Travel Club, you will find new ways to enjoy your RV and make friends all across the country. For more information please visit [www.jaycorvclub.com](http://www.jaycorvclub.com), or call 1-800-262-5178.

**JAYPLUS™  
EXTENDED SERVICE CONTRACT**

Don't let unexpected repair costs keep you from traveling toward your dreams.



Protect yourself with a JayPlus™ Extended Service Agreement. For more information, contact your dealer or call 1-800-527-3426.

Your dealer can help you obtain a JayPlus™ insurance quote from GMAC Insurance or call 1-877-484-2261 (Savings Code: GL 2A).



## JAYCO CUSTOMER FIRST EMERGENCY ROADSIDE ASSISTANCE

Jayco has teamed up with Coach-Net to offer 24/7 motorist assistance. We are offering this free of charge for the first year of ownership (certain restrictions apply\*). You may continue your emergency roadside assistance benefits in the following years by contacting Coach-Net to discuss terms and rates for this independently continued coverage.

For details on accessing your emergency roadside assistance benefits, please refer to your Member Benefit Guide that is sent out 6-8 weeks after your completed "Warranty Registration and Customer Delivery Form" is received by Jayco, or contact Coach-Net ([www.coach-net.com](http://www.coach-net.com)) at 1-877-801-0333.

*\*To qualify for coverage, your RV must be eligible as set forth under the terms of the Towable Limited Warranty.*

## OBTAINING EMERGENCY WARRANTY REPAIR

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

1. Call 1-800-RV-JAYCO or use our website dealer locator to find an authorized Jayco dealer in your area. Contact them for an appointment; they will handle all warranty repair billing and returned parts for you.
2. If you cannot locate an authorized Jayco dealer near you, ask the campground staff for referrals or check the local telephone yellow pages. Or contact Jayco Customer Service or your selling dealer for assistance in locating a repair facility.
  - a. Contact the RV repair facility to discuss your situation and make an appointment. Ask how their billing will be handled. They may choose to bill Jayco directly; otherwise, you are expected to pay them.

- b. Have the RV repair facility inspect your RV. Either they or you must call Jayco Customer Service to discuss applicable warranty coverage prior to any repair work being performed.
- c. Jayco Customer Service will issue an authorization number upon warranty repair approval and advise if any original parts need to be returned.
- d. Once Jayco Customer Service has issued an authorization number, the RV repair facility may begin actual repair to your RV.
- e. Inspect the completed repair work thoroughly. If you are not satisfied, communicate that immediately to the RV repair facility management. Make sure you are satisfied with the repair before you pay or leave the premises.
- f. For reimbursement, either you or the RV repair facility must send a copy of your itemized repair bill and all requested return parts by UPS (regular ground, freight pre-paid) within 60 days of the completed repair date.

*To expedite processing your warranty claim, include your name, address, phone number, RV 17-digit VIN and authorization number. If returning parts, include a copy of your return freight bill.*

### Obtaining weekend or after business hours repair assistance

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

*Failure to contact Jayco Customer Service, unauthorized or improper warranty repairs, or failure to return requested original parts may result in loss of reimbursements and/or loss of warranty.*

## **OBTAINING SERVICE FOR SEPARATELY WARRANTED ITEMS**

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Your selling dealer is responsible for servicing your RV before delivery, and has an interest in your continued satisfaction. We recommend your dealer perform all inspection, warranty and maintenance services. Some dealers may be authorized service centers for those OEMs whose products are warranted separately and excluded from the **Towable Limited Warranty**.

## **OBTAINING SERVICE AT JAYCO**

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Should your RV be in need of service, and your dealer recommend that the repairs be made at the Jayco Factory Service Center, your RV may be returned to us with the following guidelines\*:

- ❑ You or your dealer must make a confirmed appointment a minimum of 60 days prior to dropping off your RV at the Jayco Factory Service Center.
- ❑ The holding tanks must be emptied and rinsed. We have a dumping station available for customer use.
- ❑ The propane system and all electrical systems must be shut down and turned off. We are not responsible for discharged batteries or propane tanks.
- ❑ During the appropriate season, please ensure your RV is winterized.
- ❑ Unless prior approval has been obtained from the Jayco Factory Service Center, all personal items must be removed from the area where you are requesting service repair and the refrigerator emptied. We are not responsible for loss of food items.
- ❑ You are responsible for all transportation costs. You may need to arrange for alternative accommodations for some types of repairs. Please be prepared accordingly.

*\*Jayco Customer Service occasionally utilizes local independent repair facilities. Your RV may be referred to or repaired by one of these local repair facilities.*

## **REPLACEMENT PARTS**

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Parts for Jayco RVs are distributed exclusively by authorized Jayco dealers. Jayco does not sell parts retail direct or to non-authorized dealers. If an original part is no longer available, Jayco will try to provide an appropriate substitute.



**TOWABLE LIMITED WARRANTY**

**WHAT AND WHO IS COVERED**

The Jayco warranty covers this recreational vehicle ("RV"), when used only for its intended purpose of recreational travel and camping, for two (2) years. It covers RV's sold in the United States, U.S. Territories and Canada, only. The warranty period begins on the date that the RV is delivered to the first retail purchaser by an independent, authorized dealer of Jayco, or, if the dealer places the vehicle in service prior to retail sale, on the date the RV is first placed in such service. In the event that a substantial defect in material or workmanship, attributable to Jayco, is found to exist during the warranty period, it will be repaired or replaced, at Jayco's option, without charge to the RV owner, in accordance with the terms, conditions and limitations of this limited warranty.

This limited warranty applies to the first consumer purchaser only. You may contact an independent, authorized dealer for details. All rights and limitations within this warranty are applicable to the original owner of the RV only.

Jayco's obligation to repair or replace defective materials or workmanship is the sole obligation of Jayco under this limited warranty. Jayco reserves the right to use new or remanufactured parts of similar quality to complete any work, and to make parts and design changes from time to time without notice to anyone. Jayco reserves the right to make changes in the design or material of its products without incurring any obligation to incorporate such changes in any product previously manufactured. Jayco makes no warranty as to the future performance of this RV, and this limited warranty is not intended to extend to the future performance of this RV, or any of its materials, components or parts. In addition, the RV owner's obligation to notify Jayco, or one of its independent, authorized dealers, of a claimed defect does not modify any obligation placed on the RV owner to contact Jayco directly when attempting to pursue remedies under state or federal law.

**LIMITATIONS, EXCLUSIONS AND DISCLAIMER OF IMPLIED WARRANTIES**

**ANY IMPLIED WARRANTY THAT IS FOUND TO ARISE BY WAY OF STATE OR FEDERAL LAW, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR ANY IMPLIED WARRANTY OF FITNESS, IS LIMITED IN DURATION TO THE DURATION SET FORTH IN THIS LIMITED WARRANTY AND IS LIMITED IN SCOPE OF COVERAGE TO THE SCOPE OF COVERAGE OF THIS LIMITED WARRANTY.** Jayco makes no warranty of any nature beyond that contained in this limited warranty. Jayco does not authorize any person to create any other obligation or liability for it regarding this RV, and Jayco is not responsible for any representation, promise or warranty made by any dealer or other person beyond what is expressly stated in this limited warranty, and no one has the authority to enlarge, amend or modify this limited warranty. Any selling or servicing dealer is not Jayco's agent, but an independent entity.

**JAYCO SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES THAT MAY RESULT FROM BREACH OF THIS LIMITED WARRANTY OR ANY IMPLIED WARRANTY. THIS EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES SHALL BE INDEPENDENT OF ANY FAILURE OF THE ESSENTIAL PURPOSE OF ANY WARRANTY, AND THIS EXCLUSION SHALL SURVIVE ANY DETERMINATION THAT THIS LIMITED WARRANTY OR ANY IMPLIED WARRANTY HAS FAILED OF ITS ESSENTIAL PURPOSE.**

Some states do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

## HOW TO GET SERVICE

To obtain warranty service the owner must do all of the following:

1. Notify an independent, authorized dealer of Jayco, or Jayco, of the substantial defect in material or workmanship attributable to Jayco, within the warranty coverage period designated above;
2. Provide the notification mentioned in (1), above, within ten (10) days of when the owner discovered, or should have discovered, the substantial defect in material or workmanship attributable to Jayco;
3. Promptly schedule an appointment with and take the RV to an independent, authorized dealer of Jayco, or Jayco, for repairs; and
4. Pays any freight or transportation costs, import duties, fees and all incidental expenses associated with obtaining warranty service.

For warranty service, simply contact one of Jayco's independent, authorized service centers for an appointment and then deliver your RV to the service center on the specified appointment date. If you need assistance you may contact Jayco, at P.O. Box 460, Middlebury, Indiana 46540, Attn: Customer Service, (574) 825-0608, (800) 283-8267 or [www.jayco.com](http://www.jayco.com).

NOTE: Jayco does not control the scheduling of service work at the independent, authorized dealerships. You may encounter some delay in scheduling or completion of work. Also, you must notify the selling dealer at time of delivery to have work performed on any defect that occurred at the factory during manufacture at no cost to you as provided by this limited warranty. (See below under WHAT IS NOT COVERED).

If two (2) or more service attempts have been made to correct any covered defect that you believe impairs the value, use or safety of the RV, or if it has taken longer than thirty (30) days for those types of repairs to be completed, you must, to the extent permitted by law, notify Jayco directly, in writing, at the above address, of the unsuccessful repair(s) of the alleged defect(s) so that Jayco can become directly involved in making sure that you are provided service pursuant to the terms of this limited warranty.

## WHAT IS NOT COVERED

By way of example only, this Limited Warranty does not cover any of the following: defects in materials, components or parts of the RV not attributable to Jayco, items that are added or changed after the RV leaves the possession of Jayco; additional equipment or accessories installed at any dealership, or other place of business, or by any other party, other than Jayco; any RV used for rental or other commercial purposes (Note: It shall be concluded that the RV has been used for commercial and/or business purposes if the RV owner or user files a tax form claiming any business or commercial tax benefit related to the RV, or if the RV is purchased in a business name); any RV sold outside the United States, U.S. Territories or Canada; any RV not used solely for recreational travel and camping; normal wear, tear or usage, such as tears, punctures, soiling, mildew, fading, or discoloration of exterior plastic or fiberglass, or soft goods, such as upholstery, drapes, carpet, vinyl, screens, cushions, mattresses and fabrics; the effects of condensation or moisture from condensation inside the RV; mold or any damage caused by mold to the inside or outside of the RV; imperfections that do not affect the suitability of the RV for its intended purpose of recreational use or items that are working as designed but that you are unhappy with; problems, including water leaks, related to misuse, mishandling, neglect or abuse, including failure to maintain the RV in accordance with the owner's manual, or other routine maintenance such as inspections, lubricating, adjustments, tightening of screws, tightening of lug nuts, sealing, rotating tires; damage due to accident, whether or not foreseeable, including any acts of weather or damage or corrosion due to the environment, theft, vandalism, fire, or other intervening acts not attributable to Jayco; damage resulting from tire wear or tire failure; defacing, scratches, dents, chips on any surface or fabric of the RV; damage caused by off road use, overloading the RV or alteration of the RV, or any of its components or parts; wheel alignment or adjustments to axles when caused by improper maintenance, loading or damage from road hazards, including off road travel, wheel damage or balancing or damage from tire failures. Also, any costs associated with obtaining service, including by way of example, travel costs, are specifically excluded from the coverage of this warranty.

In addition, this limited warranty does not cover any material, component or part of the RV that is warranted by another entity, including, by way of example, handling, braking, wheel balance, muffler, tires, tubes, batteries, gauges, generator, jacks, inverter, microwave, television, VCR, CD player, tape player, radio, speakers, television, refrigerator,



range, water heater, water pump, stove, carbon monoxide detector, smoke detector, furnace or any air conditioner. (Note: The written warranty provided by the manufacturer of the component part is the direct responsibility of that manufacturer).

Defects and/or damage to interior and exterior surfaces, trim, upholstery and other appearance items may occur at the factory. These items are usually detected and corrected at the factory or by the selling dealer prior to delivery to the retail customer. You must inspect your RV for this type of damage when you take delivery. If you find any such defect or damage you must notify the selling dealer at time of delivery to have these items covered by this limited warranty and to have work performed on the items at no cost to you as provided by this limited warranty.

#### **EVENTS DISCHARGING JAYCO FROM OBLIGATION UNDER WARRANTY**

Certain things completely discharge Jayco from any obligation under this warranty and void it. By way of example, the following shall discharge Jayco from any express or implied warranty obligation to repair or replace any defect that results from: any rental or other commercial use or purchase of the RV (as defined in this warranty), any RV sold outside the United States, U.S. Territories or Canada, any defect in a separately manufactured component part, owner neglect or failure to provide routine maintenance (See Owner's Manual), unauthorized alteration, off road use, collision or accident, whether or not foreseeable, including any acts of weather or damage or corrosion due to the environment, theft, vandalism, fire, explosions, overloading in excess of weight ratings, and tampering with any portion of the RV.

#### **LEGAL REMEDIES**

Any action to enforce any portion of this limited warranty, or any implied warranty, shall be commenced within six (6) months after expiration of the warranty coverage period designated above. Any performance of repairs shall not suspend any limitation period from expiring. Any performance of repairs after the warranty coverage period has expired, or performance of repairs regarding any thing excluded from coverage under this limited warranty shall be considered "good will" repairs, and they will not alter the express terms of this limited warranty, or extend the warranty coverage period or this limitation period in this paragraph. In addition, this warranty is not intended to extend to future performance, and nothing in this warranty, or any action of Jayco, or any agent of Jayco, shall be interpreted as an extension of the warranty or this limitation period. Some states do not allow a reduction in the statute of limitations, so this reduction may not apply to you.

#### **WARRANTY REGISTRATIONS:**

Your warranty registration records should be completed and delivered to the manufacturers of component parts. The selling dealership will assist you in completing and filling out the Jayco product warranty registration form. That form must be returned to Jayco within ten (10) days of your taking delivery of the RV. Your Jayco warranty will not be registered unless this warranty registration is completed and received by Jayco. Failure to file this warranty registration with Jayco will not affect your rights under this limited warranty as long as you can present proof of purchase, but it can cause delays in obtaining the benefits of this limited warranty, and it may inhibit any servicing facility's ability to provide proper repairs and/or part replacement.

#### **CARE AND MAINTENANCE**

It is the Owner's responsibility to perform proper care and maintenance of the RV, and to assure correct load distribution. For details regarding this, please see your Jayco owner's manual and the owner's manuals of other component part manufacturers. These outline various care and maintenance that is required to maintain your RV. Please review all manuals supplied with your RV, and contact your selling dealership or supplier of the component part if you have questions. Note: Failure to maintain the RV as noted in those manuals voids this limited warranty, and any damage to the RV as a result of your failure to perform such care, is not covered by this limited warranty.

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

**JAYCO, INC.**  
903 South Main \* P.O. Box 460 \* Middlebury, IN 46540  
Telephone: 574-825-0608  
(800) 283-8267



**Camping** is a great way to enjoy the outdoors with your family and friends. By following the proper precautions and planning, you can help insure a safe, enjoyable and trouble-free trip. We encourage you to develop a family safety plan in case of an emergency or severe weather condition, and practice it with your entire family, especially children.

- ❑ Ask an out-of-state relative or friend to serve as the "family contact." Make sure everyone knows the name, address, phone number and email of the contact person.
- ❑ Draw a floor plan of your RV and find two ways to exit. There should be one way to get out of your RV without opening the door.
- ❑ Teach everyone what the RV safety alarm signals mean and how to be prepared to leave the RV by themselves if necessary.
- ❑ Teach how to check doors and not to open them if the doors are hot. Also teach everyone to stay low to try to avoid breathing smoke, fumes or gases.
- ❑ In case family members are separated from one another, have a plan for getting back together. Decide on a meeting place a safe distance from your RV and make sure everyone understands to wait there.
- ❑ Make sure everyone knows where to go to call the fire department or 911 from outside the RV.
- ❑ Conduct safety drills at least every six months to make sure everyone, including guests, knows what to do to escape safely. Practice evacuating the RV blindfolded; in a real fire situation, the amount of smoke generated may make it impossible to see.
- ❑ Consult your local fire department for additional safety precautions.

*Pets may not be allowed into shelters for health and space reasons. Prepare an emergency plan for pets that includes at least a 3-day supply of dry food and a large container of water. The survival of a beloved pet or valuable livestock will often depend on the plans that its owner has made in advance.*

Familiarize yourself with the following weather terms:

**Warning** - Indicates that a particular weather hazard is either imminent or has been reported. A warning indicates the need to take action to protect life and property. Move to a safe location immediately. The type of hazard is reflected in the type of warning (i.e., tornado warning, blizzard warning, etc.).

**Watch** - Indicates a particular hazard is possible and that conditions are more favorable than usual for its occurrence. A watch is a recommendation for planning, preparation and increased awareness (i.e., to be alert for changing weather, listen for further information and think about what to do if the danger materializes).

## **EMERGENCY WEATHER PLANNING**

One of the more serious conditions you need to take into account when camping is that of the weather, which is subject to change with little or no warning. Earthquakes, hail, flooding, hurricanes, wintry weather, tornadoes — these and other extreme weather conditions can threaten your safety and damage your tow vehicle or RV.

Local radio and TV stations normally broadcast weather conditions and warnings as they occur. Research other methods of learning about severe weather conditions and how to deal with them. You may want to consider investing in a weather radio. Weather radios offer 24 hour-a-day VHF broadcasts of weather observations and forecasts directly from the US National Weather Service. The frequencies used by the US National Oceanic and Atmospheric Administration (NOAA) weather radio stations are 162.400, 162.425, 162.450, 162.475, 162.500, 162.525 or 162.550 megahertz or visit their website at [www.noaa.gov](http://www.noaa.gov).

### **Repairing severe weather damage**

If your tow vehicle or RV becomes an unlucky victim of severe weather damage, you will most likely need repair work. Call your insurance company as soon as you can to report your claim.



**⚠ WARNING**

During severe weather conditions move indoors to a place of safety or shelter as directed by the campground or appropriate authorities. Avoid trees or power lines that could fall on your vehicle. The safest place during severe weather conditions is inside a basement or storm shelter, not an RV or tow vehicle.

*Be aware of the heat index if camping during hot weather. Keep yourself hydrated, and try to stay indoors in an air-conditioned area during a high heat index warning.*

**EMERGENCY EGRESS WINDOW**

The emergency egress window is designed to allow quick exit from the RV during an emergency if access to the main entrance door is not available. Practice opening the egress window before an emergency occurs, and make sure all occupants know how to operate it.

When pulling into your campsite, make sure your egress is not blocked by trees or other obstacles. Verify the area below the window is over solid ground that can be used as an escape path. Do not remove the following label from your RV:



Fig. 2.1 Emergency egress window label

**FIRE SAFETY**

At best, a fire in your RV can delay or ruin a vacation; at worst, it can mean injury, financial loss, and even death. If a fire starts, execute your family safety plan. Make sure everyone knows to stop, drop to the ground and roll

back and forth, shielding their face from the fire with their hands, if their clothes catch fire.

Learn and teach safe fire practices. Build campfires away from nearby trees or bushes. Maintain at least a three-foot clear area free of leaves, dry grass, pine needles, etc., around grills, campfires and/or tents. Supervise children at all times when campfires are burning or grills are in use. Always have a way to extinguish the campfire quickly and completely. Never leave a fire — even a cigarette — burning unattended.

Teach family members how to use the fire extinguisher and replace it as recommended. Do not store combustible materials in closed areas or near a heat source. Do not attempt to use water to put out a grease fire. Water can spread some types of fire and create an electrocution hazard during an electrical fire.

Always call the Fire Department, no matter how small the fire. However, be aware that if a fire threatens your RV, you should not place the call to your emergency services from inside the RV. It is better to get out first and place the call from somewhere else.

More information on fire fighting can be found at the National Fire Protection Association website ([www.nfpa.org](http://www.nfpa.org)).

*If you feel a fire was caused by product failure, contact Jayco Customer Service at 1-800-283-8267 for approval before you clean any debris, enter, move or repair your RV (failure to notify Jayco may result in loss of coverage).*

**FIRE EXTINGUISHER**

A portable fire extinguisher can save lives and property by putting out a small fire or containing it until the fire department arrives; but portable extinguishers have limitations. It is important to recognize when to leave the RV. Because fire grows and spreads so rapidly, the number one priority is to get out safely. The Underwriter Laboratories (UL) classify household fire extinguishers into four types:

Rating	Intended use
<b>Type A</b>	For use on fires involving combustible materials such as wood, cloth and paper.
<b>Type B</b>	For use on flammable liquid fires, including kitchen grease. Never use water on this type of fire!
<b>Type C</b>	For use in fires involving energized electrical equipment.
<b>Type ABC</b>	Works on all three types of fires listed above.

The factory-installed dry chemical fire extinguisher, suitable for extinguishing small fires of the Class B and Class C type, is located near the entry door.

### Operation

 **CAUTION**

Avoid inhaling the dry chemical agent in the fire extinguisher. It is not toxic, but may cause skin irritation. In case of contact, flush the affected area with clean, cool water. If irritation persists, contact a physician immediately.

Keep your back to a clear exit when you use the fire extinguisher so you can make an easy escape if the fire cannot be controlled. If the room fills with smoke, leave immediately. Know when to leave. Fire extinguishers are one element of a fire response plan, but the primary element is safe escape.

There are different types and sizes of fire extinguishers, but for the most part they all work the same way. To operate a fire extinguisher, remember the word **PASS**.

**P**ull the pin. Hold the extinguisher with the nozzle pointing away from you, and release the locking mechanism.

**A**im low. Point the extinguisher at the base of the fire.

**S**queeze the lever slowly and evenly.

**S**weep the nozzle from side-to-side until the fire is out.

### Disposal

Contact your local fire department, sanitation department or environmental protection

department to find out what your local laws stipulate before disposing of your used (non-refillable) factory-installed dry chemical fire extinguisher.

## SMOKE ALARM

Three of the most common fire safety issues are smoking in bed, leaving children unattended and cleaning with flammable fluids. There is no way to guarantee against injury or loss of life in a fire; however, the smoke alarm is intended to help reduce those risks. Individuals with medical problems, or who are hard of hearing, should consider using warning devices that provide both audible and visual signals.

Proper use and care of your smoke alarm may save your life. Smoke alarms can only work if they are properly located, installed, operational and maintained and if smoke reaches them. They are not foolproof. Do not remove the following label from your RV:



Fig. 2.2 Smoke alarm label

### Operation

The factory-installed ceiling mounted smoke alarm is operational once the 9-volt battery is correctly connected. The LED will flash to show the battery is supplying power to the alarm. When the product of combustion is sensed, the smoke alarm sounds a loud alarm that continues until the air is cleared.

### How to test

Stand at arm's length from the smoke alarm when testing. The alarm horn is loud and may be harmful to your hearing. The test button will accurately test all functions. Never use an open flame from a match or lighter to test the smoke alarm; you may ignite and set fire to the smoke alarm and your RV. If the smoke



alarm does not test properly, replace it immediately.

**Battery**

The smoke alarm will not function if the battery is missing, disconnected, dead, the wrong type of battery is used or the battery is installed incorrectly. When the battery becomes weak, the smoke alarm will "beep" (the low battery warning). If the low battery warning sounds, the battery **MUST** be replaced. Never disconnect the battery to silence the smoke alarm.

**CARBON MONOXIDE ALARM**

**⚠ WARNING**

If you are in a RV with either a nearby tow vehicle engine running or the generator (if so equipped) running there is a potential for exhaust fumes to filter back into the RV. Avoid inhaling exhaust gases as they contain carbon monoxide, which is a potentially toxic gas that is colorless and odorless.

Carbon monoxide (CO) is an insidious poison. It is a colorless, odorless and tasteless gas. Many cases of reported carbon monoxide poisoning indicate while victims are aware they are not well, they become so disoriented they are unable to save themselves by either exiting the RV or calling for assistance. Young children and household pets may be the first affected.

The following symptoms are related to carbon monoxide poisoning and should be discussed with all members of the household:

*Mild exposure* - Slight headache, nausea, vomiting, fatigue (often described as "flu-like" symptoms).

*Medium exposure* - Throbbing headaches, drowsiness, confusion, fast heart rate.

*Extreme exposure* - Convulsions, unconsciousness, heart and lung failure. Exposure to carbon monoxide can cause brain damage, death.

The CO alarm is designed to detect the toxic carbon monoxide fumes that result from incomplete combustion, such as those emitted from appliances, furnaces, fireplaces and auto exhaust. A CO alarm is **NOT A SUBSTITUTE** for other combustible gas, fire or smoke alarms.

There are hazards against which carbon monoxide detection may not be effective, such as natural gas leaks or explosions. Individuals with medical problems, or who are hard of hearing, should consider using warning devices that provide both audible and visual signals.

**What you should do if the alarm sounds**

**⚠ WARNING**

Actuation of this alarm may indicate the presence of carbon monoxide that can **KILL YOU**. This alarm will only indicate the presence of carbon monoxide gas at the sensor. Carbon monoxide gas may be present in other areas.

The CO alarm will automatically sense when the level of carbon monoxide in the air reaches dangerous levels. You should stay outside the RV in fresh air until the CO alarm is silenced. When the CO alarm sounds, do not stand too close to it. The sound produced by the CO alarm is loud because it is designed to wake a person in an emergency. Prolonged exposure to the CO alarm at a close distance may be harmful to your hearing.

1. Operate the RESET/SILENCE button.
2. Immediately move to fresh air (outdoors or by an open door or window) and execute your family safety plan.
3. Do not re-enter the premises. If you are unable to exit the premises do not move away from the open door or window until the emergency service responders have arrived, the premises have been aired out and your CO alarm remains in its normal condition.

If your CO alarm reactivates within a 24-hour period, repeat steps 1-3 and call a qualified

appliance technician to investigate for sources of carbon monoxide from fuel burning equipment and appliances, and inspect for proper operation of this equipment (if problems are identified during this inspection, have the CO alarm replaced immediately). Note any combustion equipment not inspected by the technician. Make sure that any motor vehicle is not and has not been operating in an attached garage or adjacent to your RV.

### Batteries

The CO alarm will not function if the batteries are missing, disconnected, dead, the wrong type of battery is used or the batteries are installed incorrectly. When the batteries become weak, the CO alarm will "beep" (the low battery warning). If the low battery warning sounds, the batteries **MUST** be replaced. Never disconnect the batteries to silence the CO alarm.

### Testing the CO alarm

Press and hold the test/reset button on the front of the CO alarm for several seconds. If the CO alarm does not test properly, replace it immediately. Do not remove the following label from your RV:

**WARNING**

Test device operation after vehicle has been in storage, before each trip, and at least once per week during use.

**AVERTISSEMENT**

Faire l'essai des appareils utilisés dans les véhicules de plaisance après toute période de remisage, avant chaque voyage et une fois par semaine lorsqu'ils sont en cours d'utilisation.

Fig. 2.3 CO alarm testing label

### Maintenance

The CO alarm is pre-calibrated at the OEM factory and requires no maintenance other than to clean the outside casing occasionally with a cloth. Ensure that the holes on the front of the CO alarm are not blocked with dirt and dust. **DO NOT USE CLEANING AGENTS, BLEACH OR POLISH.**

 **WARNING**

If the CO alarm is not maintained and functioning properly according to OEM supplied instructions, you will not be warned if carbon monoxide is present in the air. Death or serious illness could result from asphyxiation (inability to breathe) if carbon monoxide is present.

### PROPANE ALARM

 **WARNING**

The alarm cannot detect propane or sound a warning for two minutes after it has been turned on. The propane leak alarm is not a smoke or fire alarm. The alarm will only indicate the presence of propane gas at the sensor. Explosive gas may be present in other areas.

For your safety protection, a new RV that contains a propane gas system with propane consuming appliances must have a propane leak detection device. Because the chemical composition of propane is heavier than air, the propane alarm is located near the floor of the RV (leaking propane tends to flow to and pocket in low areas). A lit green LED indicates when the factory-installed alarm is active. Individuals with medical problems, or who are hard of hearing, should consider using warning devices that provide both audible and visual signals.

This alarm is designed to sense the presence of propane gas; however, there are other combustible fumes or vapors that may be detected by the sensor including (but not limited to) acetone, alcohol, butane and gasoline. These chemicals can be found in commonly used items such as deodorants, colognes, perfumes, adhesives, lacquer, kerosene, glues, wine, liquor, most cleaning agents and the propellants of aerosol cans. High temperatures can activate glue and adhesive vapors. If you close up your RV on a hot day, the chemicals used in its construction may be detected for months after the vehicle was constructed (see Formaldehyde).



**If the alarm sounds**

1. Turn off all propane gas appliances (i.e., stove, water heater, furnace, etc.).
2. Open all windows and roof vents and execute your family safety plan.
3. Turn OFF the propane tank valve.
4. Do not touch any electrical switch or use any phone or radio in the RV.
5. Do not start any vehicle engine or generator.
6. Determine and repair the source of the leak.
7. Do not re-enter the RV until the problem is corrected.

If the propane alarm keeps sounding at regular intervals, a propane leak may be present. Contact your dealer or propane gas service to have the problem corrected before using the propane system again.

**Testing the propane leak alarm**

If the propane alarm does not test properly, replace it immediately. Do not remove the following label from your RV:

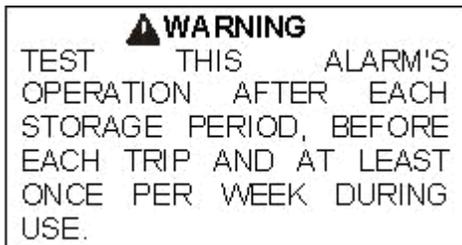


Fig. 2.4 Propane alarm testing label

**Battery or converter power source**

**⚠ WARNING**

The propane alarm should never be disabled because of nuisance or low battery alarms. If the auxiliary battery cable is disconnected, and other 12-volt power is not available, the propane alarm will not work and you will not be warned if leaking propane is present.

The propane alarm is powered by 12-volt DC through the converter or from an auxiliary battery. This propane alarm is continuously

drawing a small amount of 12-volt current; although this current draw is slight, it could drain your auxiliary battery during extended storage periods. If the auxiliary battery becomes extremely drained, the LED light on the face of the alarm will not light or the alarm may begin to sound on its own. This condition is not likely to occur except during storage situations.

**FUEL SAFETY**

For your protection and others, it is critical to understand the danger associated with fuel. Take time to become educated about the property of fuel and use it safely. If you spill fuel on the RV, clean it up immediately. Fuel can dull or soften paint and damage other surfaces. Use care when fueling your RV.

**⚠ DANGER**

Automotive fuels can cause serious injury or death if misused or mishandled. If you have further questions, consult your dealer or Jayco Customer Service for assistance.

- ❑ Always shut OFF the tow vehicle engine while refueling.
- ❑ Do not bring or store fuel or other flammable liquids inside the RV because a fire or explosion may result.
- ❑ Before refueling, extinguish all smoking materials and any open flames.
- ❑ Before refueling, always turn OFF all spark producing appliances (i.e., water heaters, furnaces, etc.).
- ❑ Do not overfill the fuel tank(s). The pressure in an overfilled fuel tank may cause leakage and lead to fuel spray and/or fire.
- ❑ Fuel spills represent a serious fire hazard, and should be cleaned up immediately.
- ❑ Never restart an engine or re-light any pilot lights while raw fuel is present.

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

To help ensure your traveling enjoyment, call ahead for tourist information in each area that you will be visiting or traveling through. To help eliminate frustration, make sure you obtain the most current road maps. Research and make sure there are no federal, state or local regulations that may prohibit you from fully enjoying your camping adventure.

- ❑ Arrange for someone to check your house periodically while you are away. Stop mail or newspaper delivery.
- ❑ If you intend to be away for more than two weeks, you may want to consider requesting police surveillance for your house.
- ❑ Carry an extra set of vehicle and house keys with you on a separate key ring.
- ❑ Be sure to renew your license if it has expired, or will expire during your trip.

If you are planning to visit other countries, contact the consulate nearest the point at which you plan to enter that country for the specific and most current information (including rules for re-entering the United States).

**Always carry your vehicle registration, insurance policy card(s) and warranty registration.**

## TOW VEHICLE

If you plan to tow your RV with a tow vehicle you already own, contact your automotive dealer to find out your vehicle towing capacity. If you plan to purchase a new tow vehicle, be certain to tell your automotive dealer the GVWR, size and type of RV that you will be towing (some tow vehicles can be purchased with an optional tow package). As a minimum requirement, the Gross Vehicle Weight Rating (GVWR) of your RV must not exceed your tow vehicle's towing rating.

*Some automotive manufacturers publish brochures that discuss towing considerations. Ask your automotive dealer how to obtain a copy of this information. If applicable, verify if the brochure ratings are listed "with" or "without" an optional tow package.*

## VEHICLE IDENTIFICATION NUMBER (VIN) EXPLAINED

The 17-digit VIN is the legal identification of the completed RV and provides information unique to your camper. It is located on an exterior frame cross member (usually on the third or fourth cross member under the camper, forward of the bumper).

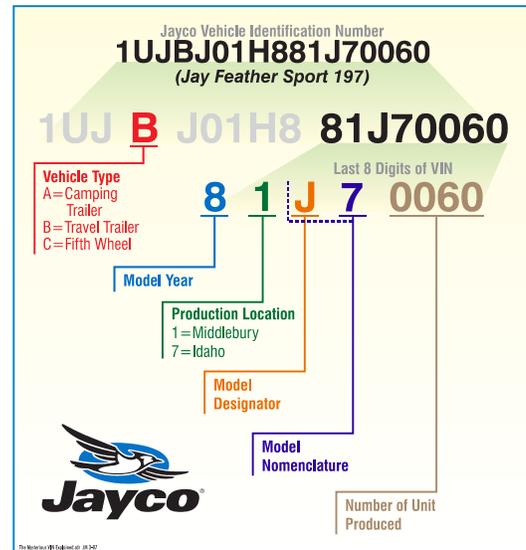


Fig. 3.1 VIN example

A serial number is needed whenever making an appointment or ordering replacement parts from your dealer. The serial number is the last 8-digits of the VIN (in the example shown, the serial number is 81J70060).

## VEHICLE LABELS

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

*Keep a record of the 17-digit vehicle identification number (VIN) and your license number in the event theft or vandalism requires you to supply this information to the authorities.*

**WEIGHT LABELS**

## ⚠ WARNING

The factory-installed weight labels are specific to the recreation vehicle for which they are supplied and are not interchangeable.

Vehicle weight labels are posted on Jayco manufactured RVs so you can make an informed decision before your purchase. Do not remove these labels from your RV. If the labels are missing, contact your dealer or Jayco Customer Service for replacements.

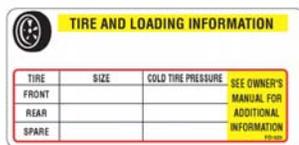


Fig. 3.2 Tire and Loading Information



Fig. 3.3 Federal Certification label

**TRAILER WEIGHT INFORMATION**

VIN or SERIAL NUMBER: \_\_\_\_\_  
 MODEL: \_\_\_\_\_

**GVWR** (Gross Vehicle Weight Rating) is the maximum permissible weight of this trailer when separated from the tow vehicle.  
**UVW** (Unloaded Vehicle Weight) is the total weight of this trailer as manufactured at the factory when separated from the tow vehicle. If applicable, it includes full generator fuel, engine oil, and coolant.  
**CCC** (Cargo Carrying Capacity) is equal to GVWR minus one of the following: UVW, full fresh (potable) water weight (including the water heater), full propane weight.  
**GCWR** (Gross Combination Weight Rating) means the value specified by the trailer manufacturer as the maximum allowable weight of this trailer with its towed trailer or towed vehicle.

\*\*The GCWR of this trailer is: \_\_\_\_\_

**CARGO CARRYING CAPACITY (CCC) COMPUTATION**

Pounds / Kilograms (kg)

GVWR: \_\_\_\_\_  
 Minus UVW: \_\_\_\_\_  
 Minus fresh water weight of \_\_\_\_\_ gallons @ 8.33 Lbs./gal. ....  
 Minus propane weight of \_\_\_\_\_ gallons @ 4.24 Lbs./gal. ....  
 CCC for this trailer\*: \_\_\_\_\_

\*Dealer installed equipment will reduce the CCC.  
 \*\*This trailer is not recommended or intended to be used to tow any other vehicle or trailer.

CONSULT OWNER MANUAL(S) FOR SPECIFIC WEIGHING INSTRUCTIONS AND TOWING GUIDELINES.

Fig 3.4 Trailer Weight Information label

You may question the total weight capacity of the tires on your RV being less than the GVWR; this is correct. In order to calculate the actual weight on the RV tires, it is necessary to include the tongue weight. The tongue weight is actually being carried by your tow vehicle, not the RV tires.

*For example: If the tires are rated at 2,000 lbs. each x 4 tires = 8,000 lbs. and the RV has a GVWR of 9,000 lbs. with a tongue weight of 1,200 lbs. The actual weight on the RV tires is 7,800 lbs. which is within the weight rating of the tires.*

If you have further questions, please contact your dealer or Jayco Customer Service.

**HITCH (CUSTOMER SUPPLIED)**

## ⚠ CAUTION

Using an oversized or undersized hitch can cause damage to the RV frame. Jayco cannot be responsible for the tow vehicle suspension system. The final ball height after the tow vehicle/travel trailer combination is completely hooked up is a factor that must be considered. To avoid overloading your trailer axles and minimize possible handling difficulties, your trailer should be level when hooked to your tow vehicle. Do not overload your tow vehicle.

Hitch selection is important because it affects the towing and handling characteristics of your RV. There are many kinds of hitches available for various uses and assuring that you have the correct hitch installed is critical to a safe towing experience.

Ask your dealer about the proper class and type of hitch you need to purchase for your individual tow vehicle/RV combination (a travel trailer requires a frame mounted hitch; a fifth wheel requires a pin box hitch bolted directly to the floor of the truck box through the frame). Fifth wheels have a factory-installed standard pin box that is not interchangeable.

The hitch manufacturer assigns a hitch class rating based on the capacity that hitch has for towing and a weight classification. The weight classification is determined from the hitch's weight carrying capacity (also known as the tongue weight on a travel trailer). Before selecting a hitch, you must know your GVWR and tongue weight or pin box rating.

Maintain the proper tongue weight of the trailer. Stay within the target range of 10%-15% of the overall gross weight (travel trailer weight plus contents). Fifth-wheels typically maintain 25% of their overall gross weight (trailer weight and contents) on the hitch.

Equipment that sometimes gives autos, trucks and sport utility vehicles a softer ride can accentuate swaying when pulling a RV; conversely, suspension that is too stiff will increase vibration, bounce and accelerate wear of your tow vehicle and trailer. Educate yourself to protect you, your family and other motorists.

**The rating of the hitch package purchased should be equal to or greater than the RV's GVWR and the hitch weight (or pin box rating).**

## HITCH HEIGHT & HITCH BALL

This unit hitch height is:

To determine the hitch height for your model, make sure that the trailer is level. When the loaded RV is hitched to the tow vehicle, check the hitch ball height. This can be determined by measuring the distance from the center of the hitch ball to the ground. Record this number in the box for future reference.

Adjust the equalizing bars of the hitch assembly so that the tow vehicle and the trailer are essentially level. A high hitch will transfer weight behind the axles and cause the vehicle to fishtail. A low hitch will transfer additional weight to the hitch. Refer to the hitch manufacturer instructions to adjust the weight-distributing hitch to the proper height.

If you have additional questions, consult with your dealer. Jayco cannot be responsible for the suspension system of any tow vehicle. There are a variety of tow vehicle suspension systems available that will affect the ball height,

stability and levelness of a hooked up RV. Make certain your Dealer is aware of the tow vehicle you are using so a compatible hookup is achieved. Depending on the model, your required travel trailer hitch ball diameter is either 2" or 2-5/16" (consult your dealer for assistance).

*There is no recommended hitch height for fifth-wheel travel trailers; usually the fifth wheel pin box is adjustable for variance in trucks and truck suspension systems.*

## SWAY CONTROL (CUSTOMER SUPPLIED)

### WARNING

A sway control device (customer supplied) should be used with your tow vehicle/travel trailer combination. Consult with your Dealer to obtain the proper equipment for your needs.

Sway control devices are available to reduce the sway produced by crosswinds, air displacement caused by other vehicles passing you in transit, incorrect weight distribution, excessive speed, the RV tires dropping onto the shoulder of the road, etc. You will also want to discuss this purchase with your Dealer.

The use of a sway control device will help to control the side-to-side movement and keep sway in check.

Suggestions for sway situations:

- Slowly ease your foot off the accelerator.
- Turn the steering wheel as little as possible. Natural lag time reaction when counter-steering to correct sway could possibly make it worse.
- If the trailer is equipped with electric brakes, using the hand control will help to keep the vehicles aligned.
- As soon as possible, stop to determine the cause of the sway. Check all equipment and load distribution. If the problem cannot be solved immediately,



contact your Dealer for a service appointment (travel at a very reduced speed on your way there).

## **WEIGHT DISTRIBUTING SYSTEM (CUSTOMER SUPPLIED)**

A weight distributing hitch system provides a more stable tow vehicle/RV combination. This system will spread the weight evenly to distribute it to the tow vehicle front and rear axles and the trailer axle. Consult with your dealer to familiarize yourself with the operation and requirements of the weight distributing hitch system. Be certain your tow vehicle can carry the hitch weight.

## **RV BRAKE SYSTEM**

### **⚠ WARNING**

Failure to maintain the brakes in proper working condition as specified in the operator's manual supplied by the axle OEM will cause property damage, personal injury and possibly death. Consult with your dealer for assistance.

The electric brakes are designed to work with the tow vehicle brakes. To maintain proper braking performance, both the RV and tow vehicle brakes must be used together. Separate use of the braking systems will cause accelerated wear and damage.

**When your RV is new, it is impossible to adjust the brake shoes precisely. It takes approximately 1,000 miles and/or 50 medium to heavy stops to "burnish" fit or "seat" the shoes to the brake drum. After the initial break-in period your brake shoes must be adjusted accurately for best performance and increased durability.**

Braking system components include:

- Tow vehicle battery
- Brake controller
- Wire harness/connector plug
- Trailer battery
- Breakaway switch

## **Tow vehicle battery**

The tow vehicle battery is the primary source of power for your RV's electric brake operation. To ensure available power when needed, keep your tow vehicle battery and charging system working properly.

## **Brake controller (customer supplied)**

The brake controller should be installed in the tow vehicle to work in conjunction with the RV electric brakes. Consult with your dealer or the brake controller OEM to decide what is right for your towing combination.

## **LOADING YOUR RV**

### **⚠ WARNING**

Never load the RV in excess of the GAWR for either axle. Overloading your RV may result in adverse handling characteristics and damage to the chassis.

### **⚠ WARNING**

**DO NOT EXCEED YOUR GVWR!** This means you should weigh your RV as loaded for your normal travel to determine the actual weight. If you exceed the GVWR, you **MUST** remove items from the RV, or drain liquids, then re-weigh the vehicle to ensure you have achieved a safe weight. Do not travel with full grey/black holding tanks. This not only wastes gas but, depending upon the location of the grey or black holding tanks, can affect handling characteristics.

Decide on the various items of food, clothing, equipment and other supplies you will need for the length and destination of your trip. Store and secure all loose items inside the RV before traveling. Overlooked items such as canned goods, or small appliances on the countertop, cooking pans on the range or free-standing furniture items can become dangerous projectiles during a sudden stop.

Distribute cargo side-to-side so the weight on each tire does not exceed one-half of the GAWR for either axle. For traveling safety, it is important to make sure any tie down straps (if so equipped) on appliances or furniture are secured.

## WEIGHING YOUR TOW VEHICLE & RV

### WARNING

Store items in areas designated for storage. Do not store anything in the areas reserved for the converter, electrical panels or the furnace or water heater, etc.

Now that your RV is loaded you should have it weighed. The actual weight of the RV, passengers, all options, liquids, the hitch weight of your towed vehicle and your personal cargo is important for you to know so you do not exceed the GVWR.

There are two important factors when loading your RV, total weight and balance. It is imperative that you verify compliance within all applicable weight ratings. Overloading your RV will void the **Towable Limited Warranty** and the warranties of many component part manufacturers.

**Have your RV weighed periodically at a public scale to determine the proper load distribution.** Keep in mind that individual scales will operate differently. The surroundings of the scale need to be adequate to accommodate weighing each side of your RV.

### To weigh your tow vehicle and RV

### WARNING

**Total weight of your tow vehicle and RV must not exceed the GCWR.** Do not assume that you can tow a RV that happens to be within the capacity of the tow vehicle hitch. By doing so, you may exceed the total GCWR of your tow vehicle and RV towing combination.

### WARNING

It is important to redistribute the load to avoid component failure as well as to improve the handling characteristics of the vehicle.

Read through all the weighing instructions before you begin. If you have further questions, consult with your dealer or the scale operator. Your RV must be weighed fully loaded (that is with food, clothing, fuel, water, propane, supplies, etc).

1. Weigh the RV including the tongue weight, while detached from the tow vehicle. This actual overall weight must be less than or equal to the GVWR for safe operation. If the overall weight is greater than the GVWR, some contents must be removed until the actual overall weight is less than or equal to GVWR.
2. Hitch the RV to your tow vehicle. Weigh the RV and the tow vehicle to determine the GCW. Make sure that this rating is less than or equal to the GCWR as specified by the manufacturer of your tow vehicle. If this overall weight is greater than the GCWR, some contents must be removed to bring the combination into compliance with the listed ratings.
3. Weigh the RV while attached to but excluding the tow vehicle. This will result in the actual weight that is exerted on all of the RV tires. This weight may be subtracted from the overall RV GVWR to determine the actual "tongue" weight.
4. With the RV still attached to the tow vehicle, weigh each wheel position separately to ensure each tire is not overloaded.

### To determine the wheel position weight:

5. Pull the RV onto the scale so only one tire is on the scale. Record the weight. Your RV must remain as level as possible on the scale (even though an axle or side is not physically on the scale). Obviously, to obtain the side-to-side weights, there must be enough



space on either side of the scale to accommodate the RV being partially off the scale.

6. To calculate the opposite side of the RV wheel position weight, subtract the first side's weight from the weight determined in step #3.

If there is a difference in the weights on one side of the vehicle as compared to weights on the other side, components (tires, wheels, brakes, springs, etc.) on the heavier side could be overloaded, even though the total axle load is within the GAWR. It is important to redistribute the load to avoid component failure, improve the handling characteristics of the tow vehicle and not void the **Towable Limited Warranty**.

*With these actual weights, it is now possible to compare them against the Trailer Weight Information label weight ratings to ensure you are below the posted minimum ratings.*

## **FIRST SHORT TRIP**

After familiarizing yourself with the RV, including going through test runs on the systems and having the RV weighed, it is time to take one or two short trips. The experience gained can be priceless.

We recommend an overnight stay at a nearby campground. That way it is more convenient if you need to go back to get an item you forgot or didn't know you would need. Otherwise, you may end up spending time or money needlessly by bringing along unused items that take up space or trying to locate and purchase items you hadn't counted on needing prior to leaving your home on an extended trip in unfamiliar territory.

Not all RVers will need the same equipment or supplies. For example, individual needs and personal tastes differ, as does the various climates and terrains you will be traveling through with your RV.

Remember if most of your trips are planned for the summer and your shake down trip is made during some other season, there will be adjustments that you will need to take into consideration.

*Be sure to have a pen and notebook available to write down items that you feel may be needed in future travels, as well as noting the equipment you feel you need to become more comfortable using or learning how to operate safely.*

### **RV Departure Checklist**

Following is a preliminary list of items that need to be checked on your RV before leaving your home or campsite. As you camp, you may want to develop your own list tailored to your individual camping style in addition to the checklist provided:

- Check the area under the RV after overnight parking and look for water or other fluid leaks. If leaks are detected, find the cause and have it repaired immediately.
- Have someone observe the operation of all exterior lights while you activate the controls.
- Check wheel lug nuts for tightness and tires for proper air inflation pressure.
- Examine the tires for excessive tread wear or uneven wear patterns. Check for stones, nails, glass or other objects lodged in the tread. Inspect for tread cuts or sidewall cracks.
- Check the propane cylinder gauge to make sure there is propane available.
- Retract any awning(s) and secure them for transport.
- Close all the roof vents.
- If so equipped, disconnect any cable TV or phone hookups and lower the TV antenna.
- Turn off the interior lights and appliances.
- Secure any loose, heavy or sharp objects in the RV or exterior compartments.
- Disconnect the shore line power cord and ensure it is stored correctly.
- Fasten all interior and exterior doors securely. Lock them (if applicable).

- ❑ Make sure the stabilizer jacks and entry step are retracted to the travel position.
- ❑ Make sure the tongue jack (travel trailer) is retracted to the travel position and the dolly wheel removed.
- ❑ Walk around your RV one last time to make sure everything is stored away and the baggage compartments are closed and locked.
- ❑ Pull forward, clean the site (if applicable) and check for forgotten items.
- ❑ Secure and lock the entrance door.

### **Pre-travel Checklist**

In order to enjoy your travel, having all the right tools and supplies will help. A checklist may be beneficial to avoid forgetting something essential. This list is meant to be a starting point, while realizing that personal preference will also play a large role in your packing. There are items here that may not apply for you and items that could trigger other ideas. As you expand your camping experience, you may wish to develop your own list of needs.

#### Before leaving home

- \_ All list items packed in tow vehicle/RV
- \_ Arrange for pet care, mail and/or newspaper pickup
- \_ Disposable rubber gloves
- \_ Lock refrigerator door (if so equipped)
- \_ Leave itinerary with a neighbor, family member or friend
- \_ Map/road atlas/campground directory
- \_ Membership cards
- \_ Owner Manual and Goodie Bag
- \_ Proof of insurance
- \_ Road flares
- \_ Roadside assistance membership card and/or policy
- \_ RV keys
- \_ Secure loose items
- \_ Security watch for house (neighbor/family/friend)
- \_ Vehicle registration
- \_ Weigh fully loaded trailer (people, cargo and liquids included) and maintain proper weight distribution (redistribute as necessary)

#### Bedding

- \_ Blankets
- \_ Comforters
- \_ Pillows
- \_ Sheets
- \_ Sleeping bags

#### Kitchen

- \_ Aluminum foil, plastic wrap, etc.
- \_ Charcoal and lighter fluid
- \_ Cooking utensils
- \_ Dish soap
- \_ Dish towels and rags
- \_ Food supplies
- \_ Paper plates, towels, napkins, coffee filters, etc.
- \_ Pots & pans
- \_ Trash bags and/or paper sacks

#### Personal Supplies

- \_ Clothing
- \_ Laundry detergent
- \_ Toiletries
- \_ Towels - beach and bath

#### Recreation

- \_ Campfire supplies
  - \_ fire grate for cooking
  - \_ firewood, newspapers and/or kindling
  - \_ matches in waterproof container and/or utility lighter
  - \_ skewers, pie irons, etc.
- \_ Games - cards, board, dice
- \_ Lawn chairs
- \_ Outdoor activity equipment (fishing poles, tennis rackets, etc.)

#### Supplies

- \_ Bug spray
- \_ First aid kit
- \_ Flashlight(s)
- \_ Sun screen
- \_ Toilet paper

#### RV

- \_ Check lights
  - \_ brake lights
  - \_ clearance lights
  - \_ turn signals
- \_ Check tire pressure (including spare tire)
- \_ Check tire wear (uneven wear pattern)
- \_ Check wheel lug torque



### SECTION 3 PRE-TRAVEL INFORMATION

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- \_ Proper tongue weight maintained (10-15% of gross weight – travel trailer and contents)
- \_ Safety pin or locking lever must be seated (if applicable)
- \_ Secure shore line power cord
- \_ Surge protector
- \_ Telephone and/or cable wire (if applicable)
- \_ Test brakes for proper operation
- \_ Tools
  - \_ AC voltage tester
  - \_ axe
  - \_ duct tape
  - \_ fuses and light bulbs (compatible with your RV)
  - \_ jack
  - \_ jumper cables
  - \_ rope, cord, bungee cord(s) or wire
  - \_ saw (bow or folding)
  - \_ shovel (small folding)
  - \_ tire pressure gauge
  - \_ tool kit (screws, hammer, pliers, etc.)
  - \_ torque wrench
  - \_ work gloves
- \_ Trailer is level
- \_ Trailer safety chains connected (if applicable)
- \_ Wheel blocks removed

**D**riving safety and protection against injury cannot be fully ensured. However, we recommend you pay special attention to the following:

- ❑ The use of daytime running lights can increase other motorists' awareness of the RV to all traffic.
- ❑ Keep the tires inflated to the specified levels. Replace the tires before they are excessively worn.
- ❑ Before changing lanes, check the outside rearview mirrors for other vehicles and activate the appropriate turn signal to alert other drivers.
- ❑ While driving, watch the behavior of other drivers, bicyclists and pedestrians. Always follow all traffic laws and regulations. Pay attention to traffic and road conditions. Be a courteous and alert driver. Always leave room for unexpected events, such as sudden braking.
- ❑ Never drive when you are sleepy or tired. Never drive when alcohol, drugs or medication have affected your judgment, reflexes or alertness.
- ❑ Obey all traffic laws and use your seatbelts at all times. Many states have lower speed limit requirements for tow vehicle/RV combinations. We recommend that you do not exceed the posted speed limit when towing an RV.
- ❑ Driving with the propane system on can add to the danger if you are involved in an accident or have a fire. Most refrigerators will keep food cold or frozen for eight hours without running while you travel. Shut the propane system off at the propane cylinder.
- ❑ Adverse weather conditions and extremes in terrain may affect the performance and handling of your tow vehicle. Do not operate the tow vehicle cruise control on icy or extremely wet roads, winding roads, in heavy traffic or in any other traffic situation where a constant speed cannot be maintained.

## WARNING

Do not leave children or pets unsupervised in the vehicle (even if children are secured by a child restraint system). They could:

- ❑ Injure themselves on parts of the vehicle.
- ❑ Unlock and open the entry door, or open the emergency exit window, and then possibly injure other persons or damage property.
- ❑ Get out of the vehicle and either injure themselves when doing so or they could be injured by passing vehicles.
- ❑ Be seriously or even fatally injured by prolonged exposure to extreme heat or cold.

## WARNING

Do not expose child restraint systems to direct sunlight. Metallic parts of the child restraint system could heat up, for example, and the child could be burned or injured.

## WARNING

You must observe the law if you are driving when operating a cell phone in your tow vehicle. If it is permitted to operate a cell phone while the tow vehicle is in motion, you must only operate it when road and traffic conditions permit. You may otherwise be distracted from the traffic conditions, cause an accident and injure yourself and others.

Some cell phones may interfere with your tow vehicle electronics and thereby jeopardize the operational safety of your tow vehicle (to research this further, contact your tow vehicle dealer or manufacturer for additional information).



## RV DRIVING SCHOOLS & SEMINARS

If you have any concerns about driving while towing a RV, consult an expert for specific RV driver education. There are private RV schools and some RV owner's organizations that offer driving seminars. The schedules and locations of the various RV driver education seminars and schools can be researched through RV-related publications and internet sites.

*Use caution when using the internet as a resource tool. Verify the information is from a credited and reliable source in the RV industry, and it pertains to your RV. If in doubt, contact your dealer or Jayco Customer Service.*

## DRIVING & ALCOHOL

### **WARNING**

Driving after drinking or taking drugs (including some prescriptions and/or over-the-counter medications) can lead to an accident. Studies have shown perceptions are less sharp, reflexes are slower, drowsiness may be experienced and/or judgment may be impaired.

The presence of alcohol in significant levels in the blood increases the probability that the driver will be involved in an accident. Exercise your good judgment and encourage others to do the same. Know the legal alcohol limits and do not exceed them. Be aware of your personal limits, which may be lower than the legal limits. Should you ever exceed your limits or find your driving is impaired, find alternative transportation. **NEVER DRINK AND THEN DRIVE.**

## BREAKAWAY SWITCH

### **CAUTION**

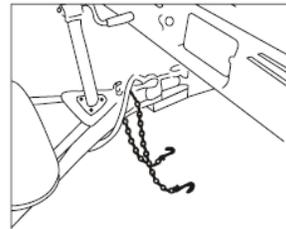
**NEVER** use the breakaway switch and trailer brake system as a parking brake. Doing so would create a high amp draw on the battery and converter. This can cause damage to wiring, connectors and the breakaway switch.

The breakaway switch is a crucial part of the RV braking system. Located on the travel trailer A-frame or fifth wheel pin box, this switch will apply the trailer brakes if the trailer becomes detached from the tow vehicle. Attach the breakaway switch lanyard to a permanent part of the tow vehicle (on a travel trailer do not attach it to the hitch ball or similar removable parts) when hitching the trailer. If the RV becomes detached from the tow vehicle, the pull pin will be pulled from the switch. This automatically causes the switch to “close” and activates the RV brakes.

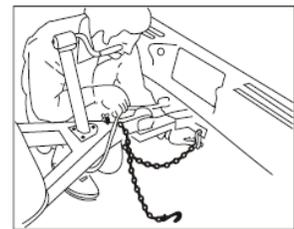
**A battery (customer supplied) must be installed to activate the breakaway switch.**

## SAFETY CHAINS

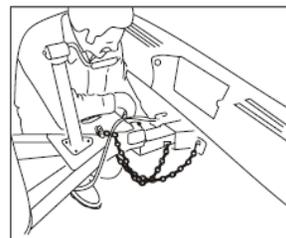
Safety chain requirements vary from state to state. Your RV is equipped with chains to meet SAE standard requirements for maximum gross trailer weight. Always have the safety chains attached when towing. Install them as shown below so they do not restrict sharp turns, but tight enough so they do not drag on the ground.



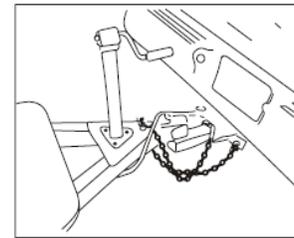
1. Inspect chains to determine if they are properly attached to trailer frame.



2. Criss-cross left chain and attach to right mounting slot in tow vehicle hitch.



3. Repeat step 2 with right chain. Slack for each length should be the same but not more than necessary to permit the vehicle to turn at their minimum radius.



4. Properly mounted safety chains. Note that the jack is fully raised and dolly wheel removed.

Fig. 4.1 Safety chain installation

Crisscross the left safety chain under the coupler and attach to the right mounting slot in the trailer hitch; repeat with the right

safety chain. Slack for each length should be the same but not more than necessary to permit the vehicle to turn at its minimum radius.

## WIRE HARNESS/CONNECTOR PLUG

A 7-way wire harness/connector plug is wired into your trailer to connect electrical power from the tow vehicle for travel. This supplies power to the RV brakes, tail lights, clearance lights, turn signals, brake lights, etc. Wiring to operate your brakes must be the same size in both the tow vehicle and RV (the RV brake wiring is 12-gauge wire). When attaching wires to your tow vehicle, carefully and tightly tape all the connections for moisture protection.

White	1	Ground
Blue	2	Brakes
Green	3	Running lights
Black	4	Auxiliary battery charge line
Red	5	Stop & left turn
Brown	6	Stop & right turn
Yellow	7	Back up

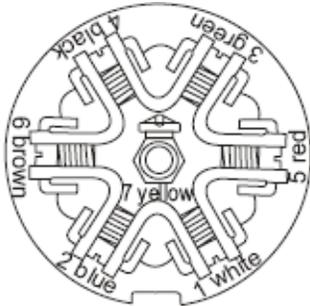


Fig. 4.2  
7-way trailer plug  
Car end, rear view

The connector plug may build up corrosion with extended use and should be cleaned periodically to insure good electrical contact. Make sure the connector plug is kept clean and protected from road elements as you travel.

## STABILIZER JACKS

 **WARNING**

**DO NOT USE THE STABILIZER JACKS TO LEVEL THE RV.** It is important to remember that the stabilizer jacks are to be used only for support while occupying and moving around the RV. They are not designed to bear the weight of the RV.

1. Each stabilizer jack can be individually adjusted to stabilize the trailer for use.
2. When setting your RV up on soft ground, you may wish to place a wood pad or the equivalent under each stabilizer jack foot. This will help keep the stabilizer jack from sinking into the ground.
3. To lower each jack, insert the jack crank onto the applicable stabilizer jack shaft.
4. Turn the crank clockwise to lower each leg until it contacts the ground and stabilizes the trailer.

To raise each jack, insert the jack crank onto the applicable stabilizer jack shaft and turn the crank counter-clockwise.

**The stabilizer jacks must be fully retracted before moving or towing the RV to prevent stabilizer jack damage.**

## TRAVEL TRAILER HITCHING PROCEDURE

Hooking up your RV will become easier with practice. The following procedure will help until you become more experienced.

1. Make sure the trailer wheels are blocked.
2. Turn the tongue jack crank to raise the travel trailer tongue above the hitch ball.
3. Open the coupler latch on the travel trailer hitch.
4. Back the tow vehicle into the proper position.
5. Turn the tongue jack crank to lower the coupler onto the hitch ball.
6. Close the coupler latch after it is completely seated.
7. Install the (customer supplied) weight distributing bars (equalizers) as directed by the OEM.
8. Remove the dolly wheel or platform and retract the tongue jack to its maximum height.



9. Attach the breakaway switch cable to the tow vehicle.
10. Walk around the RV to verify exterior lights are working correctly.
11. Attach the safety chains.
12. Plug in your wire harness/connector plug from the tow vehicle to the travel trailer.
13. Remove the trailer wheel blocks.

*If an Atwood brake actuator is used with an equalizing hitch, be sure the hanger chains hang between straight down and forward up to 34°. Do not use less than 6-1/2" hanger chain length. For optimum brake performance, hang chains forward 34°. Refer to OEM manual for more information.*

### **FIFTH WHEEL LANDING GEAR**

#### **⚠ WARNING**

**DO NOT USE THE FIFTH WHEEL LANDING GEAR TO SUPPORT THE TOW VEHICLE WEIGHT.** The fifth wheel landing gear is designed to bear the front loaded weight of the RV only.

The fifth wheel landing gear can be operated manually. The fifth wheel landing gear must be fully retracted before moving or towing the RV to prevent damage.

### **FIFTH WHEEL HITCHING PROCEDURE**

Hooking up a fifth wheel will become easier with practice. The following procedure will help until you become more experienced.

1. Make sure the trailer wheels are blocked.
2. Make sure the hitch lever is in its open or "cocked" position unless it has been designed to open automatically. Adjust the fifth-wheel travel trailer pin to the proper height. Lower the tailgate, if applicable.
3. Back the truck so the hitch encircles the fifth-wheel travel trailer pin.
4. A gentle contact of the hitch saddle against the pin will cause the mechanism to close.

5. Secure the hitch lever as specified by the manufacturer.
6. Put the truck in drive (DO NOT press on the accelerator) and 'bump' the hitch to make sure it is locked.
7. Be sure to raise the fifth-wheel landing gear all the way up.
8. Attach the breakaway switch cable to the tow vehicle.
9. Plug the wire harness/connector plug from the tow vehicle to the fifth wheel.
10. Raise the tailgate of the tow vehicle, if applicable.
11. Remove the wheel chocks from the trailer wheels

### **TOWING**

#### **⚠ WARNING**

Your RV braking system is rated for operation at GVWR not GCWR.

#### **⚠ WARNING**

Whenever possible, do not travel with waste in the holding tanks. Liquid or debris in the holding tank(s) may affect the towing characteristics and may result in property damage or personal injury.

You will find that your RV will travel safely and comfortably at most posted trailer highway speed limits. However, it will take longer than a passenger automobile to reach that speed. Keep this in mind when overtaking and passing another vehicle. Allow more time to go around the vehicle you are passing. You cannot cut back into the traffic lane as quickly due to the longer length of your tow vehicle/RV combination. Drive with caution to avoid situations that might require quick momentum changes.

Even though your RV is equipped with brakes designed for GVWR, we suggest practicing stopping away from traffic until you become accustomed to your RV's

stopping distance. A good way to practice is at a large parking lot (where it is permissible). Easing to a stop and starting smoothly saves wear and tear on your tow vehicle/RV combination.

Drive defensively, try to anticipate problems that may occur and prepare for them (even if they may never happen). Be aware of road surface conditions. Slow down well in advance of dips and bumps to reduce the jolting to your tow vehicle/RV combination. Drive over them slowly and let the trailer tires pass over them before accelerating. Cross railroad tracks slowly (always release your brakes before crossing).

When descending a long hill, drop down into a lower gear (or lower range if you have automatic transmission). Avoid conditions that require excessive and prolonged use of your brakes. Apply and release brakes at short intervals to give them a chance to cool. The tow vehicle transmission and engine will help in controlling downhill speed and can lengthen brake life. The distance required to stop the RV is greater than an automobile's. Use care when accelerating or decelerating on a slippery surface. Abrupt speed changes can cause skidding and loss of control.

Driving through water deep enough to wet the brakes may affect stopping distance or cause the vehicle to pull to one side. Check the RV's brake operation in a safe area to be sure they have not been affected. **Never operate any vehicle if a difference in braking efficiency is noticeable.**

### Towing behind your RV

 **WARNING**

Towing items behind your Jayco trailer, or overloading the rear, will void the warranty and may result in: damage to the trailer or add-on items, towing difficulties, property damage and/or personal injury.

**DO NOT tow anything behind your RV. The RV frame and bumper are not designed for towing.**

### Vehicle Clearance

Remember some bridges, older ones in particular, may not support the weight of your

tow vehicle/RV combination. Know the weight and size of your towing combination and observe any posted weight and clearance limits. The added height of roof air conditioners, TV antennas or floodlights may cause clearance problems around some tunnels, canopies and hanging signs.

### Turning Corners

When turning, the tires do not follow the path of your tow vehicle tires. The RV will make a tighter turn than the tow vehicle. You must compensate for this action by carefully pulling the tow vehicle out into the intersection further than you would normally so that the RV clears the curb (or any parked vehicles along the curb). When making a turn, check the road clearance and be aware of others. Have someone help guide you out of a difficult parking space or traffic pattern. Swerves and sharp turns, especially at high speeds, could result in loss of control of the RV.

### Backing up

If your camping destination does not have pull through sites, pick a level site and back in carefully. We suggest you stop near the site, get out of the RV and observe the surrounding area. Check to ensure there are no obstacles in your path and that you have plenty of vehicle clearance. Check for low-hanging tree limbs, posts, large rocks or other obstacles. Try to choose a site that is on the driver's side, so you can see what the rear of the RV is doing. With the site on the passenger side, you would be backing into the site on your blind side, which is more difficult. When you determine the site conditions are satisfactory, maneuver the RV into position for backing up into the site space. Back the RV up slowly using your tow vehicle mirrors as a guide. Have another person outside the RV assist you until the RV is parked in the desired position.

### Parking

After the RV is in the desired location, set the tow vehicle parking brake and place the transmission in park. Turn OFF the ignition switch. Go outside the RV and block all wheels securely with wheel chocks. The wheel chocks can be wood blocks or



purchased items as long as they prevent the RV from rolling. Be aware of your surroundings. If parking at night at a rest stop, truck stop or parking lot chose a well-lighted area.

**Here are some tips to keep in mind when parking in unfamiliar surroundings:**

**Have a pre-determined plan of action...**

Develop response plans for all situations. Dry-run typical situations as a way of making your responses to each simulation second nature. A cellular phone is a good investment to protect yourself, especially when traveling alone.

**Be alert to all situations...** Assess your surroundings to help anticipate possible problems and responses. If someone unfamiliar knocks on the door, do not open it until you are certain the request is legitimate and represents no possible harm to you or your RV.

**Trust your intuition...** This is a natural tool at your disposal. If something does not seem to be right, you may want to evacuate the vicinity immediately or call 911.

**Remember, nothing is 100 percent effective...** Do not rely on your dog or an alarm system, etc. Always remain wary.

Developing these habits may help prevent loss to you or your property as you travel and enjoy your RV.

- Place the third warning indicator 100 feet in front of the RV in the center of the lane and away from the traffic approaching from behind.

The hazard-warning flasher provides additional safety if the RV is stopped on the side of the roadway and presents a possible hazard to other motorists. When the flasher is on, it serves as a warning to others to approach and overtake your vehicle with caution.

**For personal safety, always stand off the road and out of the way of traffic. Curves and/or hills may affect the safe placement of warning indicators**

**EMERGENCY TOWING**

**⚠ WARNING**

**Never allow anyone to go under the RV while it is being lifted and/or being towed.**

If your RV needs to be towed, please contact an emergency road service provider or a qualified service facility for assistance.

**EMERGENCY STOPPING**

Always carry road flares or reflective warning signs to display if necessary. Pull off the roadway as far as possible for emergency stopping or tire changing. Turn ON your RV hazard warning flashers. If traveling at night, use three red warning indicators such as flares, reflectors or lanterns, as follows:

- Place the first warning indicator on the traffic side of the RV, directed at the nearest approaching traffic.
- Place the second warning indicator 100 feet behind the RV in the center of the lane and toward approaching traffic.

## DANGER

Failure to follow proper inflation guidelines may result in tire failure, which, under certain circumstances can cause loss of vehicle control or accidents that may result in property damage, bodily injury and/or death.

## WARNING

It is recommended that the tire pressure be checked at the beginning of each journey to obtain the maximum life of the tire. Follow the instructions listed on the Federal Certification label, affixed to the roadside front corner of your trailer, to determine the correct tire pressure. Under-inflation may cause tire failures and swaying; this may result in loss of control, injury, death or property damage.

### **Read and understand the following before taking your first trip in your RV!**

Proper care and maintenance of your tires is essential to ensure your safety, as well as the safety of others, as you travel. Taking time to become educated on the special qualities of RV tires and care they require will enhance your travel enjoyment.

Routine maintenance on your RV is important, but it cannot be overstated just how critical proper tire maintenance is to the safety, operation and durability of your new RV. You must follow the manufacturer's inflation guidelines for maximum load capacity; under-inflation is just as dangerous as over-inflation. To insure your tires are operating safely, regular inspection of your tires and checking tire pressures is absolutely mandatory.

Examine your tires frequently for unusual wear. Alignment, balance and bearing wear will affect tire wear. Make sure to look for cracking, bulging, uneven tread wear, etc. Check and adjust tire pressures before and after each trip. Always check and adjust with the tires cold. Never add or release pressure from the tires when they are hot (or after having driven a mile or more).

### **Replacement**

## WARNING

Be sure to use only tires that are rated for RV use. The use of passenger tires should be avoided. The load rating/range embossed on the sidewall of passenger tires must be de-rated accordingly; they do not have the same load capability as tires that are specifically identified for RV use. Failure to use tires that are properly matched to your recreation vehicle could lead to premature tire wear or less than optimum trailer handling.

## WARNING

When replacing a tire make sure to replace it with a tire of the same size and specifications (refer to the Federal Certification label.)

If you experience a flat tire on your RV while driving, gradually decrease your vehicle speed (if possible). Hold the steering wheel firmly and move the RV to a safe place on the side of the road. Any service or warranty coverage on tires is to be handled by the tire store representing the brand installed on your RV; they are not to be returned to your dealer or Jayco. **If you have questions regarding your tires, contact the tire OEM or Jayco Customer Service.**

### **VINYL TIRE COVER (IF SO EQUIPPED)**

Your tires are manufactured with components that cause "bleeding" onto the tire cover. To prevent this, it is recommended to use a separator (garbage bag, paper, cloth, etc.) between the tire and the cover.

### **SPARE TIRE CARRIER (IF SO EQUIPPED)**

#### **Jay Feather Sport (only)**

The spare tire is mounted on the rear bumper. To remove the spare tire from the tire carrier, remove the lug nuts holding the

spare tire in place and pull it away from the tire carrier. To install the spare tire on the tire carrier, place the tire on the tire carrier and install the lug nuts. Make sure the lug nuts are tightened securely before returning to travel.

**Jay Feather EXP and LGT (only)**

**⚠ CAUTION**

Keep all objects from under the tire carrier while lowering the front end to avoid equipment damage.

The optional spare tire is transported in a carrier mounted under the trailer frame. To operate the spare tire carrier:

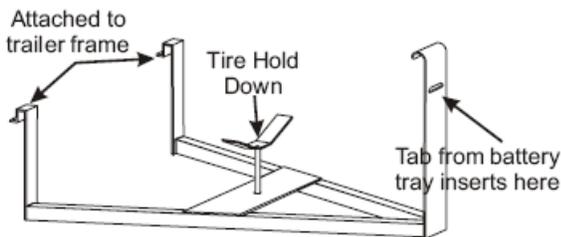


Fig. 5.1 Spare tire carrier

1. Remove the hair pin clip securing the front of the tire carrier to the battery tray tab.
2. Pull the tire carrier hook free from the battery tray.
3. Lower the tire carrier to access the tire.
4. Unscrew the tire hold down to release the tire from the tire carrier.
5. Pull the tire off the bolt.

To reinstall the tire, reverse the above procedures.

**CHANGING THE TIRE**

**⚠ WARNING**

Never raise the RV by placing the jack under the axle, springs or any attachment parts. Failure to comply could result in property damage, personal injury or death.

1. Keep the RV attached to the tow vehicle. Block the tire on the opposite side of the RV from the tire you are changing.

2. Loosen the wheel lug on the tire you are changing before jacking up the RV. DO NOT remove the lug nuts; only loosen them for ease of removal when the tire is off the ground.
3. Locate the main frame rail of the trailer (it spans from front-to-back just inside the tires).
4. To raise the RV, place the jack (hydraulic or screw) under the main frame rail. It must be just ahead of the front tire or just behind the rear tire.

**WHEEL LUGS**

Torque is the amount of rotating force applied to a fastener, such as a lug nut. Proper torque of lug nuts can only be achieved by using a properly calibrated torque wrench and socket. Do not use a 4-way socket or any other type of wrench that does not measure the actual pressure applied to the lug nut.

After your first trip, check the wheel lug torque periodically for safety. Check the wheel lugs after winter storage, after a wheel removal, before starting a trip or following extensive braking. Use the correct star pattern sequence to attach the RV wheels (see **Wheel Lug Torque Chart.**)

**⚠ WARNING**

Wheel lug nuts must be applied and maintained at the proper torque levels to prevent loose wheels, broken studs and possible separation of the wheel(s) from your trailer. The lug nuts on the wheels of your RV must be maintained according to listed torque values (see **Wheel Lug Torque Chart.**) Over-torqued and/or under-torqued wheels may result in component failure.

1. Start all nuts by hand to prevent cross threading.
2. Tighten the nuts in the sequence shown.
3. Tighten the lug nuts equally in stages as indicated for your trailer's wheels (see **Wheel Lug Torque Chart**).

**Check and re-torque after the first 10, 25 and 50 miles (16, 40 and 80 kilometers). Thereafter, check and maintain the torque according to the listed torque values (see Wheel Lug Torque Chart.)**

 **WARNING**

Failure to maintain proper torque of the wheel lug nuts could lead to separation of the tire and wheel while driving, possibly resulting in property damage or personal injury.

**For more information**

Tires are warranted by the tire manufacturer and are to be serviced and warranted by an appropriate service center. They are not to be returned to your dealer or Jayco. **If you have questions regarding your tires, contact the tire manufacturer or Jayco Customer Service.**



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Your RV contains separate low voltage (12-volt DC) and high voltage (120-volt AC) electrical systems. All installations have been made in compliance with the safety requirements of ANSI standard A.1192, National Electric Code and Canadian Standards Association Code. Because the wiring and circuitry is engineered into a dedicated system specific to your RV, we recommend you do not make unauthorized changes or add fixed appliances yourself. Only a qualified RV technician should attempt to make changes or additions to the electrical system. Approved materials, components and methods of installation must be used to meet safety and code requirements. **Changes or additions made to your RV may create a hazardous condition.**

## ELECTRICAL SYSTEM PRECAUTIONS

Careless handling of electrical components can be fatal. Always take the appropriate safety precautions when working around the RV electrical system.

- ❑ Use caution when using metal tools around the RV electrical system. If a tool contacts a battery terminal or metal connected to it, a short circuit could occur which could cause personal injury, explosion or fire.
- ❑ Remove your rings, metal watchbands and any other metal jewelry before working around the RV electrical system.
- ❑ Never touch or use electrical components with bare feet, wet hands or while standing in water or on wet ground.
- ❑ **NEVER** allow children to play with the electrical system or components.

Always make sure the electrical components are turned OFF before disconnecting the auxiliary battery (customer supplied). Always disconnect the power cord and auxiliary battery negative cable from the battery before working around the RV electrical systems.

## IN CASE OF AN ELECTRICAL FIRE

### **WARNING**

Do not attempt to use water to put out an electrical fire. Water can spread some types of fire, and electrocution is possible with an electrical fire.

1. Execute your family safety plan.
2. After everyone is clear and accounted for, if possible:
  - a. Disconnect the shore line power cord from the external power source.
  - b. Disconnect the auxiliary battery cables (if applicable).
  - c. Turn OFF the generator (if applicable).
3. Check the fire to see if you can attempt to put it out with the fire extinguisher. If there is any doubt, call the local Fire Department for emergency assistance.
4. Do not touch any electrical wires or appliances.

If you feel the fire was caused by a product failure you must contact Jayco Customer Service for approval before you clean any debris, enter, move or repair the RV (failure to notify Jayco may result in loss of coverage).

*Always have faulty or damaged wiring and electrical components repaired before using your RV again.*

## 120-VOLT AC SYSTEM

### **WARNING**

Make very certain the external power source (30 amp systems only) you connect the power cord to is a **30 amp/120-volt AC** RV receptacle and not 240 volt AC.

Your RV is equipped with a 120-volt AC/30 amp power cord and load center. A maximum of 30 amps of power can be consumed at any given time. It may be necessary to stagger usage of some appliances to maintain your power usage at 30 amps or lower. The 120-

volt AC system provides power to most of the appliances and all of the electrical outlets.

## 120-VOLT CIRCUIT BREAKERS

The circuit breaker panel protects the 120-volt electrical system from overloads, shorts in the wiring and shorts in the connected components. When an overload or short occurs, the circuit breaker will open (or “trip”) preventing any further flow of electricity and damage to the RV.

If a circuit breaker has been tripped, shut OFF the connected appliance (i.e., air conditioner, microwave, etc.) and allow a brief cooling period. Then reset the circuit breaker by moving the appropriate switch OFF and back ON. If the circuit breaker is continually tripped and no overload is evident, contact your dealer to have the electrical system tested and repaired.

A circuit breaker identification label is permanently attached to the inside surface of the 120-volt load center. Circuit breakers will not offer complete protection of the RV electrical system in the event of a power surge or voltage spike.

### Maintenance

At the beginning of camping season, inspect all the breakers. Turn each breaker OFF and back ON. Have the circuit breakers replaced as needed.

### Replacement

## WARNING

Replacement circuit breakers must be of the same voltage, amperage rating and type. Never use a higher rated replacement circuit breaker; doing so may cause a fire by overheating the RV wiring.

Please contact your dealer for repair assistance when replacing circuit breakers.

## 30 AMP POWER CORD

The 30 amp power cord is also commonly referred to as the “shore line power cord.” This power cord is designed to ground the RV electrical system through the external power source receptacle. It is designed to carry 30 amps at a nominal 120 volts.

Occasionally the electrical service provided by a campground may experience low or high voltage (i.e., surges or spikes). Any prolonged exposure will shorten the life of the electrical system and appliances. Consult your dealer for recommendations on power surge protection.

### Connecting the power cord

Always test the 30 amp external power source (i.e., the campsite power box or electrical box) with a ground monitor, before connecting your power cord to it. If the ground monitor indicates 'reverse polarity' or an 'open ground' **DO NOT** connect the power cord.

1. Turn OFF the load center main 120-volt circuit breaker.
2. Carefully extend the entire length of the power cord (approximately 25'-35') from the electric cable hatch to the external power source.
3. Plug the power cord into the receptacle. Be sure all the power cord prongs are properly plugged into the receptacle.
4. Return to your RV and turn ON the load center main circuit breaker.
5. To help prevent power surges from damaging the connected loads, please follow these instructions when hooking up to the external power source:

**The shore line power cord should be unplugged when the RV is left unattended. If something would happen to the electrical system, this may help limit potential damage.**

## ⚠ WARNING

### **PLUG INTO 30-AMP SERVICE ONLY.**

- ❑ Do not hook up the 30-amp power cord to any receptacle until you have verified proper polarity and grounding. Polarity indicators can be purchased in most electrical and hardware stores.
- ❑ Do not use any cheater plug, adapter or extension cord to reduce incoming AC power or break the continuity of the circuit connected to the grounding pin.
- ❑ Do not connect the power cord into an outlet that is not grounded, or adapt the 30-amp power cord plug to connect it to a receptacle for which it is not designed.
- ❑ Do not remove the grounding pin to connect to a non-grounded receptacle. Removal of the ground pin disables an important safety feature designed to prevent shock and electrocution hazards.
- ❑ Do not connect the power cord to an extension cord. Use of an improper extension cord will cause overheating of the cord as well as potentially causing premature failure of the AC equipment.

*It is the responsibility of the owner of the electrical receptacle to ensure that the receptacle is properly wired and grounded. Reverse polarity and/or improper grounding of your RV can cause personal injury or death.*

## ⚠ WARNING

The power cord must be fully extended when in use and not left coiled in the electrical compartment or on the ground. If the power cord is left coiled, it may potentially create enough heat to melt its protective casing.

When you are ready to leave, reverse the power cord connection process. Use care to prevent damaging the power cord electrical connection pins when connecting or disconnecting the shore line power cord. Grasp the plug to remove from the outlet; do not unplug by pulling on the cord. Be sure to close the electric cable hatch to prevent water leaks.

### **Maintenance**

Inspect the power cord for cuts, cracks and worn insulation. Have the power cord replaced immediately if these symptoms are noticed.

## **CONVERTER**

The converter converts 120-volt AC power to useable 12-volt DC power when the power cord is connected to campground power. The converter has a built-in protective thermal breaker that will shut down the converter if it becomes overheated. Overheating can be caused by operating the converter above its maximum limit for an extended period of time or by an obstruction to its ventilation. A portion of the RV 12-volt load (lights or motors or both), should be turned OFF to reduce the total load. Remove any obstructions to the converter cooling fins or fan.

### **Inspection and maintenance**

If the converter is not working (or the auxiliary battery is not charging, if so equipped), check the reverse polarity fuse(s) located in the 12-volt fuse panel. There are no customer serviceable parts in the converter. If the converter box is opened, it will void the OEM warranty. If you have further concerns contact your dealer.

## **GFCI RECEPTACLE OUTLET**

Grounding is your personal protection from electrical shock. Your RV has a ground fault current interrupter (GFCI) receptacle outlet engineered into the 120-volt AC electrical system. It may have additional outlets wired through, and protected by, the GFCI. Its function is to reduce possible injury caused by electric shock. The GFCI will not protect against short circuits or overloads.



### **Test all GFCI receptacles monthly**

The 120-volt AC electrical system must be on in order to test the GFCI.

1. Plug a 120-volt AC electrical device into the GFCI receptacle outlet.
2. Push and release the RESET button (the 120-volt AC electrical device should operate normally).
3. Push in the TEST button.
4. The RESET button should pop out indicating the GFCI receptacle has been “tripped” and the 120-volt AC electrical device should cease to operate.
5. Push in the RESET button again and it should hold. If the GFCI did not trip, do not use the GFCI receptacle outlet or those wired to it. Call your dealer for repair assistance if it does not hold and pops back out. Any faulty equipment must be repaired before your RV is used again.

*Although your RV's exterior power receptacle (if so equipped) is not a GFCI receptacle outlet, it is wired through and protected by the interior GFCI.*

### **CALCULATING ELECTRICAL LOAD**

When you purchase and use 120-volt appliances, remember your RV is limited to a maximum load of 30 amps. When camping and traveling, remember each appliance and 120-volt accessory places a load on the RV electrical system. You may periodically trip a circuit breaker if the combined load of these appliances and accessories exceeds your 30 amp rating.

You can determine the amperage rating of an appliance by dividing the watts used (usually found on a label or plate affixed to the appliance) by your RV's supply voltage.

*For example: 1200-watts divided by 120-volts AC equals 10-amps.*

### **12-VOLT DC SYSTEM**

The majority of your RV lighting is powered by 12-volt electricity. The 12-volt DC system is composed of components that will operate when the following conditions are met:

- Power is supplied by the tow vehicle alternator when the engine is running and the 7-way trailer plug is connected. This powers the RV's running lights, brake lights, turn signals and brakes.

In addition, the 7-way trailer plug provides a common ground and a 12-volt charge line to charge the auxiliary battery.

- The converter will supply interior 12-volt DC power when the power cord is plugged into campground power. The converter will also charge the auxiliary battery in most situations.
- The auxiliary battery powers many interior 12-volt components including the lighting fixtures, water pump, 12-volt motors, 12-volt appliances, etc. It also powers the breakaway switch.

### **AUXILIARY BATTERY (CUSTOMER SUPPLIED)**

Your RV has many 12-volt DC loads. When combined, their total is more than the converter can produce. High demands for 12-volt power can be met by an auxiliary battery for limited periods of time. The 12-volt DC electrical system is designed for usage with a Group 27, deep cycle battery.

#### **Dry camping**

Consider the charge condition of the auxiliary battery when dry camping. If the auxiliary battery is not being recharged and power is being drawn from it, it will eventually discharge. A battery will discharge at a faster rate as its energy level becomes depleted. It is recommended you plan your electrical usage accordingly. For accuracy, test the auxiliary battery voltage using a volt-ohm meter (customer supplied).

A fully charged auxiliary battery will read 12.7 volts DC and 1.265 specific gravity at 80°F (32°C). The auxiliary battery is considered discharged at 11.8 volts DC by electronic standards; when voltage drops below those levels, permanent damage may occur. Typically, a deep cycle battery has an amp-hour rating of 75-100 amps. If you run the furnace and refrigerator simultaneously, you will be using approximately (12.0 + 3.0) 15.0

amps per hour. This does not include any 12-volt lights, water pump or any other 12-volt component.

*If the furnace and refrigerator in the above example operated constantly, a 75 amp-hour battery would become fully discharged in 5 hours (75ah / 15a = 5h).*

The auxiliary battery should be installed in parallel with the battery in your tow vehicle. When the 7-way trailer plug is connected, both batteries power the RV so it is important not to discharge your tow vehicle battery below the level required to start the engine. To prevent this from occurring, disconnect the 7-way trailer plug or install a battery isolator. When the tow vehicle engine is operating with the RV connected, the tow vehicle charging system will charge both batteries. Battery storage instructions

### Replacement and maintenance

Some equipment in your RV will draw small amounts of current even when turned OFF. To prevent the auxiliary battery from being discharged when your RV is not connected to shore line power, disconnect the auxiliary battery negative cable at the battery. During storage, it is important to check the voltage monthly and recharge the auxiliary battery as needed. If you remove the auxiliary battery from your RV, store it in a dry, cool area per the OEM instructions.

When it is time to replace the auxiliary battery, replace it with a Group 27 deep cycle battery only. Contact the battery OEM for further information. Do not reverse the positive and negative battery cables (doing so will blow the reverse polarity fuse(s) that protect the converter).

## BATTERY ISOLATOR FOR YOUR TOW VEHICLE (CUSTOMER SUPPLIED)

You may want to consider the installation of a battery isolator on your tow vehicle as a convenience feature:

- It receives current from the tow vehicle alternator and controls distribution of energy to both the auxiliary battery and the tow vehicle battery.

- It serves as a check valve to prevent energy from being drawn from your tow vehicle chassis battery (so you can start your tow vehicle engine).

Your dealer can assist you with the selection, purchase and installation of this aftermarket part.

## 12-VOLT FUSE PANEL

The 12-volt fuse panel is labeled to indicate the fuse sizes, positions and components powered. At the beginning of camping season, inspect all the 12-volt fuses and replace as needed.

### Replacing a fuse

#### **WARNING**

Replacement fuses must be of the same voltage, amperage rating and type. Never use a higher rated replacement fuse; doing so may cause a fire by overheating the RV wiring.

Before replacing a fuse, always turn OFF the electrical component(s) protected by it.

1. Disconnect the power cord.
2. If so equipped, disconnect the auxiliary battery negative cable at the battery.
3. Remove the fuse panel cover to check fuses.
4. Pull the fuse straight out of the fuse block. If the fuse is not blown, something else must be causing the problem. Please contact your dealer for further assistance.
5. Insert a new fuse of the same specified voltage, amperage rating and type in the original location. **Never use a higher rated replacement fuse.**

The fuse panel label should be kept permanently affixed to your RV. The fuses will not offer complete protection of the RV electrical system in the event of a power surge or spike.



## **12-VOLT DC OUTLET (IF SO EQUIPPED)**

---

There may be a 12-volt DC outlet (not applicable on all models) in your RV. When the 12-volt DC outlet socket is used as a power source for an electric appliance, make sure that the electric appliance operates at 12-volts and has an electric capacity of 60 (5 amps) watts or less. Cap the 12-volt DC outlet when it is not in use as the socket might become clogged by foreign material and become short-circuited.

There are two different water systems in your RV: the fresh water system and the waste water system. The fresh water system consists of the fresh water holding tank, fresh water connections, water pump, outside shower assembly (if so equipped), water heater, faucets, shower or tub, and water purification system (if so equipped). The waste water system consists of the waste water holding tank, sewage holding tank, drains and toilet.

Recreation vehicles shake and vibrate while going down the road. It is possible for plumbing fittings to come loose. Check all fittings, pressure and waste, for leaks before each trip or before vehicle storage as part of your normal maintenance:

- ❑ Inspect all faucets, the water purification system (optional) and sink connections (including drain baskets or filters).
- ❑ Remove the access panels. If so equipped, inspect the shower faucet fittings and shower drain lines.
- ❑ If so equipped, inspect connections at the water pump and water heater.

At the end of every trip, you should drain any unused water from the fresh water system. There are labels affixed to the exterior of the RV's sidewall that indicate the locations of the water system drains and fills. Be aware some drains may be located inside the RV (once the exterior label is found, go inside to find the drain corresponding location).

## THE FRESH WATER SYSTEM

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

## WARNING

DO NOT drink water deemed microbiologically unsafe or of unknown quality.

## MONITOR PANEL

The interior wall-mounted monitor panel allows you to monitor the fresh water, grey water, black water and auxiliary battery levels. These functions are controlled using the "tact" switches located on the monitor panel faceplate. The monitor panel operates on 12-volt DC power supplied by either the converter or auxiliary battery. Sensors installed in the holding tanks connect to a resistor assembly (relaying an electronic message to the display board). No power is drawn from the battery unless a switch is pushed or turned ON. Fuses for the monitor panel are located in the load center. Refer to the OEM operator's manual for further information.

### Operation

Press only one "tact" switch at a time. As you push either the "FRESH", "BLACK" or "GREY1" switch, one or more LED lights will illuminate indicating that holding tank content level. When pushing the "BATT" switch, the highest LED light illuminated indicates the estimated auxiliary battery condition.

- C = charge at 12.7 volts
- G = good at 12.1 volts
- F = fair at 11.6 volts
- L = low at 6.0 volts.

### Water pump switch (optional)

When the water pump switch is ON the water pump runs until 45 pounds of pressure has been achieved. The red light will stay ON. Turn the water pump switch OFF when it is not in use.

### Water heater switch (optional)

The "propane GAS" water heater switch enables propane operation of the water heater. The "ELECTRIC" water heater switch enables electric operation of the water heater.



## FRESH WATER HOLDING TANK

The fresh water tank can be filled by pressure filling through the fresh water inlet (called city water) or by gravity fill. There are plastic overflow tubes plumbed into the fresh water holding tank. They allow water to flow out of the water tank. Occasionally, you may see water coming from the overflow tubes (located underneath the RV) when the fresh water holding tank is filled. This is normal, and is caused by external circumstances, including the RV being parked on an incline, or the motion caused by starting or stopping the RV during travel.

Do not cap, block or modify the fresh water tank overflow tubes in any way. Enough water pressure can build up during the filling process to damage the plumbing system if the overflow tubes are obstructed.

## FRESH WATER CONNECTIONS

### **WARNING**

Never leave the RV unattended while filling the fresh water system.

There are two types of direct exterior fresh water connections in your RV: city water and gravity fill.



**City Water**



**Gravity Fill**

Fig. 7.1 Fresh water connections

### To use the city water fill

1. If needed, sanitize the water system.
2. Move the “water heater bypass valve” to the NORMAL position.
3. Remove the connection cap and attach a non-toxic drinking water hose to the inlet.
4. Turn ON the water at the water source.

5. Enter the RV and open the cold water supply faucets to bleed air from the water lines.
6. The water heater will fill first, followed by the supply lines and faucets.

When the water lines are nearly full, you may experience some "air pockets." Allow them to escape before closing the cold water supply faucets.

**The fresh water connection should be unplugged (i.e., the non-toxic drinking water hose disconnected) when the RV is left unattended for any amount of time. If something would happen to the water system, this may help limit water damage to a smaller area.**

### To disconnect the city water fill

7. Shut OFF the water at the water source.
8. Disconnect the non-toxic drinking water hose and reinstall the connection cap.

To reduce the chance of contamination, prevent the non-toxic drinking water hose from coming into contact with the ground. Reinstall the connection cap when the fresh water connection is not being used. Do not remove the following label from your RV:

### **WARNING**

**POTABLE WATER ONLY. SANITIZE,  
FLUSH AND DRAIN BEFORE USING.  
SEE INSTRUCTION MANUAL.  
FAILURE TO COMPLY COULD  
RESULT IN DEATH OR SERIOUS  
INJURY.**

AD-04

Fig. 7.2 Potable water only label

### Dry camping

You can gravity fill the fresh water system if you do not have access to city water; however, allow extra time to fill the fresh water system if you are using this method. Follow the steps listed above; however, at step 3 put the other end of the non-toxic drinking water hose into your container of fresh water, and turn ON the water pump (instead of turning ON the water at the water

source.) When the fresh water tank is full, shut OFF the water pump and disconnect the non-toxic drinking water hose.

### WATER PRESSURE REGULATOR (CUSTOMER SUPPLIED)

#### CAUTION

Not using a water pressure regulator when using city water may cause the o-rings to fail. To prevent damage to the plumbing system or components when using the city water connection, a water pressure regulator rated for 40 lbs. is recommended.

Excessive pressure from water supply systems may be encountered in some parks, especially in mountain regions. Water pressure regulators are available to protect your system against such high pressure. A regulator of this type is recommended to prevent damage to the plumbing system or components. Water pressure regulators (customer supplied) are available from your Dealer to protect the RV plumbing system against such high pressure.

### 12-VOLT WATER PUMP & SWITCH (IF SO EQUIPPED)

Once activated, the water pump (also known as the on-demand pump) will self-prime, and provide water. The water pump continues to run until approximately 45 lbs. of pressure is achieved and shut off. The water pump will automatically re-start when pressure drops. Some cycling may occur, depending on the volume of water being released. The water pump is engineered by the OEM with a check valve to prevent water from back flowing into the fresh water supply tank

#### Water pump switch (optional)

When the water pump switch is ON the water pump runs until 45 pounds of pressure has been achieved. The red light will stay ON. Turn the water pump switch OFF when it is not in use.

**The water pump switch should be in the OFF position when the RV is left**

**unattended for any amount of time. If something would happen to the water system, this may help limit water damage to a smaller area.**

#### Dry camping

When you want to use water in your RV and the RV is not hooked up to city water, you will need sufficient 12-volt DC power to run the water pump.

### WATER HEATER

#### WARNING

Do not replace any component part with an accessory part that is not authorized by the water heater manufacturer, such as an “add-on” electric heating element. Such items are not approved to be installed and could create an unsafe condition and will void all warranties.

The water heater is designed to heat water quickly and efficiently. The water heater manufacturer has preset the sensing limit to maintain the water temperature when the water heater is activated. Hydrogen gas in the water lines may result if you have not used the water heater for two weeks or more. To reduce the risk of injury under these conditions, open the hot water faucet for several minutes at the kitchen sink before you use any electrical appliance connected to the hot water system. If hydrogen is present, you probably will hear an unusual sound such as air escaping through the pipe as the water begins to flow. Hydrogen gas may be present even after water has been drained from the tank. Open the sink faucet at the sink and allow system to vent for five to ten minutes (or as needed).

#### WARNING

**HYDROGEN GAS IS EXTREMELY FLAMMABLE.** Do not smoke or have any open flame near the open faucet. On DSI water heater models make sure the interior control switch is OFF during the above listed procedure.



**Odor from the hot water system**

Many water supplies contain sufficient amounts of sulfur to produce an odor, often called "sulfur water." Sulfur water can be caused by a chemical action or by bacteria. Generally, sulfur water is not harmful, only unpleasant to smell. To eliminate sulfur water (or bacteria) sanitize the water heater. Odor from sulfur water is not a service problem.

**High altitude deration**

Operation of the water heater at high altitudes may require derating. Consult with your local propane gas company, dealer or the water heater OEM for proper derating of the water heater. Change out of the orifice (derating) should be done by your Dealer or a service agency authorized by the water heater manufacturer. It is important that once the RV has returned to lower elevation any high altitude deration or other adjustments be reversed for proper operation of the water heater.

**Pressure & temperature relief valve**

When cold water is heated in the water heater tank, the water pressure will rise. For this reason, a pressure and temperature (P&T) relief valve is required for safety in all water heaters. It is normal for the P&T relief valve to release a small quantity of water during the heating cycle and does not indicate a defective P&T relief valve. One way to reduce the frequency of the water weeping or dripping from the P&T relief valve is to maintain an air pocket at the top of the water heater. This air pocket will form in the tank by design; however, it will be reduced over time by the everyday use of your water heater (refer to the OEM manual); If the weeping persists, consult your dealer or a service agency authorized by the water heater manufacturer.

**Operating instructions**

**⚠ WARNING**

If you smell propane gas then **STOP!** and follow the procedures listed in **Sec. 3 Propane System** before attempting to operate the water heater.

**STOP!** Read the safety and operating information provided in the OEM operator's manual before attempting to activate the water heater. Make sure the water heater is filled with water before use; momentary operation of the water heater without water in it can be detrimental.

**Draining and winterization**

If the RV is to be stored over the winter months, the water heater must be drained to prevent damage from freezing. It is recommended the water heater be drained and bypassed during the winterization process particularly if introducing RV antifreeze into the plumbing system.

**Water heater bypass**

Use the factory installed water heater bypass, available in most floor plans, to avoid filling the entire water heater with RV antifreeze.

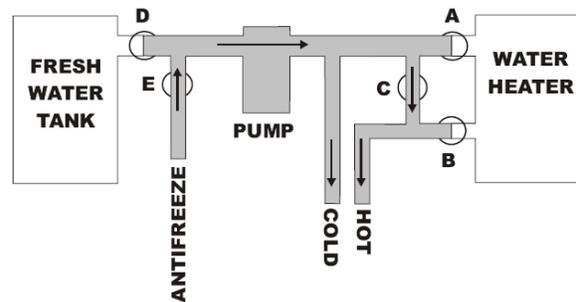


Fig. 7.3 Water heater bypass

To bypass the water heater close valves A and B, and open the mixer valve (valve C). For normal camping usage of the water heater, reverse these instructions.

**Water heater switch (optional)**

The "propane GAS" water heater switch enables propane operation of the water heater. The "ELECTRIC" water heater switch enables electric operation of the water heater.

**OUTSIDE SHOWER (IF SO EQUIPPED)**

A handheld shower assembly with both hot and cold water is available for washing or rinsing outside the RV. Be sure the water heater is ON and had sufficient time to heat the water.

Open the door with the key and allow it to hinge down.

1. If dry camping, be sure the 12-volt water pump is ON.
2. Remove the hand held showerhead and hose from its holder and turn ON the sprayer head valve.
3. Open the faucet knobs and adjust them to the desired temperature.

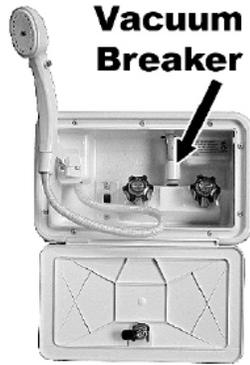


Fig. 7.4 Outside Shower

To cease operation, close the faucet knobs and the showerhead valve. After the water has been allowed to drain from the showerhead, replace it in the outside shower compartment. Any remaining water in the shower hose will drip or run out of the vacuum breaker; this is not a leak but performs as intended. Water will drain out along outer edge of the ABS plastic box.

The showerhead can be removed to drain the hose faster. If you choose to remove the showerhead to drain the hose, reassemble it for storage. Coil the hose and arrange it with the showerhead inside the faucet assembly. Make sure that the hose is not being pinched and the showerhead is not being damaged when the door is closed. For sanitary reasons, keep the exterior shower compartment door closed when not in use.

## FAUCETS

### **WARNING**

Water temperatures over 125°F (49°C) can cause severe burns instantly or death from scalds; therefore, be careful when using hot water. Always test the water temperature before showering or washing.

The faucets operate much the same way as the faucets in your home. Make sure there is sufficient water available and, if dry camping, the 12-volt water pump is turned ON before operating. To open the faucets, turn the hot and cold knobs ON and adjust the temperature to your comfort level. Close the

faucets when a sufficient amount of water is released.

The shower faucet (if so equipped) requires a vacuum breaker when the shower hose and head are used. There are two purposes for this breaker:

- ❑ To prevent siphoning water through the hose from another fixture.
- ❑ To prevent water from being contained in the hose.

The showerhead DOES NOT have a complete shut-off valve (the complete shut-off is at the faucet). The showerhead may drip slightly in the OFF position after use; this is normal and does not indicate a leak or defect. There may be air in the plumbing lines that will need to be bled out before a steady stream of water comes from the faucet.

## BATHROOM SHOWER OR TUB

Your bathing facilities in the RV function similar to those in your home. Prepare the bath or shower curtains to prevent water from spilling onto the floor. Keep the water heater and holding tank capacities in mind when using the fresh water system. Long showers are not suggested due to the limited amount of water available. The used water will drain through the plumbing pipes into the grey water holding tank.

1. Be sure the water heater is ON and had sufficient time to heat the water.
2. If dry camping, be sure your 12-volt water pump is ON.
3. Adjust the hot and cold faucets to the desired temperature before bathing.
4. To conserve water while showering, wet down and turn the water OFF while you use soap, then rinse.
5. When you are finished, shut the water faucets OFF.

Unlike your home, the RV does not contain a water pressure balance valve. If someone is using the shower, it is recommended that the fresh water system NOT BE USED until he or she is finished.



**Maintenance**

Read the OEM operator’s manual. The tub and shower walls (if applicable) in your RV are made of ABS plastic material. Use a mild detergent soap and warm water to clean (these cleaning instructions are similar to those recommended for fiberglass tubs and shower walls). Contact your RV dealer for repair or replacement.

DO NOT use gritty or abrasive particle soaps or scouring compound to clean ABS plastic. Avoid using “Citrus” or biodegradable cleaners which contain “D-Limonene.” They will damage plastic materials.

**WATER PURIFICATION SYSTEM  
(IF SO EQUIPPED)**

The water purification system is located under the kitchen sink. If the water supply has not been used for some time, allow the water to flow for several minutes to flush the system. When not in use, the water filter cartridge should be stored out of freezing temperatures. RV antifreeze will damage the water filter cartridge. The OEM has supplied a clear plastic bypass hose with fittings on either end to replace the water filter cartridge when the RV is being winterized. This clear plastic bypass hose is re-usable; store it when it is not in use.

Each new RV is winterized with RV antifreeze before it leaves Jayco, Inc. To use the water purification system the clear plastic bypass hose must be removed and the water filter cartridge installed.

**Replacing the water filter cartridge**

Follow the instructions on the water cartridge filter. Replace the water filter cartridge when water flow from the kitchen faucet is too slow for convenience, or at least once a year.

1. Drain the fresh water system.
2. Place a container beneath the water cartridge filter to catch any spillage.
3. Unscrew the fittings at the top and bottom of the water filter cartridge. Pull the water filter cartridge down and out of the fittings.

Insert the new water filter cartridge and tighten the fittings securely by hand. Dispose of the used water cartridge filter.

**DRAINING THE FRESH WATER SYSTEM**

Open all faucets, including the outside shower faucet (if so equipped).

1. Open the “exterior fresh tank drain” valve on the permanent fresh water holding tank (if so equipped). This knob turns 45° to open or close.

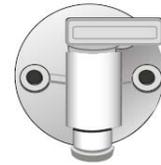
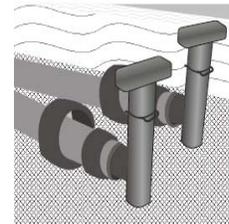


Fig. 7.5  
Exterior fresh water drain

2. Open the “low point drains.” As their name indicates, the valves will be at the lowest point of water lines. A label may be placed on the outside of the RV to indicate where the drains are located. The drains will typically need to be opened from inside the trailer. Once the label is found on the outside of the trailer, go inside to find the corresponding location of the drains.

3. Turn ON the water pump and allow it to run as needed.
4. If so equipped, operate the toilet flush lever until water stops flowing.



5. Relieve the water pressure using the water heater P&T valve BEFORE removing the water heater drain plug. Otherwise, if there is any water pressure present the water will spray out of the opening when the drain plug is removed.

Fig. 7.6 Low point drains

When you are finished draining the fresh water system, reverse these steps and, if so equipped, dump the grey and black water holding tanks at an appropriate facility or according to local public codes.

## SANITIZING THE PLUMBING SYSTEM

### WARNING

Failure to sanitize the potable water system could result in death or serious illness.

Potable water systems require periodic maintenance to deliver a consistent flow of fresh water. For your personal safety, the plumbing system should be sanitized when your RV is new, at the beginning and end of each season and when the water system becomes contaminated (or approximately every three months of use).

### WARNING

Chlorine is poisonous. Always recap the household bleach bottle and clean utensils and containers after use.

#### How to sanitize with a water pump (if so equipped)

1. Level the RV and drain the fresh water system.
2. Close the drain valves.
3. Prepare a chlorine solution using 1/4 cup of household bleach (sodium hypochlorite solution) to one gallon (3.785 liters) of water in a container. Prepare one gallon of solution for every 15 gallons of tank capacity. This will result in a residual chlorine concentration of 50 ppm in the water system.

If a 100-ppm concentration is required as discussed in step 9, use 1/2 cup of household bleach with one gallon of water to prepare the chlorine solution. One gallon of the solution should be used for each 15 gallons of tank capacity.

4. At the gravity fill connection, place a hose into the container with the chlorine solution.
5. Turn the water pump ON.

6. After the recommended amount of solution is in the tank, turn OFF the water pump.
7. Open the hot water line on all the faucets until water begins to flow continuously and a chlorine smell is noticeable.
8. Close the hot water lines and repeat with the cold water lines on the faucets.
9. Let the solution remain in the system for at least four hours when disinfecting with 50-PPM residual chlorine.

If a shorter time period is desired, then a 100-PPM chlorine concentration should be permitted to sit in the system for at least one hour.

10. After the required period, drain the chlorine solution from the fresh water system (see Draining the fresh water system).

#### **Some solution may remain in the water heater and will be flushed in the following steps:**

11. Fill the fresh water system completely full using clean (potable) water.
12. Then, drain the fresh water system (see Draining the fresh water system).

If a chlorine taste lingers in the water, flush the water system with a solution consisting of one-quart vinegar to five gallons of clean water. Re-flush as necessary.

## WINTERIZING THE PLUMBING SYSTEM

### WARNING

Automotive antifreeze (ethylene glycol) and windshield washer antifreeze (methanol) are poisonous. Never use these products in your fresh water system. These products are harmful and may be fatal if swallowed.

Preparing your RV for colder weather or storage is very important for most states and Canada. Failure to prepare your RV may cause water supply lines and the water heater to freeze. No commodity or product should be added to the fresh water system to ensure



freeze protection other than RV antifreeze. The RV should be winterized at the end of the camping season or when the RV will be exposed to temperatures that will fall at or below 32°F (0°C). Repairs due to freezing are not covered under the terms of the **Towable Limited Warranty**.

There are two methods of winterizing your trailer based upon your model. Please read, understand and follow all instructions before beginning.

#### **Air pressure (all models)**

This method will utilize an air hose to blow excess water from the water lines.

1. Make sure all holding tanks are empty and drain valves OPEN.
2. Run the water pump until it is dry, this will take approximately 15-20 seconds.
3. OPEN all faucets and drains, and the toilet.
4. Using an air hose and adapter (customer supplied), blow air through the city water connection. Any remaining water will blow out in five to ten minutes.
5. Pour one cup of non-toxic RV antifreeze into all drain P-traps.

#### **Water heater bypass (most models)**

It may be easier to winterize the RV with another person to assist you.

1. Level the RV and drain the fresh water plumbing system.
2. If so equipped, replace the water filter cartridge with the clear plastic bypass hose.
3. Make sure the water heater 12-volt and 120-volt interior control switches are OFF.
4. Turn the water heater bypass valves to the BYPASS position.
5. Make sure the "fresh tank drain" and "low point drains" are closed.
6. Insert the garden hose into a container of RV antifreeze solution (this quantity should be enough to winterize the RV); attach the other end to the Gravity Fill.
7. Turn the water pump ON.

8. Open the hot water line on all the faucets (kitchen, lavatory, shower and outside shower) until RV antifreeze begins to flow continuously.
9. Close the faucet hot water lines and repeat with the cold water lines on all the faucets. Do not forget to run RV antifreeze through the toilet.

#### **When you are done adding RV antifreeze**

10. Remove the garden hose from the container of RV antifreeze.
11. To prevent staining, wipe the RV antifreeze out of the sinks, shower (or tub) and toilet using a soft, dry cloth.

To reduce the chance of contamination, prevent the garden hose from coming into contact with the ground. If needed, contact your RV dealer for assistance.

### **BLACK/GREY WATER SYSTEM (IF SO EQUIPPED)**

Water from the sinks and shower flow into the gray water (or waste water) holding tank. Water from the cassette toilet (if so equipped) will flow into the sewage (or black water) holding tank.

#### **Drain pipes**

The drain pipes have a "P-trap" installed to help prevent odors from escaping into the RV. During travel, water from the P-traps may spill and permit odors into the RV. These odors come from food particles decomposing in the tank. By adding water and using a RV approved deodorizing agent you will dissolve the contents faster and will keep the drain lines and tanks clean and free flowing. These chemicals are available at an RV supply store or your dealer.

#### **Vents**

Another important part of this system is the vent pipes and vents that release air from the grey and black water holding tanks. The exterior vent cap is attached to the roof and must be kept clear of obstructions to perform as intended. On some models, the vent pipe may be part of the drainage system referred to as a "wet vent" (water flows downward as air flows upward in the same pipe).

## BLACK/GREY WATER HOLDING TANKS

### ⚠ WARNING

Never travel with full black or grey water holding tanks. This not only wastes your fuel but depending on the location of the tank(s), it can affect your tow vehicle handling characteristics.

The weight of the holding tank contents is not calculated into the RV cargo carrying capacity (this extra weight would reduce your available cargo capacity). Traveling with full holding tank(s) could possibly cause you to exceed the individual tire ratings and/or the RV GAWR or RV GVWR. Potential damage to suspension components, such as springs, tires and axles, could result. If your RV holding tank(s) are located behind the axles, the weight of the full tank(s) will reduce the hitch weight. Trailer sway and other handling difficulties can be the result of the hitch weight being too light.

Dump the gray and black water holding tanks before traveling to avoid carrying unnecessary weight. If you are dry camping and cannot immediately empty your holding tanks, reduce your vehicle speed until you reach a dumping station. When connected to the sewer drain line at a campground, keep the “black tank drain” valve closed until the holding tank is at least  $\frac{3}{4}$  full. This should provide sufficient water to assist in complete draining of the black water holding tank. Repeat as needed.

Before using the RV or after dumping the grey and black water holding tanks, always add the proper amount of deodorant to the black water tank to prevent malodors and help break down holding tank contents (unless winterizing). Follow the deodorant bottle or package instructions. Driving to a disposal site will normally loosen any accumulated waste debris or solids from the sides of the holding tanks.

### ⚠ WARNING

Do not add automotive antifreeze or caustic chemicals such as laundry detergents into the holding tanks. Although these products may have a deodorizing effect, they may damage the plastic and rubber parts of the plumbing system or the components.

Never leave the black tank drain in the open position continuously when connected to the campground sewer system.

## BLACK & GREY TANK DRAINS

There are labels on the exterior of the RV indicating the location of the grey tank drain and black tank drain (also called dump valves). Always drain the black water holding tank first so the following grey tank waste water can help rinse any solids or debris from the dump outlet and sewer hose.

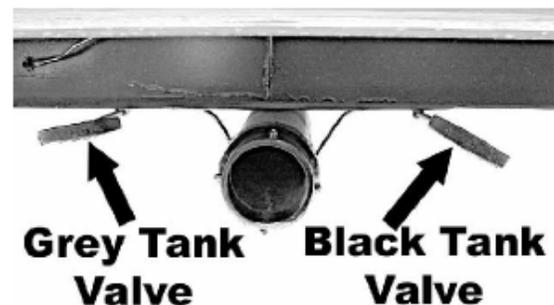


Fig. 5.7 Black & Grey tank dump valves

1. To make drainage easier, level the RV.
2. Remove the sewer hose housing dust cap, and attach the sewer hose (customer supplied).
3. Place the end of the sewer hose into the approved dump station.
4. Open the black tank dump valve (close the dump valve when the black water holding tank is emptied).
5. Open the grey tank dump valve (close the dump valve when the grey holding tank is emptied).
6. Remove, clean and store the sewer hose.
7. Close the sewer hose housing dust cap.



Most states and parks have strict laws and regulations to prohibit dumping of wastes of any kind into anything other than proper disposal facilities or sewer systems. Almost all privately owned parks offer a campsite hookup for sewage. You can locate many dump stations throughout the United States and Canada in Woodall's, Rand McNally Camp Guide, Good Sam Camp Guide, KOA Kampgrounds Camp Guide and various other publications. Some fuel stations also have dump stations.

Please contact your RV dealer for assistance in the purchase and installation of a sewer hose or sewer hose extension (if needed).

## TOILET

### **WARNING**

It is important to prevent solid waste buildup. Follow the toilet manufacturer's recommended instructions each time after emptying the black water holding tank.

The toilet is efficient and easy to operate. Generally, more water is required only when flushing solids. Prior to using the sanitation system, it is strongly recommended to flush the toilet several times to release sufficient water into the holding tank. If there is not a sufficient amount of water used during flushing, the waste materials may not evacuate properly from the drain line to the tank. Clogged tanks and pipes could eventually occur.

The toilet system will perform better when water is run for ten to fifteen seconds after flushing to ensure that the waste will proceed to the bottom of the tank. Unlike a toilet in a home, which uses four to seven gallons (18 - 32 liters) of water per flush, the average recreation vehicle system uses one to three quarts (1 - 3 liters). For added convenience and better sanitation system performance, it is advisable to always have four to six inches (10 - 15 cm) of water in the toilet.

To prevent help toilet blockage, always use RV grade single-ply toilet paper. Do not flush

paper towels, diapers, sanitary napkins or other foreign objects down the RV toilet.

### **Sewage (black) tank preparation**

### **CAUTION**

It is important to add enough water to prevent solid waste buildup. Follow the directions listed below and in the OEM operator's manual

1. Release one to two quarts (1 or 2 liters) of water into the toilet bowl.
2. Follow the directions on your toilet chemical bottle (customer supplied), by placing the recommended quantity of holding tank chemical into the toilet bowl.
3. Flush the toilet and allow at least two gallons (8 liters) of water to flow into the holding tank.

### **Waste (grey) holding tank preparation**

No special preparation is required, however, placing a small quantity of chemicals into this tank, such as baking soda or an approved RV chemical, will reduce odors from food particles in the system.

### **Cleaning & Maintenance**

The toilet should be cleaned regularly for maximum sanitation and operational efficiency. Do not use chlorine (undiluted) or caustic chemicals, such as laundry bleach or drain opening types, in the toilet system. These products damage the seals in toilets and dump valves.



**LP (liquefied petroleum) gas** is a clean and efficient form of energy when proper handling and safety precautions are observed. It enables you to enjoy a comfortable lifestyle when other forms of energy are not easily accessible. LP-gas includes propane, butane and/or a mixture of both. **Regulatory codes require you use propane only in your RV.**

Propane is used as a fuel source for the majority of your appliances. The propane system is comprised of a propane container or cylinder, a two-stage regulator, hoses, piping and tubing to deliver propane to each appropriate appliance. If you have further questions about the operation of the appliances or the propane system after reading this Owner's Manual and the OEM operator's manuals, contact your dealer or a qualified propane service technician.

**Testing the propane system**

**⚠ DANGER**

**Never use an open flame to test for a propane leak.** Do not check for leaks using products that contain ammonia or chlorine; these products can cause cracks to form on the metal tubing and brass fittings.

Although both Jayco and your selling dealer test carefully for leakage, travel vibrations can loosen fittings. Continued maintenance is necessary for safe operation. The propane system should be checked every 30 days of RV use or 5,000 miles of travel (or at least once a year) as part of your normal maintenance. The propane system testing should only be performed by your dealer or a qualified propane service technician.

**PROPANE SAFETY PRECAUTIONS**

Propane is a colorless and odorless gas that in the liquefied state resembles water. An odorant (ethyl mercaptan) with a scent similar to rotten eggs is added as a warning agent. It is possible some individuals may be less sensitive to the odorant used and not notice the smell of propane.

If you do not smell the propane odorant (for example, when filling the propane cylinder), notify your dealer or propane service provider immediately.

**⚠ WARNING**

The propane cylinder is equipped with a safety valve that relieves excessive pressure by discharging gas to the atmosphere. Do not bring or store portable propane containers(s) or other flammable liquids inside the RV because a fire or explosion may result.

Propane is flammable, is always contained under pressure, and the liquid can freeze skin. Always wear protective clothing such as gloves and eye protection when the potential for contact with liquid propane is present. If you smell propane gas within the RV, quickly and carefully perform the procedure listed on the label below. This label should be kept permanently affixed to your RV.

**⚠ DANGER**

**IF YOU SMELL PROPANE**

1. Extinguish any open flames, pilot lights and all smoking materials.
2. Do not touch electrical switches.
3. Shut off the propane supply at the container valve(s) or gas supply connection.
4. Open doors and other ventilating openings.
5. Leave the area until odor clears.
6. Have the gas system checked and leakage source corrected before using again.

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

0173021

Fig. 8.1 "If you smell propane" label

**It is important that everyone knows where to find the propane cylinder manual shut off valve, and understands to operate it.**



## HOW TO LEAK TEST THE PROPANE SYSTEM

### WARNING

**IT IS STRONGLY RECOMMENDED THAT YOU HAVE A PROFESSIONAL TEST THE RV PROPANE SYSTEM FOR LEAKS ONE TIME EACH YEAR AS PART OF NORMAL MAINTENANCE.**

Use an appropriate propane leak detector solution or create a soapy water solution. The propane leak detector solution can be purchased at most dealerships (if soapy water is used, make sure that the soap used does not contain ammonia or chlorine). Apply the propane leak detector solution to all propane piping connections. If a leak is present, the solution will bubble at the connections.

#### If a leak is detected

1. Execute your family safety plan.
2. Turn off the propane at the cylinder(s).
3. Turn off all appliances that utilize propane.
4. Unplug the shore line power cord.
5. Disconnect the 12-volt auxiliary battery (if so equipped).
6. Contact your dealer for a service appointment. Have the propane system repaired before using it again.

## DOT PROPANE CYLINDER

### WARNING

DOT propane cylinders must be transported and stored in an upright position so the pressure relief device will function properly. Laying a DOT propane cylinder on its side may potentially create a very dangerous situation.

Propane is stored in pressurized containers in a liquid state. As the propane is released from the container, it changes to vapor that is then used for the operation of the appliances.

Propane will not run through the appliances in the liquid state. The volume of liquid propane increases approximately 1-½% for every 10°F (5.5°C) it is warmed. Heat the propane 100°F (55°C) and the container liquid volume will increase 15%. That is why it is imperative to leave sufficient space inside the cylinder to allow for natural expansion of gas during warmer weather.

The following label should be kept permanently affixed to your RV.

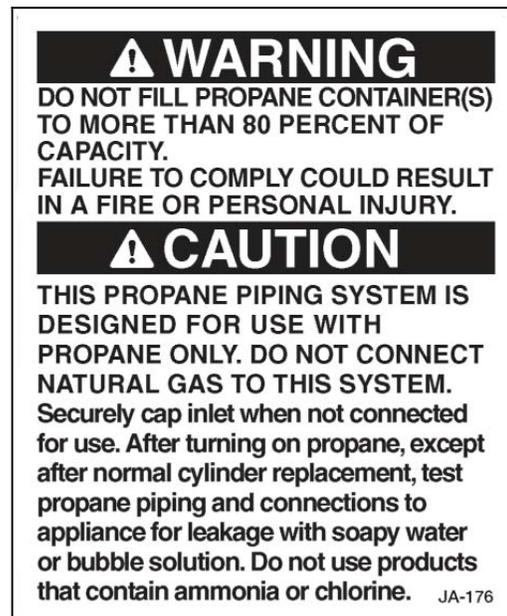


Fig. 8.2 “Do not fill to more than 80%” label

The main shut off valve must be kept closed at all times unless you are using the propane system or filling the propane cylinder. When the cylinder is disconnected from the hose, install the valve cover that is attached so the container. This is required by the National Fire Protection Agency (NFPA), other applicable local codes and for your own safety.

Close the propane cylinder main shut off valve by hand tightening only. Use of tools creates a potential to over tighten the valve (damaging the interior seals on the cylinder valve seat). If this type of damage occurs, the cylinder will not close properly and create a false sense of security.

The following label should be kept permanently affixed to your RV.

**WARNING**

THIS SYSTEM IS DESIGNED FOR USE WITH PROPANE ONLY.  
DO NOT CONNECT NATURAL GAS TO THIS SYSTEM.

**BEFORE TURNING ON PROPANE:**

- (A) BE CERTAIN APPLIANCES ARE CERTIFIED FOR PROPANE AND ARE EQUIPPED WITH CORRECT BURNER ORIFICES.
- (B) MAKE CERTAIN ALL PROPANE CONNECTIONS ARE TIGHT BY TESTING WITH SOAPY WATER. ALL APPLIANCE VALVES ARE TURNED OFF, AND ANY UNCONNECTED OUTLETS ARE CAPPED.

**AFTER TURNING ON PROPANE:**

- (A) LIGHT ALL PILOTS.
- (B) ALL CONNECTIONS, INCLUDING THOSE AT THE APPLIANCES, REGULATORS, AND CYLINDERS, SHOULD BE LEAK-TESTED PERIODICALLY WITH SOAPY WATER BY THE OCCUPANT. NEVER USE A LIGHTED MATCH OR OTHER FLAME WHEN CHECKING FOR LEAKS.
- (C) DO NOT LEAVE SYSTEM TURNED ON OR CONTAINERS CONNECTED UNTIL THE SYSTEM HAS BEEN PROVEN TO BE FREE OF ANY LEAKS.
- (D) COOKING APPLIANCES SHOULD NOT BE USED FOR SPACE HEATING
- (E) WHEN THE CONTAINERS ARE DISCONNECTED, THE PROPANE SUPPLY LINE SHOULD BE CAPPED OR PLUGGED.

**AVERTISSEMENT**

CETTE INSTALLATION EST CONÇUE POUR LE PROPANE SEULEMENT.  
NE PAS L'ALIMENTER EN GAZ NATUREL.

**AVANT LA MISE EN SERVICE:**

- (A) S'ASSURER QUE LES APPAREILS SONT CERTIFIÉS POUR LE PROPANE ET MUNIS D'ORIFICES DE BRÛLEUR APPROPRIÉES.
- (B) VÉRIFIER L'ÉTANCHÉITÉ DE TOUTS LES RACCORDEMENTS AU PROPANE, LA FERMETURE DE TOUTS LES ROBINETS D'APPAREILS ET L'OBTURATION DE TOUTES LES SORTIES NON RACCORDÉES.

**APRÈS LA MISE EN SERVICE:**

- (A) ALLUMER TOUTES LES VEILLEUSES.
- (B) L'OCCUPANT DOIT ÉPROUVER PÉRIODIQUEMENT L'ÉTANCHÉITÉ DE TOUTS LES RACCORDEMENTS, Y COMPRIS CEUX AUX APPAREILS, AUX DÉTENDEURS ET AUX BOUTEILLES, EN Y APPLIQUANT DE L'EAU SAVONNEUSE. NE JAMAIS SE SERVIR D'UNE ALLUMETTE OU AUTRE FLAMMES POUR LA DÉTECTION DES FUITES.
- (C) NE PAS LAISSER L'ALIMENTATION OUVERTE, NI LES RÉCIPIENTS RACCORDÉS, AVANT D'AVOIR COMPLÉTÉ L'ÉPREUVE D'ÉTANCHÉITÉ AU PROPANE DE L'INSTALLATION.
- (D) LES APPAREILS DE CUISSON NE DOIVENT PAS ÊTRE UTILISÉS POUR LE CHAUFFAGE DES LOCAUX.
- (E) LORSQUE LES RÉCIPIENTS SONT DÉCONNECTÉS, L'ALIMENTATION DE PROPANE DOIT ÊTRE OBTURÉE OU SCELLÉE.

JA-105

Fig. 8.3 “Use propane only” label

**Servicing or filling**

**⚠ WARNING**

Before entering a propane or fuel service station make sure all pilot lights are extinguished. Shut off gas to all appliances by closing the propane gas main shut off valve. Always shut OFF any engine before refueling. Do not smoke and do not operate other ignition sources while refueling.

Have the RV checked for leaks at the connections on the propane system soon after the purchase and the initial filling of each propane cylinder. When you have a new cylinder filled for the first time, make sure your propane supplier purges your new cylinder of trapped air. Otherwise, an improper mixture of gas and air will make it impossible to light your propane appliances.

When a propane container is low, occasionally there may be a concentration of an onion or garlic-like odor, which can be mistaken for a propane leak. After a propane cylinder has been refueled, the odor will usually disappear. If not, turn OFF each propane cylinder shut off valve and have the propane system inspected by your dealer or a qualified propane service representative.

No one should be inside and only the qualified propane service technician should be near the RV while the propane tank is being filled. The new propane container must be carefully purged for best performance and must **NEVER BE OVERFILLED**. The following label should be kept permanently affixed to your RV.

**⚠ DANGER**

**ALL PILOT LIGHTS, APPLIANCES AND THEIR IGNITORS (SEE OPERATING INSTRUCTIONS) SHALL BE TURNED OFF BEFORE REFUELING OF MOTOR FUEL TANKS AND/OR PROPANE CONTAINERS. FAILURE TO COMPLY COULD RESULT IN DEATH OR SERIOUS INJURY.** AD-05

Fig. 8.4 “Shut off during re-fueling” label

*Before filling your propane cylinder, make sure that the propane technician is qualified (knows and understands proper inspection and safety procedures.)*

The position of the propane container(s) and the hoses are critical to proper operation and propane flow. Follow these instructions to make sure your propane container(s) are connected properly.

## ⚠️ WARNING

The pigtail hose must be installed to avoid tension or pulling stress at either end of the hose. Keep the pigtail hose away from sharp edges of the cylinder collar, rigid corners, walls, doors or other compartment structures including the cover.

## INSTALLING PROPANE CYLINDERS

## ⚠️ WARNING

Ensure that all fasteners are secured before traveling.

### Single Cylinder Mounted On A-Frame

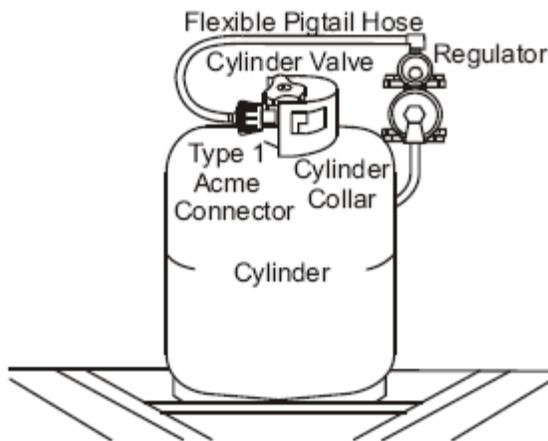


Fig. 8.5 Single cylinder

1. Connect the 3/8" low pressure hose to the outlet of the two stage regulator.
2. Attach the regulator with the "Z" bracket on the center of the front wall with the vent pointing down.
3. Attach the protective plastic cover to the regulator.
4. The regulator has a 90° elbow that directs the inlet toward the trailer curbside.
5. Place the cylinder on the bracket provided on the A-frame and position it so the outlet of the cylinder valve is pointed directly outward to the curbside wall.

6. If a vinyl cylinder cover is provided, slip it over the cylinder and leave the zipper open (if so equipped).
7. Attach the 1/4" inverted flare x 24" Type 1 pigtail hose to the regulator inlet and the right hand swivel nut to the cylinder valve.
8. If applicable, close the cylinder cover zipper (if so equipped) up to the hose.
9. Secure the cylinder to the A-frame bracket using the bolts, nuts and washers provided.

### Double Cylinder Mounted On A-Frame

When a second cylinder is installed, a tee check valve is used to replace the 90° elbow at the top of the regulator and another 1/4" inverted flare x 24" Type 1 pigtail is added. The regulator stays in the original position.

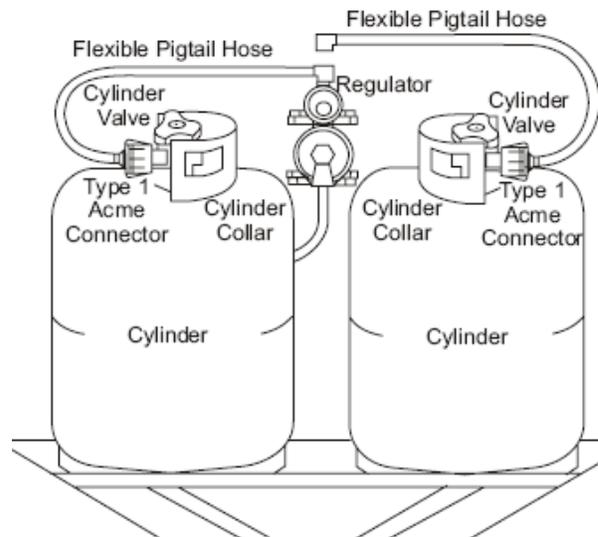


Fig. 8.6 Double cylinder

1. Place the second cylinder on the A-frame bracket so the cylinder valve is pointed to the roadside of the folding camping trailer.
2. Secure the second cylinder to the A-frame using the bolts, nuts and washers provided.
3. If a vinyl cylinder cover is used, slip it over the new single cylinder, or a double cylinder cover may be used in lieu of single covers.
4. Attach the second 24" hose to the tee check valve on the regulator and the right handed swivel nut to the cylinder valve.

### Main Supply Hose – Low Pressure

Attach the main supply hose from the regulator to the brass manifold fitting in the frame of the trailer. The swivel brass nut on the main hose will be your final attachment. Several things to remember each time the propane container is removed:



Fig. 8.7 Main supply hose

1. Check that ALL fittings are tight.
2. Check that ALL connections are tested with a propane leak detector (or soapy water) solution.
3. Open the main valve slowly to avoid a fast rush of propane to the excess flow valve causing propane freeze up. If you experience a propane "freeze-up," close the main valve and wait at least fifteen (15) minutes before trying again. Refer to the regulator OEM operator's manual.
4. Listen carefully - a "hissing" sound longer than one second may indicate a propane leak. If you feel there may be a leak present, close the valve and contact your dealer or qualified propane technician for repair assistance.

Replace all protective covers and caps on the propane system after filling. Make sure the valve is closed and the compartment door is securely latched.

### Propane container overfill

Never overfill your propane container above the liquid capacity indicated on the container. If a container is overfilled, liquid gas may flow through the gas regulator, causing it to freeze and/or introduce dangerous excessive gas pressure into the lines. In addition, an overfilled container placed in hot sunlight may expel excessive gas through the relief valve and be susceptible to ignition by any nearby open flame or spark.

If you do overfill the propane container, contact your dealer or a qualified propane technician for assistance immediately. Do not attempt to service a propane container overfill yourself.

### Maintenance

Propane gas is normally non-corrosive - you need not worry about the inside of your container. However, the outside should be kept free from rust by a periodic coat of paint in a light reflective color. Rust, scratches and/or dents can affect the safety of the cylinder. Inspect the cylinder at regular intervals. If there is a problem, have it evaluated by a qualified technician and discard it. DOT requires that a visual inspection be made prior to each filling.

Any cylinder that has been exposed to fire, leaks or seems damaged should not be refilled. Do not attempt to repair any containers, container valves, regulator or appliances by yourself. Use only trained certified propane gas service technicians to perform repairs.

### Propane cylinder recertification

If you have an older RV you should know that, according to Federal law, DOT cylinders may only be used for 12 years after their manufacture date (the number of years for certification may vary in your area). After that, the cylinders must be "recertified" which provides another five years of use. The cylinders can be recertified every five years thereafter. Federal DOT (Department of Transportation) regulations require periodic inspections and re-qualifications of the propane cylinders. DO NOT USE damaged or rusted containers.

Verify with your local propane dealer that all required inspections and certifications have been completed on the propane cylinder within the correct time period before refilling the cylinder.



## PROPANE REGULATOR

### **WARNING**

Propane regulators must always be installed with the regulator vent facing downward. Regulators that are not located in baggage compartments have been equipped with a protective cover. Make sure the regulator vent faces downward and (if applicable) the cover is in place to minimize vent blockage that could result in excessive gas pressure causing fire or explosion.

Have the LP system checked for leakage each time a cylinder is refilled or after any part of the propane system has been disconnected.

#### **Single stage regulator**

Some models are equipped with a single stage regulator.

#### **Two stage regulator**

The two-stage regulator has the only moving components in the propane system. Its sole function is to reduce the pressure from the propane containers to a safe and consistent low operating pressure. The first stage reduces the container pressure to 10-13 lbs. The second stage reduces the 10-13 lbs. of pressure further to an operating pressure of 11" W.C. (water column) or 6.35 oz. of outlet pressure to your appliances.

The second stage is adjustable and will need to be adjusted by your dealer or qualified propane service technician for optimum performance (this adjustment should always be made with a properly calibrated manometer). If the pressure is too high, it affects performance and safety; if the pressure is too low, your appliances will not operate correctly.

If your RV is equipped with the "automatic" two-stage regulator, with both cylinders full of propane, turn the lever on the regulator towards the cylinder you wish to use first. This will now be the "supply" cylinder and the other the "reserve." Slowly open both cylinder valves. The indicator on top of the regulator will turn bright green. When the cylinder

becomes empty, the indicator will change to bright orange. Now turn the regulator lever to the side of the "reserve" cylinder and the green signal should return. You may now remove the empty cylinder to have it refilled without interrupting the flow from the full bottle. After filling the cylinder, connect the pigtail hose and slowly open the bottle valve.

## HOSES, PIPES, TUBES & FITTINGS

The hoses, pipes, tubes and fittings used in your propane system are designed to withstand pressures exceeding those of the propane system. However, because environment and time can both contribute to the deterioration of these components, they must be inspected for wear at regular intervals.

Be sure to inspect the hose before each season and when having the tank refilled. Look for signs of deterioration such as cracks or loss of flexibility. When replacing the hose or other propane components, make sure to always replace them with components of the same type and rating (check with your dealer).

Fittings are used to connect the various system components to each other. The P.O.L. fitting at the end of the propane supply hose is made of brass so that pipe sealants are not necessary to prevent leaking. It also has a left-handed thread, which means that it is turned clockwise to remove, and counter-clockwise to tighten. The P.O.L. fitting has been designed to help restrict the flow of LP gas in the event of a regulator failure or hose malfunction.

## USING THE PROPANE SYSTEM

### **WARNING**

Do not use portable fuel-burning equipment, including wood and charcoal grills and stoves, inside the RV. The use of these items inside a RV may cause fires or asphyxiation (inability to breathe).

After the RV is completely set up and you are prepared for camping enjoyment, use the following steps for propane operation:

1. Close ALL burner valves, controls and pilot light valves.
2. Open the main valve in the propane container slowly to avoid a fast rush of propane vapor through the excess flow valve causing propane “freeze-up.” Should you experience propane “freeze-up,” close the main valve and wait 15 minutes before trying again.
3. Listen carefully as propane begins to flow. If a hissing noise is heard for more than one or two seconds, close the main valve and contact your dealer to have the propane system tested.
4. Light the appliances as needed and directed in the appropriate appliance manufacturer’s owner manual located in the Goodie Bag.

Make sure that you read and fully understand ALL safety requirements for handling and operation of the propane system. The Goodie Bag contains OEM operator’s manuals for the various appliances hooked to your propane system. The propane system provides added benefits to your camping enjoyment; however, it must be handled with care. If you have any questions or concerns, consult with your dealer and/or the specific OEM.

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

*If flooding is predicted for your area, shut OFF each propane cylinder valve before the water rises. If the propane system has been flooded, do not turn it back ON until it has been checked by your dealer or a qualified propane service technician.*

## CALCULATING PROPANE USAGE

It is important to remember that (if applicable) your furnace, refrigerator, water heater and range all may use propane to operate. Each has a different BTU rating, and you will need to consider them to determine how long your propane supply will last. Most RV gas appliances are operated intermittently. Propane consumption depends on individual use of appliances and the length of time operated. Unless there is heavy use of hot water, the water heater consumption of propane is minimal. During cool temperature or high wind conditions, furnace consumption can be extremely high.

*To calculate your propane supply, take the BTU ratings for your propane appliances and divide that into the BTU availability. Each gallon of propane (3.86 liters) produces about 91,500 BTU’s (46,514 kilojoules) of heat energy.*

## TRAVELING WITH PROPANE

Use care when fueling your tow vehicle. Make certain your propane container is properly fastened in place. The label listed below should be kept permanently affixed to your RV:

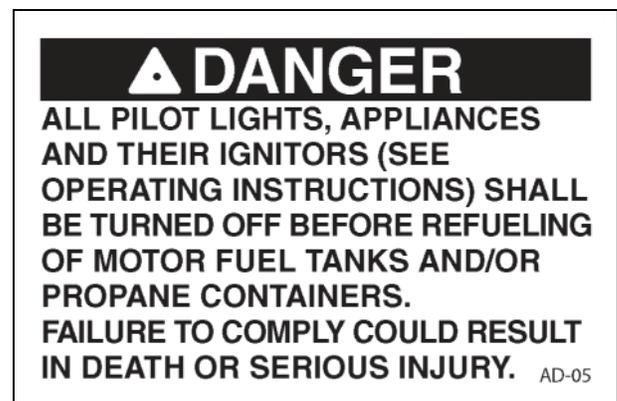


Fig. 8.8 Refueling warning label

*Some states prohibit propane appliances to be operated during travel, especially in underground tunnels. Make sure you know the laws for the areas where you travel.*



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## CAUTION

The tent canvas is a mildew resistant fabric; however, this does not mean that it is mildew proof. Taking proper care of your tent canvas will help to prolong its life. For warranty coverage, it is imperative that you read, understand and follow the listed recommendations in this owner's manual and all related literature.

Proper care and maintenance are important for the life of your tent canvas. If the tent must be stored wet, open the camping trailer and allow the tent to dry thoroughly as soon as possible. Be aware that the canvas portion of the tent will take longer to dry than the vinyl. Make sure the entire tent is completely dry before refolding it and storing the camping trailer.

Assure that your canvas and trailer have good ventilation, especially after a rainy period. The most common cause of a damaged canvas is mildew, which is the result of storing your RV for any period of time with a damp or wet canvas, even for short periods. This is even more important in humid climates.

*Touching the tent canvas when it is wet can cause leakage. During periods of rain, avoid contact with the tent. The natural body oils in skin will neutralize the tent waterproofing and cause the rain to soak through. If leakage persists, please contact your dealer for assistance.*

## SEASONING THE NEW TENT

## CAUTION

It is very important to "season" your new tent. If you do not follow this procedure, you may experience some water seepage during the first few exposures to rain.

Well in advance of your first trip, set up your new RV. Use a garden hose and thoroughly soak the tent with a light spray of water (do not spray directly on the tent with a high pressure hose). After the tent dries, repeat the soaking process three additional times.

If you note any water seepage or leaks after seasoning your tent let the tent dry, then spray water repellent using the instructions provided on the product container. One or more applications of seam sealer may be necessary to stop water seepage in seams where thread enters the fabric. Water repellent products and tent seam sealers are usually available where tent or camping supplies are sold.

*Once performed, the new tent seasoning process (described above) does not need to be repeated unless a section of your tent is replaced.*

## SETTING UP THE FRONT & REAR BEDS (EXP MODELS ONLY)

## CAUTION

Dropping the bed board could cause undue pressure on the RV, cable and bed board.

For storage purposes, the Jay Feather EXP trailer front bed is equipped with canvas straps to hold the bed mats. Prior to setting up the bed(s), the canvas straps should be unhooked by using the clips at the top edge.

1. Unlock and release the flush mounted locks that hold the bed board in place.
2. The bed board is supported by cables attached to the RV and the corners of the bed board. Slowly lower the bed board (DO NOT drop the bed board) into position. Maintain pressure on the bed board until the cables are fully extended.



Fig. 9.1 Tent canvas, exterior side view

3. Pull the tent canvas out and over the edges of the bed board. Make sure the bed bow is pulled up to a vertical position and snap the ends of the tent canvas in place. Then snap the sides of the tent canvas to the bed board.
4. Enter the RV and push the bed mats out onto the bed board. Position the large mat out to the furthest edge of the bed board. Slide the small mat toward you (lining up the velcro to hold it in place).
5. Place the C-shaped end of the straight end of the bed bow support pole onto the bed bow brace connector. Push the bed bow outward and upward while pressing the second button from the curved end of the bed bow support pole. Slip the pole into the bracket, mounted on the roof, just past the first button. Release the button.
6. Fold the canvas straps under the front edge of the small bed mat.
- 7.

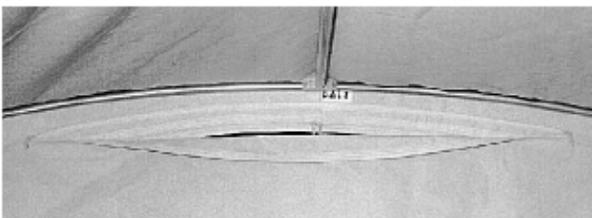


Fig. 9.2 Tent usage

Condensation can be prevalent in trailers if proper ventilation is not used. It can exist whether or not a heater is used. We recommend that you leave a small opening in each bunk zipper to permit air to flow through and allow the tent to “breathe.” This will help minimize moisture gathering above the bunk area on the vinyl (see Condensation).

### Closing the beds

1. Remove the bed bow brace from the ceiling by pushing in on the button and pulling down. Pull the brace toward you to remove it from the bow peg (on the bed bow).

*The small mat may need to be lifted slightly to set on top of any obstructions and avoid pinching the mat when the bed board is closed.*

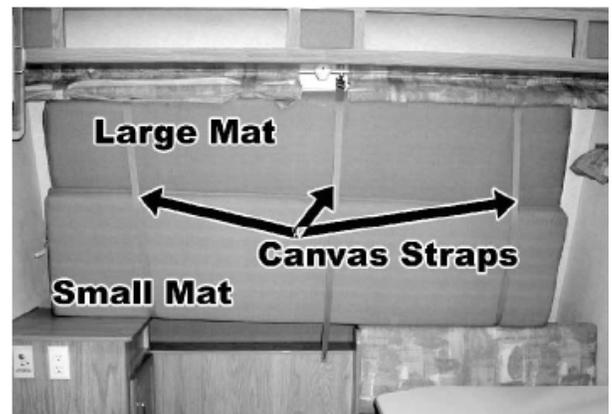


Fig. 9.3 Closing the beds

2. Slide the small bed mat onto the large bed mat. From the far side of the large bed mat, pull the mat up to set on its edge.
3. Hook up the canvas straps to the hasp d-ring located on the ceiling.
4. Exit the travel trailer. Unsnap the sides of the tent canvas and fold the bed bow down to the bed board. Unsnap the end of the tent.



Fig. 9.5 Bulb seal

5. Fold in the tent onto the bed board. **Make sure the bed tent is pushed in at least 1" above the side bulb seal.**
6. Push the bed board up into position. Secure the latches or knobs to hold the bed board into place.

If the bed does not close easily, inspect the bed cushion from the sides looking for obstructions. Once the obstruction is located, lower the bed board, correct the obstruction and try again.

**For more information**

- ❑ See also **Sec. 6 Pre-Travel Information**, Seasoning the new tent canvas (EXP models only).
- ❑ See also **Sec. 9 Storage & Maintenance**, Tent canvas.

**TENT MAINTENANCE**

**Exterior or vinyl side**

For minor stains, dirt, etc., the vinyl or outside of the material can be cleaned with mild liquid detergent and water, using a sponge or soft cloth. **Do not use a brush on the vinyl side of material!** Rinse well and air or wipe dry.

For more stubborn stains, dirt, etc., the tent fabric OEM recommends:

- ❑ OxiClean®
- ❑ Fantastick® (must state it can be used on vinyl)
- ❑ Star Brite® Vinyl Cleaner / Shampoo, #80216
- ❑ Meguiar's® 57 Vinyl & Rubber Cleaner / Conditioner, #5716
- ❑ Marine Specialties Group® Vinyl Finish Vinyl Cleaner #990917
- ❑ West Marine® Vinyl Cleaner, #2669323

**Interior or Fabric Side**

For minor stains, dirt, etc., dry brush with a soft bristle brush or use clean tap water with a sponge or soft bristle brush.

For more stubborn stains, the following products are recommended by the tent fabric OEM using either a sponge, soft cloth or soft bristle brush:

- ❑ OxiClean®
- ❑ Mild liquid detergent
- ❑ Resolve® Carpet Cleaner

**When using any of the above products, please follow the cleaning product manufacturer's directions! If practical, use a wet/dry vacuum to remove all moisture or excess cleaning product. Do not fold up tent while fabric is still wet or damp!**

*Most of the above items can be purchased at local hardware stores, and RV or Marine dealers or supply stores. If you encounter difficulty in locating any of the above cleaners, a simple internet search should direct you to an available supplier.*

**CAUTION**

Do not use any cleaner which contains abrasives, solvents, citrus or chlorine bleach. Damage to the fabric will result.



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## ⚠ WARNING

Ensure that the trailer is level before operating the slideout room. Water leaks and other problems could result if the slideout is operated without leveling the trailer.

Ensure there are no people or obstructions blocking the path of the room when it is moving. Keep away from the slide rails when the room is in motion. The gear assembly may pinch or catch on loose clothing causing personal injury.

Ensure the slideout is in the closed position prior to hooking the unit to the tow vehicle.

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

## ⚠ CAUTION

Do not place excessive weight in the slideout room. It can cause the slideout room to malfunction and cause damage to the slideout.

The slideout room system is designed for additional floor space and comfort. The mechanical components are gear driven. Electric powered slideout room systems have a manual override to allow you to extend or retract the slideout room(s) in case of a power loss.

For the slideout system to work properly, the RV must be leveled before extending the room. Periodically check the accuracy of the leveling system. Check the vehicle leveling system by placing a circular bubble level in the center of the freezer floor with the RV leveled.

Make sure you have sufficient power available before operating your slideout system (refer to **Sec. 2 Electrical Systems**, Calculating electrical load).

### Transit bars (if so equipped)

## ⚠ CAUTION

**IMPORTANT!** Never store the slideout without the travel bars installed. This helps seal the slideout in the closed position.

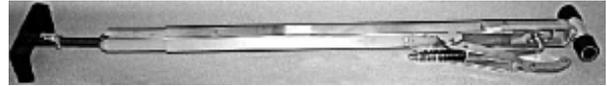


Fig. 10.1 Transit bar

Some RVs have transit bars that need to be installed when the slideout room is in the travel mode. Remove the transit bars before operating the main slideout room. Be sure to install the transit bars where indicated by label on the interior RV wall. The following label should remain permanently affixed to the RV:

TRANSIT BAR

JA-119

Fig. 10.2 Transit bar label

### Extending the slideout room

1. The auxiliary battery (customer supplied) must be fully charged and connected. If possible, the RV should be hooked up to 120-volt AC power so the converter operates.
2. The RV must be level and the stabilizer jacks in the extended position.

## ⚠ CAUTION

Additional support jacks are not needed under the slideout. Damage can occur to your slideout room from improper use of aftermarket support jacks.

3. Locate the slideout control switch.
4. To move the room out, press the OUT section of the switch and hold it until the motor stops (travel time is approx. 25 seconds). Operating the switch after the



room is fully extended will damage the switch and motor.

After the slideout is extended, verify that the corners of the black rubber seal are set up correctly. The corners of this seal are cut at a 45° angle. The top of the seal must overlap the side of the seal to avoid the possibility of water penetration.

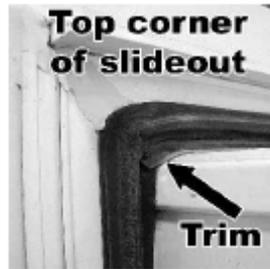


Fig. 10.3 Exterior slideout room corner

### Retracting slideout room

Press the IN section of the slideout control switch and hold it until the motor stops. Operating the switch after the room is fully retracted will damage the switch and motor.

### Maintenance

## **WARNING**

Do not work on your system unless the 12-volt DC (auxiliary battery, customer supplied) and 120-volt AC electrical systems (shore line power cord) have been disconnected.

Your slideout system has been designed to require very little maintenance. To ensure a long life of your slideout system, read, understand and follow these simple instructions. This system contains a pre-lubed bearing that is lubricated when the room is moved in and out. Do not spray oil or grease on the rails while the room is extended.

### Troubleshooting the electric slideout

If the slideout does not move when the slideout switch is depressed, follow these steps.

- ❑ Check the auxiliary battery (customer supplied) for a full charge and good wire connections.
- ❑ Check the 12-volt fuse or circuit breaker.

- ❑ Check for loose connections at the slideout motor.

If the slideout still will not operate, follow these steps.

- ❑ If the slideout is extended, see the section on overriding the electric slideout system.
- ❑ If the slideout is retracted, leave it in that position.
- ❑ Take the RV to a RV dealer or service center.

If the slideout extends crooked or only one side moves, follow these steps.

- ❑ Follow steps on overriding the slideout system.
- ❑ You may need to push the side that is not sliding to get it to retract all the way.
- ❑ Take your RV to an RV dealer or service center.

### Slideout override

Inside the RV, locate the hex head screw on the front of the slide motor. Using a ratchet and 3/4" socket, turn the screw counter-clockwise to retract the slideout. Install the travel bars in the proper locations as indicated by the wall labels. Contact your RV dealer for service.

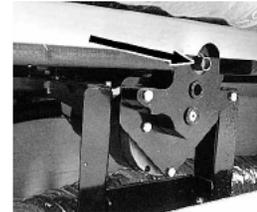


Fig. 10.4 Bed slide hex head

### Rear wall slideout (if so equipped)

The following decal should remain permanently affixed to your RV. If you have any questions regarding the rear wall slideout system please contact your RV dealer or Jayco Customer Service

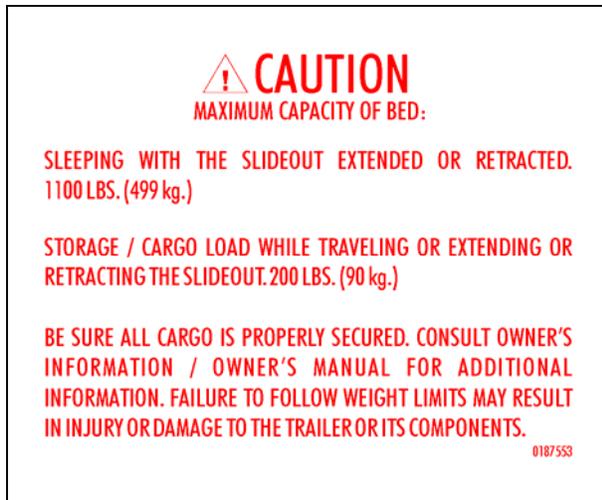


Fig. 10.5 Rear wall slideout system label



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**B**y purchasing your RV you have entered into a lifestyle that encourages long-lasting friendships. People who camp next to one another for a few days are allowed the unique opportunity to cultivate new acquaintances and neighbors. Camping is a great way to relax and enjoy the great outdoors with your family and friends. Please remember to tread lightly on our beautiful land and leave only your footprints so that others may enjoy nature as much as you did.

Searching for the right campground prior to traveling might be the first step in selecting your site. Some campgrounds accept advance reservations (recommended depending on your travel destination and the season of the year, especially holidays). With time, you will know what you are looking for and what best fits your needs. A few items to keep in mind when selecting your campsite are:

- Arrive before dark, if possible, to make the site selection easier.
- Is the ground level? This will help with leveling your RV and making your stay more comfortable.
- Is there plenty of space?
- Will it accommodate slideout, awnings, etc.?
- Is there room for picnic tables, lawn chairs, campfire, etc.?
- Is it void of hanging limbs that may damage your unit?
- Is it located in a convenient area?
- Will you be able to park close enough to hookups (water, sewer, electric)?
- Are you away from noisy areas or things that might detract from a positive experience?
- Is there plenty of shade? Is there good drainage in case of bad weather?

Some campgrounds will post a set of rules for you to see when you check in, but your fellow campers will count on your basic good manners and courtesy. Show respect to others, don't make shortcuts through

occupied campsites. Remember to keep your campsite tidy. Put refuse in containers provided for that purpose, and please avoid contaminating any lake or stream. If you are traveling with pets, we encourage you to research the campground policy regarding pets.

## EXTENDED DRY CAMPING

### CAUTION

Continuous living in your RV could cause accelerated wear and damage to component parts. Use of the RV other than for its intended purpose of recreational travel and camping may affect your warranty coverage.

Your RV has been built for enjoyment in a recreational manner. It is not intended to be used as full-time living quarters.

## COLD WEATHER USAGE

Proper care should be taken when planning to use your RV in cold weather. Please keep in mind that your RV was not designed for use during sub-freezing weather. When used in freezing or below freezing temperatures, the following precautions need to be taken:

- More protection will be needed to protect the fresh water and drainage systems to avoid freezing problems (see **Winterizing the Plumbing System**).
- Propane and sufficient power is needed for protection from possible freeze-ups on the propane regulator. Keep in mind that more frequent furnace operation will substantially increase battery draw and propane use.
- During cool weather usage, ventilation or the addition of a dehumidifier may be required to reduce condensation (see **Condensation**).
- Check outside extrusions on compartment doors, locks, slide outs, windows, vents, etc., for frozen moisture before operating to avoid damage to parts.



## CONDENSATION

### WARNING

Condensation needs to be taken seriously. Ignoring it can damage the RV (damage caused by condensation is not warrantable), and more importantly could lead to mold or mildew issues which could be a health hazard.

Condensation is a natural phenomenon. The amount of condensation will vary with climate conditions, particularly the relative humidity. Condensation occurs because there is water vapor present in the air, which each of us adds to by breathing, bathing or cooking. The water vapor usually collects on the coolest surfaces. When the temperature reaches the “dew point,” the water vapor in the air condenses and changes to a liquid form. If moisture is unable to escape the RV, you will experience condensation.

Most people have experienced this phenomenon when a moisture forms on their windows. Outside air is cooling the window on the outside while inside air is warming the window on the inside; the resulting moisture is attracted to that surface and the windows begin to sweat.

#### To reduce condensation

Proper ventilation and, if needed, the use of a dehumidifier (customer supplied) will assist in controlling condensation. Many RV and marine dealers carry small dehumidifiers sized for RV use. Other suggestions are:

- ❑ Crack open windows and roof vents to allow warm moist air to escape.
- ❑ When taking a shower open the bath roof vent (if so equipped) approximately ½” allowing the moisture to escape.
- ❑ Use the range hood fan (if so equipped) when cooking or washing dishes.
- ❑ Avoid hanging wet towels (or clothes) inside the RV to dry.
- ❑ If condensation is found in cabinets or closets, open those doors slightly to equalize the temperature and provide ventilation.

- ❑ When camping, leave a small opening using each bunk zipper to permit air flow and allow the tent to “breathe.” This will help minimize moisture gathering above the bunk area on the vinyl (see **Condensation**).

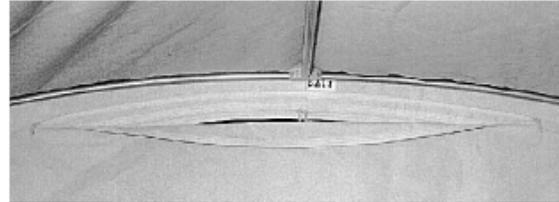


Fig. 11.1 Tent usage

Uncontrolled condensation can cause dampness, mildew, etc., inside your RV. Be sure to make strong effort to control condensation. Repairs due to condensation are not warrantable.

## SETTING UP YOUR CAMPSITE

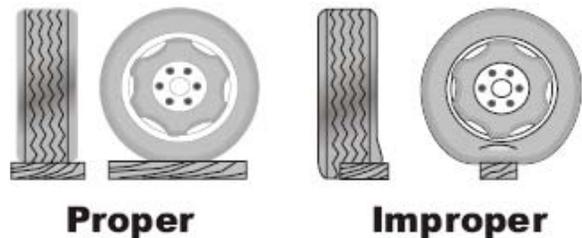


Fig. 11.2 Blocking the wheels

#### Un-hitching your travel trailer

1. Position the RV as desired.
2. Level the RV (side-to-side).
3. Block the wheels securely to prevent the RV from moving.
4. Unhook the wire harness/connector plug, safety chains and breakaway switch lanyard.
5. Install the dolly wheel or platform.
6. Release the weight distributing bars (customer supplied).
7. Open the tongue jack coupler latch.
8. Turn the tongue jack crank to raise the coupler above the hitch ball.
9. Level the RV (front-to-back) with the tongue jack crank.

10. If applicable, lower the stabilizer jacks.
11. Pull the tow vehicle away, as desired.

### Leveling the RV

Now that you have parked your RV, you need to ensure it is level. Leveling is very important. A level RV is more comfortable for sleeping and walking. The refrigerator is designed to operate when level for best performance due to the absorption system. The water drainage systems are designed with proper slope and must be level for proper operation. The appliances perform best when level.

### Extended dry camping

For extended dry camping, management of all your resources is essential. Conserve your water supply. Check your propane and battery levels (conserve the battery power, use it sparingly.)

### Cold Weather Usage

When used in freezing or below freezing temperatures, the following precautions need to be taken:

- ❑ Proper care should be taken with the fresh water and drainage systems to avoid freeze-ups.
- ❑ Propane gas and sufficient power is needed for protection from possible freeze-ups on the propane gas regulator. Keep in mind that more frequent furnace operation will substantially increase battery draw and propane gas use.
- ❑ During cool weather usage, ventilation or addition of a dehumidifier will be required to reduce condensation.

### KEYS

Several keys are provided when you purchase your RV. Most keys have an individual key number stamped on the plate. Record these key numbers and keep the information in safe place. You can order a key blank from your RV dealer to have duplicate keys made. If you lose the keys, contact your RV dealer or a locksmith for assistance.

**Make sure the keys are not inside the RV before you close and lock the entrance door.**

### ENTRANCE DOOR WITH SCREEN DOOR

#### **CAUTION**

Make sure the entrance door is completely closed and locked when traveling. It is dangerous to drive with the door not shut. Locking the door helps prevent it from opening unintentionally and keeps intruders from your RV.

The entrance door is located on the curbside of the RV. We have included an assist grab handle at the entrance door. The interior portion of the entrance screen door is equipped with a plastic slide panel that allows access to the entrance door handle and locks. The entrance door has both a regular door lock and a dead bolt lock. Always hold onto the entry door when opening or closing it; damage caused by the entry door catch and holder because you failed to do so is not covered by the Towable Limited Warranty.

#### **BE SAFE, LOOK BEFORE ENTERING OR EXITING YOUR RV!**

To keep your door operating in the manner in which it was designed and delivered to you, there is some routine maintenance that should be performed regularly.

#### Strike plate or bolt adjustment

#### **CAUTION**

Do not adjust the lock if the RV is not level.

The door in your recreation vehicle was installed and adjusted in a factory setting in a level position. The setting of the striker plate or bolt may change over the course of time and road conditions and that setting may need to be changed or adjusted to insure that your door operates as smoothly and efficiently as it should.



All doors, with the exception of the 6555 door, are built with a camber in the door. This camber is designed in the door to assist in obtaining a tight seal at the top and bottom of the door. To adjust the strike bolt in the rotary lock, loosen the bolt with a 5/8" socket or box end wrench; move the bolt in the direction needed and re-tighten the bolt to 35 foot pounds of torque. The door in your recreation vehicle operates much like an automotive door and must be closed firmly to enable the lock to engage the secondary locking or fully closed position and to compress the seals in the door. Adjusting the lock to lessen the effort needed to close the door will cause the door to not seal properly.

### Locks

The key cylinder in your locks needs to be lubricated on an annual basis or as needed. Always use powdered graphite, never a petroleum product. The petroleum product will gum up the cylinder and cause it to not operate smoothly. Apply a light coating of white lithium grease to the face of the lock bolt to obtain a smooth closing.

### Hinges

The hinges on your door should be lubricated annually or as needed with any high quality spray lubricant.

### LIGHTS

Porch light(s) on either sidewall will have switches located on the interior wall by the entrance door. The interior lights will operate from the converter and/or auxiliary battery. Some lights will have wall switches and others will have switches in the fixtures themselves.

### HEATED BED MATS (IF SO EQUIPPED)

 <b>CAUTION</b>
<p>Read and understand all instructions before using the heated bed mats.</p>

Your heated bed mats are designed to provide years of relaxing, comfortable sleep. The bedding is manufactured to reach gentle, soothing heat warmth, NOT the pain relieving heat of a heating pad. At first touch it may seem only slightly warm because it's conserving energy inside for you, but as your body weight presses onto the bedding, and a blanket covers you, it will feel considerably warmer and comfortable.

### **YOUR HEATED BED MATS SHOULD ALWAYS REMAIN FLAT, NEVER FOLDED, ROLLED OR BUNCHED. EXCESSIVE HEATING MAY OCCUR FROM MISUSE.**

- ❑ Place the bedding on the mattress, box spring or platform with the label and connector up.
- ❑ The cord should be at the head of the bed.
- ❑ Do not tuck in the wired area of the bedding.
- ❑ Let the cord hang free.  
*DO NOT route electrical cords between the heated RV bedding and the mattress, box spring or base platform. Do not allow the cords to be pinched. NEVER pull the mat by its cord.*
- ❑ Keep the control away from an open window.
- ❑ Do not use pins or any heavy, sharp pointed objects on the bedding. They may damage the heating elements. Be sure this bedding is used on a 120 volt AC circuit.
- ❑ Be sure this bedding is used on a 120 volt AC circuit.
- ❑ Turn off the electric current when this bedding is not in actual use.
- ❑ If improper operation of this bedding is observed, discontinue use immediately and consult your RV dealer or the OEM.
- ❑ This appliance has a polarized plug (one blade is wider than the other) as a safety feature. This plug will fit into a polarized outlet only one way. If the plug does not fit



fully into the outlet, reverse the plug. If it still does not fit, contact your RV dealer.  
**Do not attempt to defeat this safety feature.**

**Maintenance**

**⚠ CAUTION**

Do not use dry cleaning fluid on this bedding. Cleaning solvents may have a deteriorating effect on the insulation of the heating element.

To clean, unplug the bed mats first and wipe gently or blot the soiled area using a damp cloth treated with a mild detergent. **DO NOT IMMERSE THE BED MATS.** Allow them to dry thoroughly before plugging in for use.

**J-STEEL SOFA (IF SO EQUIPPED)**

The J-steel sofa functions much the same as a residential futon. To make the J-steel sofa in to a bed, lift up on the bottom seat cushion and pull it towards you. The sofa back will drop down to provide a flat sleeping surface. For additional comfort and to reduce fabric damage, you may want to place a cover or air mattress (customer supplied) over the J-steel sofa when it is in the sleeping position.

**BOOTH DINETTE (IF SO EQUIPPED)**

The dinette is designed to seat up to four adults. You can access the dinette bench storage by removing all the cushions and lifting the bottom seat supports. If the dinette bottom seat support is screwed shut, it is to protect factory-installed equipment that must have proper ventilation (do not use that area for storage). To reconvert back to a booth dinette, reverse the process.

The booth dinette can be converted into a bed. To convert, remove all the cushions from the booth dinette. Lift the tabletop, remove the detachable table legs and place the tabletop on the ledges provided between the booth dinette benches. Lay the seat back cushions against the back of the booth dinette bench.

Lay the dinette seat bottom cushions in between the seat back cushions. The area where the cushions meet should be slightly raised. Push the raised cushion ends down gently. The cushions are designed to fit snugly. Reverse this process when reconverting back to the booth dinette.

**TV ANTENNA & CABLE TV**

RG-6 coax runs from the TV antenna and exterior cable TV connector to a wall plate near the dedicated television space.

*The television entertainment system will not run cable television on one television set and local stations off the other set without customer modification. You can either view local stations or you can view cable television.*

**TV POWER SUPPLY**

For good station reception, the TV power supply must be turned ON to view local television stations. Turning the TV power supply ON sends 12-volt DC through the cable to the TV roof antenna. The voltage energizes the transistors in the antenna head amplifier. The TV signal then comes down the cable to the outlets.



Fig. 11.3  
TV Power Supply

Turn the TV power supply OFF to view cable television or to use a VCR or DVD (if your RV is so equipped).

**TELEVISION ROOF ANTENNA**

To raise the TV antenna to the operating position turn the antenna elevating crank clockwise in the UP direction until some resistance to turning is noted.



Fig. 11.4

On amplified models, 12-volt DC power is required (refer to the OEM operator's manual). After the antenna is in the full UP



position, pull down on the round knob with both hands until it disengages from the ceiling plate. Rotate the knob for best picture.



Fig. 11.5

### Lowering the antenna

Rotate the antenna until the pointer on the directional handle aligns with the pointer on the ceiling plate. Turn the elevating crank counterclockwise in the DOWN direction until resistance is noted. The antenna is now locked in the travel position.

## REFRIGERATOR

### ⚠ WARNING

If you smell propane gas **STOP!** Follow the directions located in your OEM operator's manuals and **Sec. 3 Propane Systems**.

The refrigerator has been designed to operate on 120-volt AC electric, 12-volt DC power and propane gas. The refrigerator is not intended for quick freezing or cooling. We recommend stocking it with pre-frozen or pre-cooled food when possible. The shelves should not be covered with paper or plastic and the food items should be arranged so air can circulate freely.

For optimum efficiency and performance, it is recommended the refrigerator be checked at least twice a year as part of the routine maintenance. Keep the area at the back of the refrigerator clean and free of debris. Check for obstructions in the exterior refrigerator vent area (i.e., spider webs, bird nests, etc). Use a soft cloth to dust off the debris.

### For more information

Refer to the OEM operator's manual for operating, defrosting and maintenance instructions. Cleaning the refrigerator is usually done after it is defrosted or put in storage.

## COOKING WITH PROPANE

### ⚠ WARNING

Do not turn gas range burner controls ON and allow propane gas to escape before lighting.

### ⚠ WARNING

Do not use portable fuel burning equipment (i.e., wood and charcoal grills or stoves) inside the RV.

Unlike large homes, the oxygen supply inside a RV is limited. The following warning labels are located in the kitchen area to remind you to provide an adequate amount of fresh air for combustion. To avoid danger of asphyxiation, provide proper ventilation when using the gas range top or gas oven. Do not remove the following labels from your RV:

### ⚠ WARNING

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

Cooking appliances need fresh air for safe operation.

#### Before operation:

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

**FAILURE TO COMPLY COULD RESULT IN DEATH OR SERIOUS INJURY.**

0010948-USA

Fig. 11.6 Cooking / comfort heating label

TO ENSURE A SUPPLY OF FRESH AIR TO OCCUPANTS, OPEN VENTILATORS WHEN FUEL BURNING RANGE, FUEL BURNING CARRY-ON APPLIANCE, AND/OR FUEL BURNING LIGHTS ARE IN OPERATION. COOKING APPLIANCES SHOULD NOT BE USED FOR SPACE HEATING PURPOSES.

DE MANIÈRE À ASSURER UNE ALIMENTATION EN AIR FRAIS AUX OCCUPANTS, OUVRIR LES VENTILATEURS LORSQUE LA CUISINIÈRE, LES APPAREILS DE CHAUFFAGE PORTABLES ET/OU LES LAMPES DE COMBUSTION D'HUILE SONT EN FONCTIONNEMENT. LES APPAREILS DE CUISSON NE DOIVENT PAS SERVIR AU CHAUFFAGE DES LOCAUX.

0014357

Fig. 11.7 Ensure a supply of fresh air label

## KITCHEN RANGE & OVEN

Find and follow the instructions listed for the kitchen range (or oven) configuration appropriate to your RV in the following pages. To prevent damage to the range top (or oven), use the manufacturer recommended size flat bottom pans. Generally, pans should be large enough to cover the surface unit heating element (or burner) but not be more than one inch larger than the grates. In addition, the use of undersized utensils will expose a portion of the heating element to direct contact and may result in ignition of clothing. Proper relationship of utensils to burner will also improve efficiency.

### WARNING

During and after use, do not touch or let clothing or other flammable material come in contact with the top burners (or heating elements), burner grates or other areas near the top burners or oven until they have had sufficient time to cool. These areas can get hot enough to cause burns.

Never leave cooking food unattended. Turn pan handles inward, but not over the tops of the other range burners. Ensure that pans used are large enough to contain the food and avoid boil-overs. Heavy splattering or spills left on the cook top can ignite and cause burns.

If using glass, glass/ceramic, ceramic, earthenware or other glazed utensils (or cookware) verify it is safe for use on the top burners. Only certain types of utensils (or cookware) are suitable for surface or top burner use.

### Three-Burner Range/Cook top (if so equipped)

Read the OEM operator's manual for detailed operational instructions. If you have any questions contact your RV dealer or visit the OEM website. Do not use a broiler pan, griddle or any other large utensil that covers more than one range or cook top burner at a

time. This will create excessive heat that may cause melting, sooting or discoloration.

### Oven (if so equipped)

### WARNING

Do not cover the oven vent openings while the oven is in operation. Restricting the flow of combustion air will create an asphyxiation hazard.

The propane gas oven must have 12-volt power to operate. Read the OEM operator's manual provided by the oven manufacturer for detailed operational instructions. If you have any questions contact your RV dealer or visit the OEM website. Do not use the oven as a storage area.

### For more information

Refer to the specific appliance OEM operator manuals contained in your Goodie Bag.

## IN CASE OF A GREASE FIRE

Grease is flammable. Never allow grease to collect around top burners or on the cook top surface. Wipe spills immediately. If a fire does start, follow these basic safety rules:

- Have everyone evacuate the RV immediately.
- After everyone is clear and accounted for, check the fire to see if you can attempt to put it out. If it is large or the fire is fuel-fed, get clear of the RV. Have the Fire Department handle the emergency.
- Try to smother a flaming pan with a tight-fitting lid or cookie sheet.
- Never pick up a flaming pan.
- Flaming grease outside of the pan can be extinguished with baking soda or a multipurpose dry chemical or foam-type fire extinguisher.



## ⚠️ WARNING

Do not attempt to use water to put out the fire. Water can spread some types of fire, and electrocution is possible with an electrical fire.

### MICROWAVE (IF SO EQUIPPED)

Make sure there is sufficient 120-volt power available before operating the microwave. Read the OEM manual for detailed operational instructions. If you have any questions contact your RV dealer or visit the OEM website. To prevent damage, remove the turntable from the microwave when traveling.

### PANTRY

Depending on the kitchen layout of your RV, you may have a pantry that you can use to store items you wish to take with you as you travel and camp. Ensure items stored in the pantry are secured so they do not shift during travel. The cabinetry has been designed to accommodate the normal camping items (i.e., paper plates, flatware, cookware, etc.) which are bulky but not necessarily heavy.

**Remember your RV's load capacity is designed by weight, not volume, so you cannot necessarily use all available space.**

### BBQ GRILL PREP

## ⚠️ WARNING

Make sure that you read, understand and follow all information supplied with your RV about propane before operating the BBQ grill. The propane hose must be correctly connected before lighting the grill. Failure to follow instructions supplied by the grill manufacturer with your RV or to use any other components than those originally supplied with the grill could lead to death or serious injury from fire or explosion.

Your RV is equipped with a propane "quick coupler" connection and support bracket for

easy installation of the optional BBQ grill. The "quick coupler" is directly connected to the propane system of your trailer.

The "quick coupler" connection can be attached to the BBQ grill as follows:

1. Place the "quick coupler handle in the OFF position and push back the sleeve. The valve handle must be OFF to make the connection.
2. Insert the plug at the end of the BBQ grill propane hose and release the sleeve.
3. Push the plug until the sleeve snaps forward, locking the plug into the socket.
4. Turn the handle ON to allow propane to flow to the BBQ grill.

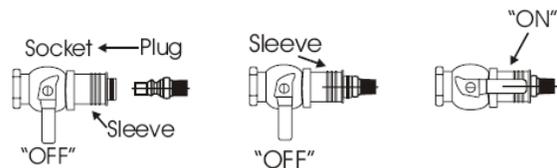


Fig. 11.8 Quick connect coupler

### BBQ GRILL (IF SO EQUIPPED)

## ⚠️ WARNING

The maximum weight limit for the bracket on the side of your trailer is 50 lbs. This limit includes the weight placed on the BBQ grill. Exceeding this weight limit could cause damage to the unit and possibly cause personal injury from hot equipment.

The BBQ grill is for use outside of the trailer. Never use this grill inside a compartment or the trailer. The bracket and "quick coupler" propane connection are installed on your trailer as standard equipment. Make sure to read, understand and follow all instructions listed in the OEM operator's manual. Before operating the BBQ grill, make sure that it is securely placed on the support bracket.

The BBQ grill must be COMPLETELY cooled before storing to avoid damaging the carrying case (if so equipped) and causing injury from

handling the grill when it is hot. Wait until the grill is completely cooled, then store it.

### **Vitco grills only**

The carrying case will ONLY accommodate a cool grill. The grill carrying case has a pocket for accessories such as the propane hose in the lid. The bracket will not fit inside the carrying case and will need to be stored in a separate location. Sanitize the detachable tray before using it.

### **PATIO AWNING (IF SO EQUIPPED)**

#### **WARNING**

Awnings must be closed (and locked if applicable) while the RV is in transit.

Please refer to the awning OEM manual. Keep your awning in good condition to prevent costly repairs. It is very important to keep the awning clean. If weather conditions are windy or stormy, close the awning into the travel mode position. Shut the awning in the travel position if you will be away from the RV for an extended period of time.

*The 12-volt power awning may need to be adjusted (retracted) to operate the entry door (some Jay Feather models).*

### **DUCTING & RETURN AIR**

All heat discharges, registers and return air grills must be free and clear of obstructions. This includes all closeable registers that are intended to reduce airflow, not shut it off completely.

### **ATTIC FAN (IF SO EQUIPPED)**

The 12-volt DC attic fan (or powered roof vent) allows fresh air to circulate through the RV. Read the OEM manual for detailed operational instructions. If you have any questions contact your RV dealer or Jayco Customer Service.

Do not leave the attic fan in active automatic mode when the RV is stored or unattended for long periods. High winds, other unusual conditions or obstructions may prevent the dome from closing. The resulting leakage could cause damage.

### **THERMOSTAT**

There are may be up to two 12-volt DC thermostats in your RV.). Use the controls to set the temperature to your comfort setting. Read the OEM manual for detailed operational instructions. If you have any questions contact your dealer or Jayco Customer Service.

### **AIR CONDITIONER (IF SO EQUIPPED)**

Your RV has a roof mounted air conditioning system that is controlled by a thermostat. Cooled air enters the RV through the adjustable “chill grill.” Make sure you have sufficient power available before operating the air conditioner. Do not operate the air conditioner without the return air filter. Operating the system without the filter allows the lint and dirt that is normally stopped by the filter to accumulate on the cooling coil of the air conditioner. This also will lead to a loss of air volume, possible equipment damage and an expensive cleaning process.

A special foam gasket is placed between the roof material and the subframe of the air conditioner to guard against water leakage. The air conditioner is subjected to wind pressures along with motor vibration during normal operation. Inspect the mounting bolts for tightness to ensure there is no leakage or looseness at least annually. Re-tighten bolts when they are loose. DO NOT over tighten these bolts as it may damage this gasket. The air conditioner gasket is a wearable part that eventually will need to be replaced as maintenance. To gain access to the bolts, remove the filtered panel cover on central air systems or the entire air box on non-central air conditioners.



## FURNACE

The RV furnace installed in the RV is controlled by a thermostat. The furnace requires both 12-volt power and propane gas for full operation. Make sure you have sufficient power available before operating your furnace (refer to **Sec. 2 Electrical Systems**, Calculating electrical load). Read the OEM operator's manual for detailed operational instructions. If you have any questions contact your RV dealer or visit the OEM website.

### WARNING

The furnace should be inspected periodically (monthly during the heating season) for presence of soot on the vent. Soot is formed whenever combustion is incomplete. This is a visual warning that the furnace is operating in an unsafe manner. If soot is observed on the vent, immediately shut the furnace OFF and contact a qualified service agency. Operating the furnace under this condition could lead to serious property damage, personal injury or loss of life.

### WARNING

To ensure your personal safety, do not obstruct or alter the furnace in any manner. Do not install screens over the vent for any reason. Screens will become restricted and cause unsafe furnace operation. For your safety, only OEM factory authorized parts are to be used on your furnace.

A qualified RV technician should perform all furnace maintenance at least once a year (more often depending on furnace usage). Never attempt to repair the furnace yourself.

Preventive maintenance and safety checks should be performed by a qualified technician at least once a year, or more, depending on the use of the furnace. Failure to properly maintain the furnace may void the furnace warranty and can result in unsafe furnace

operation. Preventive maintenance is NOT covered under the warranty. Power should be disconnected before servicing. Refer to the OEM operator's manual for more information.

## DEPARTING CAMP CHECKLIST

When the time arrives to return home, it is again critical that you complete the necessary procedures to ensure a safe trip. As you develop a routine, it is possible that a checklist will be helpful. This is a general list, which you may want to customize as you determine your own needs.

### Safety

- Make sure you follow all safety precautions noted in this owner's manual and in any OEM operator's manual when preparing to travel home.

### Interior

- Close roof vents
- Close windows & latch blinds
- Counter items put away or tied down
- Furnace turned off
- Latch drawers, cabinets & doors
- Lights turned off
- Lower antenna & satellite dish (if applicable)
- Move slideout in and lock it in place (if applicable)
- Position the booth dinette in the bed position for travel (if applicable)
- Refrigerator door locked
- Set refrigerator to 12-volt (if applicable)
- Water heater turned off
- Water pump turned off

### Exterior

- Empty black holding tank
- Empty gray holding tank
- Lock all exterior compartments
- Pack equipment into compartments and secure it
- Propane turned off
- Retract awning and secure in place (if applicable)
- Retract slideout (if applicable)
- Retract step
- Rinse black holding tank, if necessary
- Visually look under RV for items missed



- \_ Water hose & electric cord unhooked and stored

**Trailer**

- \_ Check belts
- \_ Check lights
  - \_ brake lights
  - \_ clearance lights
  - \_ turn signals
- \_ Breakaway switch and lanyard connected
- \_ Check tire pressure (include inner wheel and spare, if applicable)
- \_ Check tire wear (uneven wear pattern)
- \_ Check wheel lugs
- \_ Coupler locking pin connected (if applicable)
- \_ Dolly wheel removed (if applicable)
- \_ Proper tongue weight maintained (25% of gross weight - fifth-wheel travel trailer and contents)(10-15% of gross weight - conventional travel trailer and contents)
- \_ Retract stabilizer jacks
- \_ Retract steps
- \_ Safety pin or locking lever must be seated (if applicable)
- \_ Test brakes for proper operation
- \_ Tongue jack fully up (if applicable)
- \_ Trailer electric cable secure
- \_ Trailer is level.
- \_ Trailer safety chains connected (if applicable)



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Depending upon your area and where your RV is stored, your vehicle may be a target for damage from rodents and insects. To protect your RV, never leave food inside and ensure that all surfaces are clean. Place rodent control products in the unit during periods of storage. Mice and other rodents can do a tremendous amount of damage to the drapes, cushions, etc., particularly during the winter months. Storing your RV in a field can make it particularly inviting. Periodically inspect it during storage and seal off any areas that can offer an entry point to rodents or insects. Remember to remove any screens or tape used to seal openings before using the RV again. Damage from rodents or insects is not covered by the Towable Limited Warranty.

When storing your RV, it is recommended that the auxiliary battery (customer supplied) be disconnected to avoid battery discharge.

## FORMALDEHYDE

Some components in the RV contain formaldehyde-based adhesives that may release formaldehyde fumes into the air for an unknown time period. Individuals who are allergic to formaldehyde gas fumes may experience irritation to eyes, ears, nose and throat. Indoor air quality may also be affected by leaving your RV closed for storage. To aid in dissipation, ventilate by opening all windows and circulate the air with a fan. The following label should be left permanently affixed to the RV:



Fig. 12.1 Formaldehyde warning label

## ABS PLASTICS

ABS plastic components will retain their original beauty with reasonable care. Dust and wipe clean with soft, damp cloth or chamois, wiping gently. Wax or polish with Simoniz®, Aero-Wax® or Glo-Coat® using flannel or jersey cloth (after polishing, wipe gently with damp cloth to ground electrostatic charges that may attract dust particles). DO NOT use gritty or abrasive particle soaps or scouring compound to clean ABS plastic. Avoid using "Citrus" or biodegradable cleaners which contain "D-Limonene." They will damage plastic materials.

## BATHROOM TUB, LAVATORY SINK

The tub in your RV is made of ABS plastic material. DO NOT use abrasive type cleaners, as they may scratch surfaces. Use a mild detergent soap and warm water to clean the tub surface. These cleaning instructions are similar to those recommended for fiberglass tubs and walls. For any type of repair work, see your RV dealer.

## HARDWARE & SINK OR SHOWER FIXTURES

Use mild dish soap and water to clean these fixtures. Never use harsh chemicals or sprays. A mild solution of vinegar and water works well to remove hard water spots and stains from the sink or shower fixtures.

## SHOWER CURTAIN LINER

The shower curtain liner should be cleaned as you would clean your own shower curtain liner at home.

## TOILET

The care and maintenance of your RV's toilet should be performed according to the OEM operator's manual. If you have further questions, consult with your RV dealer and/or visit the OEM website.



## **PANELING**

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The wall paneling in your RV is a vinyl covered wood panel. If deep scratches occur, putty sticks can be used to cover them (they can be obtained from hardware stores and lumberyards). For decor paneling, replacement vinyl covering can be purchased for repairs if needed. Contact your RV dealer parts department for assistance.

To clean, use a mild solution of soap and lukewarm water with a soft sponge or cloth. **DO NOT** use abrasive cleaners. It could cause the vinyl to scratch and turn dull. Grease spots and stubborn dirt can be cleaned off with an all-purpose spray cleaner. Harsh cleaners and organic solvents can attack the printed vinyl; they are not recommended.

## **FURNITURE**

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Vacuum occasionally to remove dirt, dust and pet hair. Have the furniture dry cleaned when necessary. Always test the fabric for color fastness in an inconspicuous location before using any product.

## **COUNTERTOPS (HIGH PRESSURE LAMINATE)**

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Glass rings, food spills, water spots and smudges usually wipe off with a damp sponge. Stubborn stains can be removed with a general-purpose spray cleaner. Some stains can be removed by squeezing fresh lemon juice over the stain and allowing the juice to soak for approximately forty-five minutes. After 45 minutes, sprinkle baking soda over the lemon juice and rub with a soft cloth

## **CUSHIONS/BED MATS**

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Do not dry clean vinyl components. If the cushions are dry cleaned, the vinyl on the reverse side of the cushion will shrink, become hard and crack. Vacuum the fabric with a brush attachment periodically to remove dirt and wipe the vinyl surfaces. If a spill does occur water base cleaners are

recommended (solvents are not recommended as they may have an adverse reaction to the specific backing of your upholstery fabric). Blot up the spot, but do not rub it in or saturate the area. Clean it in a well ventilated area and avoid products containing toxic materials. Always test the fabric for color fastness in an inconspicuous location before using any product. Use a professional furniture cleaning service for an overall cleaning. The dinette and bed mat covers are treated with a stain protector.

## **VINYL FLOOR**

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To care for the vinyl floor covering, use a damp mop with water and a mild cleaner. **DO NOT SOAK THE FLOORING.** Use care to avoid wetting the carpet edges. To avoid problems of “yellowing” linoleum, the flooring OEM recommends avoiding cleaners that contain oil based solvents (i.e. cleaners containing lemon oil, Murphy’s Oil Soap, etc.).

## **CARPETING**

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Because of the additional dirt typically associated with camping, we recommend that you vacuum the carpet frequently. Have tough and deep stains professionally steam cleaned. Use spot removers for minor spills. Always test the carpet for color fastness in an inconspicuous area before using any product. Avoid chemical cleaners. Do not permit cleaners to touch carpet or fabrics.

## **BEDSPREADS**

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Dry clean only. Test fabric for color fastness in an inconspicuous location before using any spot cleaners.

## **WINDOW TREATMENTS**

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The window treatments in your RV may include mini blinds, pleated shades and/or drapes or SoftShades™. To prevent scorching of the window shades, do not use the swivel arm lamps located adjacent to the slideout if one of the lampshades is broken or missing. Remove the light bulb and contact your RV dealer for repairs or replacement.



### **SoftShades™**

For best results, have SoftShades™ dry cleaned by a professional. However, they may be washed in cool water on the delicate cycle (line dry only). Care must be taken to follow these instructions or the results may not be satisfactory.

### **DOORS & LOCKS**

Locks on entrance and baggage doors need biannual lubrication. Light silicone lubricant is recommended. Conditions such as rain, salt, dust and pollution may increase the maintenance needs.

### **FIBERGLASS SIDEWALLS**

Fiberglass walls are very durable and easy to maintain. To keep them looking nice, wax and buff them once a year. Standard automotive cleaning soaps and waxes work well for general cleaning and maintenance. In addition, do not dry wipe surface. Special cleaners and waxes are available at automotive and RV stores. Scratches, chips and other cosmetic cracks can be easily fixed by an experienced fiberglass repair shop. Any major damage should be repaired as soon as possible to keep cracks from spreading.

*We recommend that you do not take your recreation vehicle through automatic car washes. Extreme caution should be used if utilizing any type of pressure sprayer around all attachments, doors, windows, appliance vents, etc. Avoid forcing water inside the unit, which could possibly damage component parts.*

### **STONE GUARD (IF APPLICABLE)**

Wash the stone guard with liquid dishwashing soap or liquid car washing soap and water. Do not use powdered detergent, powdered soap, liquid and spray cleaners or pressure washing. Wax frequently to protect the surface and make cleaning easier.

### **RUBBER ROOF**

The Royal Tuff Ply TPO rubber roof on your RV is manufactured by Alpha Systems. Read

and follow the OEM operator's manual when cleaning the rubber roof. If you have questions, contact your RV dealer.

### **TRAILER FRAME**

Sand, pebbles, objects on the highway, climate (salt air exposure) or ice inhibiting chemicals used during the winter months will damage the paint, inviting rust and other deterioration. Periodically inspect the exterior exposed areas, clean and repaint the steel members occasionally and whenever you notice rust or paint chipped away, to insure protection.

#### **Dexter Chassis Group (DCG) frame only**

If rust occurs, the frame should be cleaned and painted. We recommend the use of Rust-Oleum® Rusty Metal Primer and Rust-Oleum® gloss black paint (follow the directions on the paint can). To prevent rust or corrosion, you may wish to purchase a commercial treatment application such as Ziebart®, etc.

*Rust or frame damage resulting from lack of routine maintenance voids the Towable Limited Warranty.*

### **E-Z LUBE AXLE**

The E-Z Lube feature on your axles provides the ability for the bearings to be periodically lubricated without removing the hubs from the axle. This feature consists of axle spindles that have been specially drilled and fitted with grease zerks in their ends. When grease is pumped into the zerk, it is channeled to the inner bearing and then flows back to the outer bearing and eventually back out the grease cap hole. An operator's manual is supplied by the axle OEM that covers the maintenance of your axles. If you have further questions, consult with your independent, authorized dealer and/or visit the manufacturer's website.

The convenient lubrication provisions of the E-Z Lube and the oil lubrication must not replace periodic inspection of the bearings.

#### **Dexter Axle Lift Kit**

The optional lift kit will raise the RV approximately 2". Check with your RV dealer



to see if the lift kit can be added aftermarket on your RV (not available on all models)

**Wheel Bearings**

Your RV wheel bearings require maintenance just as any other vehicle wheel bearings. Make sure you read, understand and follow the axle OEM operator's information. If you have further questions, consult with your dealer and/or visit the OEM website.

**REAR BUMPER**

**⚠ CAUTION**

Do not add items to the RV rear bumper. Add-on items will eventually damage your bumper. Damage caused by such aftermarket equipment installation or improper loading voids the Towable Limited Warranty.

The rear bumper of your RV is not designed to carry cargo. Items that extend beyond the bumper will place undo strain on the bumper.

*The Jay Feather Sport (only) 100# bumper capacity includes the weight of the spare tire that may have been attached at the factory. Some items may fall within the given weight range, however, can still cause damage.*

Over time, weight added to the bumper will cause damage from the motion created while traveling. In addition, extra weight behind the axle may reduce the hitch weight (leading to adverse handling conditions from wind gusts and/or passing traffic).

**SEALANTS**

Water is a recreation vehicle's worst enemy when it is allowed to enter where it is not intended. Sealants perform a very important function, must be inspected closely and regularly maintained. We incorporate many different types of sealants, including butyl/putty, black butyl-encapsulated foam, silicone (clear and colored), roof sealant and foam. In general, sealants do not have "set" lifetimes. Varying environmental factors affect the pliability and adhesiveness of sealants.

Sealants can be affected by ultraviolet exposure, air pollution, extreme temperatures and exposure to other elements. Conditions such as rain, salt, dust and pollution may increase the need to maintain your RV's sealants. Checking the sealants is considered customer maintenance. It is recommended that you or your RV dealer:

- ❑ Inspect all sealants, a minimum of every six months. Make sure to check the roof and all four sides of the RV including all moldings, windows, doors, vents and exterior attachments. Reseal as necessary and at least one time each year as preventative maintenance.
- ❑ Cap seal (if applicable) or replace the sealant if you notice any cracks, gaps, lifting, looseness, peeling, shrinkage, voids or any sign of physical deterioration. Complete repairs immediately to prevent damage to your RV.
- ❑ Always use the same type of sealant originally used to build your RV. Consult with your RV dealer for the proper sealant(s) to use on your RV.
- ❑ If you notice water inside the unit, immediately have the RV dealership check for the source of the leak. Failure to correct the leak may result in serious damage to your RV. This damage will not be covered under the Towable Limited Warranty.

**⚠ CAUTION**

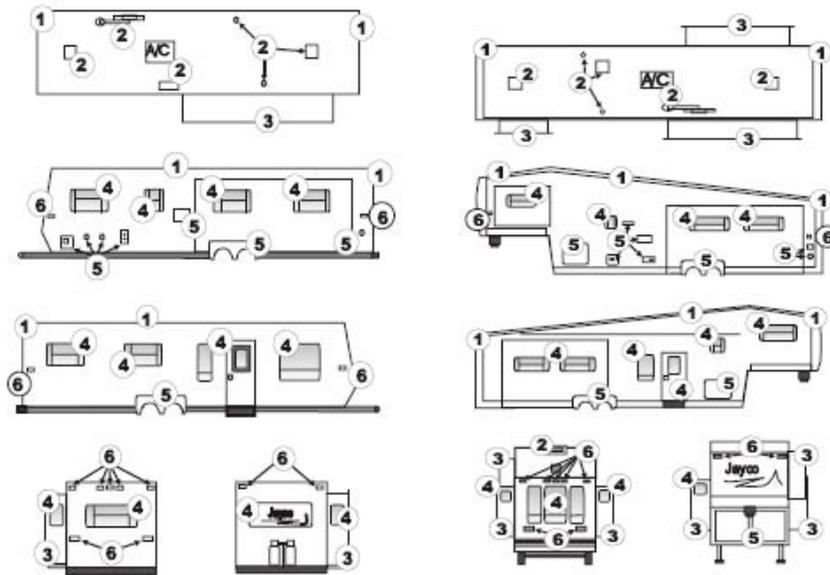
To check the exterior sidewall sealants, use a stepladder placed safely beside the RV. Do not prop a ladder against the body of the RV as it may damage the finish.

**⚠ CAUTION**

Failure to properly maintain or reseal your RV may result in serious water damage to the roof and other parts of the unit. This damage is not be covered by the Towable Limited Warranty.



Although the above diagrams may not accurately reflect the exact model of your RV, make sure you inspect all sealants as indicated in the text. If you have questions and/or need assistance with sealing your RV, consult with your RV dealer.



1 = Moldings  
2 = Vents/Attachments to Roof  
3 = Slideout Trim/Moldings

4 = Windows/Doors  
5 = Exterior Attachments  
6 = Marker & Tail Lights

## STORAGE CHECKLIST

### Prior to Storage

If storing for the winter, be sure the RV is winterized (refer to **Sec. 5 Plumbing System**, Winterizing the plumbing system).

- Check your roof and other surfaces to ensure there is no damage and potential leakage that might otherwise go unnoticed until it is too late.
- Close all windows and roof vents.
- Close the propane cylinder valve(s). If your cylinders do not already have a cover, purchase at least a vinyl propane cylinder cover and make sure the regulator is covered.
- Cover all external outlets, such as furnace, exhaust, etc. to prevent mice or other rodents from entering.
- Cover the roof air conditioner (if so equipped).
- Disconnect 120-volt AC power to the RV.
- Do not use the stabilizing jacks during storage.
- Drain all water lines.
- Drain and flush all holding tanks (fresh water, gray water, black water and/or hot water tanks).
- Inspect the sealant and reseal as needed.
- Remove all batteries from the RV and store in a place where they won't freeze. Batteries that have been frozen will never hold a proper charge.
- Remove all perishable items from the interior. If storing during the winter months, include any items that are susceptible to freezing.



- \_ Store your RV indoors, under a roof or purchase a tarp to cover your RV during storage. Make sure you invest in a good tarp that can “breathe.”
- \_ Thoroughly wash the interior and the exterior of your RV.
- \_ To prevent weather checking and other UV damage, cover tires that are exposed to sunlight.
- \_ Turn all cushions on edge to prevent the moisture/mildew buildup during storage.
- \_ Turn off 12-volt DC/120-volt AC/propane to the refrigerator; defrost and clean. Use crumpled newspaper or open boxes of baking soda in the refrigerator to eliminate odors during storage.

**During Storage Period**

- \_ Remove snow loads from the top of your RV to prevent damage to the unit’s structure.

**⚠ CAUTION**

Excessive snow, 8" or more, or ice, 2" or more, places excessive weight on the RV roof. Remove excessive snow or ice as needed. Care **MUST** be exercised to not damage the roof material when removing snow & ice. Excessive weight can damage the roof, seals, etc. Water leaks and poor fit or operation are the results of this damage.

**MAINTENANCE CHECKLIST**

This list is a quick reference sheet for suggested areas of regular maintenance. Review all OEM operator’s manuals supplied with your RV to perform these listed maintenance items.

**Prior to First Trip**

- \_ Check propane lines for leaks.
- \_ Test propane, smoke and carbon monoxide detectors.
- \_ Sanitize fresh water system.

- \_ Check wheel nuts at specified intervals to listed torque values. Re-torque as needed. Refer to the axle manufacturer’s manual.
- \_ Open all windows and the door and start the furnace. Leave the windows and door open and the furnace on until the odor from the initial use of the furnace is fully dissipated.

**First Two-Hundred Miles**

- \_ Check wheel nuts at specified intervals to listed torque values. Re-torque as needed. Refer to the axle manufacturer’s manual.
- \_ Have brakes adjusted by a qualified service technician.

**Each Trip**

- \_ Check battery water level. (If equipped with battery.)
- \_ Check propane lines for leaks.
- \_ Check running lights.
- \_ Check tire pressure and wear. Make sure the tires are cold when checking the tire pressure.
- \_ Flush out water heater tank.
- \_ Inspect safety chains for signs of wear.
- \_ Test brakes.
- \_ Test propane, smoke and carbon monoxide detectors.

**After Every Tire Change**

- \_ Tighten wheel nuts to specified torque values at 10, 25 and 50 miles (16, 40, and 80 kilometers) to assure that they are correctly “seated” after the tire change. Refer to the axle OEM operator’s manual.

**Daily**

- \_ Ensure propane detector operation light is green in color.
- \_ Recharge battery after each use.

**Weekly**

- \_ Check propane lines for leaks.
- \_ Test propane, smoke and carbon monoxide detectors. \_Check tire pressure and wear. Make sure tires are cold when checking the tire pressure.

### Monthly

- \_ Check fire extinguisher pressure. Refer to the fire extinguisher label for specific instructions.
- \_ Clean and lubricate the coupler.
- \_ Test the ground fault circuit interrupter (GFCI)

### Every Three Months or 3,000 Miles

- \_ Check propane lines for leaks.
- \_ Check wheel nuts at specified intervals to listed torque values. Re-torque as needed. Refer to the axle OEM operator's manual.
- \_ Check, clean, tighten and lubricate battery cables.
- \_ Compare refrigerator pilot flame with ideal flame. Refer to the refrigerator OEM operator's manual for ideal flame. Have cleaned and adjusted as necessary by a qualified technician. (RV type refrigerator only)
- \_ Compare water heater pilot flame with ideal flame. Refer to the water heater OEM operator's manual for ideal flame. Have cleaned and adjusted as necessary by a qualified technician.
- \_ Drain and sanitize fresh water system.
- \_ Examine the tires for unusual wear, sidewall defects from possible cuts, bulging and abrasions.
- \_ Have brakes adjusted by a qualified service technician.
- \_ Inspect propane cylinders for rust, pits, gouges, scrapes or sharp dents. Repaint cylinders if rust is present.
- \_ Inspect refrigerator combustion seals. Have cleaned and adjusted as necessary by a qualified technician. (RV type refrigerator only)
- \_ Inspect refrigerator door seals.
- \_ Lubricate hitch ball.
- \_ Lubricate tongue jack.

### Every Six Months or 6,000 Miles

- \_ Check pipe connections for tightness. Tighten if necessary.
- \_ Clean and lubricate stabilizer jacks.
- \_ Clean drains with approved drain cleaners.
- \_ Have suspension system serviced by a qualified service technician.
- \_ Inspect and reseal as defined earlier in this chapter

- \_ Inspect wheels for cracks, dents or distortion.
- \_ Lubricate all moving parts on the entrance steps.
- \_ Lubricate entrance and baggage door locks.
- \_ Lubricate the bearing surface between the rotating gear housing and the base plate on the television antenna.
- \_ Lubricate the elevating gear on the television antenna.
- \_ Lubricate the rubber quad ring on the elevating shaft located on the television antenna.
- \_ Perform routine preventative maintenance on the entire trailer and all component parts.

### Every Year or 12,000 Miles

- \_ Check demand tank vent for obstructions.
- \_ Check water pump connections and mountings for tightness.
- \_ Clean city water entry strainer.
- \_ Have brakes inspected and serviced by a qualified technician.
- \_ Have furnace inspected and serviced by a qualified technician.
- \_ Have propane system inspected and serviced by a qualified technician.
- \_ Have the refrigerator inspected and serviced by a qualified technician.
- \_ Inspect and reseal as defined earlier in this chapter.
- \_ Lubricate moving parts on the awning hardware. (Awning option only.)
- \_ Manually operate the pressure-temperature control lever on the water heater.
- \_ Perform routine preventative maintenance on the entire trailer and all component parts.
- \_ Repack wheel bearings.
- \_ Replace battery on the carbon monoxide detector.
- \_ Rotate Fluorescent tubes in the light fixtures.

### Every Five Years

- \_ Replace propane and carbon monoxide detectors.



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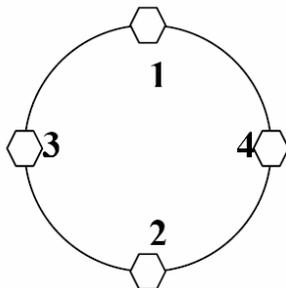
## OEM LIST

The following chart provides information to contact some of the individual original equipment manufacturers (OEM) of appliances/component parts that may be installed on your RV. The information listed in this chart is the latest available at the time of publication of this manual. If you have questions or concerns on component parts not listed here, contact your RV dealer for further assistance.

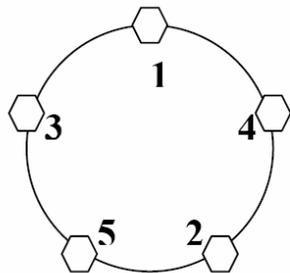
Component part	OEM	Website	Phone #
Air conditioner	Coleman	<a href="http://www.rvcomfort.com/rvp">www.rvcomfort.com/rvp</a>	(316) 832-4357
Attic fan (power)	Ventline	<a href="http://www.ventline.com">www.ventline.com</a>	(574) 848-4491
Awning	Carefree of Colorado	<a href="http://www.carefreeofcolorado.com">www.carefreeofcolorado.com</a>	(800) 622-3230
Axle	Dexter Axle	<a href="http://www.dexteraxle.com">www.dexteraxle.com</a>	(574) 295-7888
BBQ grill	Vitco	<a href="http://www.vitco.com">www.vitco.com</a>	(877) 736-2635
Carbon monoxide alarm	Quantum	<a href="http://www.qginc.com">www.qginc.com</a>	(800) 432-5599
Converter	Iota	<a href="http://www.iotaengineering.com">www.iotaengineering.com</a>	(520) 294-3292
Exterior entertainment center	Contact your RV dealer		
Entrance Step	Hickory Springs	<a href="http://www.hickorysprings.com">www.hickorysprings.com</a>	(800) 438-5341
Exhaust fan	Ventline	<a href="http://www.ventline.com">www.ventline.com</a>	(574) 848-4491
Furnace	Atwood/Hydroflame	<a href="http://www.atwoodmobile.com">www.atwoodmobile.com</a>	(815) 877-5700
Heated bed matts	Flair Interiors	<a href="http://www.flairinteriors.com">www.flairinteriors.com</a>	(574) 534-2163
Microwave	Contact your RV dealer		
Outside shower	B & B Molders	<a href="http://www.bandbmolders.com">www.bandbmolders.com</a>	(574) 259-7838
Propane (LP) gas alarm	MTI	<a href="http://www.mtiindustries.com">www.mtiindustries.com</a>	(800) 383-0269
Propane cylinder	Manchester Tank	<a href="http://www.manchestertank.com">www.manchestertank.com</a>	(800) 877-8265
Propane regulator	Marshall Brass	<a href="http://www.marshallbrass.com">www.marshallbrass.com</a>	(800) 447-9513
Radio with CD (EXP, LGT)	Contact your RV dealer		
Range	Atwood	<a href="http://www.atwoodmobile.com">www.atwoodmobile.com</a>	(815) 877-5700
Rangehood	Ventline	<a href="http://www.ventline.com">www.ventline.com</a>	(574) 848-4491
Refrigerator	Norcold	<a href="http://www.norcold.com">www.norcold.com</a>	(800) 543-1219
RV frame (Sport)	Leland Engineering	<a href="http://www.lelandengineering.com">www.lelandengineering.com</a>	(800) 669-7681
RV frame (EXP, LGT)	Norco	<a href="http://www.norcoind.com">www.norcoind.com</a>	(800) 347-2232
Slideout	RBW Industries	<a href="http://www.rbwindustries.com">www.rbwindustries.com</a>	(800) 451-7821
	M-Tec Corporation	n/a	(574) 294-1060
Smoke alarm	MTI	<a href="http://www.mtiindustries.com">www.mtiindustries.com</a>	(800) 383-0266
Surround sound speakers	Contact your RV dealer		
Surround sound stereo	Contact your RV dealer		
Television	Contact your RV dealer		
Thermostat	Coleman	<a href="http://www.rvcomfort.com/rvp">www.rvcomfort.com/rvp</a>	(316) 832-4357
Tires	Contact your local tire distributor for assistance		
Toilet	Thetford	<a href="http://www.thetford.com">www.thetford.com</a>	(800) 521-3032
TV antenna	Winegard	<a href="http://www.winegard.com">www.winegard.com</a>	(800) 788-4417
Water filter	Flowmatic	<a href="http://www.flowmatic.com">www.flowmatic.com</a>	(800) 461-4406
Water heater	Atwood	<a href="http://www.atwoodmobile.com">www.atwoodmobile.com</a>	(815) 877-5700
Water pump	Shurflo	<a href="http://www.shurflo.com">www.shurflo.com</a>	(800) 854-3218

## OEM WHEEL LUG TORQUE CHART

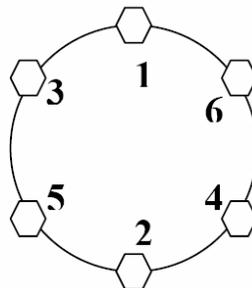
### Wheel Lug Nut Diagrams:



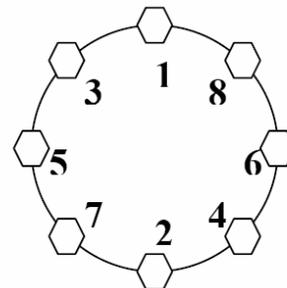
4-Lug Nuts



5-Lug Nuts



6-Lug Nuts



8-Lug Nuts

### Wheel Torque Instructions: \* All torque wrenches mentioned below must have settings visible for auditing purposes.

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 properly 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 properly 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*

Lug Nut	Rim	Type	Stage 1	Stage 2	Stage 3 Recommended Final Torque Range	Acceptable Torque Range
4-Lug Nuts	12"	Steel	20-25 ft/lbs	30-50 ft/lbs	65-75 ft/lbs	50-75 ft/lbs
5-Lug Nuts	13"	Steel	20-25 ft/lbs	30-50 ft/lbs	65-75 ft/lbs	50-75 ft/lbs
5-Lug Nuts	13"	Chrome	20-25 ft/lbs	30-50 ft/lbs	65-75 ft/lbs	50-75 ft/lbs
5-Lug Nuts	14"	Steel	20-25 ft/lbs	70-90 ft/lbs	110-120 ft/lbs	90-120 ft/lbs
5-Lug Nuts	14"	Chrome	20-25 ft/lbs	70-90 ft/lbs	110-120 ft/lbs	90-120 ft/lbs
5-Lug Nuts	14"	Aluminum	20-25 ft/lbs	70-90 ft/lbs	110-120 ft/lbs	90-120 ft/lbs
5-Lug Nuts	15"	Chrome	20-25 ft/lbs	70-90 ft/lbs	110-120 ft/lbs	90-120 ft/lbs
6-Lug Nuts	15"	Steel	20-25 ft/lbs	70-90 ft/lbs	110-120 ft/lbs	90-120 ft/lbs
6-Lug Nuts	15"	Aluminum	20-25 ft/lbs	70-90 ft/lbs	110-120 ft/lbs	90-120 ft/lbs
6-Lug Nuts	15"	Chrome	20-25 ft/lbs	70-90 ft/lbs	110-120 ft/lbs	90-120 ft/lbs
6-Lug Nuts	16"	Steel	20-25 ft/lbs	70-90 ft/lbs	110-120 ft/lbs	90-120 ft/lbs
6-Lug Nuts	16"	Chrome	20-25 ft/lbs	70-90 ft/lbs	110-120 ft/lbs	90-120 ft/lbs
8-Lug Nuts	16"	Steel	20-25 ft/lbs	70-90 ft/lbs	120-130 ft/lbs	110-130 ft/lbs
8-Lug Nuts	16"	Aluminum	20-25 ft/lbs	70-90 ft/lbs	120-130 ft/lbs	110-130 ft/lbs

## DC FUSE PANEL LAYOUT

Below is a typical wiring layout. Your individual trailer may be different.

1	Open	–
2	Bathroom Lights & Vent	15
3	Pump/Monitor Panel/Range Hood/Sink Light	15
4	Refrigerator/Furnace	15
5	Bedroom	15
6	TV/Radio/Propane Detector	15
7	Ceiling Lights	15
8	Bunk Lights	15
9	Slideout Lights	15
10	Open	–
11	Open	–
12	Slideout Motor	20 auto

## CIRCUIT BREAKERS

The following table provides generic circuit breaker alignment information. Your RV may not be exactly the same as shown depending on model, floor plan and options.

Main	30-amp	main, incoming power to unit
A	15-amp	microwave
B	15-amp	refrigerator/GFCI (kitchen/bath)
C	20-amp	air conditioner
D	15-amp	utility/converter
E	15-amp	water heater

## PROPANE CONSUMPTION CHART

The following chart provides an average propane consumption information.

Appliance	Average BTU Consumption Per Hour	Kilojoules/Hour
Water Heater	8,800	9,280
Refrigerator	640-1,200	680-1,270
Furnace - Jay Feather EXP/SPORT	16,000-20,000	16,960-21,100
Furnace - Jay Feather LGT	20,000 – 40,000	21,100 – 42,200
Range Oven	7,100	7,490
Range, Rear Burner	6,500	6,860
Range, Front Burner	9,000	9,490
Outside Grill	10,000	10,550

## APPROXIMATE ELECTRICAL LOAD RATINGS

120 VOLT SYSTEM	
AIR CONDITIONER - COLEMAN MACH 13,500 BTU (RUN)	13.50-16.25 AMPS
AIR CONDITIONER - COLEMAN MACH 13,500 BTU (START UP)	15.75-16.25 AMPS*
BLENDER (ESTIMATED 300-400W)	2.50-3.50 AMPS
COFFEE MAKER (ESTIMATED 1000-1300W)	7.00-11.00 AMPS
CONVERTER - SINGLE 30 AMPS (ESTIMATED 500-650W)	4.25-5.50 AMPS
CONVERTER - SINGLE 45 AMPS (IOTA 750W)	5.00-6.25 AMPS
CURLING IRON (ESTIMATED 50-100W)	.50-1.00 AMPS
ELECTRIC BLANKET (ESTIMATED 150-200W)	1.25-1.75 AMPS
ELECTRIC FAN - PORTABLE (ESTIMATED 125-175W)	1.00-1.50 AMPS
ELECTRIC FRYING PAN (ESTIMATED 1000-1200W)	8.50-10.00 AMPS
HAIR DRYER (ESTIMATED 1000-1900W)	8.50-16.00 AMPS
HOME THEATER SYSTEM (EXECUTIVE 128W, MEMOREX 133W)	1.25-1.75 AMPS
LAPTOP COMPUTER CHARGER (ESTIMATED 25-75W)	.25-75 AMPS
MICROWAVE OVEN (900-1500W)	7.5-12.50 AMPS
RADIO (ESTIMATED 10-35W)	.10-.30 AMPS
REFRIGERATOR - RV GAS/ELECTRIC (NORCOLD #611 300W, #821 300W) (ESTIMATED 250-350W)	2.00-3.00 AMPS
SATELLITE RECEIVER (ESTIMATED 50-150W)	.50-1.25 AMPS
STEAM IRON (ESTIMATED 1000-1500W)	8.50-12.50 AMPS
TELEVISION (ESTIMATED 65-2100W)	.50-2.00 AMPS
TOASTER (ESTIMATED 1000-1500W)	8.50-12.50 AMPS
TOASTER OVEN (ESTIMATED 1100-1600W)	9.25-13.50 AMPS
VCR (ESTIMATED 25-75W)	.25-75 AMPS
WATER HEATER - RV GAS / ELECTRIC (ATWOOD 11.66 AMPS)	11.75-12.25 AMPS

12 VOLT SYSTEM	
AISLE LIGHTS	1.0 AMPS
BAGGAGE COMPARTMENT LIGHTS	1.4 AMPS
BEDROOM RADIO	1.5 AMPS
DECORATIVE WALL LIGHTS	1.5 AMPS
EXTERIOR ENTERTAINMENT CENTER	5.0 AMPS
FANTASTIC FAN	5.0 AMPS
FLUORESCENT DOUBLE 12"	2.0 AMPS
FLUORESCENT DOUBLE 18"	2.5 AMPS
FURNACE	12.0 AMPS
HALOGEN LIGHT	1.5 AMPS
ILLUMINATED SWITCH	.50 AMPS
LP DETECTOR ALARM	1.0 AMP
PORCH LIGHT	1.50 AMPS
POWER VENT	2.0 AMPS
REFRIGERATOR	3.0 AMPS
TV PLATE/ ANTENNA BOOSTER	1.0 AMP
WATER HEATER	6.0 AMPS
WATER PUMP	7.0 AMPS

\*MOMENTARY LOAD

## **GLOSSARY OF TERMS**

**AC ELECTRICITY** – Alternating current also known as shoreline power. For purposes of this manual, it refers to 120-volt AC (abbreviated 120 VAC).

**AUXILIARY BATTERY** – For purposes of this manual, the term refers to the 12-volt DC group 27 deep cycle battery (customer purchased) that should be installed in your camper.

**BLACK WATER** – Term associated with the sewage holding tank. The toilet drains directly into this tank.

**BRITISH THERMAL UNIT (BTU)** - Measurement of heat that is the quantity required to raise the temperature of one pound of water 1°F. RV air-conditioners and furnaces are BTU-rated.

**CAMP STORE** – A store that usually has bread, milk and other essentials but not fresh meats, fruits or vegetables.

**CAMPER** – For purposes of this manual, this term refers to your conventional travel trailer or fifth wheel travel trailer.

**CAMPING** - An outdoor recreational activity involving the spending of one or more nights in a tent, primitive structure or recreation vehicle at a campsite with the purpose of getting away from civilization and enjoying nature.

**CAMPSITE** - The term usually means an area where an individual or family might go camping.

**CARBON MONOXIDE** – A colorless, odorless and poisonous gas.

**CARGO CARRYING CAPACITY (CCC)** - Equal to GVWR minus each of the following: UVW, full fresh (potable) water weight (including water heater), full propane weight and SCWR.

**CITY WATER** – Term associated with the water supply you hook up to at the campsite. It is called city water because water is pulled from a central outside source (like a city) and not the fresh water tank.

**CURBSIDE** – This refers to the side of the camper that faces the curb when parked. Also referred to as the door side.

**DC ELECTRICITY** – Direct current also known as auxiliary battery power. For purposes of this owner's manual, it refers to 12-volt DC (abbreviated 12 VDC).

**DEALER** – For purposes of this manual, this refers to the independent dealer authorized to sell and/or service your camper by Jayco, Inc. This term will be used in this context unless specified otherwise.

**DRAIN TRAP** – This is the curve that is in all drains. Water is trapped in the curve and creates a barrier so tank odors cannot escape through the drain.

**DRY CAMPING** – Camping when there is no city water hookup or shore power (i.e., using only the water and power available in the camper and not from any other source).

**DUMP STATION** – Site where you drain your gray water (waste) and your black water (sewage) tanks. In most states, it is illegal to drain your tanks anywhere except dump stations.

**DUMP VALVE** – Another name for the T-handle valve used to release and drain the black tank (sewage) and gray tank (waste).

**EGRESS WINDOW** – The formal name for the emergency escape window. Egress windows are identified by their labeling.

**FRESH WATER** – The fresh water system provides potable water to the fresh water tank, kitchen sink, shower, bathroom lavatory, toilet, water heater and outside shower.

**FULL HOOK-UP SITE** – A campsite that has city water, shore power and sewer hook-ups or connections available.

**GRAY WATER** – Term associated with the waste water holding tank. Water from the sink drains, shower and washer/dryer (if so equipped) go into this tank.

**GROSS AXLE WEIGHT RATING (GAWR)** – The MAXIMUM ALLOWABLE WEIGHT each axle assembly is designed to carry, as measured at the tires, therefore including the weight of the axle assembly itself. GAWR is established by considering the rating of each of its components (tires, wheels, springs, axle), and rating the axle on its weakest link. The GAWR assumes that the LOAD IS EQUAL ON EACH SIDE.

**GROSS CARRYING CAPACITY (GCC)** - Means the maximum carrying capacity of your camper. The GCC is equal to the GVWR minus UVW. The GCC will be reduced by the weight of fresh water or other tanks, propane, occupants, personal items or dealer installed accessories.

**GROSS COMBINED WEIGHT RATING (GCWR)** – The MAXIMUM ALLOWABLE COMBINED WEIGHT of the tow vehicle and the attached towed vehicle. GCWR assumes that both vehicles have functioning brakes, with exceptions in some cases for very light towed vehicles, normally less than 1,500 pounds. (Check your tow vehicle’s towing guide.)

**GROSS TRAILER WEIGHT RATING (GTWR)** - The MAXIMUM TOWED VEHICLE WEIGHT. Each component (receiver, drawbar, ball) of a ball-type hitch has its own rating. Some ball-type hitches have separate ratings when used with a weight distributing system.

**GROSS VEHICLE WEIGHT RATING (GVWR)** – The MAXIMUM ALLOWABLE WEIGHT of the fully loaded vehicle, including liquids, passengers, cargo, and the tongue weight of any towed vehicle.

**HITCH WEIGHT** – The amount of the camper's weight that rests on the tow vehicle. It should be approximately 10% - 15% with conventional trailers; approximately 15% - 20% for fifth wheels.

**LOW POINT** – The lowest point in the plumbing. Drains are placed here so that water will drain out of the lower end of the camper when flushing or winterizing the water system. These drains must be closed when you fill the water tank.

**NET CARRYING CAPACITY (NCC)** - The MAXIMUM WEIGHT of all personal belongings, food, fresh water, propane, tools, dealer installed accessories, etc., that can be carried by the RV.

**OEM** – This refers to the original equipment manufacturer of the individual appliances or components.

**PRIMITIVE SITE** – A campsite that may have city water, shore power or sewer hook-ups but not all of them; primitive sites may have no hook-ups or connections at all.

**PULL-THROUGH SITES** – Campsites you can drive through and park (without having to back up into the site).

**ROADSIDE** – This refers to the side of the camper that faces the road when it is parked. Often called the off-door side.

**SANITIZATION** – Refers to the camper's fresh water system that has been sanitized with chlorine bleach before use or after storage.

**POWER SOURCE** – Also referred to as shore power, this refers to the receptacle outlet you are using to plug in your shoreline power cord. This can be a campsite power box or electrical box, a residential receptacle outlet specifically wired for your camper or a generator (customer supplied).

**SHORELINE POWER CORD** – This is the electrical power cord that runs from the camper to the campsite shore power outlet.

**SLEEPING CAPACITY WEIGHT RATING (SCWR)** –The manufacturer’s designated number of sleeping positions multiplied by 154 pounds (70 kilograms).

**TIRE RATINGS** - The **MAXIMUM LOAD** that a tire may carry is engraved on the sidewall, along with a corresponding **COLD** inflation pressure. A reduction in inflation pressure requires a reduction in load rating. Tire manufacturers publish charts that establish the load capacity at various inflation pressures.

**TONGUE WEIGHT, TONGUE LOAD, VERTICAL LOAD (TWR/TLR/VLR)** - Tongue Weight, Tongue Load, Vertical Load Rating Different terms for the **MAXIMUM VERTICAL LOAD** that can be carried by the hitch **UNLOADED**.

**UNLOADED VEHICLE WEIGHT (UVW)** - The **WEIGHT** of a vehicle as built at the factory with full fuel, engine (generator) oil and coolants. It does not include cargo, fresh water, propane, occupants, or dealer installed accessories.

**WEIGHT & LOAD** - These terms are generally used interchangeably. For the purposes of understanding RV applications, vehicles have **WEIGHT**, which impart **LOADS** to tires, axles and hitches. Scale measurements taken when weighing are **LOADS** carried by the tires. These measured loads are used to calculate Gross Vehicle Weight (GVW), Gross Axle Weight (GAW), Gross Combination Weight (GCW) and hitch loads.

**WINTERIZED** – Refers to a camper that has been prepared for storage. The water systems have been drained and RV antifreeze has been added to protect the water lines and drains. The low point drains should be in the open position.

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