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 OWNER’S PORTFOLIO

The Owner’s Portfolio 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 Owner’s Portfolio should be considered a permanent part of the RV. If the RV is sold, they should remain with the RV for the next owner.

CHASSIS GUIDE

Throughout this manual, frequent reference is made to the vehicle’s Chassis Guide. The Chassis Guide refers the chassis manufacturer’s owner manual, warranty cards and/or registrations. The chassis guide has pertinent information regarding the transmission, tires, etc. Consult the Chassis Guide for operating safety, maintenance, servicing instructions and warranty coverage.

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.

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

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).

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.

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

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.

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 Motorized 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

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

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 chassis 17-digit VIN or 9-digit Jayco serial number.
- 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

Phone (toll-free)  
(800) 283-8267

Phone (local)  
(574) 825-0608

Fax (toll-free)  
(866) 709-9139

Brochure request  
info@jayco.com

Parts email  
parts@jayco.com

Service email  
service@jayco.com

Website  
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 Motorized 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, 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).
ATTENTION!

Notice of:  
☐ CHANGE OF ADDRESS  
☐ CHANGE OF OWNERSHIP  
☐ TOTALED  
☐ DESTROYED  
☐ STOLEN

AMERICA’S MOST LIVEABLE RVs

Please print or type

Federal record keeping laws require that we maintain a file of owners of our RVs. This form must be completed by the RV owner in the case of change of address, stolen or destroyed RV, and by the RV purchaser in the case of change of ownership.

Thank you! Your cooperation in mailing a copy of this completed form to Jayco is appreciated.

NOTICE OF CHANGE OF ADDRESS

1 Vehicle Identification Number/Serial Number ________________________________________________________________________
2 Owner Name ________________________________________________________________________
3 Former Street Address ________________________________________________________________________
4 Former City _________________________ ST/PR _______ ZIP Code/Postal Code _________________________
5 Former Country _________________________ Former Phone Number _________________________
6 New Street Address ________________________________________________________________________
7 New City _________________________ ST/PR _______ ZIP Code/Postal Code _________________________
8 New Country _________________________ New Phone Number _________________________
9 Your Date of Purchase _________________________ Owner Email _________________________
10 Current Vehicle Mileage (motorized only) ________________________________________________________________________

NOTICE OF CHANGE OF OWNERSHIP*

1 Vehicle Identification Number/Serial Number ________________________________________________________________________
2 Seller Name ________________________________________________________________________
3 Seller Street Address ________________________________________________________________________
4 Seller City _________________________ ST/PR _______ ZIP Code/Postal Code _________________________
5 Seller Country _________________________ Seller Phone Number _________________________
6 Seller Date of Purchase _________________________ Seller Email _________________________
7 Buyer Name ________________________________________________________________________
8 Buyer Street Address ________________________________________________________________________
9 Buyer City _________________________ ST/PR _______ ZIP Code/Postal Code _________________________
10 Buyer Country _________________________ Buyer Phone Number _________________________
11 Buyer Date of Purchase _________________________ Buyer Email _________________________
12 Current Vehicle Mileage (motorized only) ________________________________________________________________________

NOTICE OF STOLEN OR DESTROYED RV

1 Vehicle Identification Number/Serial Number ________________________________________________________________________
2 Owner Name ________________________________________________________________________
3 Owner Street Address ________________________________________________________________________
4 Owner City _________________________ ST/PR _______ ZIP Code/Postal Code _________________________
5 Owner Country _________________________ Owner Phone Number _________________________
6 Owner email ________________________________________________________________________

PLEASE SIGN AND DATE:

________________________________________  ____________________________________________  ___________________________________________
DATE SIGNATURE OF OWNER SIGNATURE OF CO-OWNER

PLEASE MAIL OR FAX YOUR COMPLETED FORM TO: Jayco, Inc
Customer Service
P.O. Box 460
Middlebury IN 46540
Fax: (800) 825-7876
**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) at 1-877-801-0333.

*To qualify for coverage, your RV must be eligible as set forth under the terms of the Motorized 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**

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 **Motorized Limited Warranty**.

**OBTAINING SERVICE AT JAYCO**

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**

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.
MOTORIZED 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, or the first twenty-four thousand (24,000) miles of use, whichever occurs first. 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 authorized, independent 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. Pay 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 scheduled 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.

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; service items such as windshield wiper blades, lubricants, fluids, filters, etc.; 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. 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, the automotive chassis and power train, steering, handling, braking, wheel balance, muffler, tires, tubes, batteries, gauges, generator, hydraulic 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, weather, theft, vandalism, fire, explosions, overweight exceeding 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 this 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 period or this limitation period in this paragraph. 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 submitting a delayed warranty start form for your chassis, which is included in your chassis paperwork, and in filing 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 the chassis manufacturer and 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: 574-225-0908  
(800) 283-8267

2008 Model Year
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 the 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 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.

**Repairing severe weather damage**

If your 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.
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OCCUPANT SAFETY

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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).

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:
**SECTION 2 OCCUPANT SAFETY**

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

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:

**WARNING**

**TEST SMOKE ALARM OPERATION AFTER VEHICLE HAS BEEN IN STORAGE, BEFORE EACH TRIP, AND AT LEAST ONCE PER WEEK DURING USE. FAILURE TO COMPLY MAY RESULT IN SERIOUS INJURY.**

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:

![AVERTISSEMENT]

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:

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**WARNING**

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.).
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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:

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**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.
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.

**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.

**CHASSIS VEHICLE IDENTIFICATION NUMBER (VIN) EXPLAINED**

The 17-digit chassis VIN does not reflect the model year of the completed motorhome. The chassis, when received by Jayco from its manufacturer, is an incomplete vehicle consisting of frame rails, engine, drive train, steering column, axles, wheels, tires and a fuel delivery system. The incomplete chassis cannot be driven legally on public roads or sold at retail without further manufacturing.

The RV manufacturer who completes the coach portion of the motorhome assigns the model year. Jayco assigns the model year using the 9-digit serial number that is unique to your RV.

![VIN example](image)

Fig. 3.1 VIN example

The 17-digit chassis VIN or last 8-digits of the Jayco serial number are required whenever making an appointment with or ordering replacement parts from your RV dealer. The Jayco serial number in the example shown above is 81WC0060.

**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

Fig. 3.4 Motorhome Weight Information label

**LOADING YOUR RV**

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.

**WARNING**

Your RV’s load capacity is designated by weight, not by volume, so you cannot necessarily use all available space when loading the vehicle. Do not exceed your GVWR and ensure you are loading the vehicle as evenly as you can for the best possible handling. Ensure heavy items are secured so they do not shift during travel.

The actual weight of the vehicle, 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 Gross Vehicle Weight Rating (GVWR) of the motorhome.

The volume of space available for storage may exceed the amount of available cargo capacity. Large storage compartments have been designed to accommodate normal camping items, such as lawn chairs, portable grill, sporting goods (fishing poles, golf clubs), which are bulky, but not necessarily heavy.

**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.

**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.
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.

**Exterior Compartments**

**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.

The compartment doors under the slideout(s) may have a metal cable with an end loop that is designed to fit over the top portion of the compartment door gas struts. The compartment door cable allows you to limit the degree of compartment door swing. When the slideout room(s) is retracted, you may remove the compartment door cables for full compartment door swing.

Make sure all compartment door cables are attached to the compartment door gas struts before extending the slideout.

**Using the Rear Hitch**

The motorhome is designed primarily as a recreation vehicle. Any towing will affect vehicle handling, durability and fuel economy. Exceeding any of the listed weight ratings will result in unacceptable overall vehicle performance. Your safety and satisfaction require proper use of correct equipment.

The factory installed towing hitch on this vehicle is capable of pulling 8,000 lbs. of load (maximum), however the vertical (tongue) weight will vary according to the towed vehicle (toad). A hitch bar of appropriate strength and steel should be selected to match the towing receptor. Always use safety chains between the motorhome and the towed trailer or vehicle (toad). Cross the chains under the tongue and allow for slack when turning corners. Connect the safety chains to the vehicle frame or hook retainers. Never attach the safety chains to the bumper. Before descending a steep or long grade when towing a trailer or vehicle (toad), reduce speed and shift the motorhome into a lower gear to control vehicle speed. Avoid frequent or prolonged brake application, which can cause overheating or brake failure. Do not remove the following label:

**WARNING**

Your motorhome chassis breaking system is rated for operation at GVWR, NOT GCWR. Any trailer or vehicle (toad) being towed by your motorhome must have adequate brakes as required by all state (or province) and local regulations for towing with your motorhome including areas you may be traveling through.

In addition, a separate supplemental braking system must be installed if the towed trailer or vehicle (toad) meets or exceeds the minimum weight determined by the chassis manufacturer (this minimum weight rating will vary by chassis and chassis manufacturer).

Contact your dealer for assistance in determining whether a separate braking system is recommended for your towing and traveling safety. Failure to follow these instructions will create a safety hazard and may result in an accident.

**WARNING**

Total weight of your motorhome and any trailer or vehicle (toad) towed by it must not exceed the GCWR. Do not assume that you can tow a vehicle that happens to be within the capacity of the hitch. By doing so, you may exceed the total GCWR of the motorhome.
**Maintenance**

Keep the hitch clean along with your general frame maintenance. Sand, prime and paint if rust if present.

- At the beginning of the season and monthly or thereafter, clean the inside of the receiver tube with a wire brush and spray with a silicone spray.
- Always remove the utility mount from the receiver when it is not in use. This will help prevent the utility mount from rusting to the tube.
- Periodically check the bolts for tightness. They need to be torqued to the proper setting (refer to your Chassis Guide).

**TRAILER PLUG**

If you choose to tow behind your RV, a chassis manufacturer supplied 7-way trailer plug (located at the hitch) is pre-wired into your motorhome. Wiring to operate your towed vehicle (toad) brakes must be the same size in both the towed vehicle (toad) and the motorhome.

<table>
<thead>
<tr>
<th>Color</th>
<th>Pin</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>1</td>
<td>Ground</td>
</tr>
<tr>
<td>Blue</td>
<td>2</td>
<td>Brakes</td>
</tr>
<tr>
<td>Green</td>
<td>3</td>
<td>Running lights</td>
</tr>
<tr>
<td>Black</td>
<td>4</td>
<td>House batteries charge line</td>
</tr>
<tr>
<td>Red</td>
<td>5</td>
<td>Stop &amp; left turn</td>
</tr>
<tr>
<td>Brown</td>
<td>6</td>
<td>Stop &amp; right turn</td>
</tr>
<tr>
<td>Yellow</td>
<td>7</td>
<td>Back up</td>
</tr>
</tbody>
</table>

**WARNING**

Store items in areas designated for storage. Do not store anything in the areas reserved for the converter, electrical panels, 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 **Motorized 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 motorhome and towed vehicle (if so equipped)**

**WARNING**

Total weight of your motorhome and towed vehicle (if so equipped) must not exceed the GCWR. Do not assume that you can tow a RV that happens to be within the capacity of the motorhome hitch. By doing so, you may exceed the total GCWR of your 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 RV dealer or the scale operator. Your RV must be weighed fully loaded (that is with food, clothing, fuel, water, propane, supplies, etc). Any towed vehicle (car/pickup, boat, or trailer) must also be included when weighing your motorhome. There are three types of scales:

1. **PLATFORM** - This scale is long enough to weigh the complete vehicle. The following steps are suggested:
   a. Pull onto the scale so that only the front axle is on the platform (with the end of the scale midway between the front and rear axles) and record the scaled weight.
   b. Pull forward until the full unit is on the scale and record the scaled weight.
   c. Pull forward so that only the rear axle is on the scale (again with the edge of the scale midway between the front and drive axles) and record the scaled weight.
   d. If a boat, trailer or other vehicle is being towed, it should be weighed and combined with the towing vehicle’s GVWR to ensure the total weight does not exceed the GCWR.

2. **SEGMENTED PLATFORM** - Platform scales with segmented sections can provide individual axle weights and total vehicle weights simultaneously, when the vehicle is positioned properly.
   a. Position the vehicle on the scales so that each axle is centered as much as possible on separate segments, and record the weight.
   b. Reposition the vehicle so that only one side is on the scale, again centered on the segment as much as possible.
   c. Subtract the weighed wheel positions from the total axle weights to determine the un-weighed wheel positions’ weights.

3. **SINGLE AXLE** - This scale weighs one axle at a time.
   a. Drive your front axle onto the scale and stop long enough for the weight to be recorded.
   b. Pull vehicle forward until the rear axle is on the scale.
   c. To obtain the gross vehicle weight, add the two axle loads together.
   d. To obtain the individual wheel position weights, repeat this process with only one side of the recreation vehicle on the scale.

Even though the weight of the total axle may be within the axle's rating, it may be overloaded on one side. This causes one wheel position to be overloaded. Therefore, side-to-side weighing should also be done.

**To determine the wheel position weights**
   a. To determine individual wheel position weights, it is necessary to repeat the previous three steps (1a, 1b, and 1c), but this time, use only one side of the scale.
   b. To calculate the opposite side of the vehicle wheel position weight, subtract this side's weights from the weights recorded in steps 1a, 1b, and 1c.

Your recreation vehicle 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 recreation vehicle being partially off the scale.

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 motorhome and not void the **Motorized Limited Warranty**.

With these actual weights, it is now possible to compare them against the Motorhome 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:

<table>
<thead>
<tr>
<th>WARNING</th>
</tr>
</thead>
<tbody>
<tr>
<td>For traveling safety, it is important to make sure that tie down straps are secured on all appliances such as the television, coffee maker, etc. Vibration caused during travel will move the appliances creating the potential for them to fall out of their cabinets possibly causing injury.</td>
</tr>
</tbody>
</table>

- Check the area under the motorhome after overnight parking and look for fuel, water, oil or other fluid leaks. If leaks are detected, find the cause and correct it immediately.
- Make sure all fluids are at proper levels. Check the engine oil, transmission fluid, engine coolant, power steering fluid and wind shield washer fluid.
- Check the fuel gauge and lights on the motorhome. Have someone observe the operation of all exterior lights while you activate the controls. Check the turn signal and high beam indicators on the instrument panel.
- 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 wheel lug nuts for tightness and tires for proper air inflation pressure.
- Check the propane tank gauge to make sure there is propane available.
- If needed, sanitize the fresh water system.
- Fill the fresh water tank. Disconnect, drain and store the garden hose.
- Retract any awnings and secure them for transport.
- Close all the roof vents and windows.
- Disconnect the cable TV and phone hookups and lower the TV antenna.
Turn off the interior lights, water heater, furnace and water pump.

Secure any loose, heavy or sharp objects in the motorhome or exterior compartments.

Disconnect the shoreline power cord and ensure it is stored correctly.

Fasten all interior and exterior doors securely. Lock them (if applicable).

Make sure the leveling jacks are retracted to the travel position.

Walk around your motorhome one last time to make sure everything is stored away and the baggage compartments are closed and locked.

Pull forward, clean the site (if needed) and check for forgotten items.

Check the seat belt buckles and release mechanisms for positive action and secure connections.

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 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 RV (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
- 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)
  - 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
- RV is level
- Wheel blocks removed
Driving 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.
- Be sure to stop the engine before you have a short sleep. If the vehicle is not ventilated properly, there is risk of poisoning by the exhaust gas.
- Obey all traffic laws and use your seatbelts at all times. Many states have lower speed limit requirements for RVs. We recommend that you do not exceed the posted speed limit for RVs.
- 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 RV. Do not operate the 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 RV. If it is permitted to operate a cell phone while the RV 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 vehicle electronics and thereby jeopardize the operational safety of your RV (refer to your Chassis Guide or cell phone OEM instructions).
RV DRIVING SCHOOLS & SEMINARS

If you have any concerns about driving an 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.

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. To have duplicate keys made, or replace lost keys, order a key blank from your dealer.

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

RV ENTRANCE 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.

We have included an assist grab handle at the RV 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 Motorhome Limited Warranty.

ENTRY DOOR STEP

WARNING

When opening the door from the outside, make sure you are not obstructing the path of the entrance step. Keep hands and fingers clear while extending or retracting the entry door step.

BE SAFE, LOOK BEFORE ENTERING OR EXITING YOUR MOTORHOME!

Power entry door step (if so equipped)
The electric door step opens automatically when the screen door is opened. Constant 12-volt power to the electric step is supplied through a circuit breaker (generally located inside the battery box near the auxiliary start solenoid.)
Driver & Front Passenger Seat

⚠️ WARNING
Do not adjust the seat while driving. This can be dangerous. After adjusting the seat, make sure that it is locked in position. To ensure that the seat is locked securely, try to move the seat forward or backward without using the adjusting lever or button.

Do not put packages, pets or other objects between the driver's and front passenger co-captain's seat. If traveling with pets, make sure they are in pet carriers fastened according to the pet carrier manufacturer's instructions.

Adjust the driver's seat to the position that enables you to easily control the pedals, steering wheel and instrument panel switches for safety and ease in controlling your vehicle.

Seat Belts

⚠️ WARNING
Your RV is equipped with seatbelts at most seat locations; however, having seatbelts at these seat locations does not necessarily mean that all seats can be occupied at one time (because you must not exceed the GVWR of your vehicle). When calculating the loaded weight of the vehicle, make sure to include all people who will be riding in the RV. The GVWR is printed on the Motorhome Weight Information label.

⚠️ WARNING
Legislation in some states may require you to use seat belts, but even if it is not required, a seat belt should always be worn by anyone who drives or rides in this vehicle.

Seat belts are installed to protect the driver and passengers. Always use seat belts. In an accident, injury to the driver and passengers may be reduced if seat belts are properly used.

- Never use one seat belt for more than one occupant.
- Never carry more people in the motorhome than there are seat belts.
- Only seats equipped with seat belts are to be occupied while the vehicle is in motion.
- While traveling, do not occupy beds or any seats that do not have seat belts.
- Be sure to lock all doors before driving. Locking the doors and using the provided seat belts may minimize the risk of injury or ejection in an accident.

The driver and front passenger seats are equipped with a three-point shoulder harness and lap belt system from the chassis manufacturer. Always adjust the seat belts to a snug fit by routing the lap-shoulder belt over your shoulder blade and diagonally toward the buckle. Always wear the lap portion as low and snug as possible around the hips, not the waist. Do not route seat belts over the armrests. If you are pregnant, consult your health care professional for advice on seat belt use.

The booth dinette, sofa and chair(s) have two-point lap-seat belts installed; these seat belts should be used in a seated position. To fasten the seat belt, insert the tab into the buckle. Adjust the seat belt as low and snug as possible around the hips (not the waist) by pulling the loose strap end. You will hear a click when the tab locks into the buckle. To release the seat belt, push the button on the buckle and pull apart.

⚠️ WARNING
Never wear the shoulder belt in any position other than as stated above. Failure to do so may increase the chance or extent of injury in a collision or sudden stop.
CHILD SAFETY RESTRAINT SYSTEM (CSRS)

**WARNING**

A dealer service technician should inspect all seat belt assemblies, including retractors and attaching hardware, after any collision. We recommend that all seat belt assemblies in use during a collision be replaced, unless the collision was minor and the belts show no damage and continue to operate properly. Do not try to repair or replace any part of the seat belt assemblies; that should be done by a dealer service technician. Failure to have a dealer perform the work could result in serious injury in a collision or sudden stop.

**WARNING**

Accident statistics indicate that children are safer during vehicle travel when they are properly restrained. Accordingly, Jayco recommends that child safety restraints be used while the RV is in motion.

- Holding a child in your arms or on your lap is no substitute for a safety restraint system. Failure to use a proper child safety restraint can result in severe or fatal injury to your child.
- Forward-facing child safety restraints used in the front seat must have the passenger seat moved as far back from the instrument panel and dash as possible.
- For safety reasons, an infant carrier should face to the rear; a child seat should face the front of the RV.

When transporting infants or small children, an appropriate child safety restraint system (CSRS) should always be used. Law in most states (and provinces) require child safety restraints be used when children are traveling in a vehicle.

**INSTRUMENT PANEL**

**WARNING**

Do not set anything on or attach anything to the instrument panel or dash. Do not attach anything to the steering wheel cover such as trim material, badges, etc. Failure to follow these warnings may restrict the driver's visibility or cause an object to strike and injure an occupant in the case of a collision or sudden stop.

For more information
Refer to your Chassis Guide.

**SIDE VIEW POWER MIRRORS**

After adjusting the front driver’s seat, adjust the exterior side view power mirrors to your driving preference when the ignition key is in the ON or ACC position. Turn the arrow on the control knob to the same side as the mirror you want to adjust. Press the control knob left, right, up, or down to adjust the mirrors. The power remote mirrors also contain heating elements to defog or de-ice the mirrored glass if needed. To activate this feature, use the “Mirror Heat” control.

To prevent the batteries from running down, operate the power remote mirrors when the chassis engine is running.

**REAR VISION CAMERA (IF SO EQUIPPED)**

Your RV is equipped with a rear vision monitor that gives a limited televised view of what is behind the RV. The rear vision camera will aid you in backing up the RV, and can be used for a greater field of vision when driving in heavy traffic. Check the outside rearview mirrors when driving and backing up the RV for a more complete field of vision. The camera is equipped with a wide-angle lens that can initially present an image that may be deceiving. Practice backing up in a safe place, using the rear vision monitor to become accustomed to its use. If in doubt, ask another person outside the vehicle to assist you.
The monitor is operational whenever the engine is running. To use the monitor, flip the switch from standby to ON (the monitor will also work when with the RV is in “reverse” and the monitor in standby). Make sure you turn the monitor to standby while driving to avoid being distracted.

Never operate the rear vision monitor in the ON position for extended periods of time as this may result in an "image burn" on the monitor.

**LEVELING JACKS (IF SO EQUIPPED)**

Before operating the hydraulic leveling jack system:

- Park the RV on reasonably solid surface or jacks may sink into the ground. On extremely soft surfaces use load distribution pads under each leveling jack.
- Check that potential jack contact locations are clear of obstructions or depressions.
- Keep people clear of the RV prior to turning the leveling system ON and while the leveling system is in operation.
- Engage the parking brake.
- Make sure the transmission gear selector is engaged in NEUTRAL or PARK.
- The engine must be running for the leveling system to operate.

The following label should be kept permanently affixed by the leveling jack control panel located in the command center:

![Fig. 4.1 Leveling jack label](image)

**WARNING**

- After starting the leveling cycle it is very important you or other occupants do not move around in the RV until the vehicle is level. Failure to remain still during the leveling cycle can affect the leveling jack system sensors.
- Do not move the RV while the jacks are still in contact with the ground or extended. Damage to the vehicle could occur.
- Do not attach any item to any leveling jack foot or use wood blocks or pads under the leveling jacks as doing so will affect the leveling system performance and may damage the leveling jack system.
- Do not rely solely upon warning lights to determine the position of the leveling jacks. It is the operator's responsibility to check that all the leveling jacks are fully raised in the travel mode before moving the RV.

To manually override

![CAUTION](image)

**CAUTION**

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

Never lift the wheels off the ground when leveling the motorhome.

**WARNING**

Use extreme caution when overriding the hydraulic leveling jack pump. Ensure that no one becomes trapped under the RV or by the entrance steps (if extended). It is highly recommended you have someone assist you.

Before attempting to override the semi-automatic hydraulic leveling system ensure the area around the RV is clear of others, including children and pets. In the event the hydraulic leveling jack control panel will not retract the jacks, the jacks can be retracted using the auxiliary valves at the hydraulic pump connection (refer to the OEM manual).

**Storage**

When storing the RV, it is recommended the jacks be stored in the retracted position (the OEM requires the jacks be cycled
periodically). If the jacks must be stored in the extended position, it is recommended the system be fully retracted once per month.

**BRAKING & STOPPING**

**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 RV. 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 RV.

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 RV. Drive over them slowly and let the 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 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.**

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.
Vehicle Clearance
Remember some bridges, older ones in particular, may not support the weight of your RV. 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 rear tires may not always follow the path of your front tires. You must compensate for this action by carefully pulling the RV 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 mirrors and rear view camera 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 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.

WARNING
Do not park or drive this motorhome in areas where combustible materials, such as dry grass or leaves, can be exposed to hot exhaust.

FRONT AXLE TIRE ALIGNMENT
The term alignment refers to both the adjustment angles on the steering axle and suspension and tracking of the rear axle. Many factors are considered when establishing proper alignment. Steering components, suspension, wheel bearings and even proper loading will affect the alignment.

We recommend you have the front suspension and steering alignment checked and adjusted after you have fully loaded the vehicle according to your needs as part of the vehicle maintenance. Thereafter, it is your responsibility to have the alignment inspected periodically to maintain vehicle steering performance and prevent uneven tire wear as part of your normal maintenance. Always have the alignment checked and adjusted by a qualified shop with the proper equipment to handle heavy vehicles.

A road test by the dealer should be included as part of the pre-delivery inspection. The dealer can then check for and correct any steering problems before you take delivery. After this road test has been completed, front-end alignment and/or vibrations will not be covered as part of the new vehicle limited warranty.

PARKING BRAKE
The parking brake should be engaged when the RV is parked. Never drive your RV with the parking brake set as this will reduce the parking brake effectiveness and cause excessive wear. For more information refer to your Chassis Guide.
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:

1. Place the first warning indicator on the traffic side of the RV, directed at the nearest approaching traffic.
2. Place the second warning indicator 100 feet behind the RV in the center of the lane and toward approaching traffic.
3. 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.
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. The chassis manufacturer has equipped your RV with tires.

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).

**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 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.

**Replacement**

Be sure to use only tires that are rated for RV use. The use of passenger tires should be avoided; they do not have the same load capability as tires that are specifically identified for RV use.

**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.**

**Spare Tire Carrier (If So Equipped)**

Raising the RV to replace the spare tire should only be done with extreme caution by a qualified technician. The vehicle could slip, causing personal injury or death. **DO NOT ATTEMPT TO DO THIS YOURSELF.**

Do not use the hydraulic leveling jacks (if so equipped) to raise the RV when changing a tire. The hydraulic leveling jack system is not designed for this type of use; doing so could result in property damage, personal injury or death.
GM chassis

Motorhomes built on the GM chassis are not equipped with a spare tire or carrier. It is not recommended you attempt to change the spare tire or jack the motorhome yourself; this is why a jack and a spare tire have not been factory-installed. Please contact an emergency road service provider or a qualified service facility for assistance.

Ford chassis

1. Put the steel hoist lift support located on the end of the cable through the rim of the tire.
   a. The clips need to seat inside of the hole.
   b. The tire valve stem MUST be pointed in the down position (away from the bottom of the RV). The hoist will not seat tire correctly if the valve stem is toward the RV.

2. Use the crank handle to lift the tire into the travel position. Two crisp breaks must be heard and felt to insure proper seating of the tire for travel.

The tire must be in contact with the tire contact surface to be in the travel position.

CHANGING THE TIRE (IF SO EQUIPPED)

1. 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 motorhome (it spans from the 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 / WHEEL LINERS

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 wheel lug nuts must be maintained according to your Chassis Guide torque recommendations. Over-torqued and/or under-torqued wheels may result in component failure.

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 according to your Chassis Guide. If you suspect the wheel lug nuts have loosened at any time, have them checked and torqued to the proper limits immediately. If you suspect or notice the wheel stud bolts are cracked or broken, they must be replaced, along with adjacent bolts that have probably also been weakened due to the additional stress placed on them.

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 Chassis Guide.)

**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.
STOP! This section pertains to Greyhawks with 30 amp service. Please refer to “Section 7 Electrical System – 50 amp” if you have a Greyhawk with 50-amp service (if you have questions, contact your dealer or Jayco Customer Service for assistance).

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 house battery (customer supplied). Always disconnect the power cord and house 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 house 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.

COMMAND CENTER

Your RV is equipped with a Command Center that allows you to monitor several systems from one location. For your convenience, the Command Center is located near the kitchen area. More information on the controls located in the Command Center will be discussed throughout this manual.
120-volt AC System

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.

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

Replacement

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.
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.

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 house battery is not charging), 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.

⚠️ 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.
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 the factory-installed 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 chassis alternator when the engine is running.
- The converter will supply interior 12-volt DC power when the power cord is plugged into a 240/120-volt external power source. The converter will also charge the battery in most situations.
- The house batteries power many interior 12-volt components including the lighting fixtures, water pump, 12-volt motors, 12-volt appliances, slide room, etc.

12-VOLT BATTERY DISCONNECT

The 12-volt battery disconnect switch is located near the entrance door. This momentary switch controls a latching type solenoid (located near the house battery), which connects or disconnects the house battery dependent upon the number of times it is pushed. When energized, the battery disconnect solenoid supplies battery power to all accessories connected to the house 12-volt fuse panel. The 12-volt battery disconnect switch is used to disconnect the RV from house battery power during periods of storage or during service. The switch must be activated for the 12-volt house electrical system to operate.

The LP leak detector must be connected to a constant power source. If the 12-volt battery disconnect is off it WILL NOT PROVIDE power to the LP leak detector.
AUXILIARY START SYSTEM

Your motorhome is equipped with an auxiliary start switch which can momentarily connect both the house and chassis batteries should the chassis battery become discharged. To operate, depress the "Aux. Start" switch (located on the front driver's dash) and hold. Now, use the ignition key to start the chassis engine. Release the "Aux. Start" switch after the engine has started.

HOUSE BATTERY

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 the house battery for limited periods of time. The 12-volt DC electrical system is designed for usage with a Group 27, deep cycle battery. In a motorhome, the house battery is usually referred to as the house (or coach) battery.

The house battery is factory-installed to provide temporary 12-volt power when 120-volt power is not available to operate the power converter. When drawing energy from the battery, remember that there is a limited amount of power available before the battery needs to be recharged.

To recharge the house battery
When the engine is running, the alternator will automatically charge the battery through the auxiliary start solenoid. When parked at a campsite, plug into shoreline power. With minimal or low load on the 12-volt electrical system, the converter will automatically charge the battery. This may take several hours and depends upon battery condition and the number of 12-volt devices operated during the charging period.

Dry camping
Consider the charge condition of the house battery when dry camping. If the house 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.

A fully charged 12V battery will read 12.7 volts DC and 1.265 specific gravity at 80°F (32°C). The house battery is considered discharged at 11.8 volts DC by electronic standards. When voltage drops below those levels, permanent battery 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).

Battery storage instructions
Some equipment in your RV will draw small amounts of current even when turned OFF. To prevent house battery discharge when the RV is not connected to power through the shoreline power cord, it is recommended you shut OFF the 12-volt battery disconnect switch and disconnect the battery negative cable at the house battery.

During storage, it is important to check battery voltage at least every two weeks and recharge as needed. If you remove the battery from your RV, store them in a dry, cool area as per the OEM instructions.

Replacement and maintenance
For accuracy, test battery voltage using a volt-ohm meter (customer supplied). When it is time to replace the house 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 fuses that protect the converter.

CHASSIS BATTERIES

Each OEM chassis is built with batteries to provide energy to start the engine and operate devices supplied with the chassis. The OEM chassis battery is furnished and warranted by your GM or Ford dealership (as applicable).
SECTION 6
ELECTRICAL SYSTEM – 30 AMP

**WARNING**
Always wear eye protection when working with batteries. Keep sparks, cigarettes and flames away from the battery because the battery may explode. Do not use a booster battery or any other power source that has an output that exceeds 12-volt. Use adequate ventilation when charging or using the battery in an enclosed space.

**ISOLATOR SOLENOID**
When a RV house battery is installed in parallel circuitry with an OEM chassis battery, the charge level in both connected batteries will naturally equalize. An isolator solenoid is incorporated to break the connection between the house battery and the OEM chassis battery when the ignition key is in the OFF position.

Breaking this connection prevents discharge of the OEM chassis battery (used to start the engine) when using the 12-volt devices in the house section of your RV. When the engine is running the isolator solenoid engages allowing the house battery to be charged by the vehicle alternator.

**CAUTION**
Always leave the ignition key in the "OFF" position unless the engine is running.

**12-VOLT FUSE PANEL**

**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.

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**
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 house 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.

**GENERATOR (IF SO EQUIPPED)**
The factory-installed generator (also called a genset) will produce 120-volt AC power for use when camping in areas where shore power is unavailable. 120-volt power from the generator is output to the AC distribution center by way of a factory-installed automatic transfer switch. In the default mode, the automatic transfer switch connects the generator to the AC distribution center when the generator is operating and shore power is disconnected.

When the generator is operating it will power the converter, which in turn will charge the house and chassis batteries. The generator requires 12-volt power from the house battery to start, and draws fuel from the chassis fuel tank. If the fuel tank drops to or below 1/4 full, the genset will automatically shut off to keep the RV from being stranded. Be aware the generator, when operating, gives off carbon monoxide.
Before starting the generator

**WARNING**

CARBON MONOXIDE IS DEADLY! Do not run the genset when your motorhome is indoors or in a confined space. Asphyxiation or carbon monoxide poisoning hazards exist whenever generator exhaust gasses can accumulate.

1. Make sure the carbon monoxide detector is working.
2. Turn OFF air conditioners and all other appliances.
3. Check for fuel, exhaust and coolant leaks. **STOP the genset immediately if there is a fuel, exhaust or coolant leak and have it repaired!**

**CAUTION**

Excessive cranking can overheat and damage the genset starter motor. Do not crank for more than 20 seconds at a time. Wait at least two minutes before trying again. If the genset does not start after the third try, refer to the generator OEM manual for more information.

To start the generator manually
1. A remote start/stop switch is located inside the motorhome. A second start/stop switch is located on the generator.
2. Press the operation control switch to start the generator. (Depending on how cold it is, preheat can take up to 15 seconds.)
3. The hour meter will monitor minutes of usage when the generator is running.

For top performance and engine life, especially in colder weather, let the genset engine warm up for two minutes before connecting (turning ON) appliances.

**Maintenance**

With the exception of simple items such as normal maintenance (i.e., oil changes, etc.), all service work should be done by a repair facility authorized by the generator OEM. Improper adjustments can damage the generator and electrical appliances, and can result in a safety hazard. If any discrepancy or problem is noted, contact your dealer for assistance.

**INVERTER (IF SO EQUIPPED)**

Your RV is equipped with a factory-installed inverter that converts 12-volt DC current to 120-volt AC current. It is important that you familiarize yourself with the inverter function and operation. The inverter should be OFF when not in use.

The factory-installed inverter is not intended for use with medical device(s).

**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.

Excessive cranking can overheat and damage the genset starter motor. Do not crank for more than 20 seconds at a time. Wait at least two minutes before trying again. If the genset does not start after the third try, refer to the generator OEM manual for more information.
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.

Consult the Chassis Guide for information pertaining to the chassis electrical system.

**ELECTRICAL SYSTEM PRECAUTIONS**

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

- Use caution when using metal tools. 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 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 house battery (customer supplied). Always disconnect the power cord and house 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. Turn OFF the battery disconnect switch.
   b. Disconnect the power cord from the external power source.
   c. Disconnect the house battery cables.
   d. Turn OFF the generator (if so equipped).
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*

**COMMAND CENTER**

Your RV is equipped with a Command Center that allows you to monitor several systems from one location. For your convenience, the Command Center is located near the kitchen area. More information on the controls located
in the Command Center will be discussed throughout this manual.

240/120-volt AC System

Your RV is equipped with a 240/120-volt AC / 50-amp power cord and load center. A maximum of 50-amps (or 6000 watts) 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 50-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 circuit 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 over heating the RV wiring.

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

50-amp Power Cord

The 50-amp detachable 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 also designed to carry the voltage and amperage output of 50-amp campground outlets.

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.

WARNING

Plugging the shoreline power cord into an incorrectly rated amperage service could damage your motorhome electrical system and result in severe or fatal injury.

Connecting the detachable power cord

Always test the 50 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 240/120-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.

   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 50-amps. When camping and traveling, remember that each appliance and 120-volt accessory places a load on your electrical system. You may periodically trip a circuit breaker if the combined load of these appliances and accessories exceeds your 50-amp rating. You can determine the amperage rating of an appliance by dividing the watts it uses (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 equals 10-amps.

**12-Volt DC System**

The majority of the factory-installed 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 chassis alternator when the engine is running.
- The converter will supply interior 12-volt DC power when the power cord is plugged into a 240/120-volt external power source. The converter will also charge the battery in most situations.
- The house batteries power many interior 12-volt components including the lighting fixtures, water pump, 12-volt motors, 12-volt appliances, slide room, etc.

**12-Volt Battery Disconnect**

The 12-volt battery disconnect switch is located near the entrance door. This momentary switch controls a latching type solenoid (located near the house battery), which connects or disconnects the house battery dependent upon the number of times it is pushed. When energized, the battery disconnect solenoid supplies battery power to all accessories connected to the house 12-volt fuse panel. The 12-volt battery disconnect switch is used to disconnect the RV from house battery power during periods of storage or during service. The switch must be activated for the 12-volt house electrical system to operate.

The LP leak detector must be connected to a constant power source. If the 12-volt battery disconnect is off it WILL NOT PROVIDE power to the LP leak detector.
**Auxiliary Start System**

Your motorhome is equipped with an auxiliary start switch which can momentarily connect both the house and chassis batteries should the chassis battery become discharged. To operate, depress the "Aux. Start" switch (located on the front driver’s dash) and hold. Now, use the ignition key to start the chassis engine. Release the "Aux. Start" switch after the engine has started.

**House Battery**

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 the house battery for limited periods of time. The 12-volt DC electrical system is designed for usage with a Group 27, deep cycle battery. In a motorhome, the house battery is usually referred to as the house (or coach) battery.

The house battery is factory-installed to provide temporary 12-volt power when 120-volt power is not available to operate the power converter. When drawing energy from the battery, remember that there is a limited amount of power available before the battery needs to be recharged.

**To recharge the house battery**

When the engine is running, the alternator will automatically charge the battery through the auxiliary start solenoid. When parked at a campsite, plug into shoreline power. With minimal or low load on the 12-volt electrical system, the converter will automatically charge the battery. This may take several hours and depends upon battery condition and the number of 12-volt devices operated during the charging period.

**Dry camping**

Consider the charge condition of the house battery when dry camping. If the house 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.

A fully charged 12V battery will read 12.7 volts DC and 1.265 specific gravity at 80°F (32°C). The house battery is considered discharged at 11.8 volts DC by electronic standards. When voltage drops below those levels, permanent battery 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).

**Battery storage instructions**

Some equipment in your RV will draw small amounts of current even when turned OFF. To prevent house battery discharge when the RV is not connected to power through the shoreline power cord, it is recommended you shut OFF the 12-volt battery disconnect switch and disconnect the battery negative cable at the house battery.

During storage, it is important to check battery voltage at least every two weeks and recharge as needed. If you remove the battery from your RV, store them in a dry, cool area as per the OEM instructions.

**Replacement and maintenance**

For accuracy, test battery voltage using a volt-ohm meter (customer supplied). When it is time to replace the house 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 fuses that protect the converter.

**Chassis Batteries**

Each OEM chassis is built with batteries to provide energy to start the engine and operate devices supplied with the chassis. The OEM chassis battery is furnished and warranted by your GM or Ford dealership (as applicable).
SECTION 7
ELECTRICAL SYSTEM – 50 AMP

WARNING
Always wear eye protection when working with batteries. Keep sparks, cigarettes and flames away from the battery because the battery may explode. Do not use a booster battery or any other power source that has an output that exceeds 12-volt. Use adequate ventilation when charging or using the battery in an enclosed space.

ISOLATOR SOLENOID

When a RV house battery is installed in parallel circuitry with an OEM chassis battery, the charge level in both connected batteries will naturally equalize. An isolator solenoid is incorporated to break the connection between the house battery and the OEM chassis battery when the ignition key is in the OFF position.

Breaking this connection prevents discharge of the OEM chassis battery (used to start the engine) when using the 12-volt devices in the house section of your RV. When the engine is running the isolator solenoid engages allowing the house battery to be charged by the vehicle alternator.

CAUTION
Always leave the ignition key in the "OFF" position unless the engine is running.

12-VOLT FUSE PANEL

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.

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
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 house 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.

GENERATOR (IF SO EQUIPPED)

The factory-installed generator (also called a genset) will produce 120-volt AC power for use when camping in areas where shore power is unavailable. 120-volt power from the generator is output to the AC distribution center by way of a factory-installed automatic transfer switch. In the default mode, the automatic transfer switch connects the generator to the AC distribution center when the generator is operating and shore power is disconnected.

When the generator is operating it will power the converter, which in turn will charge the house and chassis batteries. The generator requires 12-volt power from the house battery to start, and draws fuel from the chassis fuel tank. If the fuel tank drops to or below 1/4 full, the genset will automatically shut off to keep the RV from being stranded. Be aware the generator, when operating, gives off carbon monoxide.
Before starting the generator

**WARNING**

**CARBON MONOXIDE IS DEADLY!** Do not run the genset when your motorhome is indoors or in a confined space. Asphyxiation or carbon monoxide poisoning hazards exist whenever generator exhaust gasses can accumulate.

1. Make sure the carbon monoxide detector is working.
2. Turn OFF air conditioners and all other appliances.
3. Check for fuel, exhaust and coolant leaks. **STOP the genset immediately if there is a fuel, exhaust or coolant leak and have it repaired!**

**CAUTION**

Excessive cranking can overheat and damage the genset starter motor. Do not crank for more than 20 seconds at a time. Wait at least two minutes before trying again. If the genset does not start after the third try, refer to the generator OEM manual for more information.

To start the generator manually

1. A remote start/stop switch is located inside the motorhome. A second start/stop switch is located on the generator.
2. Press the operation control switch to start the generator. (Depending on how cold it is, preheat can take up to 15 seconds.)
3. The hour meter will monitor minutes of usage when the generator is running.

For top performance and engine life, especially in colder weather, let the genset engine warm up for two minutes before connecting (turning ON) appliances.

**Maintenance**

With the exception of simple items such as normal maintenance (i.e., oil changes, etc.), all service work should be done by a repair facility authorized by the generator OEM. Improper adjustments can damage the generator and electrical appliances, and can result in a safety hazard. If any discrepancy or problem is noted, contact your dealer for assistance.

**INVERTER (IF SO EQUIPPED)**

Your RV is equipped with a factory-installed inverter that converts 12-volt DC current to 120-volt AC current. It is important that you familiarize yourself with the inverter function and operation. The inverter should be OFF when not in use.

The **factory-installed inverter is not intended for use with medical device(s).**

**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.
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**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.

**DANGER**

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

- Always shut OFF all engines 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.**

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. The following labels (if so equipped) should be kept permanently affixed to your RV:

**DANGER**

Any motorized vehicle or any motorized equipment powered with flammable liquid can cause fire, explosion or asphyxiation if stored or transported within the recreational vehicle. To reduce the risk of fire, explosion or asphyxiation:

1. Passengers shall not ride in the vehicle storage area while vehicles are present.
2. Doors and windows in walls of separation (if installed) are to be closed while the vehicles are present.
3. Run fuel out of engine of stored vehicles after shutting off fuel at the tank.
4. Do not store or transport motor fuel inside this vehicle.
5. Ventilate the vehicle storage area.
6. Do not operate gas appliances, pilot lights, or electrical equipment when motorized vehicles or motorized equipment are inside the vehicle.

**Failure to comply could result in an increased risk of fire, explosion or asphyxiation.**

Fig. 8.1 Flammable liquid

**Fuel selection**

Remember the generator is also fueled by the same system used to fuel the chassis engine. Check the generator OEM and chassis manufacturer information to help determine the type of fuel best suited for this dual application.

**Fuel filler cap**

**WARNING**

Do not replace the fuel fill cap with one of a different type. Use of a substitute cap may create excessive fuel system pressure, resulting in fuel station damage and improper operation in a collision.

Remove the fuel filler cap by slowly turning it counterclockwise and waiting for any "hiss" noise to stop. Then unscrew the cap all the way. To close the fuel filler cap, securely turn the cap clockwise until you hear clicking sounds. If you need to replace the fuel tank filler cap, use only a cap specified for your RV.
FUEL ECONOMY

Fuel economy depends on many factors. Your driving habits can significantly affect your fuel economy. Some recommendations for achieving maximum fuel economy are shown:

- When pulling away from traffic lights or stop signs, accelerate slowly and smoothly.
- When parked even for a short time, do not idle the engine, shut it off.
- Plan your trips to avoid unnecessary stops.
- Keep your tires inflated to the recommended pressures.
- Keep your motorhome "tuned-up." An out-of-tune engine wastes fuel and costs you money.
- Keep your air cleaner clean and your motorhome lubricated according to the recommendations in this manual and the Chassis Guide.
- Do not overload your motorhome or tow heavy loads.

EXHAUST GAS FUMES

Avoid inhaling exhaust gases as they contain carbon monoxide, which is a potentially toxic gas that is colorless and odorless. Refer to Sec. 2 Safety Precautions, Carbon monoxide alarm.

To avoid breathing exhaust gases, follow these precautions:

- Do not run the engine in confined areas, such as a closed garage, any longer than needed to move your motorhome in or out of the area.
- Windows should be closed while driving or running the generator (if so equipped) to avoid drawing dangerous exhaust gases into the motorhome.

If you suspect that exhaust fumes are entering the passenger compartment, have the cause determined and corrected as soon as possible. If you must drive under these circumstances, close all the windows, and adjust the heating or cooling system to force outside air into the motorhome (set the blower on high speed).

WARNING

If you are in a parked motorhome with either the engine running or the generator running there is a potential for exhaust fumes to filter back into the motorhome.

The best protection against carbon monoxide entry into the RV is a properly maintained ventilation system and an active carbon monoxide detector. To allow for proper operation of the RV ventilation system, keep the ventilation inlet grill(s) clear of snow, leaves or other obstructions at all times.

Maintenance

It is recommended that the exhaust system and vehicle body be inspected by a qualified motorhome service center.

- Each time the engine is ready for an oil change.
- Whenever a change in the sound of the exhaust is noticed.
- Whenever the exhaust system, underbody or rear of the vehicle is damaged.

For more information

Refer to your Chassis Guide.
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, tub/shower, and water purification system (if so equipped). The waste water system consists of the waste water holding tank, sewage holding tank, drains and toilet.

PLUMBING SYSTEM MAINTENANCE

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. Inspect the shower faucet fittings and shower drain lines.
- 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 drain valves 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.

WATER PRESSURE REGULATOR (CUSTOMER SUPPLIED)

Excessive pressure from water supply systems may be encountered in some parks, especially in mountain regions. Water pressure regulators are available to protect the RV water system against such high pressure. Water pressure regulators (customer supplied) are available from your
dealer to protect the RV plumbing system against such high pressure.

**CAUTION**

Not using a water pressure regulator when using city water may cause the o-rings to blow. To prevent damage to the plumbing system or components when using the city water connection, a 45 lb. (315 KPa) rated water pressure regulator is recommended.

**FRESH WATER HOLDING TANK**

The fresh water tank can be gravity filled or pressure filled using the fresh water inlet (called city water). Plastic overflow tubes are plumbed into the fresh water holding tank to 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.

**UTILITY CENTER**

The following information defines the function of the utility center settings indicated on the utility center label:

**Normal** - When the RV is not hooked up to city water, this setting allows you to pump water from the fresh water tank to all faucets (the 12-volt water pump must be turned ON).

**City Water** - This setting allows you to have access to water at all faucets on demand. Connect a non-toxic drinking water hose from an outside water source to the city water connection inlet at the utility center and turn on your outside water.

**City Tank Fill** - This setting allows you to fill your fresh water tank. Connect a non-toxic drinking water hose from an outside water source to the city water connection inlet at the utility center. Turn on your outside water.

**Sanitize Tank** – This setting allows the fresh water holding tank to be sanitized and can also be used to fill the fresh water tank from an external container.

**Antifreeze/Sanitize Lines** – Use this setting when ready to winterize or sanitize the fresh water system.

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**Fig. 9.1 Utility center label**

The city water connection is located inside the utility center. Connect a hose from the campground water source to the city water connection. We recommend that you keep a hose available that is dedicated only to supplying the water system with fresh water.

The fresh water connection should be unplugged (i.e., the non-toxic drinking water hose disconnected) when the RV is 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 utilize the campground water direct to your system**

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. Place the utility center valves in the “city water” position.
5. Turn ON the water at the water source.
6. Enter the RV and open the cold water supply faucets to bleed air from the water lines. When the water lines are nearly full, you may experience some "air pockets." Allow them to escape before closing the cold water supply faucets.

7. The water heater will fill first, followed by the supply lines and faucets.

8. Turn the appropriate water heater control switch ON.

**To disconnect the city water fill**

1. Shut OFF the water at the water source.

2. 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:

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**WARNING**

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

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**To fill the on-board fresh water tank**

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. Place the utility center valves in the "city tank fill" position.

5. Turn ON the water at the water source.

6. Water will go to the fresh water tank.

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**Fig. 9.2 Potable water only label**

**Fig. 9.3 Utility center (if so equipped)**
To utilize water from the fresh water tank
1. If needed, sanitize the water system.
2. Turn the appropriate water heater control switch ON.
3. Move the “water heater bypass valve” to the NORMAL position.
4. Place the utility center valves in the “normal” position.
5. Turn on the water pump (make sure you have sufficient 12-volt power).
6. Water will be pumped from the fresh water tank to all faucets.

**CAUTION**

Be careful not to overfill the fresh water holding tank. It can pressurize the tank, causing leakage and water damage and void the warranty. DO NOT leave the tank unattended while filling.

**12-VOLT WATER PUMP & SWITCH**

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.

Once activated, the water pump (also known as the demand pump) will self-prime, and provide water. The water pump continues to run until approximately 45 lbs. of pressure is achieved then 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 has a built-in check valve to prevent water fromFig 9.4 Water pump back flowing.

The water pump switch should be in the OFF position when the RV is unattended for any amount of time. If something would happen to the water system, this may help limit water damage to a smaller area.

For more information
Read the OEM operator’s manual. If you have further questions, contact your dealer, the OEM or Jayco Customer Service.

**WATER HEATER**

**WARNING**

Do not replace any component part with an accessory part that is not authorized by the water heater OEM (i.e., an "add-on" electric heating element, etc.). Such items are not approved to be installed, could create an unsafe condition and will void all warranties.

The water heater is designed to heat water quickly and efficiently. The water heater OEM has preset the sensing limit to maintain the water temperature when the water heater is activated. If you have not used the water heater for two weeks or more it may result in hydrogen gas in the water lines. 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 faucet at the sink and allow the water 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 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 manufacturer 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 operator’s manual); If the weeping persists consult your dealer or a service agency authorized by the water heater manufacturer.

Water heater control switches
The water heater control rocker switches are located in the command center. 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.

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 using the water heater; 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.

For more information
Read the OEM operator’s manual. If you have further questions contact your dealer, the OEM or Jayco Customer Service.
SECTION 9
PLUMBING SYSTEM

OUTSIDE SHOWER
A handheld shower assembly with both hot and cold water is available for washing or rinsing with the outside shower.

1. Be sure the water heater is ON and had sufficient time to heat the water.
2. Open the outside shower compartment door.
3. If dry camping, be sure the 12-volt water pump is ON.
4. Remove the handheld shower from its holder.
5. Turn ON the hot and cold faucet knobs, and adjust the water temperature as desired.
6. To activate the handheld shower turn ON the sprayer head attachment (some models).

To cease operation, close the faucet knobs. After the water has been allowed to drain from the shower head, replace it in the outside shower compartment. Any remaining water in the shower hose will drip or run out; this is not a leak but performs as intended.

FAUCETS

The tub/shower faucet 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.

For more information
Refer to the OEM operator’s manual.

BATHROOM TUB / SHOWER

Your bathing facilities in the RV function similar to those in your home. 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 or label instructions. The tub/shower walls (if applicable) in your RV are made of ABS plastic material. Use a mild detergent soap and warm water to clean. Contact your 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
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.
4. Insert the new water filter cartridge and tighten the fittings securely by hand. Dispose of the used water cartridge filter.

For more information
Refer to the OEM operator’s manual and the label on the water filter cartridge.

DRAINING THE FRESH WATER SYSTEM
To drain the fresh water holding tank and supply lines:

1. Open all faucets, including the outside shower faucet.
2. Open the “fresh tank drain” valve.
   All permanent fresh water tanks can be drained by one of two types of drain valve: a white plastic drain is attached to the exterior wall (open valve to drain) or a valve located inside the RV adjacent to the water tank (this knob turns 45° to open or close).
3. Open the “low point drains”
   As their name indicates, they will be at the lowest point of water lines. A label is 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 motorhome. Once the label is found on the exterior sidewall, go inside the RV to find the corresponding location of the drains.
4. Turn ON the water pump and allow it to run as needed.
5. Operate the toilet flush lever until water stops flowing.
6. Open all faucets, including the outside shower faucet.
7. Make sure your “water heater bypass” valve is open.
8. Relieve the water pressure using the 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.

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

**SANITIZING THE PLUMBING SYSTEM**

<table>
<thead>
<tr>
<th>WARNING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Failure to sanitize the potable water system could result in death or serious illness.</td>
</tr>
</tbody>
</table>

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).

<table>
<thead>
<tr>
<th>WARNING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorine is poisonous. Always recap the household bleach bottle and clean utensils and containers after use.</td>
</tr>
</tbody>
</table>

How to sanitize

1. Level the RV and drain the fresh water system.

2. 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 13, use ½ 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.

3. Attach the intake hose to the city fill connection. Place the free end of the intake hose in the bucket of chlorine solution.

4. Turn the water heater valves to the “BYPASS” position.

5. Move the valves to the “sanitize tank” position. The low point drains must be closed for the chlorine solution to siphon through the lines.

6. Turn the water pump ON.

7. After the recommended amount of solution is in the tank, turn OFF the water pump.

8. Turn the “water heater bypass” valve to the NORMAL position.

9. Open the hot water line on all the faucets (kitchen, lavatory, shower and outside shower) until water begins to flow continuously and a chlorine smell is noticeable.

10. Close the hot water lines and repeat with the cold water lines on the faucets.

11. 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.

12. 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:

13. Fill the fresh water system using clean (potable) water (see Fresh water connections) completely full.

14. 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 Motorized Limited Warranty.

There are two methods of winterizing your motorhome 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.

**Warning**

Never apply air pressure to the water system with any of the valves in the closed position. Air pressure applied to a closed valve, faucet or low point drain could potentially damage the seals and cause water leaks. If you have questions, consult with your dealer.

**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 valve to the BYPASS position.
5. Move the valves to the “antifreeze/sanitize lines” position. The low point drains must be closed for the antifreeze to siphon through the lines.
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 city water connection.
7. Turn the water pump ON.

*If the water pump fails to self-prime, temporarily open the low point drains (close the low point drains as soon as the water pump primes and before continuing to the next step).*

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 dealer for assistance.

**BLACK/GREY WATER SYSTEM**

Water from the sinks and shower (or tub) flow into the gray water (or waste water) holding tank. Water from the toilet will flow into the sewage (or black water) holding tank. Certain floor plans may also have the lavatory draining into the waste (black) 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 Jayco independent 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 motorhome 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. Motorhome 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 ¾ 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.
Never leave the black tank drain in the open position continuously when connected to the campground sewer system.

Heated holding tank pads (if so equipped)
A pad is attached to the exterior bottom side of the holding tank. Heat is supplied by 12-volt DC power through the heating element built into the pad. Approximately 6-8 amps of energy per pad is consumed and fused through the 12-volt power supply board. An internal thermostat is built into components of the heat pad to control temperature and assist in energy conservation.

The control switch to turn the holding tank heat pads ON or OFF is located on an interior wall in or near the bathroom. Power to heating pads should be turned off until:

1. Water is in the holding tank.
2. The temperature drops to 34°F (1°C).
3. The motorhome is parked, set up and all attachments performed.

Turn the heated holding tank pads OFF when dumping and draining the holding tanks.

BLACK & GREY TANK DRAINS
The grey tank drain and black tank drain are also referred to as 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.

Most states and parks have strict laws and regulations to prohibit dumping of wastes into 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 dealer for assistance in the purchase and installation of a sewer hose and/or sewer hose extension (if needed).

**BLACK TANK FLUSH**

**WARNING**

Do not use the same hose to fill your fresh (potable) water tank that is used for the black tank flush.

The black tank flush is also called a “no fuss flush.” The fresh water from the non-toxic drinking water hose goes directly into the black water holding tank where there is a “sprayer” connection located. This allows you to clean the black water holding tank by removing debris and preventing accumulation. There is a check valve incorporated in the plumbing lines to prevent back flow. Flush the black water tank each time the grey and black water holding tanks are dumped or as needed:

1. Dump the black water tank and leave the black tank drain valve open.
2. Connect a garden hose from the water supply source to the “black tank flush.”
3. With the water source turned ON, flush the black water holding tank until the water running out of the black tank drain valve is clear (not discolored or cloudy).
4. Disconnect the garden hose and close the “black tank drain” valve. Fasten the sewer hose housing dust cap back on the “black tank flush.”

**CAUTION**

The black tank drain valve must be OPEN any time there is a hose (water supply) connected to the black tank flush.

**CAUTION**

Do not leave any hose (water supply) connected to the black tank flush when it is not in use.

**TOILET**

**WARNING**

It is important to prevent solid waste buildup. Follow the toilet OEM 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 may use up to seven gallons 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

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 container(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**

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.

**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.

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

Fig. 10.1 "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.

ASME TANK

Propane is stored in the pressurized tank in a liquid state. As the propane is released from the tank, 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 1-1/2% for every 10°F (5.5°C) it is warmed. Heat the propane 100°F (55°C) and the tank 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.

The factory-installed propane tank is an ASME tank mounted under the floor of the motorhome. Because the tank is not removable, the motorhome will need to be driven to a propane fill station. Be sure to read, understand, and follow all information supplied with your motorhome by the propane tank OEM. If you have further questions, consult your RV dealer, the OEM or Jayco Customer Service.

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

![Use propane only label](image1)

**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.

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

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

![Shut off during re-fueling label](image2)

**Servicing or filling**

Have the RV checked for leaks at the connections on the propane system soon after the purchase and the initial filling of each propane tank. When you have a new tank filled for the first time, make sure your propane supplier purges your new tank of trapped air. Otherwise, an improper mixture of gas and air will make it impossible to light your propane appliances.
Main Supply Hose – Low Pressure
Attach the main supply hose from the regulator to the brass manifold fitting in the frame of the motorhome. The swivel brass nut on the main hose will be your final attachment. Several things to remember each time the propane tank is removed:

1. Check that ALL fittings are tight.
2. Check that ALL connections are tested with leak solution. Consult with your RV dealer or propane service personnel.
3. Open the main valve slowly to avoid a fast rush of propane to 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. Close the valve and search for the leak.

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 tank overfill
Never overfill your propane tank above the liquid capacity indicated on the tank. If a tank 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 tank 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 tank, contact your RV dealer or a qualified propane technician for assistance immediately. Do not attempt to service a propane tank overfill yourself.

Maintenance
Propane gas is normally non-corrosive - you need not worry about the inside of your tank. 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 tank. Inspect the tank 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 tank that has been exposed to fire, leaks or seems damaged should not be refilled. Do not attempt to repair any tank, tank valves, regulator or appliances by yourself. Use only trained certified propane gas service technicians to perform repairs.

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. Any adjustment to the propane system should always be made with a properly calibrated manometer by the RV dealer or a qualified propane gas service technician. If the pressure is too high, it affects performance and safety. If the pressure is too low, your appliances will not operate correctly.

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

For more information
Refer to the OEM operator’s manual.

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 RV 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**

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**WARNING**

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

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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 tank slowly to avoid a fast rush of propane vapor through the excess flow valve causing propane “freeze.” 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 RV 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 Owner’s Portfolio.

Make sure that you read and fully understand ALL safety requirements for handling and operation of the propane system. The Owner’s Portfolio 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 your RV dealer, the OEM or Jayco Customer Service.

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 RV 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 motorhome. Make certain your propane tank is properly fastened in place. The following label should be kept permanently affixed to your RV:
Some states prohibit propane appliance operation during travel, especially in underground tunnels. Make sure you know the laws for the areas where you travel.
WARNING

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

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. Make sure you have sufficient power available before operating your slideout system.

OPERATING THE SLIDEOUT

1. The auxiliary batteries (customer supplied) must be fully charged and connected. If possible, the RV should be hooked up to 120-volt AC power so that the converter operates.

2. The RV must be level and the stabilizer jacks in the extended position.

3. Locate the slideout room control switch. The main slideout switch (if so equipped) is located in the command center. The bedroom slideout switch (if so equipped) is located on an bedroom interior wall.

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.

Retracting slideout room

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

CAUTION

Additional support jacks are not needed under the slideout. Damage can occur to your slideout room from improper use of aftermarket support jacks.
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 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, refer to the following section on overriding the specific slideout system installed on your RV.
- If the slideout is retracted, leave it in that position.
- Contact your dealer or Jayco Customer Service for repair assistance.

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

- Follow steps on overriding the specific slideout system installed on your RV.
- You may need to push the side that is not sliding to get it to retract all the way.

- Contact your dealer or Jayco Customer Service for repair assistance.

Power Gear slideout override

⚠️ WARNING

Do not work on your system unless the battery is disconnected. Failure to comply could result in death or serious injury.

Locate and remove the access panel for the slideout motor.

![Main Room Motor](image)

Fig. 11.3 Main room slideout motor

1. From the rear of the motor, rotate the brake release lever counter-clockwise 1/8 turn. This will release the brake that locks the slideout in place.
2. Disconnect one slideout motor wire near the motor.
3. The slideout is now free to move. Locate the access panel either at the front or rear of the slideout rail. Remove the access panel for the manual slideout shaft.
4. Use a 3/4 socket and ratchet on the hex head located on either end of the drive shaft and turn the shaft until the slideout is in the position you desire.

When the slideout is fully extended (or retracted), put pressure on the wrench to ensure a tight seal, then return the brake release lever to its normal downward position. This will ensure that the slideout is locked into a sealed position.
When the slideout motor brake is released, the slideout will not lock into place, and therefore it will not be sealed from the outdoors! When the slideout has been retracted, return the brake release lever to its downward position in order to seal and lock the slideout.
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By 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 1/2” 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.

SETTING UP YOUR CAMPSITE

Now that you have parked your RV (and blocked the wheels if needed), 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.

**SWIVEL CHAIR(S) WITH TABLE (IF SO EQUIPPED)**

Refer to the furniture manufacturer’s care instructions for this product. Make sure the swivel chairs are secured for travel.

**HIDE-A-BED (IF SO EQUIPPED)**

The hide-a-bed sofa functions much the same as a regular residential hide-a-bed sofa. To make the hide-a-bed sofa into a bed, remove the seat cushions and pull the strap located at the front of the sofa seat bottom out towards you firmly and gently.

To convert the hide-a-bed back into the upright sofa position, reverse the process (make sure to pull the seat belts out into their usable positions). Be sure to hold the sofa strap firmly to ensure the hide-a-bed sofa does not suddenly drop shut. Refer to the furniture manufacturer’s care instructions for this product.

**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 (do not use that area for storage). To convert 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 converting back to the booth dinette.

**J-Steel Sofa**

The J-steel sofa should comfortably seat two to three adults. It converts to a bed by lifting at the front of the sofa seat section and pulling it towards you. The sofa back will follow and pivot down into a horizontal position. To reconvert back to an upright sofa, reverse the process (make sure to pull the seat belts out into their usable positions). Refer to the furniture manufacturer’s care instructions for this product.

**Electric sofa**

To recline the sofa, push and hold the 12-volt sofa control switch until the sofa back and seat cushion are in the bed position. Reverse this process to convert the sofa back to the travel position.

**Queen Bed (If So Equipped)**

There is a limited storage area located under the queen bed. To access, grasp the end ledge at the foot of the bed and lift carefully. Use the gas struts to help you hold the bed temporarily in the upright position. Before lifting, be sure there is nothing on the bed that will restrict its movement or add extra weight.

Use caution when opening or closing the bed to keep hands and fingers at the end ledge provided (not on the side or further back than necessary) to avoid pinch points. When lowering the bed, be sure to keep both hands on the end ledge while slowly lowering it to the closed position. Avoid letting the bed suddenly drop shut.

The bedroom electric slide room system may be located under the queen bed. If so, it can be accessed by removing the screws holding the wooden paneling in place. Use care not to obstruct the slide room system when using the under bed storage area.

**Privacy Drape Installation**

Remove the privacy drape from the storage bag, which you should find in the storage area under the mattress platform in the bedroom.

1. Starting at the driver's side of the cab, attach the black plastic hook to the loop attached to the wall behind the driver's seat. Make sure that the side of the drape with Velcro® is facing the motorhome windshield.

2. Pull the drape toward the front of the RV and behind the driver's side sun visor. Open the sun visor against the windshield to hold the drape in place.

3. Proceed across the windshield to the passenger side, again placing the drape behind the sun visor and opening the sun visor to hold the drape in place.

4. Attach the black plastic hook at the passenger's side of the cab to the loop attached to the wall behind the passenger's seat.

5. Attach the Velcro® at the top edge of the privacy drape above the driver's and passenger's doors to the corresponding Velcro on the roof of the motorhome cab.

6. The Velcro® at the bottom corners of the privacy drape under the black plastic hooks should also be attached to the Velcro on the walls of the motorhome in the corresponding locations.

Make sure to remove your privacy drape and place it in storage before traveling.
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.

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

**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 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.

On amplified models, 12-volt DC power is required (refer to the OEM 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.

**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.

**TELEPHONE JACK (IF SO EQUIPPED)**

To operate your interior phone the RV must be connected to an external telephone service provider. To use the phone, plug a telephone cord with a RJ-11 plug (customer supplied) to the exterior phone jack.

**CAUTION**

It is recommended the telephone cord be disconnected from the external power source in the event of a storm. The telephone cord can carry voltage from the external power source into the RV and cause potential damage.

**REFRIGERATOR**

**WARNING**

If you smell propane gas **STOP!** Follow the directions located in your OEM operator’s manuals and in this manual.

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. 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 optimum efficiency and performance, it is recommended the refrigerator be checked at least twice a year as part of the routine maintenance.
MICROWAVE (IF SO EQUIPPED)
Make sure there is sufficient 120-volt power available before operating the microwave. Ensure the microwave turntable (if so equipped) is secured prior to traveling.

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.

Fig. 12.5 Cooking / comfort heating label

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.

**WARNING**
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.

KITCHEN RANGE & OVEN (IF SO EQUIPPED)

To prevent damage, always use the OEM recommended size flat bottom pan(s). Generally, the pan should be large enough to cover the burner, but not be more than one inch larger than the burner grate.

Do not use a broiler pan, griddle or any other large utensil that covers more than one burner at a time. This will create excessive heat that may cause melting, sooting or discoloration.

**In addition**, the use of undersized pans could expose a portion of the heating element to direct contact and may result in ignition of clothing. Proper relationship of pans to burner will 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.

**PANTRY (IF SO EQUIPPED)**

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 (IF SO EQUIPPED)**

The BBQ grill is for use outside of the RV. Never use this grill inside a compartment or the RV. 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.

**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.

**WARNING**

The maximum weight limit for the bracket on the side of your motorhome 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.

**ATTACHING THE “QUICK COUPLER” CONNECTION**

The “quick coupler” is directly connected to the RV propane system. The “quick-coupler” connection has a positive shut-off valve as required by code and standards.

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 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 drop in stove.

*Fig. 12.7 Quick connect coupler*

**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.

**BBQ Grill Prep (if so equipped)**
Your RV is equipped with a propane “quick-coupler” connection and support bracket for easy installation of the BBQ grill.

**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.

*Do not leave the attic fan open 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 non-warrantable 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.

**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. 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 (IF SO EQUIPPED)**

<table>
<thead>
<tr>
<th>WARNING</th>
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<tbody>
<tr>
<td>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.</td>
</tr>
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</table>

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 If you have any questions contact your dealer or Jayco Customer Service.

*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.*
Patio Awnings (if so equipped)

**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.

**Patio Awnings (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.

**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
- Latch drawers, cabinets & doors
- Lower antenna & satellite dish (if applicable)

- Move slideout in and lock it in place (if applicable)
- Fasten and secure the furniture for travel (if so equipped)
- Refrigerator door locked

**Exterior**

- Empty black holding tank, rinse as needed
- Empty gray holding tank
- Pack equipment into compartments and secure it
- Water hose & electric cord unhooked and stored
- Lock all exterior compartments
- Retract awning and secure in place (if applicable)
- Retract step
- Retract leveling jacks
- Check lights
  - brake lights
  - clearance lights
  - turn signals
- Check tire pressure (include inner wheel and spare, if applicable)
- Check tire wear (uneven wear pattern)
- Check wheel lugs
- Test brakes for proper operation
- Visually look under RV for items missed
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 warrantable.

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

**FORMALDEHYDE**

The RV industry uses many products including carpeting, paneling, shelving, plywood, draperies, and fabrics that may have used formaldehyde in the process of making those products. Other airborne pollutants including campfires, cigarettes and cigarette byproducts, cooking and carbon monoxide often have a higher concentration of formaldehyde than an RV. Air pollutants can be an irritant and you may experience irritation to the eyes, ears, nose and throat.

When an RV is closed up for a period of time, it is possible for a process of outgassing to occur which can draw irritants into the air. So it is very important to properly ventilate your RV to remove the outgassing. This is more prevalent in new RV’s as they release moisture from construction materials through several heating and cooling sessions until dissipated.

Areas of high heat and humidity will increase the outgassing process. Ventilate by opening all the windows, and circulate the air with an oscillating fan. Remember ventilation is imperative at all times in close quarters, not only for indoor air quality, but also for proper function of appliances and elimination of condensation (see **Condensation**).

The following label should be left permanently affixed to the RV:

**WARNING**

Some products in this vehicle contain formaldehyde, which may occasionally be an irritant to you. You may experience a greater concentration during high humidity and temperatures, but ventilation usually removes it. If you are affected, ventilate the vehicle and leave until the formaldehyde disappears. Please contact our Customer Service Department if you desire assistance.

DO NOT REMOVE THIS TAG

![Fig. 13.1 Formaldehyde warning label](image)

**CLEANING THE INTERIOR**

To keep the value of your RV, perform regular maintenance using the proper materials and procedures. Use only those materials and procedures that comply with all local environmental pollution control regulations. Carefully select the materials to be sure that they do not contain corrosives.

Make sure you have selected the right cleaning agent before you begin the cleaning process. If in doubt, check to see if the cleaner will cause damage by testing a small area out of sight or contact your dealer for assistance. Follow the instructions provided by the cleaning product manufacturer. Never use the following chemicals to clean your RV; these can all be dangerous, and can damage your RV:

- Acetone
- Benzin
- Carbon tetrachloride
- Gasoline
- Lacquer thinner
- Nail polish remover
- Naphtha
- Paint thinner
- Turpentine
Furniture Upholstery
To retain the value of your RV, maintain the furniture upholstery carefully and keep the interior clean. Vacuum the furniture regularly using a soft brush attachment to remove any loose dirt or debris.

Fabric (if so equipped)
It is recommended the fabric be professionally cleaned if it becomes stained or soiled. The professional cleaner should be made aware the fabrics have been treated to be fire resistant. After the cleaning process, please remember to have the fabric re-treated to help ensure your personal safety.

Suede Upholstery (if so equipped)
It is recommended the suede be professionally cleaned if it becomes stained or soiled.

Vinyl Upholstery (if so equipped)
Do not dry clean vinyl components. If they are dry cleaned, the vinyl on the reverse side will shrink, become hard and crack. 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. Use a professional furniture cleaning service for an overall cleaning.

Clean the suede or vinyl upholstery only as recommended. Using other processes than those listed may produce undesired results and possibly damage the upholstery. This type of damage is not warrantable.

Décor Items
Décor items such as window treatments, night pleated shades, mini blinds and décor glass should be cared for as follows:

Window treatments and curtains
Dust occasionally with a vacuum and soft brush attachment. Due to fire retardant chemicals, they should be professionally cleaned only. The professional cleaner should be made aware that these items have been treated with a fire retardant.

Shower Curtain (if so equipped)
To help prevent mildew or mold, clean the shower curtain.

Décor Glass (if so equipped)
Use a glass cleaner to remove smudges, smears and spots. If there is any decorative etching on the décòr glass, use care when cleaning around that area.

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. 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” as they may damage plastic materials.

Hardware & Sink or Shower Fixtures
Use mild dish soap and water to clean these fixtures. Do not 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.

Paneling
To clean, use a mild solution of soap and lukewarm water with a soft sponge or cloth. Do not use abrasive cleaners as they 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.

**CABINETRY & TABLES**

To keep hardwood doors, cabinet fronts and hardwood tables looking like new regularly dust with a soft cloth dampened with a cleaning polish or mild detergent solution. Avoid using ammonia based products or silicone oils as they may cause damage if used over a long period of time. The finish is durable and resistant to most household spills. However, spills should be wiped up promptly to avoid potential problems. Excessive prolonged exposure to direct sunlight, high temperatures and high humidity can cause damage to both the finish and the wood itself. These should be avoided.

**COUNTERTOPS**

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.

**To prevent permanent damage**

- Always use hot pads or trivets under hot pans, dishes, or heat producing appliances such as frying pans.
- Always use a cutting board; never use a knife on the countertop.
- Avoid harsh chemicals such as drain cleaners, oven cleaners, etc.
- Do not let cleaners with bleach set on the top. Wipe them off promptly.

**FLOORING**

Remember to wear rubber gloves to protect your hands when cleaning. Always test a cleaning agent in an inconspicuous area for colorfastness.

**Carpet (if so equipped)**

Vacuum regularly with a vacuum cleaner with a revolving brush or beater bar. Be sure the vacuum does not have teeth, combs or rough edges as they may damage the carpet. It is important to remove loose soil and debris while it is on the surface. Heavily traveled areas (i.e., walkways, areas in front of the furniture) may be protected with small throw rugs to prolong the life of the carpet. Some spills contain chemicals that will destroy carpet fibers and dyes. If you have doubts about what caused the spot, contact a professional carpet cleaner.

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.

**Vinyl flooring (if so equipped)**

Periodically vacuum or sweep to remove dirt and gritty particles. Although most common spills will not permanently stain the vinyl floors, they are usually easier to remove if wiped up before they set. Simply blot with a paper towel and wipe clean with a damp cloth. As part of a regular maintenance program, sponge mop the entire floor. Do not use dish detergents or vinegar and water because they will dull your floor.

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.).

**REPLACING LIGHT BULBS**

Before replacing a bulb, be sure the light is off. Do not touch the glass part of the new bulb with your bare fingers. The skin oil left on the glass will evaporate when the bulb gets
hot, the vapor will condense on the reflector and it will dim the surface. Replace a bulb only with a new bulb of the same rating and type.

**Cleaning The Exterior**

To protect your RV's exterior finish, wash it often and thoroughly. The exterior can be affected by ultra-violet exposure; yellowing or fading may occur. Regular cleaning and waxing will help protect the exterior. If chalking occurs, wash and try to wax a small area to see if the luster returns. If the exterior becomes scratched, nicked or cracked have your dealer inspect the RV; check with your insurance agent to see if this damage is covered under your policy (if applicable).

Depending on your model, the exterior is constructed of aluminum or fiberglass. Refer to the general instructions that follow for care information. We recommend that you do not take your RV 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 RV, which could possibly damage component parts.

**Foreign material**

Industrial fall out, road tar, bird droppings, tree sap, insect remains, seawater and other foreign materials can damage the finish of your RV. Generally, the longer the foreign material remains in contact with the exterior finish, the more extensive the damage. Wash your RV as soon as possible if it becomes contaminated with foreign material.

**Washing**

Chemicals contained in dirt and dust picked up from the road surface can cause damage if left on the RV for a long time. Frequent washing and waxing is the best way to protect your RV from this damage. Frequent washings also protect your RV from environmental elements, such as rain, snow and salt air.

Do not wash the RV when it is in direct sunlight. Park the RV in the shade and spray it with water to remove dust. Next, using an ample amount of clean water and a car-washing mitt or sponge, wash the RV from top to bottom. Use a mild car-washing soap if necessary. Rinse thoroughly and wipe dry with a chamois or soft cloth. Carefully clean the joints and flanges of the slideout (if so equipped), doors, hood, etc., where dirt is likely to remain.

**CAUTION**

When washing the RV, wear a pair of rubber gloves to protect your hands. Avoid spraying or splashing water on the electrical components. Avoid using car washers that use rotating brushes. This type of washer may cause scratches on the RV exterior.

Some types of hot water washing equipment apply high pressure and heat to the RV. They may cause heat distortion and damage to the resin parts and may flood the RV's interior. Therefore, be sure to observe the following:

1. Keep the washing nozzle about 16 inches (40 cm) or more away from the RV body.
2. When washing around the glass areas, hold the nozzle at right angles to the glass surface.

**During cold weather**

Salt and other chemicals that are spread on winter roads in some geographical areas can have a detrimental effect on the RV's underbody. If your RV is exposed to these conditions, spray the underbody with a high-pressure hose every time you wash the exterior of your RV. Take special care to remove mud or other debris that could trap and hold salt or moisture. After washing your RV, wipe off all water drops from the rubber parts around the slideout and doors.

If the slideout or door is frozen, opening it by force may tear off or crack the rubber gasket that is installed around the slideout or door. Pour warm water on the gasket to melt the ice (wipe off the water thoroughly after opening the slideout or door). To prevent the weather stripping from freezing, treat it with a silicone spray.
**Waxing your RV**

**CAUTION**

If desired, you may wax your new motorhome after 60 days of purchase. The exterior paint does need time to cure before any wax is applied to the exterior surface.

Wax your RV once or twice a year, or when painted surfaces do not shed water well. Use a soft cloth to apply a small amount of wax to the painted surfaces. After the wax has dried, polish the RV with a dry, soft cloth. Do not wax your RV in direct sunlight. Wax it after the surfaces have cooled. Do not apply wax to any area having a flat black finish as it can cause discoloration. If the finish has been stained with wax, wipe off the area with a soft cloth and warm water.

When waxing the area around the various openings, do not apply any wax on the weatherstrip. If it is stained with wax, the weatherstrip cannot maintain a weatherproof seal around the opening.

**CAUTION**

Do not use waxes containing high-abrasive compounds. Such waxes remove rust and stains effectively, but they are also harmful to the luster of the surface, since they may scrape off the coating. Further, they are detrimental to glossy surfaces, such as the grille, garnish, moldings, etc. Do not use gasoline or paint thinners to remove road tar or other contamination to the painted surface.

Polishing your RV

If painted surfaces have been severely damaged and have lost their original luster and color tone, polish the surface lightly with a fine polishing compound. Avoid limiting your polishing to the damaged surface only; polish a somewhat wider area, moving the polishing cloth in one direction. After polishing, flush the compound from the surface and apply a coat of wax to regain a beautiful luster.

**CAUTION**

Do not use a buffer and a buffing compound as it may damage the exterior surface. Please contact a professional paint body shop for assistance.

**Damaged paint**

To prevent corrosion, touch up small cracks and scratches in the paint coat as soon as possible with touch-up film or paint. Carefully check the body areas facing the road and the tires for damage to the paint coat caused by flying stones, etc. To purchase touch-up paint, use the closest automotive paint (available locally) match possible.

**Cleaning plastic parts**

Use a sponge or chamois to clean plastic parts. Use warm water and a soft cloth or chamois to remove any white residue from dark colored plastic surfaces. Do not use a scrubbing brush or other hard tools as they may damage the plastic surface. Do not use wax containing abrasives that may damage the plastic surface.

**Chrome parts (if so equipped)**

To prevent chrome parts from spotting or corroding, wash with water, dry thoroughly, and apply a non-abrasive automotive wax. If the chrome is severely damaged or pitted, use a commercially available chrome polish product.

**WINDOWS**

Any ventilating window may permit water inside, especially during heavy rainstorms. Condensation will also cause water to accumulate on windows and in the tracks. The window “glass” can normally be cleaned with a sponge and water. Use glass cleaner...
to remove wax, oil, grease, dead insects, etc. After washing the glass, wipe it dry with a clean, soft cloth.

**DOORS & LOCKS**

Locks on entrance and baggage doors need biannual lubrication using a light coat of silicone spray. Do not permit the spray to come into contact with the tent. Conditions such as rain, salt, dust and pollution may increase the maintenance needs.

**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 frame members occasionally and whenever you notice rust or paint chipped away, to insure protection.

**REAR BUMPER**

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. Over time, weight added to the bumper will cause damage from the motion created while traveling.

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**Rubber Roof**

The rubber roof on your RV is manufactured by Alpha Systems. Read and follow the OEM manual when cleaning the rubber roof. If you have questions, contact your dealer.

**Exterior Roof & Sidewall Vents**

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**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.

While you are cleaning the exterior roof, also inspect the roof vents (including sealants) for cracks and keep them clean. Inspect the refrigerator and holding tank vents for blockages from bird nests, spider webs, leaves, etc. Water heater, furnace and refrigerator exterior doors need to be kept clean and free of obstructions (i.e., insect nests, mud daubers, etc.) while the appliances are in use.

**Roof Ladder (If So Equipped)**

Your RV may be equipped with a roof ladder. The roof has decking under the rubber roof membrane to allow you to walk on the roof (with caution) to do maintenance.

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**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 Motorized Limited Warranty.

Some items may fall within the given weight range, however, can still cause damage. Over time, weight added to the bumper may cause damage from the motion created while traveling. In addition, the extra weight behind the axle may result in adverse handling conditions from wind gusts and/or passing traffic.

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**WARNING**

If your RV is equipped with a roof ladder, do not leave items attached to it while traveling. The ladder has a weight limit of 350 lbs. when using it to access the roof. DO NOT exceed this weight limit.

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**Sealants**

Water is a RV’s worst enemy when it enters where it is not intended. Sealants perform a very important function; they must be inspected closely and be regularly maintained. We incorporate many different types of sealants, including butyl/putty, black butyl-encapsulated foam, silicone (clear and
colored), roof sealant, foam, etc. 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 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.

 REPLACED SEALANT AND CAP SEAL IF YOU NOTICE ANY CRACKS, GAPS, LIFTING, LOoseness, PEELING, SHRINKAGE, Voids OR ANY SIGN OF PHYSICAL DETERIORATION. COMPLETE YOUR REPAIRS IMMEDIATELY TO PREVENT DAMAGE TO YOUR RV.

FAILURE TO PROPERLY MAINTAIN OR RESEAL YOUR RV MAY RESULT IN SERIOUS WATER DAMAGE TO THE ROOF AND OTHER PARTS OF THE RV. THIS DAMAGE IS NOT COVERED BY THE MOTORIZED LIMITED WARRANTY.

MOTORHOME STORAGE

Properly preparing your motorhome for storage during periods of non-usage will prevent problems from arising. It will also make it easier to get started again for the following camping trip or season. To prevent costly freeze-ups, winterize the plumbing system when it will not be in use for an extended period of time, especially if it is stored in colder climates.

Prepare the chassis for storage in accordance to the Chassis Guide. Remember to use fuel additives and supplements if so recommended.
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. Reseal as necessary.

Close all windows and roof vents.

Make sure vehicle is level. **Do not use the hydraulic leveling jacks, as they tend to seep down over time.**

If your motorhome is equipped with a generator, adding a fuel stabilizer will aid in preventing condensation and fuel varnishing.

Inspect and clean tires. Check for wear, cracks and inflation pressure. To prevent weather checking and other UV damage, cover tires that are exposed to sunlight.

Inspect under the motorhome for any openings into the floor where animals or insects may enter and seal if necessary.

You may want to place rodent control products in the vehicle during storage. Mice especially can do a tremendous amount of damage to the drapes, cushions, etc., particularly during the winter months.

Turn the thermostat(s) OFF.

If your motorhome is equipped with a gas/electric DSI range, light a range gas burner to consume any gas remaining in the lines. Once the flame extinguishes itself, turn the burner valve OFF.

Turn all cushions on edge to prevent the moisture/mildew buildup during storage.

Defrost, wash and dry the interior of the refrigerator/freezer and prop (or block) the doors open so air can circulate and prevent mildew.

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.

Remove all perishables from the cabinets. Leave the cabinetry doors ajar to allow air circulation and prevent mildew and musty odors.

Lubricate locks and hinges on exterior doors.

Turn OFF the inverter (if so equipped).

Turn OFF the motorhome 12-volt battery disconnect switch.

Disconnect the batteries to prevent battery discharge. Cover all external outlets, such as furnace, exhaust, etc. to prevent mice or other rodents from entering.

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.

Cover the roof air conditioner.

Disconnect 120-volt AC power to the RV.

Drain all water lines.

Drain and flush all holding tanks (fresh water, gray water, black water, water heater, etc.)

Store your RV indoors under a roof. If you choose to purchase a cover for use during storage make sure it is “breathable.”

While the motorhome is being stored

In areas of heavy snow and if the vehicle is stored outside, periodically brush the snow off to prevent excessive accumulation and prevent possible roof damage. Periodically inspect your motorhome during storage, and seal off any area that can offer an entry point.

**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.

Special interest publications, such as articles and books offered through TL Enterprises (Trailer Life, Motorhome, etc.) and other publications relating to recreation vehicles
can offer additional and practical advice on the proper storage of your recreation vehicle.

**RV Start-Up**

When Spring is just around the corner or you are ready for a trip your motorhome will require some preparation for a fresh start to your camping season. The following checklist will help ensure a trouble-free camping season:

- Inspect and work all interior and exterior latches and locks (lube if necessary).
- Make sure the batteries are fully charged and installed correctly.
- Turn ON the motorhome 12-volt battery disconnect switch.
- Inspect the power cord and carefully clean the contacts if necessary. Plug in the 50-amp power cord to an appropriate power source.
- Turn on the interior lights and check outlets for polarity. If needed, replace any blown fuses. Check the circuit breakers and test the GFCI.
- Inspect and test all safety alarms (replace batteries as needed). If you have a defective or damaged safety alarm, replace it immediately.
- Inspect and turn on the propane system. If you have any questions, contact your dealer or a qualified propane service representative for assistance.
- If the propane system is functioning properly, test the pilot lights on range, refrigerator, furnace and water heater.
- Inspect the leveling jacks for operation. If needed, perform maintenance as per the OEM information.
- Test all exterior and interior lights. Replace any bulbs if they are burnt out.
- Prepare the chassis portion of the motorhome for the camping season in accordance with the Chassis Guide.
- Inspect the tires for wear, cracks and inflation pressure.
- Wash the exterior of the motorhome. Do a sealant inspection and repair as necessary.
- De-winterize and sanitize the fresh water system.
- Connect a towed vehicle to motorhome (if so equipped) and test all connections and lights.

**Maintenance Checklist**

This list is a quick reference sheet for suggested areas of regular maintenance. Make sure that you review all literature supplied with your motorhome by the various OEMs. To perform maintenance items as suggested here, refer to the appropriate OEM manual.

**WARNING**

It is important that you read and follow the maintenance instructions listed in your Chassis Guide (the following list is only a supplement). Failure to follow both lists could be detrimental to the proper operation of your RV or cause failures which can cause property damage and personal injury.

**Prior to First Trip**

- Check the propane lines for leaks.
- Test the safety alarms.
- Sanitize the fresh water system.
- Check the wheel nuts at specified intervals to listed torque values, re-torque as needed (refer to the Chassis Guide).
- Open all windows and the entry door, then 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 the wheel nuts at specified intervals to listed torque values, re-torque as needed (refer to the Chassis Guide).
- Have the brakes adjusted by a qualified service technician.
Each Trip
- Check the propane lines for leaks.
- Test the safety alarms.
- Check the battery water levels.
- Check tire pressure and wear (make sure the tires are cold when checking the tire pressure).
- Check the running lights.
- Test the brakes.
- Flush out the water heater tank.

After Every Tire Change
- Tighten the 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 instructions supplied in the Chassis Guide.

Daily
- Recharge the battery(s) after each use.
- Ensure propane alarm operation light is green in color.

Weekly
- Check the propane lines for leaks.
- Test propane, smoke and carbon monoxide alarms.
- Check tire pressure and wear (make sure tires are cold when checking the tire pressure).

Monthly
- Check the fire extinguisher pressure. Refer to the fire extinguisher label for specific instructions.
- Test the ground fault circuit interrupter (GFCI).

Every Three Months or 3,000 Miles
- Compare the water heater pilot flame with ideal flame (refer to the OEM operator’s manual information ideal flame information). Have the appliance cleaned and adjusted as necessary by a qualified technician.
- Compare the refrigerator pilot flame with ideal flame (refer to the OEM operator’s manual ideal flame information). Have the appliance cleaned and adjusted as necessary by a qualified technician (RV type refrigerator only).
- Inspect the refrigerator door seals.
- Check the propane lines for leaks.
- Inspect the propane tank for rust, pits, gouges, scrapes or sharp dents. Repaint if rust is present.
- Drain and sanitize fresh water system.
- Check, clean, tighten and lubricate the battery cables.
- Check the wheel nuts at specified intervals to listed torque values, re-torque as needed (refer to the Chassis Guide).
- Examine the tires for unusual wear, sidewall defects from possible cuts, bulging and abrasions.
- Have the brakes adjusted by a qualified service technician.

Every Six Months or 6,000 Miles
- Clean the drains with approved drain cleaners.
- Check the pipe connections for tightness, tighten if necessary.
- Lubricate all moving parts on the entrance steps.
- Lubricate entrance and baggage door locks.
- Clean and lubricate stabilizer jacks.
- Inspect wheels for cracks, dents or distortion.
- Inspect and reseal your motorhome.
- Have the suspension system serviced by a qualified service technician.
- Lubricate the elevating gear on the television antenna.
- Lubricate the bearing surface between the rotating gear housing and the base plate 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 motorhome and all component parts.

Every Year or 12,000 Miles
- Lubricate moving parts on the awning hardware (awning option only).
- Manually operate the pressure-temperature control lever on the water heater.
- Clean the city water entry strainer.
• Check the demand tank vent for obstructions.
• Check the water pump connections and mountings for tightness.
• Rotate the fluorescent tubes in the light fixtures (if so equipped).
• Replace the battery on the carbon monoxide alarm.
• Have the propane system inspected and serviced by a qualified technician.
• Have the refrigerator inspected and serviced by a qualified technician.
• Have the brakes inspected and serviced by a qualified technician.
• Repack the wheel bearings.
• Have the furnace inspected and serviced by a qualified technician.
• Inspect and reseal your motorhome.
• Perform routine preventative maintenance on the entire motorhome and all component parts.

Every Five Years
• Replace propane and carbon monoxide alarms.
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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.

<table>
<thead>
<tr>
<th>Component part</th>
<th>OEM</th>
<th>Website</th>
<th>Phone #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air conditioner (if so equipped)</td>
<td>Carrier</td>
<td><a href="http://www.transportaircon.carrier.com">www.transportaircon.carrier.com</a></td>
<td>(800) 673-2431</td>
</tr>
<tr>
<td></td>
<td>Coleman</td>
<td><a href="http://www.rvcomfort.com/rvp">www.rvcomfort.com/rvp</a></td>
<td>(316) 832-4357</td>
</tr>
<tr>
<td>Attic fan (power)</td>
<td>Ventline</td>
<td><a href="http://www.ventline.com">www.ventline.com</a></td>
<td>(574) 848-4491</td>
</tr>
<tr>
<td>Awning</td>
<td>Carefree of Colorado</td>
<td><a href="http://www.carefreeofcolorado.com">www.carefreeofcolorado.com</a></td>
<td>(800) 622-3230</td>
</tr>
<tr>
<td>BBQ grill</td>
<td>Vitco</td>
<td><a href="http://www.vitco.com">www.vitco.com</a></td>
<td>(877) 736-2635</td>
</tr>
<tr>
<td>Backup camera</td>
<td>ASA audio</td>
<td><a href="http://www.asaelectronics.com">www.asaelectronics.com</a></td>
<td>(877) 845-8750</td>
</tr>
<tr>
<td>Carbon monoxide alarm</td>
<td>Honeywell</td>
<td></td>
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<tr>
<td>Converter</td>
<td>Iota</td>
<td><a href="http://www.iotaengineering.com">www.iotaengineering.com</a></td>
<td>(520) 294-3292</td>
</tr>
<tr>
<td></td>
<td>Progressive Dynamics</td>
<td><a href="http://www.progressivedyn.com">www.progressivedyn.com</a></td>
<td>(269) 781-4241</td>
</tr>
<tr>
<td>Entrance step (electric)</td>
<td>Kwikee</td>
<td><a href="http://www.kwikee.com">www.kwikee.com</a></td>
<td>(800) 736-9961</td>
</tr>
<tr>
<td>Exhaust fan</td>
<td>Ventline</td>
<td><a href="http://www.ventline.com">www.ventline.com</a></td>
<td>(574) 848-4491</td>
</tr>
<tr>
<td>Furnace</td>
<td>Atwood/Hydroflame</td>
<td><a href="http://www.atwoodmobile.com">www.atwoodmobile.com</a></td>
<td>(815) 877-5700</td>
</tr>
<tr>
<td>Generator</td>
<td>Onan</td>
<td><a href="http://www.onan.com">www.onan.com</a></td>
<td>(800) 888-6626</td>
</tr>
<tr>
<td>Heated holding tank pads (if so equipped)</td>
<td>Ultra Heat</td>
<td><a href="http://www.ultraheat.com">www.ultraheat.com</a></td>
<td>(574) 522-6594</td>
</tr>
<tr>
<td>Hitch</td>
<td>Hidden Hitch</td>
<td><a href="http://www.hiddenhitch.com">www.hiddenhitch.com</a></td>
<td>(800) 632-3290</td>
</tr>
<tr>
<td>Holding tank sprayer</td>
<td>B &amp; B Molders</td>
<td><a href="http://www.bandbmolders.com">www.bandbmolders.com</a></td>
<td>(574) 259-7838</td>
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<tr>
<td>Inverter</td>
<td>Xantrex</td>
<td><a href="http://www.xantrex.com">www.xantrex.com</a></td>
<td>(800) 670-0707</td>
</tr>
<tr>
<td>Leveling jacks (if so equipped)</td>
<td>Power Gear</td>
<td><a href="http://www.powergearus.com">www.powergearus.com</a></td>
<td>(800) 334-4712</td>
</tr>
<tr>
<td>Microwave</td>
<td>Contact your RV dealer</td>
<td></td>
<td></td>
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<tr>
<td>Monitor panel</td>
<td>KIB</td>
<td><a href="http://www.kibenterprises.com">www.kibenterprises.com</a></td>
<td>(800) 250-7051</td>
</tr>
<tr>
<td>Outside shower</td>
<td>B &amp; B Molders</td>
<td><a href="http://www.bandbmolders.com">www.bandbmolders.com</a></td>
<td>(574) 259-7838</td>
</tr>
<tr>
<td>Propane gas alarm</td>
<td>MTI</td>
<td><a href="http://www.mtiindustries.com">www.mtiindustries.com</a></td>
<td>(800) 383-0269</td>
</tr>
<tr>
<td>Propane regulator</td>
<td>Marshall Brass</td>
<td><a href="http://www.marshallbrass.com">www.marshallbrass.com</a></td>
<td>(800) 447-9513</td>
</tr>
<tr>
<td>Propane tank</td>
<td>Manchester Tank</td>
<td><a href="http://www.manchestertank.com">www.manchestertank.com</a></td>
<td>(800) 877-8265</td>
</tr>
<tr>
<td>Radio/speakers (all)</td>
<td>Contact your RV dealer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Range</td>
<td>Atwood</td>
<td><a href="http://www.atwoodmobile.com">www.atwoodmobile.com</a></td>
<td>(815) 877-5700</td>
</tr>
<tr>
<td>Rangehood</td>
<td>Ventline</td>
<td><a href="http://www.ventline.com">www.ventline.com</a></td>
<td>(574) 848-4491</td>
</tr>
<tr>
<td>Refrigerator</td>
<td>Norcold</td>
<td><a href="http://www.norcold.com">www.norcold.com</a></td>
<td>(800) 543-1219</td>
</tr>
<tr>
<td>Remote mirrors</td>
<td>Velvac, Inc.</td>
<td><a href="http://www.velvac.com">www.velvac.com</a></td>
<td>(800) 783-8871</td>
</tr>
<tr>
<td>Roof material</td>
<td>Alpha Systems</td>
<td><a href="http://www.alphasystemsinc.com">www.alphasystemsinc.com</a></td>
<td>(800) 462-4698</td>
</tr>
<tr>
<td>Slideout systems</td>
<td>Power Gear</td>
<td><a href="http://www.powergearus.com">www.powergearus.com</a></td>
<td>(800) 334-4712</td>
</tr>
<tr>
<td>Smoke alarm</td>
<td>MTI</td>
<td><a href="http://www.mtiindustries.com">www.mtiindustries.com</a></td>
<td>(800) 383-0266</td>
</tr>
<tr>
<td>Television (all)</td>
<td>Contact your RV dealer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thermostat</td>
<td>Carrier</td>
<td><a href="http://www.airv.com">www.airv.com</a></td>
<td>(800) 227-7437</td>
</tr>
<tr>
<td></td>
<td>Coleman (MK only)</td>
<td><a href="http://www.rvcomfort.com/rvp">www.rvcomfort.com/rvp</a></td>
<td>(316) 832-4357</td>
</tr>
<tr>
<td>Tires</td>
<td>Contact your local tire distributor for assistance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toilet</td>
<td>Thetford</td>
<td><a href="http://www.thetford.com">www.thetford.com</a></td>
<td>(800) 521-3032</td>
</tr>
<tr>
<td>TV antenna</td>
<td>Winegard</td>
<td><a href="http://www.winegard.com">www.winegard.com</a></td>
<td>(800) 788-4417</td>
</tr>
<tr>
<td>Water filter</td>
<td>Flowmatic</td>
<td><a href="http://www.flowmatic.com">www.flowmatic.com</a></td>
<td>(800) 461-4406</td>
</tr>
<tr>
<td>Water heater</td>
<td>Atwood</td>
<td><a href="http://www.atwoodmobile.com">www.atwoodmobile.com</a></td>
<td>(815) 877-5700</td>
</tr>
<tr>
<td>Water pump</td>
<td>Shurflo</td>
<td><a href="http://www.shurflo.com">www.shurflo.com</a></td>
<td>(800) 854-3218</td>
</tr>
<tr>
<td>Wheel liners</td>
<td>Phoenix USA (MK only)</td>
<td><a href="http://www.phoenixusa.com">www.phoenixusa.com</a></td>
<td>(931) 526-6128</td>
</tr>
<tr>
<td></td>
<td>Versa-Liner</td>
<td><a href="http://www.dicor.com">www.dicor.com</a></td>
<td>(800) 837-2059</td>
</tr>
</tbody>
</table>
**DC Fuse Panel Layout**

Below is a typical wiring layout. Your individual motorhome may be different.

### All models but MK

<table>
<thead>
<tr>
<th>ITEM</th>
<th>AMP SIZE</th>
<th>TYPE</th>
<th>APPLICATION</th>
<th>LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remote mirrors</td>
<td>1</td>
<td>Glass</td>
<td>Option</td>
<td>In line under dash - left hand side</td>
</tr>
<tr>
<td>Back-up monitor</td>
<td>1.5</td>
<td>Glass</td>
<td>Option</td>
<td>In line under dash - left hand side</td>
</tr>
<tr>
<td>Power step/auxiliary start switch/cutout relay</td>
<td>5</td>
<td>Blade</td>
<td>Standard</td>
<td>In line under dash - left hand side</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ITEM</th>
<th>AMP SIZE</th>
<th>TYPE</th>
<th>APPLICATION</th>
<th>LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>30 amp</td>
<td></td>
<td>Tank heaters#1/bedroom slideout motor</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>15 amp</td>
<td></td>
<td>Bath area, tank heater switch</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>15 amp</td>
<td></td>
<td>Monitor panel/kitchen area/water pump</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>15 amp</td>
<td></td>
<td>Furnace/attic fan</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>15 amp</td>
<td></td>
<td>Bed area</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>15 amp</td>
<td></td>
<td>12-volt outlets/overhead cabinet lights</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>15 amp</td>
<td></td>
<td>Living area/porch/bunk lights</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>15 amp</td>
<td></td>
<td>Trunk lights/power awning</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>15 amp</td>
<td></td>
<td>Main slideout lights</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>15 amp</td>
<td></td>
<td>Option</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>15 amp</td>
<td></td>
<td>Refrigerator/slideout switch/propane detector/dash radio</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>30 amp</td>
<td></td>
<td>Tank heaters#2 &amp; #3/main slideout motor</td>
<td></td>
</tr>
</tbody>
</table>

### MK only

<table>
<thead>
<tr>
<th>ITEM</th>
<th>AMP SIZE</th>
<th>TYPE</th>
<th>APPLICATION</th>
<th>LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Back-up monitor</td>
<td>1.5</td>
<td>Glass</td>
<td>Option</td>
<td>In line under dash - left hand side</td>
</tr>
<tr>
<td>Power step/auxiliary start switch/cutout relay</td>
<td>5</td>
<td>Blade</td>
<td>Standard</td>
<td>In line under dash - left hand side</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ITEM</th>
<th>AMP SIZE</th>
<th>TYPE</th>
<th>APPLICATION</th>
<th>LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>30 amp</td>
<td></td>
<td>Bedroom slideout relay/motor</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>15 amp</td>
<td></td>
<td>Bath area lights/vent fan</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>15 amp</td>
<td></td>
<td>Kitchen overhead cabinet lights</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>15 amp</td>
<td></td>
<td>Power awning</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>15 amp</td>
<td></td>
<td>Bed area lights/thermostat air conditioner #2</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>15 amp</td>
<td></td>
<td>Doorside overhead cabinet lights/TV outlets</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>15 amp</td>
<td></td>
<td>Living area lights/exterior lights</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>15 amp</td>
<td></td>
<td>Trunk lights/courtesy lights</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>15 amp</td>
<td></td>
<td>Main slideout lights/off-doorside overhead cabinet lights</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>15 amp</td>
<td></td>
<td>Front roof vent/bunk lights</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>15 amp</td>
<td></td>
<td>Furnace</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>30 amp</td>
<td></td>
<td>Main &amp; third slideout relay/motor</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>15 amp</td>
<td></td>
<td>Refrigerator/slideout switches/propane detector/dash radio</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>15 amp</td>
<td></td>
<td>Monitor panel/pump switches/water pump</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>15 amp</td>
<td></td>
<td>Ramp lights</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>20 amp reset</td>
<td></td>
<td>Power sofa</td>
<td></td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>120-volt AC layout - MK only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main</td>
</tr>
<tr>
<td>Main</td>
</tr>
<tr>
<td>A</td>
</tr>
<tr>
<td>B</td>
</tr>
<tr>
<td>C</td>
</tr>
<tr>
<td>D</td>
</tr>
<tr>
<td>E</td>
</tr>
<tr>
<td>F</td>
</tr>
<tr>
<td>G</td>
</tr>
<tr>
<td>H</td>
</tr>
<tr>
<td>I</td>
</tr>
</tbody>
</table>

120-volt AC layout - all but MK

<table>
<thead>
<tr>
<th>Appliance</th>
<th>Average BTU Consumption Per Hour</th>
<th>Kilojoles/Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>BBQ grill</td>
<td>10,000</td>
<td>10,550</td>
</tr>
<tr>
<td>Furnace</td>
<td>35,000 - 40,000</td>
<td>36,930 - 42,200</td>
</tr>
<tr>
<td>Range oven</td>
<td>7,100</td>
<td>7,490</td>
</tr>
<tr>
<td>Range, front burner</td>
<td>9,000</td>
<td>9,490</td>
</tr>
<tr>
<td>Range, rear burner</td>
<td>6,500</td>
<td>6,860</td>
</tr>
<tr>
<td>Refrigerator</td>
<td>1,200 - 1,500</td>
<td>1,270 - 1,580</td>
</tr>
<tr>
<td>Water heater</td>
<td>8,800</td>
<td>9,280</td>
</tr>
</tbody>
</table>

PROPANE CONSUMPTION CHART

The following chart provides an average propane consumption information.
## APPROXIMATE ELECTRICAL LOAD RATINGS

Use actual amperage (or wattage divided by 120) of appliance being used whenever possible.

### 120 VOLT SYSTEM

<table>
<thead>
<tr>
<th>Equipment Description</th>
<th>Amperage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Conditioner - (Estimated, Varies by Model) Run</td>
<td>12.50-17.75 AMPS</td>
</tr>
<tr>
<td>Air Conditioner - (Estimated, Varies by Model) Start Up</td>
<td>14.75-17.75 AMPS*</td>
</tr>
<tr>
<td>Blender (Estimated, 500-1000W)</td>
<td>2.50-3.50 AMPS</td>
</tr>
<tr>
<td>Coffee Maker (Estimated, 1000-1300W)</td>
<td>7.00-11.00 AMPS</td>
</tr>
<tr>
<td>Converter - Single 80 Amps Progressive Dynamics</td>
<td>7.00-11.00 AMPS</td>
</tr>
<tr>
<td>Curling Iron (Estimated, 1000-1200W)</td>
<td>8.50-10.00 AMPS</td>
</tr>
<tr>
<td>Hair Dryer (Estimated, 1000-1900W)</td>
<td>8.50-16.00 AMPS</td>
</tr>
<tr>
<td>Home Theater System (Executive 128W, Memorex 133W)</td>
<td>1.25-1.75 AMPS</td>
</tr>
<tr>
<td>Laptop Computer Charger (Estimated, 25-75W)</td>
<td>1.25-1.75 AMPS</td>
</tr>
<tr>
<td>Microwave Oven (900-1500W)</td>
<td>7.5-12.50 AMPS</td>
</tr>
<tr>
<td>Radio (Estimated, 10-35W)</td>
<td>1.25-1.75 AMPS</td>
</tr>
<tr>
<td>Refrigerator - RV Gas/Electric (Norcold #611 300W, #821 300W) (Estimated, 250-350W)</td>
<td>2.00-3.00 AMPS</td>
</tr>
<tr>
<td>Satellite Receiver (Estimated, 50-150W)</td>
<td>0.50-1.25 AMPS</td>
</tr>
<tr>
<td>Steam Iron (Estimated, 1000-1500W)</td>
<td>8.50-12.50 AMPS</td>
</tr>
<tr>
<td>Television (Estimated, 65-2100W)</td>
<td>5.0-20.00 AMPS</td>
</tr>
<tr>
<td>Toaster (Estimated, 1000-1500W)</td>
<td>8.50-12.50 AMPS</td>
</tr>
<tr>
<td>Toaster Oven (Estimated, 1100-1600W)</td>
<td>9.25-13.50 AMPS</td>
</tr>
<tr>
<td>VCR (Estimated, 25-75W)</td>
<td>0.25-75 AMPS</td>
</tr>
<tr>
<td>Water Heater - RV Gas/Electric (Atwood 11.66 AMPS)</td>
<td>11.75-12.25 AMPS</td>
</tr>
</tbody>
</table>

### 12 VOLT SYSTEM

<table>
<thead>
<tr>
<th>Equipment Description</th>
<th>Amperage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aisle Lights</td>
<td>1.0 AMPS</td>
</tr>
<tr>
<td>Amplifier (Sound System)</td>
<td>5.0-20.00 AMPS</td>
</tr>
<tr>
<td>Baggage Compartment Lights</td>
<td>1.4 AMPS</td>
</tr>
<tr>
<td>Bedroom Radio</td>
<td>1.5 AMPS</td>
</tr>
<tr>
<td>Decorative Wall Lights</td>
<td>1.5 AMPS</td>
</tr>
<tr>
<td>Exterior Entertainment Center</td>
<td>5.0 AMPS</td>
</tr>
<tr>
<td>Fantastic Fan</td>
<td>5.0 AMPS</td>
</tr>
<tr>
<td>Fluorescent Double 12&quot;</td>
<td>2.0 AMPS</td>
</tr>
<tr>
<td>Fluorescent Double 18&quot;</td>
<td>2.5 AMPS</td>
</tr>
<tr>
<td>Furnace</td>
<td>12.0 AMPS</td>
</tr>
<tr>
<td>Halogen Light</td>
<td>1.5 AMPS</td>
</tr>
<tr>
<td>Heated Holding Tank Pads (Each)**</td>
<td>6.0-8.0 AMPS</td>
</tr>
<tr>
<td>Illuminated Switch</td>
<td>0.50 AMPS</td>
</tr>
<tr>
<td>Inverter - 400 Watt</td>
<td>5.0-40.00 AMPS</td>
</tr>
<tr>
<td>LP Detector Alarm</td>
<td>1.0 AMPS</td>
</tr>
<tr>
<td>Porch Light</td>
<td>1.50 AMPS</td>
</tr>
<tr>
<td>Power Vent</td>
<td>2.0 AMPS</td>
</tr>
<tr>
<td>Refrigerator</td>
<td>3.0 AMPS</td>
</tr>
<tr>
<td>TV Plate/Antenna Booster</td>
<td>1.0 AMPS</td>
</tr>
<tr>
<td>Water Heater</td>
<td>6.0 AMPS</td>
</tr>
<tr>
<td>Water Pump</td>
<td>7.0 AMPS</td>
</tr>
</tbody>
</table>

*Momentry Load
**A Quantity of 3 Heated Holding Tank Pads Are Installed Per Motorhome (3 X 6.0-8.0 AMPS = 18.0-24.0 AMPS Total)
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.
There are no addendums issued at this time.
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