



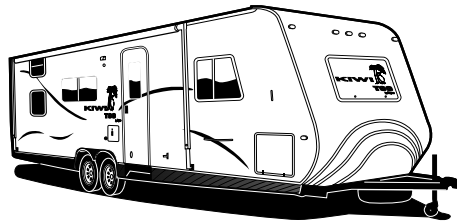
Model Year 2003

*Where Tradition and
Innovation Meet...*

Kiwi Travel Trailer



Kiwi Too Travel Trailer



Owner's Manual



WARNING: Read all instructions in manual before using your camper.

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 of all other manufacturers offering them that are applicable to 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.



WARNING: Review the compatibility of your tow vehicle with the trailer you will be towing. You should not exceed the gross vehicle weight rating of the trailer (GVWR). Know your loaded hitch weight and select a hitch that is adequate for that weight. You, as the owner, are responsible for the safety and compatibility of your tow vehicle and trailer selections. Consult your hitch and tow vehicle manufacturers with any questions before you tow your trailer. You are responsible for the maintenance of your tow vehicle and trailer. Do not exceed the tow or cargo capacity of your tow vehicle, and remember that the GCWR relates to towing capacity and does not necessarily indicate braking capacity. Do not overload your trailer with additions, cargo, or tank fluids to exceed the GVWR of the trailer. Do not load your trailer so that it is unbalanced from front to rear or from side to side. You must clearly understand how your particular tow vehicle capacities are calculated. Make sure your tow vehicle is mechanically sound for your intended usage and pay particular attention to suspension components, tires and tire pressure. We recommend that you use sway control devices and weight distributing hitches with all Jayco towable products. Many states have lower speed limit requirements for tow vehicle/trailer combinations. Obey all traffic laws and use your seatbelts at all times. We recommend that you do not exceed 55 MPH when towing a trailer. There are private RV driving schools and some RV clubs offer driving seminars as part of their club activities. Recreation vehicle publications and the Internet can be a source of information regarding RV driver education as well as many other topics to help you learn to safely use your recreation vehicle.

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CHAPTER 1

INTRODUCTION TO RV OWNERSHIP

WELCOME

Thank you for purchasing your Jayco Recreation Vehicle and welcome to the world of recreation vehicle travel. Your purchase of a Jayco RV allows you to enter this unique world of camping and leisure in a grand style. **Your Jayco RV has been designed and engineered to offer you many comforts of home that will make your camping experience as enjoyable as possible. Jayco recreation vehicles are designed, constructed and intended to be used as temporary living quarters for recreational, camping and travel uses, all as defined in the bylaws of the Recreation Vehicle Industry Association. Our recreation vehicles are not intended for the hauling of cargo.**

This owner's manual was prepared to assist you in understanding the proper use and operation of various containment systems, servicing and maintenance of component parts, and explanation of your warranty protection. If you are a newcomer to RV travel, you will especially appreciate the suggestions and "shop talk" information to be found throughout this manual to help you obtain the most pleasure from the use of your vehicle.

The information in this manual reflects the most current available to us at the time of publication. If you find the components in your recreation vehicle vary significantly from what is described in this manual, please disregard that section and follow the instructions provided by that particular component manufacturer. You should carefully read and understand this owner's manual which is a supplement to various other instructions supplied by the manufacturers of separately warranted products. These manuals are included in your camper materials – if you did not receive any or all of the literature for the components, contact your dealer or Jayco customer service for assistance.

Keep this owner's manual in your recreation vehicle for handy reference. Get to know your new vehicle and how it operates. You should carefully read and understand these instructions and information supplied by manufacturers of separately warranted products, since they contain important operating, safety, and maintenance instructions. If you have questions that are not adequately answered by this manual or other booklets, consult your dealer. If they cannot satisfactorily answer your questions, they will call our staff or refer you to us for help.

Every effort has been made to provide you with a safe, dependable product. Your vehicle complies with applicable requirements of Federal Motor Vehicle Safety Standards, State Regulations, Canadian Standards Associations (CSA) where applicable, and complies with requirements of ANSI Standard A119.2, the nationally recognized "Standard For Recreation Vehicles – Installation of Plumbing, Heating and Electrical Systems." The Recreation Vehicle Industry Association (RVIA) and Canadian Standards Association (CSA) periodically inspect our production line and assist us in maintaining strict compliance with installation and safety standards for those systems. **Your follow-up with periodic safety inspections and a program of preventive maintenance is important for the continuation of safe and trouble-free operation.**

Camping is a great way to relax and enjoy the outdoors with your friends and family. 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.

The Jayco Family
Jayco, Inc.

SAFETY CONSIDERATIONS

The terms NOTE, CAUTION and WARNING have specific meanings in this manual.

A **NOTE** provides additional information to make a step or procedure easier or clearer. Disregarding a NOTE could cause inconvenience, but would not be likely to cause damage or personal injury.

A **CAUTION** emphasizes areas where equipment damage could result. Disregarding a CAUTION could cause permanent mechanical damage. However, personal injury is unlikely.

A **WARNING** emphasizes areas where personal injury or even death could result from failure to follow instructions properly. Mechanical damage may also occur.

Reporting Safety Defects

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

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, Inc.

NHTSA U.S. Department of Transportation Washington, D.C. 20590 Phone: 1-800-424-9393 Washington, D.C. Area: 368-0123	Customer Relations Dept. Jayco Incorporated P.O. Box 460, Middlebury, IN 46540 Phone: 1-877-825-4782 or 1-574-825-0608 Business Hours: 8:00-5:00 Mon.–Fri. E.S.T.
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You can also obtain other information about motor vehicle safety from the NHTSA Hotline.

Safety in Using LP Gas

You should check for leaks at the connections on the LP gas system soon after purchase and initial filling of LP tanks, and continued periodic checks of the system are recommended. Your vehicle was manufactured to provide you with full access to all gas line connections. Leaks can be found with a soapy water solution, which **does not contain ammonia or chlorine**, applied to the outside of the gas piping connections: the soap will bubble at the leak. **DO NOT USE FLAME OR LIGHTED MATCHES TO TEST FOR LEAKS.** Tightening of connections will usually close leaks. If not, ask an authorized dealer's service department to make the necessary tests and repairs.

ALTHOUGH THE MANUFACTURER AND DEALER HAVE PERFORMED TESTS FOR LEAKAGE, THIS CHECK IS RECOMMENDED DUE TO THE VIBRATION ENCOUNTERED DURING TRAVEL.

LP gas is heavier than air, therefore leaking gas tends to flow to low places and will sometimes pocket in low areas, such as the floor of your trailer. LP gas can usually be detected by an identifiable odor similar to onions or garlic. Never light a match or allow any open flame in the presence of leaking gas.

It is very important to have the LP gas turned off during refueling of tow vehicles. Some states prohibit traveling with LP container(s) open, especially in underground tunnels.


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

 **WARNING: WE STRONGLY RECOMMEND THAT YOU HAVE A PROFESSIONAL TEST YOUR LP SYSTEM FOR LEAKS AT LEAST ONE TIME EACH YEAR AS PART OF NORMAL MAINTENANCE.**

Electrical System Safety


Circuit breakers and fuses are installed to protect electrical circuits from overloading. Do not make unauthorized changes to circuitry or add on fixed appliances yourself. If you wish to make changes, consult your dealer and he will assist you in obtaining a safe installation.

An approved power supply cord has been supplied with the vehicle. Always use this cord for hookup to the 120-volt source. Note that the cord has a three pin plug, which provides proper grounding through the third (round) pin. Grounding is your personal protection from electrical shock.


 **WARNING: DO NOT USE AN ADAPTER, CHEATER, OR EXTENSION CORD THAT WILL BREAK THE CONTINUITY OF THE GROUNDING CIRCUIT CONNECTED TO THE THIRD PIN. NEVER REMOVE THE GROUNDING PIN TO CONNECT A NON-GROUNDED, TWO-PRONG RECEPTACLE. ANY DEVIATION FROM THIS WILL POTENTIALLY CAUSE A FIRE FROM OVERHEATING.**

Safety When Emergency Stopping

Pull off the roadway as far as possible for emergency situations and turn on the vehicular hazard warning flashers. If necessary, display your road flags and/or reflective triangular highway warning devices.

 **WARNING: Always carry road flags and/or reflective triangular highway warning devices to be displayed when necessary.**

Additional Safety Considerations

 **WARNING: For traveling safety, it is extremely important to read and understand the towing, hitching and loading cargo information provided in Chapter 3. If you do not understand the information provided, please consult your dealer or Jayco owner representative.**

- Sanitize the fresh water supply system periodically (see sanitizing instructions).
- Prevent water connection fittings from coming in contact with the ground or drain hose to reduce the chance of contamination.
- Enlist the services of a qualified RV technician to repair and maintain the gas or electrical appliances.

- Always have a serviceable fire extinguisher placed in an easily accessible location.
- Ensure that tires are in good condition and properly inflated. Proper inflation should be monitored closely. Neglecting to do so could result in overheating of a tire, which could result in a blowout.
- Check and tighten wheel lugs after the first 25 miles (40 kilometers) when new. Check periodically thereafter. Refer to the manufacturer's recommendations.
- Check the brakes in a safe area - not while traveling a busy highway.
- Always block the trailer wheels solidly before unhitching from the tow vehicle.
- Never move your unit while people are inside.
- Before leaving a camp area with a trailer in tow:
 - √ Insure that the safety pin or locking lever is seated.
 - √ The breakaway wire is attached to the tow vehicle.
 - √ The jack is raised so that it cannot touch the ground.
 - √ The dolly wheel is removed.
 - √ The 120-volt electrical cord properly stored.
 - √ The safety chains are connected
 - √ All interior lights are off.
- Observe the warning labels attached to your vehicle concerning LP gas, water, electricity and loading.
- Observe the maintenance chart in Chapter 7 related to your respective unit.

INSURANCE

As with your automobile, it is important that you protect yourself and others with insurance coverages for personal liability, theft, collision, property damage, etc. Your dealer will assist you in obtaining appropriate insurance for your protection or you may check with the company which provides your automobile insurance.

EXTENDED USE

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



CAUTION: Continuous living in your travel trailer could cause accelerated wear and damage to components.

COLD WEATHER USE

- Proper care should be taken with the fresh water and draining systems to avoid freezing problems. Consult your local dealer or RV supply house for additional material.
- Adequate gas and electrical supply is needed along with protection from possible freeze-ups on the gas regulator.
- During cold weather usage, ventilation or the addition of a dehumidifier may be required to reduce condensation. Reference "Condensation."

CONDENSATION

Condensation is a natural phenomenon. The amount of condensation will vary with the climate conditions, particularly the relative humidity. Condensation occurs because there is water vapor present in the air, which each of us adds by breathing, bathing and cooking. The water vapor collects where there is available air space, and when the temperature reaches the 'dew point' the water vapor in the air condenses and changes to liquid form. Most people have experienced a similar phenomenon when moisture forms on kitchen windows and bathroom mirrors during cool weather.

Proper ventilation and, if needed, the use of a dehumidifier will assist in controlling the condensation. Many RV and marine dealers carry small dehumidifiers especially sized for recreation use. Condensation causes dampness, mildew, staining and if allowed to continue at high levels, damage to the tent (Kiwi only), paneling and wood structures.

CHAPTER 2 OBTAINING SERVICE

WARRANTY REGISTRATION

Warranty Registration and Customer Delivery Form

Dealer is to assure that this form is properly completed and returned to Jayco within ten (10) working days after delivery

Jayco, Inc.
P.O. Box 400
900 South Main Street
Middlebury, Indiana 46540
(317) 837-9686

OWNER'S NAME	DEALER'S NAME
ADDRESS	ADDRESS
CITY STATE ZIP CODE	CITY STATE ZIP CODE
DELIVERY DATE PHONE NUMBER (DAYTIME)	ODMETER READING (MUST BE COMPLETED FOR MOTOR HOMES)
JAYCO SERIAL NUMBER	CHASED VIN (VEHICLE I.D. NUMBER)

ALL ITEMS MUST BE MARKED OFF BY THE DEALER IN THE CUSTOMER'S PRESENCE INDICATING PERFORMANCE OR INSTRUCTION AS REQUIRED. PLEASE MARK EACH ITEM OK OR NA (NOT APPLICABLE).

<p>1. ELECTRICAL SYSTEM</p> <ul style="list-style-type: none"> <input type="checkbox"/> 110-Volt System <input type="checkbox"/> 12-Volt System <input type="checkbox"/> All Interior Lights/Recepts <input type="checkbox"/> All Exterior Lights/Recepts <input type="checkbox"/> Battery - Full Charge and Maintenance <input type="checkbox"/> Converter Operation and Use <input type="checkbox"/> Monitor Panel and Maintenance <input type="checkbox"/> Operation and Maintenance of Slideout <input type="checkbox"/> Phone and Cable TV <input type="checkbox"/> Roof Air <input type="checkbox"/> Radio/Cassette <input type="checkbox"/> TV <input type="checkbox"/> Microwave 	<p>4. Water/Plumbing Systems</p> <ul style="list-style-type: none"> <input type="checkbox"/> Water Lines <input type="checkbox"/> Faucet(s) <input type="checkbox"/> Winterizing <input type="checkbox"/> Water Intake/Drain <input type="checkbox"/> Outside Shower <input type="checkbox"/> Showers <input type="checkbox"/> Holding <input type="checkbox"/> Toilet <p>5. Appliances and Safety</p> <ul style="list-style-type: none"> <input type="checkbox"/> Electric Propane Cooktop <input type="checkbox"/> Oven <input type="checkbox"/> Coffee Maker <input type="checkbox"/> Refrigerator <input type="checkbox"/> Air Conditioner and Thermostat <input type="checkbox"/> Range Hood Oven <input type="checkbox"/> Water Heater and Bypass <input type="checkbox"/> Wheel Lugs - (Tighten to specs for Ft. LB Torque) <input type="checkbox"/> Review Maintenance <input type="checkbox"/> Tighten at 10, 25, 50 miles. 	<p>6. Running Gear</p> <ul style="list-style-type: none"> <input type="checkbox"/> Brake Adjustment and Maintenance <input type="checkbox"/> Bearing Lubrication and Maintenance <input type="checkbox"/> Brake Wire Connections <input type="checkbox"/> Hydraulic Brake Fluid and Maintenance <input type="checkbox"/> A-Frame/Coupler Operation <input type="checkbox"/> Operate and Lube Jacks <p>7. GENERAL APPEARANCE</p> <ul style="list-style-type: none"> <input type="checkbox"/> Interior/Exterior Trim <input type="checkbox"/> Exterior Finish <input type="checkbox"/> Bumper, Steps, A-Frame, Touch Up as Needed <input type="checkbox"/> Window and Roof Sealant
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DEALER INSTALLED OPTIONS (Dealer installed options are not covered under Jayco's limited warranties.)

OWNER/DEALER INSPECTION

<ul style="list-style-type: none"> 1. Exterior and interior finish. 2. Operate all appliances and discuss maintenance. 3. Review operation, maintenance and safety of LP system. 4. Explain weight ratings, limitations and proper load distribution. 	<ul style="list-style-type: none"> 5. Operate all fresh water and plumbing components including faucets, shower toilet and drain locations. 6. Review tow vehicle, hitch and sway control set-up - test drive. 7. Complete review of owner manuals and highlight safety issues and maintenance.
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I HAVE COMPLETED THE ABOVE INSPECTION ON THIS FAMILY CAMPING VEHICLE AND HAVE TAKEN A TEST DRIVE AT THE TIME OF PURCHASE. I NOTED:

I RECEIVED A COPY OF THE JAYCO LIMITED WARRANTY BEFORE I PURCHASED THIS VEHICLE AND I UNDERSTAND THAT IT IS DESIGNED TO BE USED ONLY FOR RECREATIONAL CAMPING AND TRAVEL.

I AGREE TO THE TERMS ON THE REVERSE SIDE, AND UNDERSTAND THAT I WILL BE REQUIRED TO ARBITRATE ALL MY CLAIMS CONCERNING MY RECREATIONAL VEHICLE RATHER THAN GOING TO COURT.

THE PURCHASER HAS INSPECTED OR BEEN GIVEN THE OPPORTUNITY TO INSPECT THE VEHICLE AND TAKE THE TEST DRIVE, SUPPLIED THE INFORMATION ABOUT HIS/HER NAME AND ADDRESS, BEEN GIVEN THE OPPORTUNITY TO MAKE NOTATIONS IN THE SPACE PROVIDED AND OBSERVED OR RECEIVED SATISFACTORY EXPLANATIONS ABOUT ALL ITEMS LISTED ABOVE.

DATE	PURCHASER'S SIGNATURE	DEALER'S SIGNATURE
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White Copy: Jayco Canary Copy: Dealer Pink Copy: Customer

09/21/02 MJF

INFORMAL DISPUTE RESOLUTION AGREEMENT

I am entitled to receive a copy of this Agreement, and I may review it with my attorney before signing. I and anyone making claims on my behalf, or through me, shall submit any and all claims I may have in connection with my recreational vehicle (RV) against any retail dealer, manufacturer, or supplier of component parts, to binding arbitration under the federal Arbitration Act, 9 U.S.C. § 1-14, to the extent permissible under federal law. I agree that if I have a claim relating to my RV, I will allow the dealer and Jayco to inspect and make necessary repairs. If my claim is not then satisfied, I will notify Jayco and binding arbitration proceedings will be held after I have paid an initial fee of \$125 to the American Arbitration Association and I cannot pursue my claim in court or in any administrative proceeding. Arbitration will be administered by the American Arbitration Association pursuant to its Commercial Arbitration Rules, unless and until Jayco designates a different administrator, in which event a notice will be mailed to your last known address. If my claim is less than \$10,000, Jayco will pay the initiation fee and arbitrator's fees in excess of \$125. If the arbitrator shall not award damages in excess of \$10,000, my claim exceeds that amount or is not specified, I will pay one-half of the fees and costs of arbitration of \$125. I, the dealer, and Jayco will each pay their own costs and expenses in connection with the arbitration hearing. The claim will be heard by a single arbitrator, and shall be held within 90 days after the claim is filed, unless all parties agree to a later date. The arbitrator shall be selected from a panel named by the AAA, pursuant to its rules. The arbitrator shall be permitted only to award actual damages for financial loss, and shall not award damages for personal injury (or mental anguish, or other intangible claims), or punitive damages. Statutes of limitation, which would apply to a court proceeding for my claim, will apply to commencement of arbitration proceedings. If I default on any obligation to my lender in connection with my RV, my lender may exercise all of its rights without regard to this agreement. If I file a claim in court without having first complied with this agreement, I will be required to pay all fees, costs, and expenses, including attorneys' fees, for dismissal or referral to arbitration. This agreement will apply to me, my heirs and assigns, and anyone who purchases or leases my RV from me or operates or occupies it with my permission or consent, without objection by me. Nothing in this agreement enlarges my rights or gives me any rights of claims I would not otherwise have. **FOR INFORMATION ABOUT HOW TO FILE A CLAIM OR ABOUT THE ARBITRATION PROGRAM, CALL JAYCO AT 574-837-9686, OR THE AMERICAN ARBITRATION ASSOCIATION AT 800-368-7879.**

SERVICE PROCEDURES

Basic Service Procedures

We are interested in your satisfaction. Only by having your complete confidence and satisfaction with our product and its service can we assure our continued success as manufacturers of recreation vehicles. We have found that continuing a pleasant and effective relationship through our dealers is equally as important as maintaining the technical excellence of our product. Your authorized dealer will cordially assist you in providing service maintenance, selection of options and instructions concerning the operation of your vehicle.

If you have a problem service, please follow these instructions in sequence.

1. **Contact your selling dealer's service department for an appointment.** Describe to the best of your knowledge the nature of the problem.
2. Contact the owner or General Manager of the dealership if the initial attempt fails with the service department.
3. If further assistance is needed contact:

Customer Relations Dept.

Jayco Incorporated

P.O. Box 460

Middlebury, IN 46540

Phone: 1-877-825-4782 or 1-574-825-0608

Business Hours: Monday – Friday 8:00 – 5:00 EST

Give all the above information, as requested, along with the serial number of the unit in question and we will make every attempt to help you resolve your repair needs. **It is important that you contact your selling dealer before calling Jayco. In most cases, the dealer can provide the service you require.**

If you are traveling and are unable to locate an authorized Jayco dealer, or an authorized dealer for the component needing service, please call our customer service office at **1-877-825-4782** or **1-574-825-0608** or contact your selling dealer for assistance.

NOTE: Service at a non-authorized Jayco dealer should have prior authorization. You will be asked to return any mechanical parts replaced before reimbursement consideration is made. Unauthorized or improper repairs may void the warranty on that component.

Please keep your owner's manual, your copy of your warranty registration form and any other related papers in your RV.

Please bear in mind that most problems arise from misunderstandings concerning warranty coverage and service. In most instances, you will be referred to the dealer level and your repair needs will be resolved at the dealer's facilities.

CALIFORNIA LEMON LAW NOTICE: If you have determined that your vehicle has non-conformities under the California Lemon Law, you must provide written notice of the claimed defects directly to Jayco, Middlebury, Indiana at the address for warranty service, and permit Jayco to perform a final repair attempt.

Dealer

Your authorized Jayco dealer has inspected and serviced your new Jayco RV and is authorized to service and maintain your travel trailer as needed. All warranty repairs are to be performed by the selling dealer unless Jayco gives prior approval.

Some RV dealers may be authorized service centers for certain manufacturers of products warranted separately. Check with your dealer before contacting others to reduce delays. If your Jayco dealer is not an authorized service center for the product in question, they can assist you in obtaining authorized service.

Factory

A factory service department is operated at our Middlebury, Indiana, manufacturing facility. If your Jayco RV needs repairs and your dealer recommends that the factory make the necessary repairs, it may be returned to our plant upon following these procedures:

- A. You or your dealer must make an appointment prior to returning it to the factory service department.
- B. All transportation costs are the responsibility of the owner. You may need to arrange for alternative accommodations for some types of repairs. Please be prepared accordingly.

Parts

Parts are available at most Jayco dealerships or your dealer can order parts for you as needed. **All retail parts inquiries should be routed through your dealer.** If you are unable to find a dealer in your local area, contact our Customer Service Department at 1-877-825-4782 or 1-574-825-0608. We will assist you in providing parts through an authorized dealer.

Owner's Responsibility

As a new owner of a Jayco recreation vehicle, you are responsible for regular and proper maintenance. This will help you prevent conditions arising from neglect that are not covered by your Jayco Limited Warranty.

Maintenance service should be performed in accordance with this owner's manual and any other applicable manuals.


As the owner, it is your responsibility and obligation to return the RV to an authorized dealer for repairs and service. Reference your Limited Warranty for additional information. Because the authorized dealer where you purchased your RV is responsible for its servicing before delivery and has an interest in your continued satisfaction, we recommend that inspection, warranty and maintenance services be performed by the dealership.

CHAPTER 3 USE OF YOUR TRAVEL TRAILER

In this chapter you will find helpful information to assist you in preparing, traveling and using your travel trailer.

EQUIPMENT


Tow Vehicle

 **WARNING: BEFORE USING YOUR TRAVEL TRAILER ON THE ROADWAYS.** Review the compatibility of your tow vehicle with the trailer you will be towing. You should not exceed the gross vehicle weight rating of the trailer (GVWR). Know your loaded hitch weight and select a hitch that is adequate for that weight. You, as the owner, are responsible for the safety and compatibility of your tow vehicle and trailer selections. Consult your hitch and tow vehicle manufacturers with any questions *before* you tow your trailer. You are responsible for the maintenance of your tow vehicle and trailer. Do not exceed the tow or cargo capacity of your TOW vehicle, and remember that the GCVWR relates to towing capacity and does not necessarily indicate braking capacity. Do not overload your trailer with additions, cargo, or tank fluids to exceed the GVWR of the trailer. Do not load your trailer so that it is unbalanced from front to rear or from side to side. You must clearly understand how your particular tow vehicle capacities are calculated. Make sure your tow vehicle is mechanically sound for your intended usage and pay particular attention to suspension components, tires and tire pressure. We recommend that you use sway control devices and weight distributing hitches with all Jayco towable products. Many states have lower speed limit requirements for tow vehicle/trailer combinations. Obey all traffic laws and use your seat belts at all times. We recommend that you do not exceed 55 M.P.H. when towing a trailer. Consult an expert for specific driver education when towing a trailer. There are private RV driving schools and some RV clubs offer driving seminars as part of their club activities. Recreation vehicle publications and the Internet can be a source of information regarding RV driver education as well as many other topics to help you learn to safely use your recreation vehicle.

Consult experts on hitch and tow vehicles before you tow your trailer. Jayco does not recommend or endorse particular tow vehicles or hitch assemblies. Review the compatibility of your tow vehicle with the trailer you will be towing. As a minimum requirement, the gross vehicle weight rating (GVWR) of your trailer must not exceed your tow vehicle's rated towing capacity. Know your loaded hitch weight and select a hitch that is adequate for that weight. You, as the owner, are responsible for the safety and compatibility of your tow vehicle and trailer selections. You are responsible for the maintenance and proper connection of your tow vehicle, hitch assembly, and trailer. Do not exceed the towing or cargo capacity of your tow vehicle and do not exceed the GVWR of the trailer. You must clearly understand how your particular tow vehicle capacities are calculated. Make sure your tow vehicle is mechanically sound for your intended usage and pay particular attention to suspension components, tires, and tire pressure. Sway control

devices and weight distributing hitches should be used with all Jayco towable products, with the guidance of a trained hitch installer. Towing a trailer is not the same as driving a passenger car or a single vehicle. Many states have lower speed limit requirements for tow vehicle/trailer combinations. Obey all traffic laws and use your seat belts at all times. Do not exceed 55 M.P.H. when towing a trailer. Consult an expert for specific driver education when towing a trailer. RV driving schools and some RV clubs may offer helpful driving seminars as part of their club activities.

Begin your camping experiences by using a tow vehicle that will adequately transport your travel trailer to and from your destinations. You must use the Gross Vehicle Weight Rating (GVWR) factor as a measuring tool to match the capability of your selected tow vehicle. Ford, Chrysler-Daimler and Chevrolet provide trailer towing guides for their products, as do most auto and truck manufacturers. Ask your local automotive dealer for a copy or contact the factory's customer assistance for information. Most tow vehicles have towing packages available as an option and these should be given serious consideration. The condition of the suspension system in your tow vehicle is also important and will affect your trailer's handling. Become familiar with and understand how to properly distribute loads in your trailer and tow vehicle and never overload either unit. Make sure your tow vehicle is in good mechanical condition and maintenance is up to date. When you tow a RV, you must drive differently than you do when driving a single vehicle. Practice hooking up, driving, backing up and braking in a safe environment (with vehicles fully loaded as if for normal travel if possible) or seek out professional instruction. Obey all posted speed limits.


 **WARNING: Be prepared to drive slower and if you must pass, do so with the utmost care, particularly in strong winds. When being passed by or when passing semitrailers or large buses, be prepared for displaced air, as it can be severe enough to cause trailer sway. Understand how trailer brakes, tow vehicle brakes, acceleration can affect your control of the trailer when you experience trailer sway as well as proper hitches and sway controls.**

There are many excellent publications about traveling with a RV. We strongly recommend you make use of available resources at your local library, the Internet or bookstore.

Hitches

After choosing your tow vehicle, it is very important to install a hitch system with weight distributing bars to accommodate your travel trailer. This selection and installation should be performed by a professional hitch service which may or may not be your selling dealer. Sway control(s) may be needed based on size and weight of travel trailer, as well as your tow vehicle.

A Class IV weight distribution hitch package is suggested. The rating of the hitch package should be equal to or greater than the trailer's GVWR and the hitch weight. The very equipment that sometimes gives autos, trucks and sport utility vehicles a softer ride can accentuate swaying when pulling a travel trailer. Conversely, suspension that is too stiff will increase vibration, bounce and accelerate wear of your tow vehicle and travel trailer. It is important that your travel trailer be level when hitched to your tow vehicle. Educate yourself to protect you, your family and other motorists.

 **WARNING: We recommend the use of an sway control device for all tow vehicle/trailer combinations.**



CAUTIONS:

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

Hitch Height

To determine the hitch height for your model, make sure that the travel trailer is level. Measure from inside the hitch coupler to the ground. Record this number in the box at the side for future reference. If you have additional questions, consult with your Independent Jayco Dealer.

**This unit
hitch height
is:**

Jayco, Inc. cannot be responsible for the suspension system of any tow vehicle. There are a variety of suspension systems available on tow vehicles today which will affect the ball height, stability and levelness of the RV when hooked up to the vehicle. Make certain your dealer is aware of the type of tow vehicle that will be used so a compatible hookup can be achieved.

Hookup

Hooking up a travel trailer is not difficult and will become easier with practice. The following procedure will help you until you become more experienced.

1. Block the wheels.
2. Turn the jack crank to raise the trailer tongue above the hitch ball.
3. Open the coupler latch.
4. Back the tow vehicle into the proper position.
5. Turn the jack crank to lower the coupler onto the hitch ball.
6. Close the coupler latch after it is completely seated.
7. Install the weight distributing bars (equalizers) as per recommendations from the hitch supplier, when required.
8. Remove the dolly wheel and retract the tongue jack to its maximum height.
9. Attach the breakaway cable to the tow vehicle.
10. Attach the safety chains as shown in Figure 3-1.
11. Plug in the 12-volt electrical connector from the tow vehicle to the trailer.

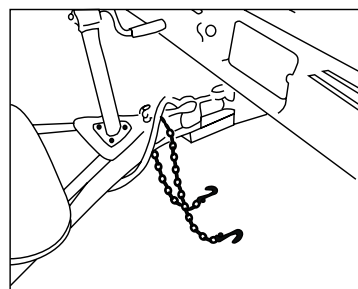
12. The following items should be inspected prior to your journey:

- All lights must be in working order.
- The stabilizer jacks must be in the retracted position.
- The entrance steps must be in the retracted position.
- The refrigerator door should be closed and locked.
- All loose items must be secured.
- The brakes must be tested for operation prior to entering the roadway.
- The tire pressure must be checked and maintained per the tire pressure stamped on the tire sidewall.

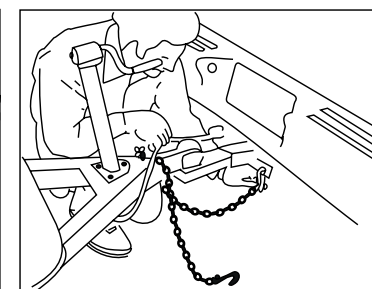
The Safety Chain

There are different safety chain requirements determined by the various state laws. Your vehicle is equipped with chains to meet SAE standard requirements for maximum gross trailer weight. Always have the safety chains attached when towing. Install them as shown below so they do not restrict sharp turns, but tight enough so they do not drag on the ground. (Fig. 3-1)

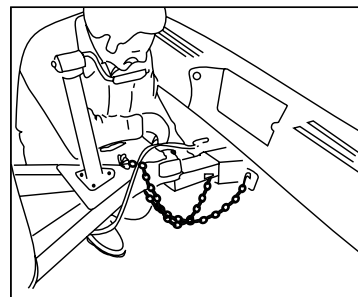
Figure 3-1



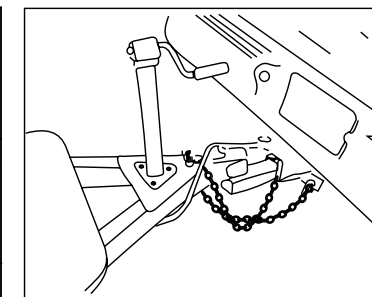
1. Inspect chains to determine if they are properly attached to trailer frame.



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



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



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

Towing

While towing your Jayco travel trailer you need to be aware of the extra weight behind your vehicle. The following list contains some pointers to remember while traveling.

- With the travel trailer attached, you will have slower acceleration and need more distance to stop.
- Ensure that you have enough area at corners when turning, as wider turns are necessary. Utilize your turn signals for your own safety.
- When passing or changing lanes, take into consideration the overall length of your travel trailer and allow ample distance and time. **DO NOT SPEED AND BE PREPARED FOR DISPLACED AIR WHEN PASSING OR BEING PASSED BY LARGE TRUCKS.**
- Use your rearview mirrors frequently to observe your trailer and traffic conditions.
- When being passed by a large truck or bus, be prepared for displaced air as it may cause the trailer to sway slightly. Steer straight and use your trailer brakes, if necessary, to slow slightly or control sway on the trailer.
- Upon climbing steep, long grades and again descending, use lower gears even before it seems necessary. Use your brakes smoothly and evenly.
- **Decrease your speed for safety!** Most states require vehicles pulling trailers to maintain slower speeds, usually the same as truck traffic. **DO NOT EXCEED 55 M.P.H.**
- Drive slowly during wet and icy conditions to ensure better control of your vehicle.
- Check all exterior lights before each trip.
- Obey traffic laws, allow extra time for stopping and decrease speed when visibility is limited or roads are wet.
- Have a safe and wonderful trip!

If towing a trailer is new for you, please take time to practice towing, parking and backing skills prior to traveling. Your dealer can answer many of your questions, but nothing replaces practice. We recommend that you find a large and quiet parking lot to practice your skills.

TRAVELING

Weights and Cargo Capacity

For safety reasons, it is very important to provide RV owners with the most accurate weight information available. The “Federal Certification” label (Fig. 3-2), located on the roadside front corner of the travel trailer is shown here. Several weight terms an owner needs to understand when operating a towable recreation vehicle are defined on the “Trailer Weight Information” label (Fig. 3-3), which will be found on the back of a cabinet door in the kitchen base cupboard. An important term in addition to the label information is the GAWR (Gross Axle Weight Rating). The GAWR is the maximum weight rating that components of each axle are designed to support (i.e. tires, brakes, springs, axle). Make sure that you review and understand the weight terms and information.

The weight provided in the Jayco literature for your travel trailer is based on standard equipment on that particular model and is “dry” (i.e. no liquids of cargo). Remember that any options or personal cargo added must be subtracted from the available cargo capacity. **Never exceed the gross vehicle weight rating of your travel trailer.**

! WARNING: Do not add accessories or components that are not safe and appropriate for this product. Jayco, Inc. DOES NOT provide warranty coverage for equipment installed by dealer or owner for such modifications or additions. Any such modifications effect weight specifications, AND CAN ADVERSELY AFFECT HANDLING AND STABILITY OF THE UNIT, AS WELL AS ACCELERATE WEAR TO OTHER COMPONENTS.

MANUFACTURED BY: FABRIQUÉ PAR:		JAYCO, INC.		DATE _____	
INC. VEHICLE MFG. BY: VÉHICULE FABRIQUÉ PAR:		_____		_____	
GVWR/PNBV: KG		V.I.N./N.I.V.		PRESS./COLD INFL. PRESS.DE GONFL. À FROID	
GAWR/PNBE: KG		SIZE/DIMENSION		PSI/LPC KPA	
_____ FRONT/DEVANT		TIRE/PNEU		RIMS/JANTE	
_____ INT./CENTRAL		_____		_____	
_____ REAR/ARRIÈRE		_____		_____	
TYPE OF VEHICLE/TYPE DE VÉHICULE: MOTOR HOME/AUTOCARAVANE MULTIPURPOSE PASSENGER VEHICLE/VÉHICULE DE TOURISME À USAGES MULTIPLES					
THIS VEHICLE CONFORMS TO ALL APPLICABLE U.S. FEDERAL MOTOR VEHICLE SAFETY STANDARDS AND STANDARDS PRESCRIBED UNDER THE CANADIAN MOTOR VEHICLE SAFETY REGULATIONS EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE.			CE VÉHICULE CONFORME À TOUTES LES NORMES QUI LUI SONT APPLICABLES EN VERTU DU RÈGLEMENT SUR LA SÉCURITÉ DES VÉHICULES AUTOMOBILE DU CANADA EN VIGUER À LA DATE SA FABRICATION CI-DESSUS.		

Fig. 3-2

! WARNING: Your recreation vehicle’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 gross vehicle weight capacity and ensure you are loading the unit as evenly as you can for the best possible handling. Ensure heavy items are secured so they do not shift during travel.

TRAILER WEIGHT INFORMATION

VIN or SERIAL NUMBER _____

MODEL _____

GVWR (Gross Vehicle Weight Rating) is the maximum permissible weight of this trailer when separated from the tow vehicle.

UVW (Unloaded Vehicle Weight) is the total weight of this trailer as manufactured at the factory when separated from the tow vehicle. If applicable, it includes full generator fuel, engine oil, and coolants.

CCC (Cargo Carrying Capacity) is equal to GVWR minus each of the following: UVW, full fresh (potable) water weight (including the water heater), full LP-gas weight.

GCWR (Gross Combination Weight Rating) means the value specified by the trailer manufacturer as the maximum allowable weight of this trailer with its towed trailer or towed vehicle.

**The GCWR of this trailer is: ∅

CARGO CARRYING CAPACITY (CCC) COMPUTATION

Pounds / Kilograms (kg.)

GVWR

Minus UVW

Minus fresh water weight of ___gallons @ 8.33 Lbs./gal.

Minus LP-gas weight of ____ gallons @ 4.24 Lbs./gal.

CCC for this trailer*

*Dealer installed equipment will reduce the CCC.

**This trailer is not recommended or intended to be used to tow any other vehicle or trailer.

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

Loading Cargo

Packing camping gear in your travel trailer requires serious consideration. All cargo should be distributed evenly with the heaviest items stored in the lower cabinets. Heavy items must be secured to prevent weight shifts while traveling. Additional weight should be added to either side of the trailer, or behind or in front of the axle in an even manner so the balance and hitch weight of the trailer are maintained. Heavier items should always be packed over or in front of the axles.



CAUTION: DO NOT overload your travel trailer. Do not exceed the GVWR of your Jayco travel trailer.

When loading is completed, it is strongly suggested that you drive to a large scale and have your travel trailer weighed. If you are over loaded, it is advisable that you remove some of your cargo or liquids.



WARNING: The rear square tubular bumper on the frame of your travel trailer is not designed to carry over 100 pounds (45 kilograms). Never add items such as bike racks, generators, motorcycle racks, heavy tool boxes, etc. to the this bumper. Installation of items exceeding 100 pounds (45 kilograms) will cause metal fatigue, weld stress and damage your bumper.



WARNING: DO NOT tow a trailer behind your travel trailer. Your trailer frame and bumper are NOT designed to tow another trailer. If your unit is equipped with a frame mounted bike rack receiver, this receiver must never be used for towing anything behind the travel trailer. Towing a trailer behind your Jayco trailer or overloading the rear may result in damage to your trailer or to the added items, or cause towing difficulties, resulting in property damage or personal injury.



CAUTION: Damage from add-on equipment or improper loading is not covered by your Jayco Limited Warranty.



WARNING: We recommend that you DO NOT travel with waste in your holding tanks. The weight of holding tank contents is not calculated into the cargo carrying capacity of the unit and the extra weight will greatly diminish the cargo weight available to you, possibly causing you to exceed the gross vehicle weight rating of the unit. This can damage suspension components, such as springs, tires and axles. If your model has the holding tanks located behind the axles, the weight of a full tank will reduce the hitch weight. Sway and other handling difficulties can be the result of the hitch weight being too light. If you are dry camping and cannot immediately empty the tanks, use caution when towing and maintain lower speeds for better control of the trailer until you reach a dumping station. Towing your trailer with one or more full or nearly full tanks, together with cargo you have added, may exceed the GVWR of your trailer, causing towing difficulties and resulting in property damage or personal injury.

Fig. 3-3

WEIGHING INSTRUCTIONS

To properly weigh your recreation vehicle, it should first be weighed, including the tongue weight, while detached from the tow vehicle. This actual overall weight must be less than or equal to the GVWR for safe operation. If the overall weight is greater than the GVWR, some contents must be removed until maximum GVWR limitations are achieved. Once the actual overall weight is determined and the recreation vehicle is within GVWR limits, the following weights should be determined:

1. The weight of complete recreation vehicle, while attached, but excluding the tow vehicle. This will result in the actual weight which is exerted on all of the recreation vehicle tires. This weight may be subtracted from the overall recreation vehicle weight (above) to determine actual "tongue" weight.
2. With the recreation vehicle still attached to the tow vehicle, each wheel position should then be weighed separately to be sure each tire is not overloaded.

TO DETERMINE THE WHEEL POSITION WEIGHT:

- Pull the recreation vehicle onto the scale so that only one tire is on the scale. Record the weight. Your trailer 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.
- To calculate the opposite side of the vehicle wheel position weight, subtract the first side's weight from the weight determined in step #1.

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

TIRES

All Jayco towable travel trailers are equipped with name brand tires, designed and built for recreation vehicles. Tires are radial in design, having two steel cords and two polyester cords, offering excellent strength and mileage in various types of weather.

The air pressure should be maintained at its recommended pressure. Always check the tires when they are cold, such as before traveling at the beginning of the day. It is normal for air pressure to increase when traveling as tires will heat up. **DO NOT** release air pressure as tires become hot. If you do, the tires will then be underinflated when they cool down.

WARNING: It is recommended that the tire pressure be checked at the beginning of each journey to obtain the maximum life of the tires. Underinflated tires may overheat and fail or detach from the rims.

Inflation

Always follow inflation guidelines printed on sidewall of tire. For tire removal and raising travel trailer, see Chapter 7, Maintenance.

NOTE: Tires are warranted by the manufacturer of their respective brand, and are to be serviced and warranted by a service center. They are not to be returned to the dealer or manufacturer of your RV trailer.

UNIT	SIZE	MAX. LOAD LOAD RANGE	PER TIRE
Kiwi 21C	ST175/80R13	B	1100
Kiwi 17A, 23B, 23D, 25E	ST185/80R13	C	1480
Kiwi Too 22U, 22V	ST185/80R13	C	1480
Kiwi Too 29R, 26S, 30T, 25W	ST205/75R14	C	1760

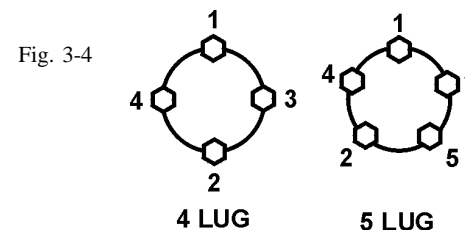
Wheel Lugs

WARNING: Wheel lug nuts must be applied and maintained at the proper torque levels to prevent loose wheels, broken studs, and possible separation of the wheel(s) from your trailer. The lug nuts on the wheels of your Jayco trailer must be maintained according to the torque values listed in the chart contained in this section. Over torquing wheels is as dangerous as under torquing.

WARNING: The motion involved in being towed, especially during the break-in period, can cause wheel lug nuts to loosen. Wheel lug nuts should be torqued before the first road use and after each wheel removal or installation. Check and re-torque after the first 10, 25 and 50 miles (16, 40 and 80 kilometers). Thereafter, check and maintain the torque as defined in this section.

After your first trip, check the wheel lugs periodically for safety. The wheel lugs should then be checked after winter storage, before starting a trip or following extensive braking. All lug nuts are 13/16". Be sure to use only lug nuts matched to the cone angle of your wheel (usually 60° or 90°). The proper procedure and sequence for attaching the wheels and torquing lug nuts is as follows:

1. Start all nuts by hand to avoid cross threading.
2. Tighten the nuts in the sequence shown in Fig. 3-4.
3. The tightening of the lug nuts should be done in stages, **with all nuts tightened equally at each stage.**
4. **Wheel lug nuts should be torqued before the first road use and after each wheel removal. Check and re-torque after the first 10, 25 and 50 miles (16, 40 and 80 kilometers). Thereafter, check and maintain the torque as defined in the next section.**



Following the sequence as illustrated, tighten each lug nut in stages as shown on the wheel torque requirement chart.

Wheel Torque Requirements

Wheel Size	1st Stage	2nd Stage	3rd Stage
13-inch	20-25	35-40	50-75
14-inch	20-25	50-60	90-120

Digital or dial torque wrenches are the best to assure the proper amount of torque is being applied. Further assistance may be obtained by contacting your Independent Jayco dealer.

BRAKES

A controller should be installed below the dashboard of your tow vehicle to work in conjunction with the travel trailer brakes. Two types of controllers are available. The “hydraulic” controller operates through a steel line attached to the master cylinder of the tow vehicle’s brake system. The “electronic” controller, operates using electrical current. Reference the operating instructions provided with the controller for adjustment and operation procedures. Practice coordinating the trailer brakes with the tow vehicle brakes before towing your vehicle at higher speeds or significant distances. Employing the trailer brakes before the tow vehicle brakes will reduce swaying.

Electric

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

The battery in the tow vehicle is the primary power source that operates the brakes in your travel trailer. Keep your battery and charging system in working operation to ensure available energy when required.

From the battery, power is sent to the controller to provide the correct amount of current to brake the travel trailer. Use the tow vehicle’s brake pedal control for general operation on combined use of both brake systems. The controller’s manual control is to be used only in special situations such as indicated in the instructions supplied with control. In the open position, the manual control breaks the electrical current preventing brake engagement. When in the closed position, electrical current will flow to the brake assemblies.

Wiring to operate your brakes must be sized in both vehicles, suggesting a minimum of 14 gauge. Your camper has 14 gauge wire from front end to brakes.

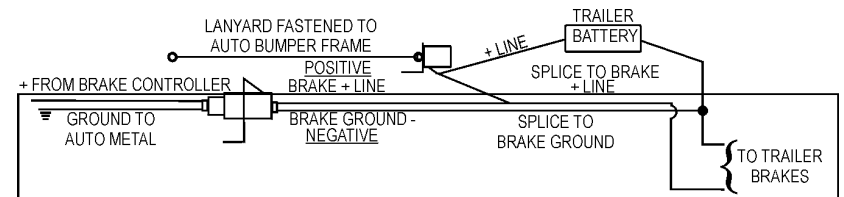
Brake assemblies are wired in parallel, never in a series. Being parallel, there will be equal voltage and amperage at each brake assembly for equal braking capability and/or performance.

WHEN YOUR TRAVEL TRAILER IS NEW IT IS IMPOSSIBLE TO ADJUST YOUR BRAKE SHOES PRECISELY. IT TAKES APPROXIMATELY 1,000 MILES AND/OR 50 MEDIUM TO HEAVY STOPS TO “BURNISH” FIT OR SEAT THE SHOES TO THE DRUM. AFTER THIS INITIAL BREAK-IN, YOU CAN NOW ADJUST YOUR SHOES ACCURATELY FOR BEST PERFORMANCE AND INCREASED DURABILITY.

Breakaway Switch

The breakaway switch is one of the most important parts of your trailer electric brake system. The very instant a breakaway occurs, the pull pin which is linked to the tow vehicle, is pulled from the switch. The two contacts automatically close to complete the electrical circuit and apply the trailer brakes. This system will apply the brakes of the trailer if it would break away from the tow vehicle. A 12-volt battery is required to power the breakaway switch.

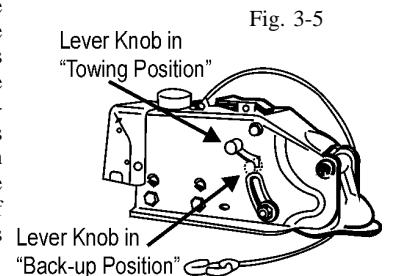
WARNING: NEVER use the breakaway switch and trailer brake system as a parking brake. Usage in this way would place undo strain on the battery and converter, potentially causing damage to the wiring, connectors, brakes and breakaway switch.



Breakaway Switch Schematics

Hydraulic (Option for Kiwi 17A & 18F Only)

Your travel trailer may be equipped with hydraulic surge brakes. These brakes operate automatically as the tow vehicle’s brakes are applied. When the tow vehicle operator begins to decrease speed and apply the brakes, the weight of the moving travel trailer pushes forward and the coupler moves downward. This pressure moves the plunger, which in turn pushes the piston and rubber cup inside the master cylinder. Brake fluid presses inside of the wheel cylinder and activates the brake shoes against the drum.



Backing Your Travel Trailer

As designed, the weight of a travel trailer pushing forward will activate the surge brake system. When backing a camper up a hill, the weight of the camper may activate the brakes, making it difficult to continue to reverse.

1. Prior to backing up a slope or through soft ground, pull the travel trailer forward slightly to assure that the actuator socket is in the forward position.
2. Move the lever (Fig. 3-5) knob on the side of the actuator downward from the “towing position” along the curved slot in the actuator frame to the “backup position.” The slot has a notch at the bottom of its travel. Push the lever down to engage the locking notch.


- The travel trailer will now back up. This lever knob will slide into the correct position when pulling forward.

NOTE: It is extremely important to keep the master cylinder full at all times. An empty cylinder invites moisture.

Breakaway Protection

The hydraulic brake system is equipped with a breakaway cable or chain. When towing, this cable or chain must be attached loosely to a frame member of the tow vehicle, leaving enough clearance so that the travel trailer can turn freely without actuating the breakaway device.

If the trailer separates from the tow vehicle, the breakaway cable will actuate the master cylinder, locking the brakes. This will stop the travel trailer in the shortest possible distance.

 **CAUTION:** Breakaway protection must be fully released during the vehicle operation. Check this before towing. Do not use the breakaway protection as a parking brake.

SETTING UP YOUR KIWI/KIWI TOO TRAVEL TRAILER

We recommend that you select a level or nearly level place for camping. There are two reasons to be level. First, your travel trailer is designed to operate in a level position for both the water drainage system and especially your refrigerator. Second, it is more comfortable to live on the level. If a level site is not available, use short 2" x 6" blocks of wood to raise the wheels on the side of the trailer which is setting lower.

Before unhooking the travel trailer from tow vehicle, always mount the dolly wheel to the tongue jack and block the trailer wheels to keep the trailer from moving.

- Release the weight distributing bars (if used).
- Release the safety latch on the coupler.
- Raise the coupler on the A-frame by turning the tongue jack until the ball is free.
- Disconnect seven (7) way wire connector, safety chains, and breakaway cable.
- Move the tow vehicle away as desired.
- Lower the tongue jack until the travel trailer is level.
- Lower the stabilizer jacks (Fig. 3-6) by placing the crank onto the jack shaft and turning it clockwise to lower it until the frame of the travel trailer begins to rise slightly. Equalize all four jacks for best support. You may need to adjust each jack two or three times. For convenience when you are not parked on cement, you may wish to place a wood or hard plastic block under the jack.

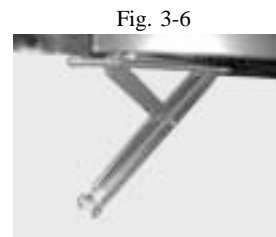



Fig. 3-6

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

Bed Setup (Front and Rear) (For Kiwi Models Only)

IMPORTANT:

We recommend that well in advance of any trip, you set up your Kiwi travel trailer and using a garden hose, thoroughly soak the tent with a light spray of water. After the tent dries, repeat the soaking process three additional times. This process seasons the canvas and seams. **DO NOT** spray directly on the canvas with a high pressure hose. If you do not follow this procedure, you may experience some water seepage during the first few exposures to rain. Let the tent dry thoroughly before storing it to prevent mildew and odors. If you note any water seepage or leaks after seasoning your tent, let the tent dry, then spray water repellent on the **INSIDE** of the seams where seepage occurs. One or two applications of water repellent may be necessary to stop all water seepage in seams where the thread enters the fabric. **NOTE:** Touching the tent canvas when it is wet can cause leakage. If leakage persists, please contact your dealer for assistance.

NOTE: For storing purposes, the Kiwi travel trailer front bed is equipped with canvas straps to hold the bed mats. Prior to setting up the bed(s), the canvas straps should be unhooked by using the clips at the top edge. (The JA model also has one strap on the rear bed.)

- Locate the bed brace supports found in the roadside front compartment. Insert one end of the bed brace supports into the bracket (Fig. 3-7) located on the frame in front and on the bumper in the rear.
- Unscrew the knobs (Fig. 3-8) that hold the bed board in place to release the bed board. This process can be performed by one person, but works better with two.
- Slowly lower the bed board into position and insert the other end of the bed brace support into the bracket (Fig. 3-9) located on the bed board.




Fig. 3-7



Fig. 3-8



Fig. 3-9

 **CAUTION:** The bed board must be supported at all times. If the bed board falls, damage will occur to the unit.

- Pull the tent out and over the edges of the bed board. (Fig. 3-10) Snap the end of the tent into place. Before snapping the sides, make sure the bed bow is pulled up to a vertical position. Snap the sides of the tent.



Fig. 3-10

5. Enter the unit and push the bed mats out onto the bed board. Position the large mat out to the furthest edge of the bed board. Slide the small mat toward you lining up the velcro pieces to hold it in place. (Fig. 3-12)

6. Place the straight end of the bed bow support pole onto the bed bow brace connector (on the bed bow). (Fig. 3-11) Push the bed bow outward and upward while pressing the second button from the curved end of the bed bow support pole. Slip the pole into the bracket mounted on the roof just past the first button. Release the button.

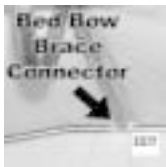


Fig. 3-11



Fig. 3-12

7. Remove the canvas straps and store them under the front edge of the small bed mat.

SLIDEOUT ROOM OPERATION (SLIDEOUT MODELS ONLY)



Fig. 3-13

Manual

EXTENDING ROOM

1. Release the travel lock (Fig. 3-13) behind the center door of the overhead cabinets located above the sofa.
2. Lift the sofa skirt. Install the crank handle on the hex head screw as indicated (Fig. 3-14) and crank the system out, turning the handle in a clockwise direction until the room is extended.
3. Remove the handle and store it for use later.



Fig. 3-14

RETRACTING ROOM

1. Lift sofa skirt.
2. Install the crank handle and turn it in a counter-clockwise direction to retract the slideout.
3. Lock top travel lock.

Electric

EXTENDING ROOM

1. The batteries must be fully charged and connected. The travel trailer should be hooked up to 120-volt AC power if possible.
2. The travel trailer must be level and the stabilizer jacks in the down position.

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

3. Remove the “travel bars” (Fig. 3-13) from behind the top fascia board located above slideout room.
4. Locate the slideout room control switch. (Fig. 3-15)
5. To move the room out, press the “OUT” button on the switch (Fig. 3-15) and hold it until the motor stops. Release the button. Travel time – approximately twenty-five seconds.



Fig. 3-15

RETRACTING ROOM

1. Remove all objects left between the slideout and cabinetry.
2. Press the “IN” button to bring the room in and hold it until the motor stops.
3. Release the button.
4. Install “travel bars” (Fig. 3-13) in proper locations as indicated on the wall.

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

Getting Connected

Upon completing the setup of your travel trailer, you are now ready to make attachments to various facilities as listed but not limited to:

1. Fresh water supply.
2. Waste water hose connection(s).
3. 120-volt power cord electrical hookup.
4. Turn on the LP gas tanks and light pilot lights for any appliances. Remember there may be air in your LP propane lines. Be sure to bleed them before planned usage.
5. Open any windows and roof vents as desired for ventilation.

You may have additional accessories and options, such as an awning on door side, which need to be opened. Separate instructions are provided by the manufacturer of these component.

CAUTION: When preparing to depart or move, reverse the procedure above. Remember, open roof vents, windows, TV antennas left in up position are subject to wind damage in transit.

See the process to follow before departing from your campsite under the hitching procedures listed earlier in this chapter.

TV ANTENNA

Raising Antenna to Operating Position

Turn the elevating crank clockwise in the UP direction about thirteen turns or until some resistance to turning is noted. (Fig. 3-16)

On Amplified models, 12-Volt DC power is required. Turn the power supply ON to use either the front or rear TV outlet. (Fig. 3-17) Neither outlet will work unless the power supply switch is on. Turning the power supply on sends 12-volt DC through the cable to the antenna. The voltage energizes the transistors on the amplifier in the antenna head. The TV signal comes back down the cable to the outlets.

After the antenna is in the full UP position, pull down on the round knob with both hands until it disengages from the ceiling plate. Rotate the knob for best picture. (Fig. 3-18)

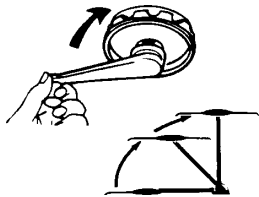


Fig. 3-16

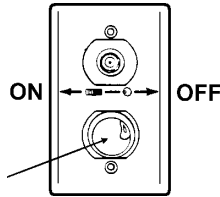


Fig. 3-17



Fig. 3-18

! WARNING: DO NOT connect high current devices such as hair dryers to this receptacle. Maximum current rating of this receptacle is 7.5 amps at 12-volt DC.

To Test System

1. Make sure the TV set is working properly.
2. Switch the power supply ON and OFF to see if there is a difference in the picture quality while watching TV. If there is NO difference, refer to manufacturer's manual for further testing procedures.

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

Lowering Antenna to Travel Position

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 about thirteen turns or until resistance is noted. The antenna is now locked in the travel position. (Fig. 3-16)



Fig. 3-19

! CAUTION: When lowering the antenna, never lower it into any position except the TRAVEL POSITION. Failure to lower antenna into the TRAVEL POSITION before traveling may damage the antenna and is not covered by warranty.

Maintenance

See "TV Antenna Maintenance" in Chapter 8.

FIRE EXTINGUISHER

A fire extinguisher is installed in each vehicle and is located near the entrance door in the travel trailer. Be familiar with its location and operating instructions as printed on the extinguisher. It's too late to become familiar with an extinguisher when an emergency is at hand.

The fire extinguisher is a dry chemical, nonrefillable extinguisher. Do not test this extinguisher by partially discharging. Doing so will cause loss of pressure making the extinguisher unusable. The extinguisher must be discarded and replaced by a new one if any use has occurred.

Inspection and Maintenance

To insure that your fire extinguisher will be ready when needed:

- Read and follow all instructions on the label and in the owner's manual.
- Inspect the extinguisher AT LEAST once a month - more frequently if exposed to weather or possible tampering.
- Check the pressure by pressing in the white indicator button. If the button does not spring back, the extinguisher will not work properly and must be discarded.
- Be sure the yellow lock pin is firmly in place.
- Keep the extinguisher clean. Check for dents, scratches, corrosion or any other damage.
- Check the discharge nozzle. Make sure it is clean and free of obstructions.

! CAUTION: Under certain fire and heat conditions, the dry chemical powder in this extinguisher (and similar units) will cause damage or prove extremely difficult to remove from oven surfaces, including self-cleaning models. Do not use self-cleaning feature to remove ABC Powder.

! CAUTION: Avoid inhaling the dry chemical agent. The agent contained in this extinguisher is not toxic, but may cause skin irritation. In case of contact, flush affected area with clean, cool water. If irritation persists, contact a physician immediately. Chemical name of agent is printed on extinguisher label.

CLOSING THE BEDS (KIWI MODELS ONLY)

1. Slide the small bed mat onto the large bed mat. From the far side of the large bed mat, pull the mat up to set on its edge. (Fig. 3-20)

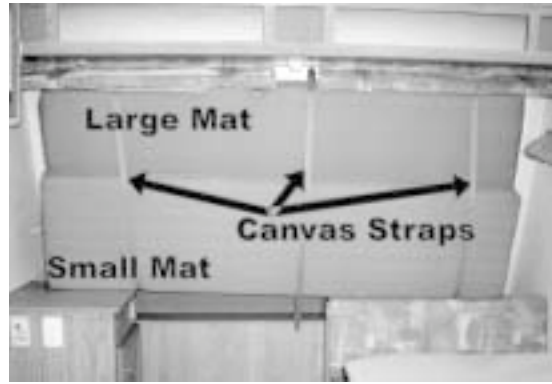



Fig. 3-20

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

2. Remove the bed bow brace from the ceiling by pushing in on the button and pulling down. Pull the brace toward you to remove it from the bow peg (on the bed bow).
3. Hook up the canvas straps to the hasp d-ring located on the ceiling.
4. Exit the travel trailer. Unsnap the sides of the tent and fold the bed bow down to the bed board. Unsnap the end of the tent.
5. Fold in the tent onto the bed board. **Important:** Make sure the bed tent is pushed in at least 1" above the side bulb seal. (Fig. 3-21)
6. Push the bed board up into position. Secure the latches or knobs to hold the bed board into place.



Fig. 3-21

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

CHAPTER 4 THE SYSTEMS

PLUMBING SYSTEM

Included in your Jayco recreation vehicle is a complete fresh water system. Fresh water may be obtained through two sources: city water connection or gravity fill tank. Each component is explained along with its operation.




Fig. 4-1
Gravity Fill



Fig. 4-2
City Water Connection

City Water Connection

Water may be received into the system through a direct hookup referred to as the city water connection (Fig. 4-2). After hooking up the water hose to the travel trailer, open the valve supply line. Enter the travel trailer and open the faucets to bleed air from lines. Water will fill the water heater first before supplying the lines and faucets. When the lines are almost full, you may experience some air pockets. Allow them to escape before closing the faucets.


 **CAUTION:** Excessive pressure from water supply systems may be encountered in some parks, especially in mountain regions. Water pressure regulators are available to protect your system against such high pressure. A regulator of this type is recommended to prevent damage to plumbing systems or components. A 45-pound rating is suggested. Not using a water pressure regulator when using city water may cause the o-rings to blow. It is advisable to always use a water pressure regulator when using the city water connection.

Gravity Fill Tank

A water container is permanently installed in your recreation vehicle. On some Kiwi models, it is located inside the travel trailer, and on other units it is attached beneath the frame.

Fills

The fresh water tank can be filled by removing the gravity fill cap (Fig. 4-1) and inserting the garden hose. Open the water supply faucet and fill the tank. You must be careful not to overfill the tank. This can pressurize the tank, causing leakage and water damage.

 **CAUTION:** DO NOT leave the tank unattended while it is being filled.

12-Volt Demand Pump

When water is desired and you are not hooked up to city water, you need to turn on the 12-volt power to start the demand pump. The switch is located on the monitor panel or a wall near the pump. Energy for the pump is supplied by the auxiliary battery or converter. The pump will self prime when started and provide water for travel trailer. The pump continues to run until approximately forty pounds of pressure is achieved and automatically starts again when pressure drops to twenty pounds. Some cycling in the pump may occur, depending on the volume of water being released. A check valve is built inside of the pump to prevent water from flowing into the supply tank.

NOTE: The water pump switch should be in the off position when the camper is left unattended for any amount of time. If something would happen to the water system, this will ensure that water damage will be restricted to a small area.

Sanitizing and Filling the Potable Water System

Potable water systems require periodic maintenance to deliver a consistent flow of fresh water. Depending on use and the environment the system is subject to, sanitizing is recommended prior to storing and before using the water system after a period of storage. Systems with new components, or ones that have been subjected to contamination, should also be disinfected as follows:

1. Use one of the following methods to determine the amount of common household bleach to sanitize the tank.
 - Multiply “gallons of tank capacity” by 0.13; the result is the ounces of bleach needed to sanitize the tank.
 - Multiply “Liters of tank capacity” by 1.0; the result is the milliliters of bleach needed to sanitize the tank.
2. Mix the proper amount of bleach onto a container of water.
3. Using a funnel in the gravity fill opening, pour the solution (water/bleach) into the tank and fill the tank with potable water.
4. Open *all* faucets (Hot and Cold) allowing the water to run until the distinct odor of chlorine is detected.
5. The standard solution must have four (4) hours of contact time to disinfect completely. Doubling the solution concentration allows for contact time of one (1) hour.
6. When the contact time is completed, drain the tank. Refill with potable water and purge the plumbing of all sanitizing solution.

If there is a problem of excessive chlorine odor and taste after the sanitizing process, follow the above procedures using a solution of baking soda (1/2 cup added to one gallon of water per 15 gallons of tank capacity) or vinegar (one quart added to five gallons of water per 15 gallons of tank capacity).

Faucets

Bathroom or kitchen faucets operate similar to those in your home. Open them by turning the knobs. There may be air in the lines which needs to be bled out. Close the faucets when sufficient water is released.

Bath and Shower

Your bathroom facilities function similar to those in your home. Prepare the bath or shower curtains to prevent water from spilling onto floor. Ensure that the water heater is in operation before bathing. Adjust the faucets for desired temperature before entering the tub or shower.

Used water will drain through plumbing pipes into the gray water holding tank. Remember the water heater and gray water holding tank capacities. Long showers in a recreation vehicle are NOT suggested due to the amount of water that is available.

Any faucet at the shower or bath tub requires a vacuum breaker when a shower hose and head is used. There are two purposes for this breaker; first to prevent siphoning of water through the hose from another fixture, and secondly to prevent water from being contained in the hose. The shower head also DOES NOT have a complete shut-off valve. Any drainage from either part is normal function and NOT a leak. The positive shut-off is at the faucet, not the shower head.

Outside Shower (Option)

A convenient faucet assembly with hot and cold water is available to use for washing or rinsing on the outside of the camper.



OPERATION

1. Activate the pump.
2. Use the key to open the door and allow it to hinge down.
3. Remove the shower head and open the valve.
4. Open the faucet valves and adjust them to the desired temperature.
5. To cease operation, close the valve(s) on the faucet and allow the water to drain from the shower head.
6. Close the valve on the shower head.

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

NOTE: To close the door on the outside shower, do not place the shower head on the bracket. This will cause the shower head to be in the way of closing the door properly.

Drainage

The permanent fresh water tank can be drained by opening the drain valve located inside the travel trailer under the dinette near the water tank. The supply lines are drained by opening the low point drain(s). They will be the lowest points of the water lines. Pull the “T” handle up to drain. (Fig. 4-3)

TO DRAIN SYSTEM:

1. Open all faucets.
2. Open the fresh water tank drain.
3. Open the water heater drain. (Consult the water heater owner's manual for details.)
4. Open all low-point drains. (Fig. 4-3)
5. Open the toilet valve, hold or block it if needed.
6. To empty the pump, start it and allow it to run approximately twenty seconds.

Fig. 4-3



WINTERIZING YOUR TRAVEL TRAILER

Preparing your recreation vehicle for winter is very important for most states and Canada. Failure to prepare the travel trailer will cause supply lines and the water heater to freeze causing breakage. Repairs due to freezing are not covered under the terms of your Jayco Limited Warranty.

Please keep in mind that your travel trailer was not designed for use during sub-freezing weather. There is no commodity or product that can be added to the fresh water system to ensure freeze protection while the system is in use, other than RV antifreeze. Do not drink water that contains antifreeze. This includes nontoxic RV antifreeze.

WARNING: Do not use Ethylene Glycol (automotive antifreeze) or Methanol (windshield washer antifreeze) in your fresh water system. They are harmful and may be fatal if swallowed.

Two methods of winterizing your travel trailer after draining and flushing your drainage system are listed below.

METHOD 1

1. Run the pump until it is dry. This should take approximately twenty seconds.
2. Using an air hose and adapter, blow air through the city water fill.
3. Leave the faucets, drains and toilets open. Any remaining water will blow out in five to ten minutes.
4. Pour one cup of **NONTOXIC** RV antifreeze into all drain P-traps.

METHOD 2

This method utilizes a water heater bypass kit, available in most units, to avoid filling the entire water heater with antifreeze.

1. Turn off the pump.
2. Close valves A, B and D. Open valves E and C. (Figure 4-4)
3. Drain the water heater and fresh water tank. (Consult the water heater owner's manual for details.)
4. Put the hose from valve E into a jug of **NONTOXIC** RV antifreeze. You will need more than one gallon of antifreeze.
5. Turn on the pump and open each faucet until the antifreeze flows through. Do not forget to run the antifreeze through the toilet.
6. Pour at least one cup of antifreeze into each drain to protect the P-traps.

7. Close valve E.
8. Before using the water system again, drain and flush the water system. Close valve C and open valves D, A, and B. Sanitize and flush the whole system. It is now ready for use.

To winterize: Valves A, B, and D are closed; E and C are open.

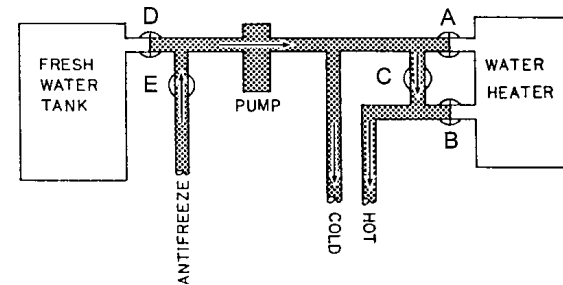


Fig. 4-4

WATER PURIFICATION SYSTEM (OPTION)

A water purification may be installed as an option on your trailer. This system is equipped with a long-life cartridge to effectively reduce chlorine, taste, odor, sediment, organic chemicals and inhibit bacteria growth. If the water system has not been used for some time, allow water to flow for several minutes to flush the system. When the system is not in use, store the water filter cartridge in the mounting bracket located near the water system, or when necessary, out of freezing temperatures.

RV antifreeze will damage the water filter cartridge. The water purification system manufacturer has supplied a clear plastic bypass hose with fittings on either end which is designed to replace the water filter when the trailer is winterized. The hose should be stored when the filter is in use and kept available to reuse.

The filter should be replaced when water flow is reduced causing an inconvenience, or at least one time each year.

TO REPLACE THE FILTER:

1. Drain the water system.
2. Remove the cartridge by disconnecting the fitting at either end of the filter and pulling it out of the fittings. It may be helpful to have a container available under the filter to catch any water left in the lines or filter.
3. If winterizing the unit, install the manufacturer supplied bypass hose and store the filter as is appropriate.
4. If replacing the filter, install the new filter and tighten the fittings at either end.

CAUTION: Do not allow the filter to freeze or come in contact with RV antifreeze when the trailer water system is winterized. Refer to complete instructions supplied by the manufacturer.

SANITATION SYSTEM

Toilets

OPERATING INSTRUCTIONS – AQUA MAGIC® 4

The Aqua Magic® 4 is equipped with two operating levers located on the right side of the toilet when facing the unit. To flush, pull the black flush lever forward (clockwise) until rinse clears the bowl and release the lever slowly. The movement of the black flush lever opens the waste valve and allows waste to pass into the holding tank. The water fill is activated simultaneously with the black flush lever. The black flush lever should be held open for several seconds to allow adequate flush water coverage of bowl to develop. The white water fill lever can be operated independently of the black flush lever if more than the normal two inch automatic bowl refill water is desired. **YOU MUST USE AN ADEQUATE AMOUNT OF WATER WHEN FLUSHING TO PREVENT SOLID WASTE BUILD UP AND PROMOTE PROPER DRAINAGE.** See Holding Tanks.



Flushing lever (black) and water fill lever (white) shown in the normal closed position.



Single forward motion flushes and refills bowl.



Pull water fill lever (white) to adjust to desired level.

Maintenance

Please refer to “Toilets: Maintenance” in Chapter 8.

Using Toilet System

NOTE: For added convenience and better sanitation system performance, it is advisable to always have four to six inches of water in the toilet.

Prior to using the sanitation system, it is strongly recommended to flush the toilet several times and release sufficient water into the tank. If there is not a sufficient amount of water used during flushing, waste materials may not evacuate properly from the drain line to the tank. A clogged tank and pipes could eventually occur. When camping, you should always have four to six inches of water in the toilet bowl. The toilet system will perform better when water is run for ten to fifteen seconds after flushing to ensure wastes will proceed to the bottom of the tank. Unlike your toilet at home which uses four to seven gallons of water per flush, the average recreation vehicle system uses one to three quarts.

When hooking up to the sewer drain line at a campground, keep the termination valve on the waste tank **CLOSED** until the tank is at least 3/4 full. This will provide sufficient water to assist in complete draining of the tank. At this time, open the termination valve to empty the tank and close the valve when the tank is empty. Repeat this process as needed, but **NEVER** leave the termination valve open when hooked up to the park’s sewer system.

Vents

Another important part of the sanitation system are the vents which release air from tanks. Each tank has a vent pipe built into the travel trailer through the cabinet, wall and roof. A vent cap is attached to the roof and must be 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.” This means water flows downward as air flows upward in the same pipe.

Holding Tanks

The final part of your system are the holding tanks. They hold waste and are located below the floor of your travel trailer. The bath tub and sinks drain into the waste water tank, also referred to as the “gray” water holding tank. The toilet drains into the sewage holding tank, also referred to as the “black” holding tank. Certain floor plans may also have the lavatory draining into the black holding tank.

BLACK HOLDING TANK PREPARATION

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

CAUTION: It is important to add enough water to prevent solid waste build up. Follow these directions each time after emptying your holding tank, except when winterizing.

GRAY WATER HOLDING TANK

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

WARNING: We recommend that you **DO NOT** travel with waste in your holding tanks. The weight of holding tank contents are not calculated into the cargo carrying capacity of the unit and the extra weight will greatly diminish the cargo weight available to you, possibly causing you to exceed the gross vehicle weight rating of the unit. This can damage suspension components, such as springs, tires and axles. If your model has the holding tanks located behind the axles, the weight of a full tank will reduce the hitch weight. Sway and other handling difficulties can be the result of the hitch weight being too light. If you are dry camping and cannot immediately empty the tanks, use caution when towing and maintain lower speeds for better control of the trailer until you reach a dumping station. Towing your trailer with one or more full or nearly full tanks, together with cargo you have added, may exceed the GVWR of your trailer, causing towing difficulties and resulting in property damage or personal injury.

DRAINING THE TANKS

When hooking up to the sewer drain line in a campground, keep the termination valve on the black holding tank CLOSED until it is at least 3/4 full. This will provide sufficient water to assist in complete draining of tank. At this time, open the termination valve to empty the tank and close the valve when the tank is empty. Repeat this process as needed, but NEVER leave the termination valve open when hooked up to the park's sewer system.

A final part of the sanitation system is the drainage of holding tanks.

1. Place the travel trailer as level as possible to make drainage easier.
2. Attach a flexible sewer hose to the adapter and secure it with a clamp.
3. Remove the cap and attach the adapter onto the valve housing.
4. Turn the adapter 10° to lock it onto the pegs.
5. Place the other end into an approved sewer system.
6. Open the 3" drain valve to drain the sewage tank.
7. Open the valve on the gray water tank to utilize the water to wash and rinse the hose.

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

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

THE LP GAS SYSTEM

It is because of the LP gas system that your RV has the convenience of a refrigerator, stove, water-heater, and furnace. This system has containers that contain the fuel and also regulators to control the pressure of the fuel and supplies the gas vapor to the various appliances. When correctly used, the LP gas system is very effective and will ensure the comfort and added convenience for your vehicle. This system is also potentially very dangerous and should be used with care.


Liquefied Petroleum (LP) is a product that is refined from crude oil through natural gases. LP gas is a colorless and odorless gas that in the liquefied state resembles water. An odorant is added as a warning agent. This is usually a sulfur compound which gives the gas the rotten egg, stinky, skunk oil odor. It is extremely important to become familiar with the odor associated with LP gas.

LP gas is stored in a pressurized canister in a liquid state. As the fuel is released from the canister, it becomes vapor that is needed for the operation of the appliances. In the liquid state, propane should not run through the appliances. A liquid fuel will damage the o-rings in the valves and also leave a sticky, oily residue causing poor or no operation in the regulator.


LP Gas Container


The tank or "bottle" is a D.O.T. approved container to hold fuel in liquid form, and is normally a 20# or 30# (9 or 14 kilograms) capacity. The open/close valve is to be closed at all times unless hooked up to the LP gas system or filling the container. When the container is disconnected from the hose, install the valve cover that is attached to the container. This is required by the RV industry, Gas Association, and for your own safety. Do not allow the container (filled or empty) to move or roll around while transporting it to and from the filling location.

Servicing and Filling LP Gas Containers


 **WARNING:** Because your vehicle has exterior combustion air inlets, all pilot lights, appliances and their igniters (see instructions), must be turned off during gasoline or LP gas refueling. Laws in some states require this.

Filling an LP gas container correctly is very important and should be performed by a qualified person who knows the proper inspection and safety procedures. Any new container must be carefully purged for best performance and must NEVER BE OVER-FILLED.


 **CAUTION:** DO NOT use tools to open or close the tank valve. HAND TIGHTEN ONLY.


 **CAUTION:** Never smoke during the filling of LP tanks. Keep the RV away from the immediate filling area when possible or extinguish all gas pilot lights.

LP gas expands 1½% for each 10° increase in temperature. It is imperative to leave sufficient space inside the container to allow for the natural expansion of gas during warmer weather. Each LP gas container is equipped with an overfill device built into the main valve. This device must remain open during filling. When the container is filled to 80%, the maximum level for safety, a liquid will appear replacing the vapor. Stop filling immediately and close both valves; HAND TIGHTEN ONLY.

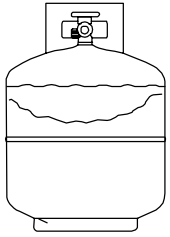
 **WARNING:** A LP gas container must never be filled beyond 80% of its capacity.

If your tank becomes overfilled and is not allowed to "bleed off" before installation to the RV system, it may gain pressure from exposure to direct sunlight and will begin "blowing off" pressure from the overflow valve. This will be detected by the strong odor around the tanks. Keep open flames away from this area. It is best to find a technician qualified in releasing an overfill from the container. If that is not possible, remove the container, take it to a safe area at least twenty-five feet from any source of combustion, and "bleed off" the excess pressure by opening the valve slightly and closing it when the discharge has been sufficient, one to two minutes.

 **WARNING:** LP gas cylinders shall not be placed or stored inside the vehicle. LP gas cylinders are equipped with safety devices that relieve excessive pressure by discharging gas to the atmosphere.

 **WARNING:** Do not bring or store LP gas cylinders, gasoline, or other flammable liquids inside the vehicle because a fire or explosion can result.

When an LP tank gets low, sometimes there is a concentration of garlic-like odor which may be mistaken for a gas leak. After a change over to a full tank, the odor usually will disappear. If not, turn off the LP containers and have the system checked by a qualified technician.

<ol style="list-style-type: none"> 1. Knob to open valve to fill or to use camper. 2. Complete valve assembly. 3. "10%" valve, small brass knob or slot screw. 4. Container mounting stand. 	
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A warning label has been located near the LP gas container. This label reads:

! WARNING

THIS GAS PIPING SYSTEM IS DESIGNED FOR USE OF LIQUEFIED PETROLEUM GAS ONLY. DO NOT CONNECT NATURAL GAS TO THIS SYSTEM. DO NOT FILL CONTAINER(S) TO MORE THAN 80 PERCENT OF CAPACITY. FAILURE TO COMPLY COULD RESULT IN A FIRE OR PERSONAL INJURY. Securely cap inlet(s) when not connected for use. After turning on gas, except after normal container replacement, test gas piping and connections to appliances for leakage with soapy water or bubble solution. Do not use products that contain ammonia or chlorine. AD-34

OPD Overfill Protection

Supplied with your travel trailer is information that applies to the Type 1 ACME LP Gas Connection on your LP gas tank(s). Please read all information contained in the supplied literature.

The following instructions will supply information for correct cylinder/valve orientation, regulator placement, hose length, hose routing and cylinder cover placement. Make sure these steps are followed for proper LP gas connections.

DUAL CYLINDER ASSEMBLY WITH BOTTLE RACK ON A-FRAME OR FRONT TRUNK (FIG. 4-7 & 4-8)

1. Connect the 3/8" low-pressure hose to the outlet of the two-stage regulator.
2. Place the cylinders on the bracket provided on the A-frame and secure them so the outlet of the cylinder valves point outward from the front of the travel trailer.
3. Using the threaded center rod, position the regulator bracket. This centers the regulator between the two cylinders as they are secured to the base tray.
4. Attach the inverted flare x 11" Type-1 pigtail hose to the regulator inlet and the right hand swivel nut to the cylinder valve.

! WARNING: The pigtail hose must be installed to avoid tension or pulling stress at either end of the hose.

! WARNING: Keep the pigtail hose away from sharp edges of the cylinder collar, rigid corners, walls, doors or other compartment structures including the cover.

NOTE: The regulator is typically installed with the inlet fittings at the same level as the cylinder outlet valves. Due to the bracket design, wing nut clearance or cover restrictions, the regulator fittings may not be in perfect alignment with the cylinder valves. A variance of two (2) inches above or below the line will permit the hoses to be properly installed.



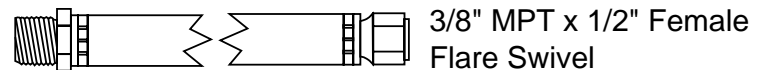
Fig. 4-7



Fig. 4-8

Main Supply Hose

The main supply hose will be attached from the regulator to the brass manifold fitting in the frame of the travel trailer. Swivel brass nut on the main hose will be your final attachment. There are several things to remember each time the LP gas container is removed:



1. Check that ALL fittings are tight.
2. Ensure that ALL connections are tested with leak solution.
3. Open the main valve slowly to avoid fast rush of gas to excess flow valve causing gas freeze up. If you experience a gas "freeze-up," close the main valve and wait fifteen minutes before trying again.
4. Listen carefully - a "hissing" sound longer than one second may indicate a gas leak. Close the valve and search for the leak.

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

Regulator

The regulator (Fig. 4-9) is the heart of your LP gas system, with internal moving parts. Its function is to reduce the high and varied pressure from the LP gas container to a safe and consistent low operating pressure. The inlet is the first stage and reduces the container pressure to 10-13 pounds. The second stage will reduce the 10-13 pound pressure to an operating pressure of 11" W.C. (water column) or 6.35 oz. of outlet pressure to the travel trailer system. The second stage is adjustable and will need to be adjusted for precise operation. We suggest this normal maintenance procedure be performed once per year. DO NOT make any attempt to adjust the regulator. Have only an authorized and competent technician make any adjustments.

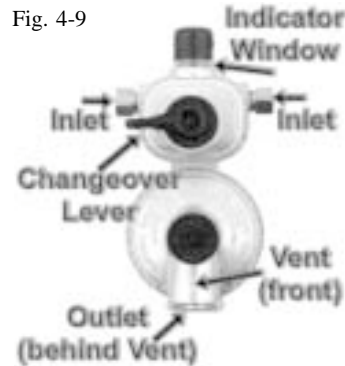


Fig. 4-9

WARNING: LP gas regulators must always be installed with the diaphragm vent facing downward. Regulators that are not in compartment have been equipped with a protective cover. Make sure that the regulator vent faces downward and that the cover is kept in place to minimize vent blockage which could result in excessive gas pressure causing fire or explosion.

Be sure your LP gas regulator is protected from road spray. If water enters the vent in the regulator, it may freeze the pressure controlling diaphragm in the open position so that the container pressure is applied to the appliances – a hazardous condition. Be sure to carefully read the instructions given by the manufacturer of the regulator.

Automatic Changeover Regulator

(STANDARD FOR KIWI TOO, OPTION FOR KIWI)

The automatic changeover regulator allows both gas bottles to be turned on simultaneously. The arrow on the regulator handle indicates which bottle is in service. When the indicated bottle in service becomes empty, changeover is automatically accomplished to commence drawing fuel from the other bottle. At this point, the plastic window will display a red signal or flag to indicate the condition. The lever should then be flipped over to indicate service on the other bottle. The first bottle which was depleted can then be turned off, uncoupled and taken to be refilled without disturbing the RV gas supply. After refilling, it can be removed and again turned to the "ON" position. When the other bottle is depleted, the LP gas supply will again be automatically changed back to the first bottle.

WARNING: All pilot lights and appliances must be turned OFF during refueling of motor fuel tanks and/or LP gas containers.

Operation

After the camper is completely set up and you are prepared for camping enjoyment, follow these steps for LP gas operation.

1. Close ALL the burner valves, controls and pilot light valves.
2. Open the main valve on the LP gas container slowly to avoid a fast rush through the excess flow valve causing a "gas freeze."
3. Listen carefully as gas begins to flow. If "hissing" is heard for more than one or two seconds, close the valve and search for the leak.
4. Light the appliances as needed and directed in the appliance chapter and supplemental manuals.

WARNING: Portable fuel-burning equipment, including wood and charcoal grills and stoves, should not be used inside the recreation vehicle. The use of this equipment inside the recreation vehicle may cause fires or asphyxiation.

This warning label has been located in the cooking area to remind you to provide an adequate amount of fresh air for combustion.

WARNING: IT IS NOT SAFE TO USE THE COOKING APPLIANCE FOR COMFORT HEATING.

1. Cooking appliances need fresh air for safe operation. Before operation:
 - a. Open overhead vent or turn on exhaust fan.
 - b. Open window.
2. Unlike your homes, the amount of oxygen supply is limited due to the size of the recreation vehicle, and proper ventilation when using the cooking appliance(s) will avoid danger of asphyxiation. It is especially important that cooking appliances not be used for comfort heating, as the danger of asphyxiation is greater when the appliance is used for long periods of time.

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

Checking For Leaks

Please refer to Chapter 1, "Safety in Using LP Gas."

DANGER
IF YOU SMELL GAS

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

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

LP Gas Consumption

Most gas appliances are only operated intermittently. Unless there is heavy use of hot water, the water heater consumption is minimal. During freezing weather and high wind conditions, furnace consumption can be extremely high.

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

Appliance	Average BTU Consumption Per Hour
Stove – Front Top Burner (H.P.)	9,000
Stove – Rear Top Burner	6,500
Range/Oven	7,100
Furnace (Kiwi)	16,000 to 20,000
Furnace (Kiwi Too)	20,000 to 40,000
Refrigerator	640-1,200
Water Heater – 6 gal.	8,800

NOTE: This chart is an example of a typical system and may not represent the exact system in your particular unit.

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

LP DETECTOR

All recreation vehicles containing LP gas systems with LP gas consuming appliances require a LP gas leak detection device for safety protection. A converter or chassis battery is required to supply 12-volt DC energy to operate leak detector.



WARNING: Limitations of propane/methane gas detectors:

- This detector will not work without power. Examples causing no power are: an open circuit breaker, a faulty power line connection, a blown or missing fuse.
- This detector will only indicate the presence of propane or methane gas at the sensor. Explosive gas may be present in other areas.
- This detector may not be heard. The alarm loudness is designed to meet or exceed regulatory standards, however, the alarm may not be heard if detectors are located in remote locations or behind closed doors. The alarm may not be heard by persons who are hard of hearing.
- This detector is not a smoke detector, it is not suitable as a smoke or fire detector.
- This detector is not suitable for installation in hazardous areas as defined in the national electrical code.

Operation

Power On Warm Up: When power is first applied the yellow LED light will flash for three minutes while the detector is warming up. At the end of that time the LED light will turn green indicating full operation. If the detector has detected unsafe levels of gas it will immediately go into alarm.



CAUTION: This detector cannot alarm during the three minute warm up cycle.

Testing



WARNING: Test the operation of this detector after the vehicle has been in storage, before each trip and at least once per week during use.

Simply press the test switch any time during the warm up cycle or while in normal operation. The LED light should flash red and the alarm should sound. Release the switch. **This is the ONLY way you should test your LP gas detector.** This test feature checks the full operation of the detector. If this detector does not test properly, return the detector immediately for repair or replacement.

Alarm

The red LED light will flash and the alarm will sound when dangerous levels of gas are detected. The detector will continue to alarm until the gas clears or the mute switch is pressed. (Reference *Procedures to Take During an Alarm.*)

PROCEDURES TO TAKE DURING AN ALARM

1. Turn off all gas appliances (stoves, heaters, furnace), extinguish all flames and smoking material and evacuate the trailer, leaving the doors and windows open.
2. Turn off the LP gas container valve.
3. Determine and repair the source of the leak. Seek professional help if necessary.
4. Do not re-enter the unit until the problem is corrected.

ALARM MUTE

This feature is activated by pressing the TEST/MUTE button when the detector is in alarm.

1. The red LED light will continue to flash and the alarm will beep every thirty seconds, until the gas level has dropped to a safe level.
2. The LED light will flash green until the end of the mute cycle.
3. If dangerous gas levels return before the end of the mute cycle, the alarm will beep four times and return to #1.
4. After two minutes, the detector will return to normal operation (solid green) or resound the alarm if dangerous levels of gas remain in the area.

Malfunctioning Alarm

The microprocessor will activate the malfunction alarm when it detects a fault in the detectors operation. The LED light will alternately flash red and green, while the sounder beeps twice every fifteen seconds. The mute switch will not function. Remove the detector immediately and return it for repair or replacement.

Low Power Operation


This detector will operate normally down to 7-volt DC. Do not operate this detector below 7-volt DC.

Additional information is supplied in a manual published by the manufacturer of this equipment.

ELECTRICAL SYSTEM

General

The electrical system in your recreation vehicle is composed of 120-volt AC (alternating current) and 12-volt DC (direct current) capabilities. All installations are made in compliance with safety requirements of ANSI standard A.1192, National Electric Code, and Canadian Standards Association.

 **CAUTION:** Power surges experienced while plugged in at a campground could potentially damage electronic components in your recreation vehicle. Damage from power surges are not covered by your Jayco warranty. Consult the component manufacturer's owner's manual or your Independent Jayco Dealer for recommendations on power surge protection.

All Kiwi and Kiwi Too travel trailers will have 30-amp service pre-wired into the breaker box.


Fig. 4-10

30 amp
125-volt, 2 pole,
3-wire, grounding type



Changes, Modifications and Additions

Any changes or additions made after delivery may cause a hazardous condition. Consult your local authorized dealer prior to making any changes. Only qualified electrical technicians should attempt to make changes or additions to the electrical system, using only approved materials, components, and employing approved methods of installation, which meet safety and code requirements.

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

120-Volt AC System

POWER CORD

Your travel trailer is equipped with a 30-amp power cord pre-wired into the breaker box. By opening the cable hatch (Fig. 4-11) you can pull the power cord out from the compartment and attach it to a commercial power source. The power cord extends approximately twenty to twenty-three feet from the travel trailer. Power flows through the 30-amp main circuit breaker and is then distributed through branch circuit breakers to wall receptacles and appliances.



Fig. 4-11

To prevent accidental electrical shock, insure that the ground pin on the attachment plug cap is intact to the earth ground through the RV park receptacle. When plugged into a receptacle with no provision for the third pin, use an adapter with a pigtail that can be connected to the receptacle box, with the grounding circuit completed through the ground pin or RV park receptacle box. Any accidental short of a live circuit conductor will trip the circuit breaker indicating a shorted circuit. You should be certain that the polarity of the external power is not reversed, in order to avoid harm to appliances and personal electrical shock. Polarity indicators may be purchased in most electrical and hardware stores.

It is strongly recommended to avoid the use of extension cords. If an extension cord is used, it MUST be the same amperage rating as the RV power cord. Using an improper extension cord will cause overheating of the cord and equipment as well as possibly causing premature failure of the AC equipment.

WARNING: Do not use an adapter, cheater or extension cord that will break the continuity of the grounding circuit connected to the third pin. NEVER remove the grounding pin to connect a non-grounded, two-prong receptacle. Any deviation from this will potentially cause a fire from overheating.

CIRCUIT BREAKERS AND BOX

On a 30-amp system, up to 5 circuits are permitted to distribute power through the travel trailer. All breakers are sized according to power to be consumed.

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

G.F.C.I.

Each unit contains a Ground Fault Current Interrupter (G.F.C.I.) outlet. This special breaker has been designed to reduce the possible injury caused by electrical shock.

An example of ground fault current is the current which would flow through a person who is using or touching an appliance with faulty insulation and, at the same time, is in contact with an electrical ground such as a plumbing fixture, wet floor, or earth.

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

When the G.F.C.I. receptacle is tripped, it has interrupted ground fault current caused by such things as faulty insulation or wet wiring inside some appliance or equipment connected to the circuit. The faulty equipment should be repaired before it is used again.

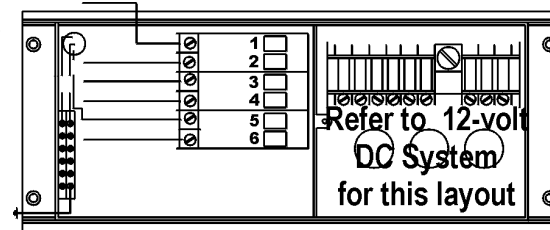
This special receptacle should be tested monthly while the camper is being used. See the manufacturer's owner's manual for more instructions.

TESTING INSTRUCTIONS

1. Plug a lamp or radio into the receptacle on the face of the GFCI.
2. Push and release the RESET button.
3. The lamp should light at this time.
4. Press the TEST button.
5. The RESET button should pop out indicating it has been "tripped" and the lamp should go out. (If the GFCI is manufactured with an indicator light, the light should glow when the device has tripped.)
6. If the GFCI did not "trip", do not use the outlet. Call a qualified electrician to service or replace the receptacle. The ground fault protection is no longer working and the GFCI may not be working properly.
7. To restore power after "tripping", press in the RESET button. It must remain in. (If an indicator light is furnished, it will be off.)

Below is a generic drawing with circuit breaker alignment. Your travel trailer may not be exactly the same as shown depending on the model, floor plan, and options.

Fig. 4-12



- 1 = 30-amp main, incoming power to travel trailer.
- 2 = 20-amp circuit to air conditioning
- 3 = 15-amp microwave oven.
- 4&5 = 15-amp to general purpose circuits.
- 6 = Spare

CONSUMPTION OF 120-VOLT POWER

As owners desire and purchase more appliances as we have in our home, we must remember an RV has only 30-amps of incoming power available. Conserving and choosing which appliance has priority in consumption needs to be part of planning.

In addition, loose items such as toasters, skillets, coffee pots, etc. are often included in traveling cargo. Include these in your consumption planning.

12-Volt DC System

The 12-volt system is composed of numerous items such as converter, battery, fuses, wire, and bulbs, both interior and exterior lighting. Explanation on these items will follow in this section.

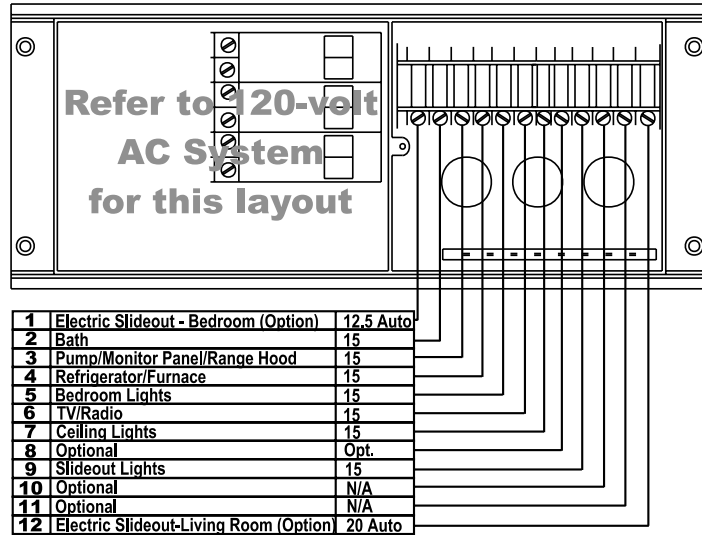
CAUTION: Your RV has many 12-volt DC loads. When combined, they total more power consumption than is available with the 12-volt DC converter. Periodic overloads can be handled with the additional auxiliary battery for short periods of time. It is suggested to conserve your 12-volt DC system at most times. Prolonged overload may shorten the performance life of converter.

CONVERTER

A converter utilizes 120-volt AC power and transforms this energy into 12-volt DC power, which is used inside of your camper. 12-volt DC energy supplies power to all interior lights and various appliances. The floor plan, and size of the camper dictates the model and output size of the converter required.

Inside the converter is an electronic device which automatically switches between 120-volt AC incoming power and battery power. An auxiliary battery as correctly installed will be charged when the travel trailer is connected up to 120-volt AC power. The converter will supply power through the fuse panel located near by, possibly in the same compartment.

Fig. 4-13



AUXILIARY BATTERY (DEALER INSTALLED OPTION)

All Jayco travel trailers are designed and built to accept a battery. A deep cycle marine type is recommended as you need longer energy rather than cold cranking power. A battery is required to operate the breakaway switch and is also available as a source of energy when traveling and camping.

All battery packages require an “in-line” fuse and holder attached to the battery for protection.

Maintenance on a battery is required for longer life. First, all terminals need to be kept clean and free of corrosion. Second, a battery which is used daily or has the converter in operation will consume water. Keep the battery filled as the cells cannot hold a charge when the water is low. A deep cycle battery is NOT maintenance free.

In normal conditions a converter will not overcharge a battery unless (a) the battery has low or dead cell(s), or (b) the converter has a malfunction. The charging module on some converters have a positive shut-off and on others there is a reduced charge rate to a very low amperage rate.

A fully charged battery will read 12.7-volts DC and 1.265 specific gravity at 80°F. A battery is considered discharged at 11.8-volts by electronic standards. When the voltage drops below these levels, permanent damage will occur.

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

The RV battery is installed in parallel circuitry with the battery on your tow vehicle. Both batteries supply power to your RV, so it is important not to discharge the tow vehicle battery below the level of power required to start the engine. To prevent this occurrence while parked, you may disconnect the wiring harness between the RV and tow vehicle or install a battery isolator. When the engine is operating with the RV connected, the vehicle’s charging system will charge both the vehicle battery and the auxiliary battery.

BATTERY ISOLATOR (FOR TOW VEHICLE)

When an auxiliary or “house” battery is installed in a recreation vehicle, it is the nature of parallel circuitry to draw energy from both batteries. A device called an “isolator” should be installed for two purposes. First it receives current from the alternator and controls distribution of energy to both batteries. Secondly, it serves as a check valve to prevent energy from being drawn from the tow vehicle chassis battery. Energy in the tow vehicle is now preserved to start your engine.

Two types of isolators are available, mechanical and solid state. Each type has an amperage rating (70-amp per side) to indicate its capacity of operation. The solid state type of isolator, although typically more expensive, will provide the best overall performance. Your dealer can assist you with purchase and installation.

EXTERIOR LIGHTS

All exterior lights are energized by tow vehicle power, such as tail lights, clearance lights, turn signals, brake lights, etc.

Below is a diagram (Fig. 4-14) showing the color code of a seven (7) wire harness and connector and the exterior lighting schematics. Also note, the positive wire is attached to the battery to feed power to the travel trailer.

The connector between the tow vehicle and your RV may build up corrosion with extended use, and should be cleaned periodically to insure good electrical contact.

- White 1 Ground
- Blue 2 Brakes
- Green 3 Running Lights
- Black 4 Interior 12-volt Lighting
- Red 5 Stop & Left Turn
- Brown 6 Stop & Right Turn
- Yellow 7 Back Up

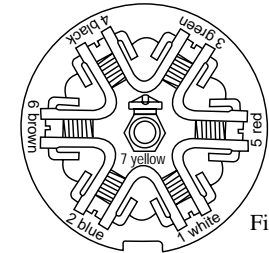


Fig. 4-14

PORCH LIGHT

Any porch light will have switches located on the wall inside of the entrance door.

FUSE AND BULB CHART

Fuses: All fuses for interior of travel trailer and external porch lights are located in the fuse panel. This panel is placed near the converter.

! WARNING: Do not replace circuit breakers or fuses with a higher current rating than those supplied with the unit when built. Overfusing can cause a fire hazard by overheating the electrical wiring.

When attaching wire leads to a tow vehicle, carefully and tightly tape all connections for moisture protection.

Bulbs

Interior:	Exterior:
Square lights #921	Porch Light #912
Round Lights #912	Tail Light #1157
Power Hood Lights #912	Turn Signal & Brake #1157
	Backup Light #1156
	Clearance Light #194

Brakes

Electric brakes operate on 12-volt power from the tow vehicle through blue and white wires on 7 way pigtail and harness. More information on the brakes is found in Chapter #3.

CHAPTER 5 APPLIANCES

GENERAL

All appliances in your Jayco RV are name brand quality built equipment, guided by current code and standards. Appliances are designed to operate using LP gas only, not on natural gas.

Included with each travel trailer are specific operation manuals, written and published by the manufacturer for each appliance. Refer to the manufacturer's owner's manuals for additional information not covered in this manual.

FURNACE

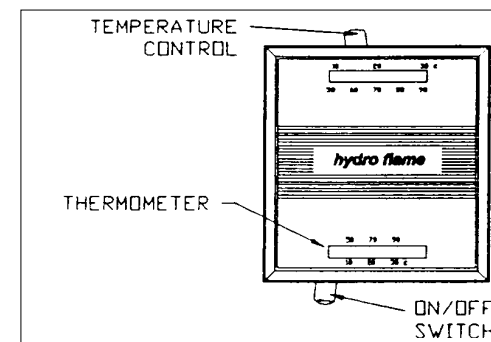
The furnace requires both 12-volt and LP gas energy for full operation. The combustion system is fully sealed. Oxygen is drawn from outside through the center port of the vent by the fan motor. After burning fuel, the carbon monoxide exhaust is expelled into open air through the outer port of the vent. This vent is NOT to be altered or obstructed in any manner to ensure your personal safety.

In order for the furnace to operate, a fully charged 12-volt battery or 120-volt power through converter must be available.

Listed below are instructions for furnace operation. Additional instructions may be found in manuals that are supplied by the manufacturers of the furnace.

Your furnace is a D.S.I. (Direct Spark Ignition) and is fully controlled by the thermostat as shown in the Hydroflame Furnace Control diagram.

1. The on/off switch controls 12-volt power going through the thermostat. It must be in the "ON" position for operation.
2. The upper lever referred to "Temperature Control" is to be set at the desired temperature, suggested 68° to 70°.



Hydroflame Furnace Control

The third switch, located inside of the exterior vent assembly on the fan housing, controls 12-volt power operating the gas valve. In the "on" position the solenoid will open, permitting gas to flow to the burner. In the "off" position, the valve will not open.

For Your Safety Read Before Operating



WARNING: If these instructions are not followed precisely, a fire or explosion may result causing property damage, personal injury or loss of life.

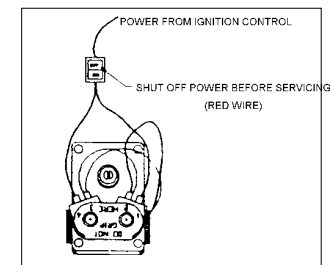
- A. This appliance does not have a pilot light. It is equipped with an ignition device that automatically lights the burner. Do not try to light the burner by hand.
- B. Prior to operation, smell the area around the appliances to ensure that gas has not settled on the floor.
- C. WHAT TO DO IF YOU SMELL GAS
 - Evacuate all persons from the vehicle.
 - Shut off the gas supply at the gas container or source.
 - Do not touch any electrical switch or use phone or radio in the vehicle.
 - Do not start the vehicle's engine or electric generator.
 - Contact the nearest gas supplier or qualified service technician for repairs.
 - If you cannot reach a gas supplier or qualified service technician, contact the nearest fire department.
 - Do not turn on the gas supply until the gas leak(s) has been repaired.
- D. Use only your hand to turn a gas control valve. Never use tools. If the valve will not turn by hand, do not try to repair it. Call a qualified service technician. Using force may result in a fire or explosion.
- E. Do not use the appliance if any part has become wet. Immediately call a qualified service technician to inspect and replace any part of the control system and gas control which has been under water.

Operating Instructions

1. STOP! Read the safety information above.
2. Set the thermostat to lowest setting.
3. Turn off all electric power to the appliance.
4. This appliance is equipped with an ignition device which automatically lights the burner. Do not try to light the burner by hand.
5. Open the control access panel (Outer Door Assembly).
6. Turn the valve power switch to "OFF."
7. Wait five minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas, STOP! Follow "C" in the safety information. If you do not smell gas, go to the next step.
8. Turn the valve power switch on to the valve.
9. Close the access panel (Outer Door Assembly).
10. Turn on all electric power to the appliance.
11. Set the thermostat to desired setting.
12. If the appliance will not operate, follow the instructions TO TURN OFF GAS TO APPLIANCE and call your service technician or gas supplier.

To Turn Off Gas to Appliance

1. Set the thermostat to lowest setting.
2. Turn off all electric power to the appliance if service is to be performed.
3. Open the access panel (Outer Door Assembly) to turn off the electric switch.
4. Close the control access panel (Outer Door Assembly).



Ducting and Return Air

All heat discharges, registers and return air grills must be free and clear of obstructions. Obstructions will prevent the furnace from performing correctly. This includes all closable registers that are intended to reduce air flow, not shut it off completely.

For complete operation of furnace, see the operation manual supplied and published by the manufacturer of this furnace.

STOVE

Drop-in Cooktops

A top mounted drop-in stove does not have a standing pilot light. Each time you wish to operate the stove, it must be lit manually. Ensure that the LP gas supply is turned on and that there is a sufficient supply.

All top burner and oven controls operate counterclockwise and must be pressed inward (towards the cooktop) to turn ON. Turn the control clockwise to turn it OFF and extinguish the burner flame.

1. To light the top burners:
 - a. Turn the appropriate burner knob fully counterclockwise to ON. Do not attempt to light more than one burner at a time.
 - b. IMMEDIATELY light the burner by holding a lit match or a hand-held spark igniter designed for this purpose near the burner ports.
 - c. To extinguish the top burner flame, turn the appropriate burner knob clockwise to "OFF."



WARNING: Ensure that stove knobs are pushed all the way onto the stems in the "OFF" position. Failure to do so could result in the stove inadvertently being turned on. If camping with small children, you may want to utilize stove knob covers that are available at your local hardware.



WARNING: Personal Injury Hazard

- Verify sufficient gas supply before attempting to light any top burner. Air in the gas supply line will significantly delay burner ignition, and a burner may light unexpectedly as the air in the line clears out and is replaced by LP gas; this unexpected ignition may burn you. Air may be introduced into the supply line when the vehicle gas bottle is replaced, during servicing of other gas appliances, etc.
- If any burner extinguishes (after initially lighting or due to accidental blowout), turn all burner knobs clockwise to OFF and WAIT FIVE MINUTES before again attempting to light the burner. Failure to follow these instructions may result in a fire or explosion.
- Do not touch the top burners, burner grates, or other areas near top burners. These areas become hot enough to cause burns. During and after use, do not let clothing or other flammable materials contact the top burners or areas near top burners until they have had sufficient time to cool.
- Make sure the utensils you use are large enough to contain food and avoid boil-overs and spill-overs. Heavy splattering or spill-overs left on the cooktop can ignite and burn you.
- Do not use a broiler pan, griddle, or any other large utensil which covers more than one top burner at a time. This may create excessive heat which may damage the burner grates or stove top. This may cause sooting, which may discolor the burners or your utensils.
- Do not leave an empty utensil, or one which has boiled dry, on a hot top burner. The utensil could overheat and damage the utensil or the cooking appliance.



CAUTION: For safe operation, top burners must always be adjusted so that flame never extends beyond the edge of the cooking utensil.

The front burner may have high performance capability. This information is located on the data plate in the stove.

It is important to have the fan over the range in operation while cooking to remove warm moist air and reduce condensation, also to remove potential smoke.

1. To remove the stove top:
 - a. Remove the two thumb screws from the sides of the stove top. Lift the stove top clear of the burner box. Replacement is a reversal of this procedure.
2. To remove the burner grates:
 - a. On models with round grates, squeeze opposite sides of the grate together and lift it free of the stove top. Remove the stove top (see step #1 above).
 - b. On models with rectangular grates, remove the stove top (see step #1 above). From the underside of the stove top, remove the clips from the grates by squeezing the ends of the clips together to release the tension on the grate.
 - c. Replacement is a reversal of the above procedure.
3. If any of the burner ports or the orifice are clogged, carefully clean them with a toothpick. Never use a wire brush or metallic item for cleaning burner ports or orifices. Never use any brush which may “shed” bristles, which may become lodged in the orifice or burner ports and cause a fire or explosion.

Many other tips, cautions, warnings and information will be found in the manual published and supplied by the manufacturer of this product.

RANGE AND OVEN OPERATION (Option)



WARNING: Personal Injury Hazard

- Do not touch or allow clothing and flammable materials to come in contact with burner grates or areas near top burners until they have sufficient time to cool. These areas become hot enough to cause burns and fires.
- Ensure that pans used are large enough to contain food and avoid boil overs. Heavy splattering or spills left on the cooktop can ignite and cause burns.
- Ensure that glass cookware is safe for use on the top burners. Only certain types of glass cookware is suitable for surface or top burner use.
- Never leave top burners unattended.
- Turn pan handles inward, but not over other top burners. This will reduce the chance of burns.
- Grease is flammable. Never allow grease to collect around top burners or on cooktop surface. Wipe spills up immediately.
- Do not use water on grease fires. Never pick up a flaming pan. Smother a flaming pan with a tight-fitting lid or cookie sheet. Flaming grease outside of the pan can be extinguished with baking soda or a multipurpose dry chemical or foam-type fire extinguisher.

To light the top burners on the range and cooktop models equipped with spark ignition:

- a. Turn the appropriate burner knob counterclockwise to “ON” or “LITE/HI.” Do not attempt to light more than one burner at a time.
- b. On three burner models, turn the “SPARK” knob clockwise one click. If the burner fails to light, continue turning the “SPARK” knob clockwise until the burner lights.
- c. On four burner models, wait approximately seven seconds after turning the burner knob to “ON”; press the “SPARK” button once to light the burner. If the burner fails to light, continue pressing the “SPARK” button until the burner lights.
- d. To extinguish the top burner flame, turn the appropriate burner knob clockwise to “OFF.”



WARNING: Ensure that stove knobs are pushed all the way onto the stems when in the “OFF” position. Failure to do so could result in the stove inadvertently being turned on. If camping with small children, you may want to utilize stove knob covers that are available at your local hardware.

**WARNING: Burn, Fire and Explosion Hazard**

- Use care when lighting a top burner by hand. If the burner lights unexpectedly, or your hand is close to the burner, you may be burned.
- If any burner extinguishes (after initially lighting or due to accidental blowout) turn gas supply off and WAIT FIVE MINUTES before again attempting to light the burner. Failure to follow these instructions may result in a fire or explosion.

Oven Operation**WARNING: Personal Injury Hazard**

- Do not touch or allow clothing or flammable material to come in contact with the inner or outer surfaces of the oven or the oven vent while it is in use. These areas all are hot enough to cause burns. Allow sufficient time for them to cool.
- Do not cover the oven vent openings while the oven is in operation. Restricting the flow of combustion air will create an asphyxiation hazard.

Step 1 – To Light the Oven Pilot

- Push in the oven control knob and rotate it counterclockwise to “PILOT ON”.
- Light the oven pilot located near the back of the oven, under the broiler shelf and to the left of the oven burner.
- Set the oven control knob to “PILOT ON” to maintain the pilot flame. The oven and broiler are now ready for operation; see Step 2 before proceeding. The oven pilot has been factory set and requires no further adjustment.
- To extinguish the oven pilot, push in the oven control knob and rotate it clockwise to “OFF.” Extinguish all pilots when refueling or traveling.

Step 2 – To Light the Oven

- Light the oven pilot as described in Step 1.
- With the oven control knob set to “PILOT ON,” rotate the knob counterclockwise to the desired temperature setting or to “BROIL.”
- The oven is equipped with a safety ignition system that requires a minimum of thirty seconds to operate after turning the oven control “ON.” This delay is normal.
- To extinguish the oven burner, rotate the knob clockwise to “PILOT ON.” The oven pilot will remain lit.
- For complete shutdown, rotate the knob clockwise to “OFF.”

WATER HEATER

Your water heater operates on LP gas only and no electrical energy is required. DO NOT attempt to use natural gas at any time. Below is the operation explained concerning this heater. Follow all instructions for your safety.

Pilot Operation

CAUTION: Do not tamper with the pilot orifice. High water temperature and failure of the gas control could result.

1. Turn the lighting control (Fig. 5-1B or 5-2B) to the “OFF” position.
2. Wait at least five minutes to allow gas which may have accumulated in the burner compartment to escape.
3. Note that your water heater may have either a “White Rodgers” or Robertshaw “Unitrol” Control.

FOR “WHITE RODGERS” CONTROL (FIG. 5-1)

- Turn the lighting control knob (Fig. 5-1B) to the “pilot” position and hold it against the stop while lighting the pilot burner (Fig. 5-3)
- Allow the pilot to burn approximately one half minute before releasing the lighting control knob.
- Turn the lighting control knob (Fig. 5-1B) to the “ON” position.
- If the pilot does not remain lit, repeat the operation allowing a longer period before releasing the lighting control knob.
- Set the temperature selection lever (Fig. 5-1A) at the mark between the warm and hot position.
- Close the access door.

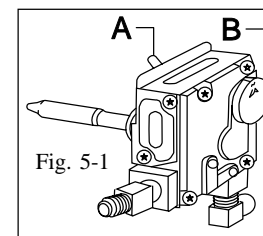


Fig. 5-1

FOR A ROBERTSHAW “UNITROL” (FIG. 5-2)

- Turn the lighting control dial (Fig. 5-2B) to the “pilot” position.
 - Depress and hold the reset push button (Fig. 5-2A) while lighting the pilot burner (Fig. 5-3).
 - Allow pilot to burn for one half minute before releasing reset push button.
 - If the pilot does not remain lit, repeat the operation allowing a longer period before releasing the reset push button.
 - Turn the lighting control dial (Fig. 5-2B) to the “ON” position.
 - Set the temperature control dial (Fig. 5-2C) at the midpoint position between warm and hot.
 - Close the access door.
4. For complete shut down and before servicing, turn the lighting control knob (Fig. 5-1B or 5-2B) to the “OFF” position.

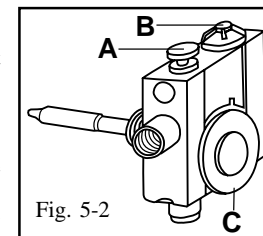


Fig. 5-2

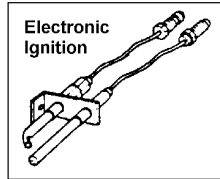
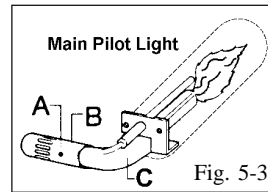


CAUTION: Setting the temperature control dial at a higher position will produce water that is hotter, increasing the risk scalding.

The temperature knob or lever is factory adjusted to its lowest dial setting. It is recommended that the midpoint position between warm and hot be used. This will provide for energy efficient operation and sufficient hot water. Valves for reducing the point of use temperature by mixing cold and hot water are available. Consult a licensed plumber or your local plumbing authority.

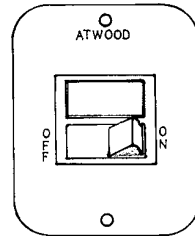
To adjust the Main Burner (Fig. 5-3):

1. Loosen the air shutter screw (Fig. 5-3A).
2. Slide the air shutter (Fig. 5-3B) to the right until a small amount of yellow color appears in the main burner flame.
3. Move the air shutter (Fig. 5-3B) to the left until the yellow disappears.
4. Retighten the air shutter screw (Fig. 5-3A).



Electric Ignition Operation

1. To turn the D.S.I. on, press the rocker switch to the "ON" position (Fig. 5-4). A light will come on indicating power to board. As soon as the burner ignites, the light in the switch will go off.
2. If the remote switch light stays on longer than fifteen seconds, place the remote switch in OFF position and wait five minutes.
3. Repeat step one.



Located on
inside sidewall

4. When the water temperature reaches the permanent set thermostat, the flame shuts down. Reignition will occur when the water temperature drops to 100° (38°C) (automatically).
5. For complete shutdown and before servicing:
 - a. Place the remote switch in the "OFF" position.
 - b. Remove the red wire from the left hand terminal of the ECO switch (ECO to valve).
6. If the heater fails to operate due to high water temperature, the heater will go into a lockout condition (indicator light on). When the water cools, reset it by placing the switch in the "OFF" position for at least thirty seconds, then return it to the "ON" position.
7. If a lockout condition persists contact your dealer, an Atwood service station or Atwood service department.

NOTE: Terminals #2 and #3 supply power to the heater. Terminals #4 and #6 supply power to the light. Some models may have a switch for D.S.I. water heaters in the monitor panel.

Pilot Re-ignite Operation

1. Turn the switch located on the spark module to the "ON" position.
2. Read Pilot Operation Instructions.

WARNING: The pilot relight module and thermostat lighting control knob must both be in the "OFF" position when refueling the LP gas tank or gasoline tank. Fire and/or explosion could result.

3. For complete shut down, turn the lighting control knob on the thermostat and spark module switch to the "OFF" position.

Electric Operation

1. For gas operation refer to the Pilot Operation or Electronic Ignition Operation section.
2. For electrical operation, use the switch inside the travel trailer in the utility panel.
3. Completely fill the tank with water.
4. Turn switch (Fig. 5-5) located in the travel trailer to the "ON" position.

NOTE: Turning the power on in the heater with little or no water covering the heating element may burn out the element and void the warranty.

5. Check for proper operation. The water temperature should be approximately 140°F (60°C).
6. If the manual reset high temperature limit switch "trips", reset the switch (Fig. 5-6A) by depressing the button. Use a pencil or other nonmetallic object to depress the reset button. If the malfunction repeats, contact an authorized Atwood Service Center or Atwood Service Department.

Fig. 5-5



Fig. 5-6

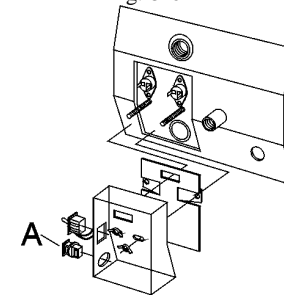
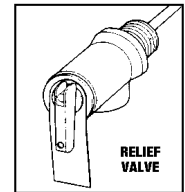


Fig. 5-7



PRESSURE TEMPERATURE RELIEF VALVE

WARNING: Do not plug the pressure-temperature relief valve under any circumstances.

When cold water is heated in the tank, the pressure will rise. For this reason, a relief valve (Fig. 5-9) is required for safety in all water heaters rated at 125° (52°C). It is normal for this valve to release a small quantity of water during the heating cycle. Open the hot water faucet to release pressure which will reduce dripping from the relief valve.

Flushing Instructions

The Atwood water heater is recommended for recreation vehicle use. If your RV is used frequently, or taken to different areas that use various types of water, it is recommended that the water heater be flushed periodically throughout the year to prolong the life of the inner tank. The following procedure summarizes the steps necessary for flushing the water heater inner tank.

1. Turn off the main water supply (pump or water hookup source).
2. Drain the water heater inner tank. Approximately two quarts of water will remain in the bottom of the tank. This water contains a great deal of the harmful corrosive material that has accumulated in the tank.
3. Flush the tank with air pressure or fresh water to remove the remaining water.

Air Pressure: Air pressure may be applied through the inlet or outlet valve located on the rear of the tank or water heater relief valve located on the front of the unit. If the relief valve is used, remove the relief valve prior to flushing the water heater and insert air pressure through the relief valve support flange.

Fresh Water: Pump fresh water into the tank with the assistance of an on board or external water pressure. The water may also be hosed into the tank through the inlet or outlet valve located on the rear of the tank or the relief valve located on the front of the unit. If the relief valve is used, remove the relief valve prior to flushing the water heater and insert air pressure through the relief valve support flange. Continue this process for approximately five minutes, allowing ample time for the water to agitate the stagnant water on the bottom of the tank and thus forcing the deposits through the drain opening.

4. Close the drain and relief valves.

REFRIGERATOR

This appliance in your Jayco travel trailer has been designed by its manufacturer to operate on 120 volt AC, 12 volt DC or on LP gas energy. Its performance depends on numerous factors such as energy, venting, leveling, humidity and atmosphere temperatures. Always cool the refrigerator for eight hours prior to loading it with food. The refrigerator is not intended for quick freezing or cooling, so be sure to load it with already frozen/cooled food. Air must be free to circulate within the fresh food compartment. **Do not cover the shelves with paper, plastic, etc.**

Safety Instructions

Be sure to read the manufacturer's owner's manual carefully and understand the contents before using the refrigerator.



WARNING:

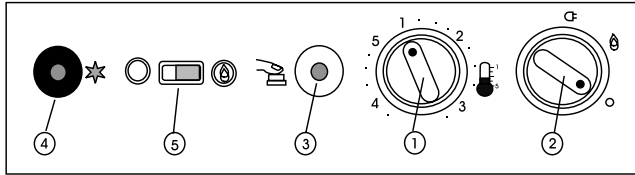
- All service work must be done by a qualified service technician.
- The storage of flammable materials behind or around the refrigerator creates a fire hazard. Do not use the area behind the refrigerator to store flammable materials (gasoline, cleaning supplies, etc.)
- A circuit overload can result in an electrical fire if the wires and/or fuses are not the correct size. Use only the wire and fuse sizes as indicated in the manufacturer's owner's manual.
- Incorrect installations, adjustment, change to, or maintenance of the refrigerator can cause personal injury, property damage, or both. Have service and maintenance work done by your dealer or by a Norcold authorized service center.
- Do not remove the round ground prong from the refrigerator AC power cord. Do not use a two prong adapter or extension cord on the AC power cord.
- Do not spray liquids near electrical outlets, connections or the refrigerator components. Many liquids are electrically conductive and can cause a shock hazard, electrical shorts, and in some cases fire.
- Do not bypass or change the refrigerator's electrical components or features.
- When you discard an appliance, remove all doors to prevent accidental entrapment and suffocation.
- The refrigerator cooling system is under pressure. Do not try to repair or to recharge a defective cooling system. The cooling system contents can cause severe skin and eye burns, and can ignite and burn with an intense flame. Do not bend, drop, weld, move, drill, puncture, or hit the cooling system.



CAUTION: The refrigerator is made to operate within 3° off level side-to-side and 6° off level front-to-back (as looking at the front of the refrigerator). Operating it at more than these limits can cause damage to the cooling system and create a risk of personal injury or property damage. Make sure the vehicle is level before you operate the refrigerator.

Operating the Refrigerator Controls – N300 (Kiwi 17A)

Fig. 5-8



The thermostat (1) changes the amount of propane gas that goes to the burner. This acts as the temperature control of the refrigerator. Number 5 is the coldest temperature setting.

NOTE: This is not an automatic gas control. It does not change the flame from high fire to low fire as do some RV refrigerators. If the cooling load changes, you must manually change the gas control to maintain the same temperature inside the refrigerator.

When the outside air temperature is below 50° F, the refrigerator may have a tendency to freeze food at the colder temperature settings. To reduce the tendency to freeze food:

- Turn the thermostat to a warmer temperature setting.
- Keep the refrigerator full.
- Put foods that are more likely to freeze on the upper shelf.

The selector switch (2) changes the energy source of the refrigerator between propane gas (🔥), AC electric (⏏), and OFF (○).

The gas safety valve (3) is built into the control panel. As long as a flame is present, the valve is open and allows propane gas to flow into the burner. Any loss of flame (empty propane gas tank, blow out, etc.) closes the safety valve and stops the flow of gas.

The piezo igniter (4) makes a spark which ignites the flame in the burner.

The flame indicator (5) shows if a flame is present in the burner.

Ignition – Propane Gas Operation

1. Open the valve at the gas storage tank.
2. Turn the thermostat to the 5 position.
3. Turn the selector switch to the propane gas position (🔥).
4. Push and hold in the safety valve and push in the igniter several times in rapid succession, for about five seconds.

⚠ WARNING: Do not hold in the safety valve for more than 30 seconds. If there is no flame in this time, wait at least five minutes before you try ignition again. If you continue to hold in the safety valve, gas will collect in the burner area. This could cause a fire or explosion and result in dangerous personal injury or death.

- When a flame is present and the flame meter moves into the green area, release the safety valve.
 - If the flame meter does not move into the green area, do this step again.
5. Turn the thermostat to the temperature setting that you wish.

Start Up – AC Operation

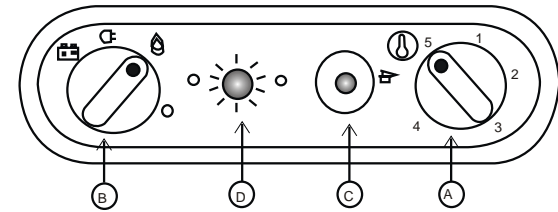
1. Make sure that 120 volts AC is available.
2. Turn the selector switch to the AC position (⏏).
3. Turn the thermostat to the temperature setting that you wish.

Shut Down

1. Turn the selector switch to the OFF position (○).

Operating the Refrigerator Controls – N500 (Kiwi 18F, 23B, 23D, 21C, 22U, 22V)

Fig. 5-9



The thermostat (A) changes the amount of propane gas that goes to the burner. This acts as the temperature control of the refrigerator. Number 5 is the coldest temperature setting.

NOTE: This is not an automatic gas control. It does not change the flame from high fire to low fire as do some RV refrigerators. If the cooling load changes, you must manually change the gas control to maintain the same temperature inside the refrigerator.

When the outside air temperature is below 50° F, the refrigerator may have a tendency to freeze food at the colder temperature settings. To reduce the tendency to freeze food:


- Turn the thermostat to a warmer temperature setting.
- Keep the refrigerator full.
- Put foods that are more likely to freeze on the upper shelf.


The selector switch (B) changes the energy source of the refrigerator between propane gas (🔥), AC electric (⏏), DC electric (🔌), and OFF (○).

The gas safety valve (C) is built into the control panel. As long as a flame is present, the valve is open and allows propane gas to flow into the burner. Any loss of flame (empty propane gas tank, blow out, etc.) closes the safety valve and stops the flow of propane gas.

The flame indicator (D) shows if a flame is present in the burner.


Ignition – Propane Gas Operation

1. Open the valve at the propane gas storage tank.
2. Turn the thermostat (A) to the 5 position.
3. Turn the selector switch (B) to the propane gas position ().
4. Push and hold in the safety valve (C) for about five seconds.
 - The refrigerator automatically ignites the gas at the burner.


 **WARNING: Do not hold in the safety valve for more than 30 seconds. If there is no flame in this time, wait at least five minutes before you try ignition again. If you continue to hold in the safety valve, gas will collect in the burner area. This could cause a fire or explosion and result in dangerous personal injury or death.**

- When a flame is present and the flame indicator (D) illuminates, release the safety valve.
 - If the flame indicator does not illuminate, do this step again.
5. Turn the thermostat to the temperature setting that you wish.


Start Up – AC Operation

1. Make sure that 120 volts AC is available.
2. Turn the selector switch to the AC position ().
3. Turn the thermostat to the temperature setting that you wish.

Start Up – DC Operation

1. Make sure that 12 volts DC is available.
2. Turn the selector switch to the DC position ().
3. Turn the thermostat to the temperature setting that you wish.

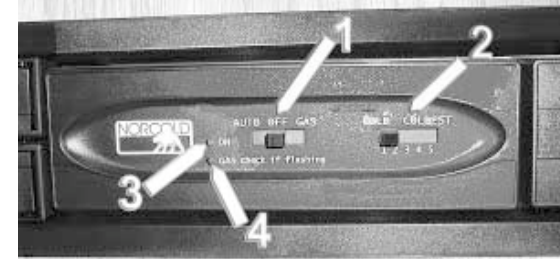
Shut Down

1. Turn the selector switch to the OFF position ().

Operating the Refrigerator Controls – N611 (Kiwi Too, Option Kiwi 23B, 23D, 25E)

CONTROL PANEL

Fig. 5-10



The refrigerator control panel is between the freezer compartment and the fresh food compartment. To maintain the operating control functions of the refrigerator, a 12-volt DC power supply is necessary. The refrigerator and any other DC components in the vehicle receive DC power from the 12-volt system of the vehicle; either an auxiliary battery, a converter, or the vehicle engine battery.

The selector switch starts (Fig. 5-6 - #1) and shuts down the refrigerator;

- Push the selector switch to the AUTO position to start the refrigerator in auto mode.
- Push the selector switch to the GAS position to start the refrigerator on propane gas.

The temperature switch (Fig. 5-6 - #2) controls the temperature adjustment of the freezer and the fresh food compartment. The temperature adjustment that you select does not change if the mode of operation of the refrigerator changes.

- Push the temperature switch to the desired temperature setting.
- The number “5” is the coldest temperature setting.

Refer to the “Display Codes” section of manufacturer’s owner’s manual.

AUTOMATIC MODE OPERATION:

When you select AUTO mode, the refrigerator controls automatically select the most efficient energy source that is available for operation. If a more efficient energy source becomes available, the refrigerator controls change from the current energy source to the more efficient energy source.

The controls select the energy source in this sequence:

- When 120-volt AC is available to the refrigerator:
 - The ON light shows (Fig. 5-6 - #3) in the center display.
 - This means that the refrigerator is operating on AC electric.
- If 120-volt AC is not available to the refrigerator:
 - The ON light and the GAS light (Fig. 5-6 - #3 & #4) show in the center display.
 - This means that the refrigerator is operating on propane gas.

GAS MODE OPERATION

- The ON light and the GAS light (Fig. 5-6 - #3 & #4) show in the center display.
- This means that the refrigerator is operating on propane gas.

If the energy source is interrupted:

- The refrigerator stops operation.
- A fault code flashes in the center display.
- Refer to the "Fault Codes" section of manufacturer's owner's manual.

IGNITION OF PROPANE GAS IN EITHER AUTO OR GAS MODE:

NOTE: On initial start up of the refrigerator, ignition of the propane gas may not occur within 30 seconds.

If ignition of the propane gas does not occur within 30 seconds:

- The gas safety valve of the refrigerator closes.
- The refrigerator stops operation.
- Refer to the "Fault Codes" section of the manufacturer's owner's manual.
- The fault code remains until you push the selector switch to the OFF position and then back to either the AUTO or GAS mode.
- If ignition does not occur after two or three times:
 - Check the gas supply line.
 - Consult your local dealer or an authorized Norcold service center.

AIR CONDITIONER

Air conditioners may be installed by the Jayco factory or by your dealer. If you did not buy your travel trailer with the optional air conditioner, one of your roof vents may be pre-wired for later installation. Your dealer can provide you with additional information concerning this.

There are a variety of air conditioners available. For specific instructions for the air conditioner, consult your dealer and the manufacturer's owner's manual.

Some models have Central Air Conditioning available. All cooled air is moved through a duct built into roof and enters the travel trailer through a group of round registers.

Keep all registers open to insure full airflow. Closing the register(s) may cause the compressor to freeze, which could shut down the cooling process.

A special foam gasket is placed between the roof material and the sub-frame of the air conditioner to guard against water leakage.

An air conditioner is subjected to wind pressures along with motor vibration during normal operation. Annually inspect the mounting bolts for tightness to ensure there is no leakage or looseness. Retighten bolts when they are loose. DO NOT over-tighten these bolts as it may damage the gasket.

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.

MONITOR PANEL

The monitor panel (Fig. 5-11) will provide useful information on the capacities of the water tanks and the battery condition. You will find a monitor panel as shown mounted on the wall. Follow the instructions below regarding operation.

The panel operates on 12-volt DC power supplied by the converter or battery. Sensors are installed into the tanks and a resistor assembly relaying a message through wires to the display board on the panel. No power is drawn from the battery unless a switch is pushed or turned on.



Fig. 5-11

Operation

Four spring loaded push button switches are located in the center of the monitor panel. Press only one button at a time, as one set of lights serve all functions. As you push any button, one or more lights will come on, indicating the water level of that tank.

When pushing the battery button, the highest light coming on indicates the battery condition. C=charging at 12.7 volts; G=good at 11.9 volts; F=fair at 11.2 volts; and L=low at 6.0 volts.

The switch at the lower right is for water pump operation. In the "ON" position, the pump runs until 45 pounds of pressure has been achieved. The red light will stay on. Turn the switch off when the pump is not in use.

The switch in the lower left corner is for the direct spark ignition (D.S.I.) water heater operation if the D.S.I. option is built into your travel trailer.

Fuses for the monitor panel operation are in the 12-volt DC distribution center fuse block.

TWO WAY FAMILY RADIO



WARNING: Before operating your family radios and charger, please read all applicable information provided.



WARNING: Replacement or substitution of transistors, diodes, or other parts of a unique nature, with parts other than those recommended by the manufacturer, may cause violation of the technical regulations of Part 95 of the FCC Rules, or violation of Part 2 of the rules. Do not use this device in or near a mining facility which used remotely triggered explosives or in an area labeled "Blasting Area". Premature or accidental detonation may result. Do not use this device or change batteries in potentially explosive atmospheres, as sparks in such areas could result in an explosion. Turn your transceiver off on board aircraft when requested to do so. This transceiver complies with FCC regulations for use in the United States. Use in other countries may be prohibited or restricted by local regulations. Please check with the local agency before using this device outside of the U.S.A.

Your transceiver will achieve maximum operating range when communicating with another transceiver in a flat open area with no trees or buildings obstructing its signal. Range can be up to two (2) miles under such conditions. Obstacles, such as buildings, trees, or hills may tend to reduce the transceiver's range.

CARE OF BODY COMPONENTS

Use

1. Install the transceivers with the PTT (Push To Talk) switch facing out. There are four (4) docking bays in the charger to accommodate up to four handsets.
2. Close and latch the door. The latch can be engaged by gently pressing against the center of the door.
3. There are four indicator lights on the door. Initially they will "glow" red when power is applied (ignition switch is "On" or "ACC" position). After the transceiver handset batteries are fully charged, the indicators will turn green, indicating the transceivers are ready for use. If the indicator light blinks red, try removing the handset and re-inserting it into the charger unit.
4. The transceivers may be stored safely in the charging unit. When the batteries are fully charged, each transceiver will individually switch to "trickle" mode.

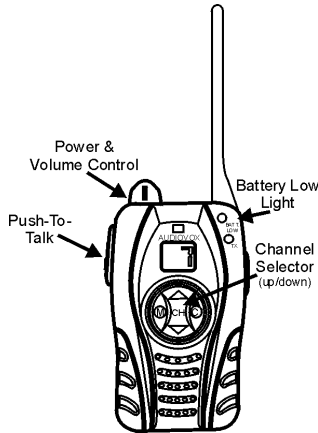
How to Operate your Radio

TO RECEIVE:

1. Turn the power "On".
2. If the "Battery Low" indicator is on, charge the batteries.
3. Set the channel selector to the desired channel.
4. Adjust the volume control to a desirable listening level by pressing and holding the monitor button while turning the volume control knob.


TO TRANSMIT:

1. Turn the power to "On".
2. If the "Battery Low" indicator is on, charge the batteries.
3. Set the channel selector to the desired channel.
4. To transmit, press the Push to Talk button. Speak slowly and clearly in a normal voice, approximately 2-3 inches from the microphone. A built-in modulation control circuit will automatically adjust the microphone input level. There is no need to speak loudly.
5. To receive, release the Push to Talk button.



Battery Installation

Your radio comes with four nickel cadmium cells. Remove the cover by releasing the clasp at the bottom of the compartment. Observe the polarity symbols inside the battery tray when installing new batteries. Do not install different types of batteries (standard, alkaline, or different brand rechargeable).




CAUTION: Incorrect battery installation can damage the unit.

Battery Saver Mode


Your Two Way Radio has a unique circuit designed to dramatically extend the life of your batteries. Four seconds after the transmit button has been pressed, the radio will switch to battery saver mode, and the LCD display will turn off. The transceiver will remain ready to receive any incoming transmissions while in the battery saver mode. Pressing any of the buttons will illuminate the display and exit the battery saver mode.

EXTERIOR CARE



CAUTION: We recommend that you DO NOT take your recreation vehicle through automatic car washes and extreme caution should be used if utilizing any type of pressure sprayer around all attachments, doors, windows, appliance vents, etc. to avoid forcing water inside the unit, possibly damaging components.

TPO Roof



CAUTION: All roofs require maintenance. At least once a year, inspect all seams: front and rear, around all vents, and along all moldings. If you notice any deterioration in the seal, scrape off any cracked, lifting or loose sealant and reseal the area. Contact your dealer for the appropriate sealant to use.

The proper care, cleaning and maintenance of your TPO Roofing is quite simple because of the basic properties and longevity of the material itself.

Periodic cleaning is the primary maintenance. The manufacturer suggests using Murphy's Oil Soap with a soft nylon brush or sponge. DO NOT USE solid or granulated cleaners, as they will mar the natural finish.

DO NOT USE Armor-All or other oil/solvent base cleaners as they will leave a slick surface.

A good thorough cleaning with some elbow grease and the suggestions above should keep your roof looking good and remove most stains. For more stubborn stains, you should contact your authorized dealer.

If you keep your TPO roof clean, you will be performing the primary maintenance necessary to keep it looking good and extend its longevity.

Annual inspection of the roof is suggested. Check the membrane for possible damage and check the caulk/lap sealant used in all termination areas and around all accessories and fasteners.

TPO Roofing is UV resistant. It will not retain odors or rot.

Fiberglass Sidewalls


Fiberglass walls are very durable and are easy to maintain. To keep them looking nice, wax and buff them once a year. Standard automotive cleaning soaps and waxes work well for general cleaning and maintenance. Special cleaners and waxes are available at automotive and RV stores.

Scratches and chips can be easily fixed by an experienced fiberglass repair shop. Any major damage should be repaired as soon as possible to prevent cracks from becoming larger.

ABS Plastics

The front and rear caps are made of ABS plastic, which is light, strong and rust proof. A few suggestions are given here to ensure long cap life.

- Wash the caps with detergent and water, followed by a water rinse. Always mix the detergent with the water before washing. If you squirt detergent directly on the cap, you may discolor the cap.
- Do not wax the caps. Excess wax will be trapped in the textured surface finish. The wax will trap dirt.
- Do not apply any product containing petroleum, as oil softens the plastic. Examples of products to avoid are bug and tar remover, mineral spirits or similar solvents, motor oil, charcoal lighter, or any industrial cleaner that contains petroleum distillates.
- Abrasive cleaners will dull the surface and may rub through the weatherproof outer covering. When the cover is damaged, the plastic may yellow and become brittle.

 **CAUTION:** Avoid using “Citrus” or biodegradable cleaners which contain “D-Limonene.” They will damage plastic materials.

Frame

The frame on your Jayco recreation vehicle has an E-coat paint. It is recommended that you periodically inspect the exterior exposed areas, clean and repaint the steel members to insure long life. Road debris will chip paint, inviting rust and other deterioration. To prevent rust or corrosion, you may wish to purchase a commercially available rust treatment application such as Ziebart, etc. If damage would occur, the frame needs to be painted with e-coat paint and not a gloss black paint. This type of paint is available in a spray can from the vendor, Norco.

Doors, Extrusions, Windows, Vents & Corner Trim

These components have putty tape between the component and the wall surface. Portions of these items may have a cap seal added as a secondary seal. Be sure to inspect and reseal seals at least twice per year. Both putty tape and cap seals can become damaged by U.V. exposure, air pollution, freezing temperatures, and other exposure to the elements. See the sealant diagram in Chapter 8 – MAINTENANCE/STORAGE.

Locks on entrance and baggage doors need biannual lubrication. Silicone lubricant is recommended.

INTERIOR CARE

Furniture

To clean furniture, frequently vacuum or brush it lightly to remove dust and dirt. Vinyl can be wiped clean with a damp cloth. For best results, have it professionally dry cleaned.


Paneling

The wall paneling in your new Jayco is a vinyl covered panel. If deep scratches occur, putty sticks can be used to cover scratches on wood surfaces. These can be obtained from hardware stores and lumber yards. For decor paneling, replacement vinyl covering can be purchased for repairs if needed. Contact your dealer’s parts department.

To clean the paneling, use a mild solution of soap and lukewarm water with a soft sponge or cloth. **DO NOT** use abrasive cleaners. It may cause the vinyl to scratch and become dull. Grease spots and stubborn dirt can be cleaned with an all-purpose spray cleaner. **DO NOT** use cleaners that contain bleach.

Floor

To care for the vinyl floor covering, use a damp mop with water and a mild cleaner. **DO NOT SOAK FLOORING.** Use care to avoid wetting carpet edges.

 **CAUTION:** To avoid problems of “yellowing”, the manufacturer recommends the following:

- Avoid using cleaners that contain oil based solvents (i.e. cleaners containing lemon oil, Murphy’s Oil Soap, etc.).
- Avoid the use of rubber backed floor mats.

Bathroom Tubs and Lavatory Sinks

The bathtub is made of ABS plastic material. Do not use abrasive cleaners as they may scratch surfaces. Use a mild detergent soap and water, Bon Ami or Bar Keeper’s Friend to clean the tub surface.

For any type of repair work, see your authorized Jayco dealer.

Hardware, Sink and Shower Fixtures

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

Countertops

Made of high-pressure laminate, the countertops are easy to keep clean. Glass rings, food spills, water spots and smudges usually wipe off with a damp sponge. Stains can be removed with a general-purpose spray cleaner. Stubborn stains can sometimes be removed by squeezing fresh lemon juice over the stain, allowing the juice to soak for approximately forty-five minutes, and then sprinkling baking soda over the lemon juice and rubbing the stain with a soft cloth.

FABRIC COMPONENTS (Kiwi Only)

Your Kiwi travel trailer is a combination of several fabric components used to enclose the bed areas. The canvas used to construct the bunk end is made of 10.10 ounce army duck cotton, treated to pass the required Federal Fire Retardant Standards. The Kiwi travel trailer awning (refer to awning definition) is made of an embossed vinyl with textile backing. On the interior of the Kiwi travel trailer tent, the material is a 100% polyester backing. The following definitions will assist you in providing the proper care for your Kiwi travel trailer tent components.

Definitions

INTERIOR

- Bed mat - Upholstery covered foam mattress which provides softness to the bed extensions.
- Cushions - Upholstery covered foam pad used in dinette area for your comfort.
- Upholstery - Fabric used to cover the interior cushions and bed mats of the folding camping trailer.
- Privacy Curtains - Fabric panels provided between bed extensions and the folding camping trailer area to provide a “bedroom” area.

EXTERIOR

- Awning - Top or “roof” part of the travel trailer tent that is located over the bed extensions.
- Window Panels – Side and end panels of the travel trailer which are made of canvas or charcoal vinyl with a zip down section to provide light and ventilation through an attached “screen” panel.
- Tent - Complete assembly of the travel trailer “soft” wall and roof areas. The tent is made up of the awning and the window panels.
- Canopy - Added feature to create a shaded area around your travel trailer door for outside enjoyment.
- Screen Room - Available feature to enhance the canopy area by providing an added “room” to your travel trailer. This “room” is attached to the canopy and the camper.

FABRIC CARE (Kiwi Only)

Cushions/Bed Mats

Please use common sense and treat your furniture as you would at home. Remember, your travel trailer is a small living area, so soiling may occur more frequently and the fabric will probably need more attention than your furniture at home. Please follow these guidelines for cleaning upholstery fabrics on the cushions/bed mats.

Frequent vacuuming with a brush attachment or a light hand brushing will help remove dust, hair, sand and other particles which may dull the look of the fabric and accelerate wear. The fabric can be gently steam cleaned on the cushions or mats if necessary. All dinette and bed mat covers are treated with a stain protector.

Water base cleaners are recommended. If a spill does occur, blot up the spot, but do not rub it in. Solvents are not recommended since they may have an adverse reaction to the specific backing of your upholstery fabric. Do not saturate the area. Clean in a well ventilated area and avoid products containing toxic materials. Always pretest a small area before proceeding. Use a professional furniture cleaning service for an overall cleaning.

A reminder: The upholstery fabrics have been manufactured using quality materials. However, if abused, they are not completely resistant to damage.



CAUTION: Do not dry clean the covers of the cushions/bed mats. If the covers are dry cleaned, the vinyl will become hard and crack.

NapSak™

Dry Clean Only.

Tents



CAUTION: The tent fabric of your travel trailer is a mildew resistant fabric. This does not, however, mean that it is mildew proof. Priority in taking proper care of your tent will help to prolong its life. **For warranty coverage, it is imperative that you read and follow the listed recommendations in this manual and all related literature.**

Proper care and maintenance are important for the life of your travel trailer's tent. Be aware that the canvas portion of the tent will take longer to dry than the vinyl. If you are forced to store the tent wet, we recommend that the travel trailer be set up at the earliest possible convenience and left for several days to dry completely. After the tent is dry, brush all dirt and debris from the fabric, taking care in corners and crevices. Make sure the entire tent is completely dry before refolding it and storing the travel trailer. We recommend the following list of suggestions be adhered to when there is a need to clean the tents.

EXTERIOR

- If the tent becomes dirty, use a damp cloth or sponge with water. **Do not use detergents, soaps or solvents since they may remove water repellency, fire retardants, and damage the surface or color.**
- Do not use aerosol type cleaners.
- Do not use insect repellent, hair sprays or suntan lotions around fabrics as they may stain fabrics and damage or destroy water repellency. If accidental contact occurs, apply a fabric protector or utilize a professional to provide water repellent treatment.
- Be sure to clean bird droppings, tree sap, dirt and soot from campfires off of the tent.
- **Assure that your canvas and trailer have good ventilation, especially after a rainy period. The most common cause of a damaged canvas is mildew, which is the result of storing your unit for any period of time with a damp or wet canvas, even for short periods. This is even more important in humid climates. If the tent must be stored wet, open the unit and allow it to dry thoroughly as soon as possible.**
- For vinyl awning, use only nonabrasive cleaners with warm water and a sponge to remove excess dirt and grime. **Do not use cleaners with a bleach ingredient. Chlorine or bleach will strip the finish and color from your vinyl.**
- If water seepage occurs in the seams of the vinyl awning, you may want to apply a spray type water sealant on sewn seams.

INTERIOR

The material used on the interior of the tents is a 100% polyester backing. This material contains inhibitors that help prevent the growth of mildew on the fabric. **It is not mildew-proof.** Mildew or fungus may attach to the material, however, the material will aid in preventing the growth. If mildew does attach itself to the fabric, brush the mildew dust with a soft bristle brush making sure there is plenty of ventilation and air circulation. Using a mild soap and water solution, thoroughly clean the area. Rinse with clean water.



CAUTION: Use of bleach or products containing bleach could potentially damage the tent material causing it to rot away. If such products are used make sure that the cleaning is followed by several thorough rinses with clean water.

Condensation

Condensation can be prevalent in tent portion of your travel trailer if proper ventilation is not used. It can exist whether or not a heater is used. During periods of rain, avoid contact with the tent. The natural body oils in skin will neutralize the tent water proofing and cause the rain to soak through. We recommend that you leave a small opening in each bunk zipper to permit air to flow through and allow the tent to “breathe.” This will help minimize moisture gathering above bunk area on the vinyl.

Use only breathable fabric camper covers, such as those available through your Jayco dealer, when storing your travel trailer.



SCREEN ROOM

Care should be taken when setting up and putting screen room away to avoid tears and cuts. When putting away the deluxe screen room, the curtains should be in the down position and secured to the bottom with their strings.

1. Wash off any droppings or foreign matter from the trees with clear water and keep vinyl clean when putting away.
2. Do not roll stakes or hardware with the screen room.
3. Never roll vinyl screen room up wet for any extended period of time.
4. If mildew is apparent, it should be treated promptly with a light solution of Naphtha soap and water. A soft brush or cloth is recommended for cleaning vinyl.

Fiberglass Screening

When possible, fiberglass screening should be loosely folded, not crushed when opening and putting away screen room. Do not allow poles and stakes to punch holes in the screen.

CHAPTER 7 OPTIONS

SPARE TIRE CARRIER

Kiwi

The spare tire is transported in a carrier mounted under the front A-frame and may be pre-installed providing it is part of your purchase agreement. To operate it, follow these instructions:

1. Remove the wing nut with the rod, loosening the tire.
2. Remove the pin from the latch hook at the battery carrier.
3. Pull the hook toward the travel trailer and carefully lower it.

CAUTION: Keep all objects from under the carrier while lowering the front end to avoid damage.

4. Slide the tire out from either side. Reverse the procedure to reinstall.

Kiwi Too

The following procedures should be used in securing the spare tire in the travel position:

1. Put the steel hoist lift support located on the end of the cable through the rim of the tire. Clips need to seat inside of the hole.

The valve stem of the tire **MUST** be pointed in the down position or away from the bottom of the travel trailer. Reference Fig. 7-1.

The hoist will not seat the tire correctly if the valve stem is toward the bottom of the travel trailer. Reference Fig. 7-2.

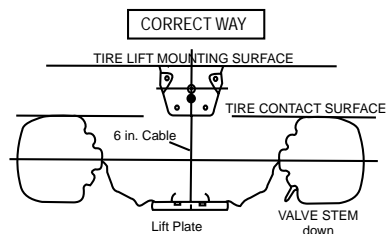


Fig. 7-1

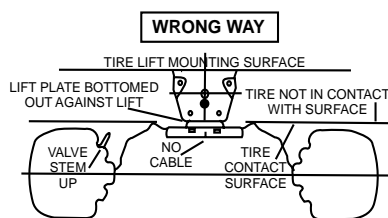


Fig. 7-2

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 surface to be in the travel position.

WARNING: DO NOT exceed the maximum load capacities of 100 lbs. for the hoist. DO NOT use air driven guns or impact wrenches to lift the tire into the travel position.

BBQ GRILL (Option)

An option for your travel trailer is a BBQ Grill. This grill is for use outside of the travel trailer and comes with a bracket to attach to the side of the unit. The following list will supply basic operations for the grill. Be sure to read all instructions included with the grill.

1. Install the grill bracket on the side of the travel trailer mounting bracket. Make sure that it is securely in place.
2. Place the BBQ grill into the bracket. (Fig. 7-3)



Fig. 7-3



Fig. 7-4

3. Attach the fuel hose to the grill and the LP gas connection located under the travel trailer by using the "Quick-Coupler" instruction as follows (Fig. 7-4):

- Place the handle in the "OFF" position and push back the sleeve. Valve handle must be in the "OFF" position to make the connection. (Fig. 7-5)
- Insert the plug and release the sleeve. (Fig. 7-5)
- Push plug until the sleeve snaps forward, locking the plug into the socket. (Fig. 7-6)
- Turn handle to "ON" position to turn gas on. (Fig. 7-7)

Fig. 7-5

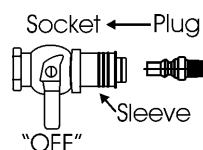


Fig. 7-6

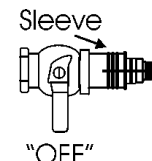
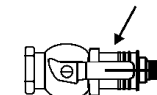



Fig. 7-7



4. Open the lid to the BBQ Grill.
5. Using an electric match, light the grill using the following procedures:
 - Light the electric match.
 - Insert it into the middle slot on the bottom of the BBQ Grill.
 - On the grill control knob (Fig. 7-4), depress and turn the knob to the desired temperature.
 - The grill should light at this point.
6. If the grill does not light, turn the gas off, wait five minutes and repeat the above steps.
7. Use the temperature control knob to adjust the grill to the desired temperature.

The BBQ Grill grate is coated with standard grill enamel and can be cleaned as you would a grill at home. Underneath the grate, there is a heat diffuser. This is formed and ventilated to distribute the heat from the burner. Do not use lava rocks in this grill.

To disconnect the BBQ grill, turn the temperature control to the "OFF" position. Reverse the above fuel hose hookup procedures. Wait until the grill is completely cooled, and then store it in the supplied carrying case. This carrying case will ONLY accommodate a cool grill. The grill carrying case has a pocket for accessories such as the fuel hose in the lid. The bracket will not fit inside the carrying case and will need to be stored in a separate location.

 CAUTION: The BBQ grill must be COMPLETELY cooled before storing to avoid damaging the carrying case.

MICROWAVE OVEN / CONVECTION OVEN

The microwave oven or convection oven in the unit operates on the same principle as the microwave/convection in your kitchen at home. A separate owner's manual is provided with detailed instructions for its use.

CHAPTER 8 MAINTENANCE/STORAGE

Your new Jayco travel trailer is designed to be as maintenance free as possible. However, maintenance is important to retain its condition as near to new as possible. Proper maintenance will give you many trouble-free miles.

NOTE: Some areas in this chapter may not be applicable to your travel trailer.

TOILET MAINTENANCE – AQUA MAGIC® 4

The Aqua Magic® 4 does not require routine maintenance except for cleaning. In some installations, the seat and cover can be removed to facilitate cleaning. To remove the seat, both seat and cover should be in the open (up) position. Grasp the assembly on both sides and pull it away from you in an upward angle of approximately 45°. To reinstall the seat and cover, place the legs of the assembly in the rear slots of the cover until they are centered on hinge posts and gently push it down at approximately 45° angle until you feel the engagement.

TV ANTENNA

Lubricating the Elevating Gear (Fig. 8-1)

The elevating gear will need to be lubricated with a liberal amount of silicone spray. To lubricate, apply the silicone to the elevating gear with the lift in the down position then run the lift up and down a few times to distribute the lubricant over the gears.

Lubricating the Bearing Surface (Fig. 8-2)

Twice per year or when rotation of the antenna becomes difficult, lubricate the bearing surface between the rotating gear housing and the base plate with silicone spray. Elevate the antenna and remove the set screw or plastic plug from the rotating gear housing. Spray the silicone into the hole and around the edges of the gear housing. Rotate the gear housing until the lubricant coats the bearing surface and the antenna rotates freely.

Lubricating the Rubber Quad Ring (Fig. 8-3)

Lubricate the rubber quad ring located on the elevating shaft below the worm gear with silicone spray at least twice per year to prevent the quad ring from becoming brittle resulting in leaks in the elevating shaft. Refer to the manufacturer's owner's manual for information regarding removal of the worm gear assembly.

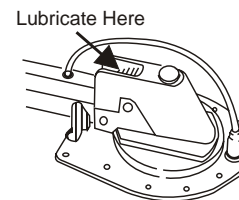


Fig. 8-1

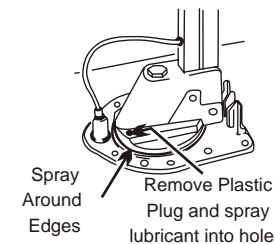


Fig. 8-2

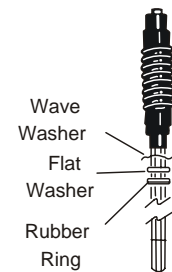
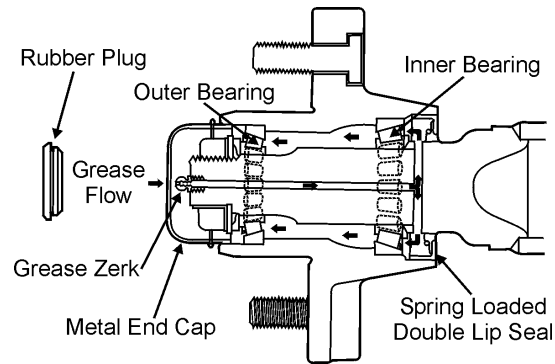


Fig. 8-3

E-Z LUBE AXLE

If your axle is equipped with the E-Z Lube feature, the bearings can be periodically lubricated without removing the hubs from the axle. This feature consists of axle spindles that have been specially drilled and fitted with grease zerk in their ends. When grease is pumped into the zerk, it is channeled to the inner bearing and then flows back to the outer bearing and eventually back out the grease cap hole.



LUBRICATION PROCEDURES:


1. Remove the rubber plug from the end of the grease cap.
2. Place a standard grease gun onto the grease zerk located in the end of the spindle. Make sure the grease gun nozzle is fully engaged on the fitting.
3. Pump grease into the zerk. The old, displaced grease will begin to flow back out the cap around the grease gun nozzle.
4. When the new, clean grease is observed, remove the grease gun, wipe off any excess, and replace the rubber plug in the cap.
5. Rotate the hub or drum while adding grease.

NOTE: The E-Z Lube feature is designed to allow immersion. Axles not equipped with E-Z Lube are not designed for immersion and bearings should be repacked after each immersion. If hubs are removed from an axle with the E-Z Lube feature, it is imperative that the seals be replaced **BEFORE** bearing lubrication. Otherwise, the chance of grease getting on brake linings is greatly increased.

NOTE: The convenient lubrication provisions of the E-Z Lube and the oil lubrication **must not** replace periodic inspection of the bearings.

SLIDEOUT

Your slideout system has been designed to require very little maintenance. To ensure a long life of your slideout system, read and follow these simple instructions.

 **CAUTION:** Do not work on your electric slideout system unless the battery is disconnected.


- When the slideout is extended, visually inspect the inner slide rail assemblies. Check for excess build-up of dirt or other foreign material; remove any debris that may be present.
- If the system squeaks or makes any noise, apply a coat of lightweight oil to the drive shaft and roller areas. Remove excess oil so dirt does not build-up.
- If you have any problems or questions consult your local Jayco dealer.

LP GAS BOTTLES


1. The LP gas bottle or tank must be painted with a light color, such as white or silver plate, to reflect heat and light.
2. Rust, scratches, and/or dents can affect the safety of the bottle or tank. The D.O.T. requires that a visual inspection be made prior to each filling.
3. Any container that has been exposed to fire, leaks or seems damaged should not be refilled.
4. An LP bottle must always be placed in an upright position. Assure that the bottle is secured in place prior to moving the vehicle.
5. The D.O.T. requires that LP bottles be inspected, certified and labeled when it is twelve years old. Following the initial twelve-year period, the bottle must be qualified every five years.
6. The valve of the bottle or tank must be **CLOSED** at all times except when it is connected to the recreation vehicle LP gas system or is being refilled.
7. Inspect the bottle at regular intervals. If there is a problem, have it evaluated by a qualified technician and discard it, if necessary.

STORING YOUR TRAVEL TRAILER

Depending upon your area and where your unit is stored, your travel trailer may be a target for damage from rodents and insects. To protect your travel trailer, never leave food inside the unit and ensure that all surfaces are clean. You may want to place rodent control products in the unit during periods of storage. Mice can do a tremendous amount of damage to the drapes, cushions, etc. particularly during the winter months. Storing units in fields make them particularly inviting to rodents. Periodically inspect your unit during storage and seal off any areas which can offer an entry point to rodents or insects. Please remember to remove any screens or tape you have used to seal openings before you use the camper again. Special interest publications, such as articles and books offered through TL Enterprises (Trailer Life, Motorhome, etc.) can offer additional and practical advice on the proper storage of your camper. Damage from rodents or insects are **NOT** covered under your Jayco Limited Warranty.

 **CAUTION:** When storing your travel trailer, it is recommended that the battery be unhooked to avoid draining the battery.

MECHANICAL MAINTENANCE CHART

COMPONENT	MAINTENANCE	AVOID
Wheel Bearings	<p>The wheel bearings in your Jayco travel trailer are pre-greased. It is recommended that you repack the bearings at 12 months, 12,000 miles or at the end of each season's camping to prepare for winter storage.</p> <p>Use only multipurpose No. 1 or 2 good quality wheel bearing grease.</p> <p>If the bearing or cone (race) become pitted, please replace any damaged part.</p> <p>If the wheel bearings become extremely hot, have the bearings inspected by a qualified service center.</p> <p>NOTE: During break-in period (first 500 miles) your hubs may feel extra warm due to brake shoes setting in with the brake drum.</p>	<p>Exposure to water or condensation will cause the bearings to rust and be damaged.</p> <p>Never let the bearings run dry.</p> <p>Never overpack the wheel bearing, especially in the middle of hub. It will trap heat and possibly disperse grease from the seals or dust cap.</p> <p>Never overtighten the wheel bearings as they will over heat.</p> <p>Do not touch the hubs with your bare hand as they may be too warm to touch.</p>
Lug Nuts	<p>The lug nuts must be checked at 25 miles when the unit is new, then every 3,000 miles. Lug nuts should be checked periodically for safety, especially before any long trip, extensive braking or after a tire change. Refer to the manufacturer's recommendations.</p> <p>Refer to the axle manufacturer's owner's manual for complete instructions for tire changes and proper lug nut torque values</p>	 <p>DO NOT ignore checking the lug nuts. Failure to do so can cause wheel loss and an accident.</p>

COMPONENT	MAINTENANCE	AVOID
Coupler	<p>Use a small quantity of lubricant, such as silicone spray, on the coupler's moving mechanism to insure ease of operation.</p> <p>We recommend that you use conventional grease on the hitch ball for ease of operation.</p>	
Tongue Jack	<p>Lubricate the jack by extending it to a full down position and insert SAE 30 oil through oil hole in top of jack. Do this several times per season.</p>	
Tires	<p>Check the tire air pressure prior to each journey.</p>	Do not check the air pressure when tires are warm.
Change Tire	<p>To raise coach, place jack (hydraulic or screw) underneath main frame rail, which spans from front to rear, just inside of tires. Use jack stands or solid-blocking for safe support. Place jack just ahead of front tire or just behind rear tire.</p> <p>You may wish to loosen (only) lug nuts before raising coach. Remove lug nuts after tire clears ground.</p>	Never raise travel trailer by placing jack under axle beam, springs or attachment parts.

COMPONENT	MAINTENANCE	AVOID
Brakes	<p>It is important to have the brakes adjusted between 200-1,000 miles after the initial break-in period by a qualified technician. This operation may or may not be included as part of the selling price.</p> <p>After the initial break-in, it is recommended to adjust the brakes after each 3,000 miles or at the beginning of each season's camping trips.</p>	Poorly adjusted brakes will not function correctly.
Brake Linings	<p>Refer to the manufacturer's owner's manual for instructions on maintenance and repair for brake linings.</p> <p>NOTE: Canadian transportation laws require that brake linings be replaced if there is any cracking for semi-tractor and trailers only. This does not apply to recreation vehicles.</p>	
LP Gas System	<p>Beginning of each camping trip:</p> <ol style="list-style-type: none"> 1. Inspect all gas lines for crimps and road damage. 2. Check all lines and connections for leakage with soapy water or leak detector. 3. Have the regulator checked and adjusted to the proper pressure once per year by a qualified dealer. 	<p>DO NOT smoke while changing bottles or any lines.</p> <p>DO NOT allow connections to become loose.</p>
Appliances	<p>Various items on these appliances need to be cleaned periodically, such as burner orifices, etc. See individual manufacturer's owner's manuals for directions or consult your dealer.</p>	<p>DO NOT use steel wool, ammonia, acids, or abrasives on chrome or porcelain surfaces.</p>

COMPONENT	MAINTENANCE	AVOID
Air Conditioner	<p>Inspect and tighten the mounting bolts holding the air conditioner once per year.</p> <p>Remove the inside air box to inspect and check the mounting bolts.</p>	Do not over tighten the mounting bolts.
Sealants See Fig. 8-6 & 8-7	<p>All sealants used in construction can deteriorate from U.V. exposure, air pollution, freezing temperatures and other exposure to weather elements.</p> <p>Tape sealants used around doors, windows, and extrusions are subject to dry out conditions by sunlight and will allow water seepage when they deteriorate. (Fig. 8-4 & 8-5)</p> <p>Inspect sealants at least two times each year and look for voids, dried out, cracking and/or peeling conditions. Reseal as necessary or at least one time each year. Contact your dealer for the appropriate sealant to use.</p>	Using poor quality sealing materials. Ignoring sealed areas.

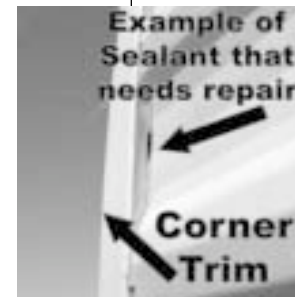


Fig. 8-4

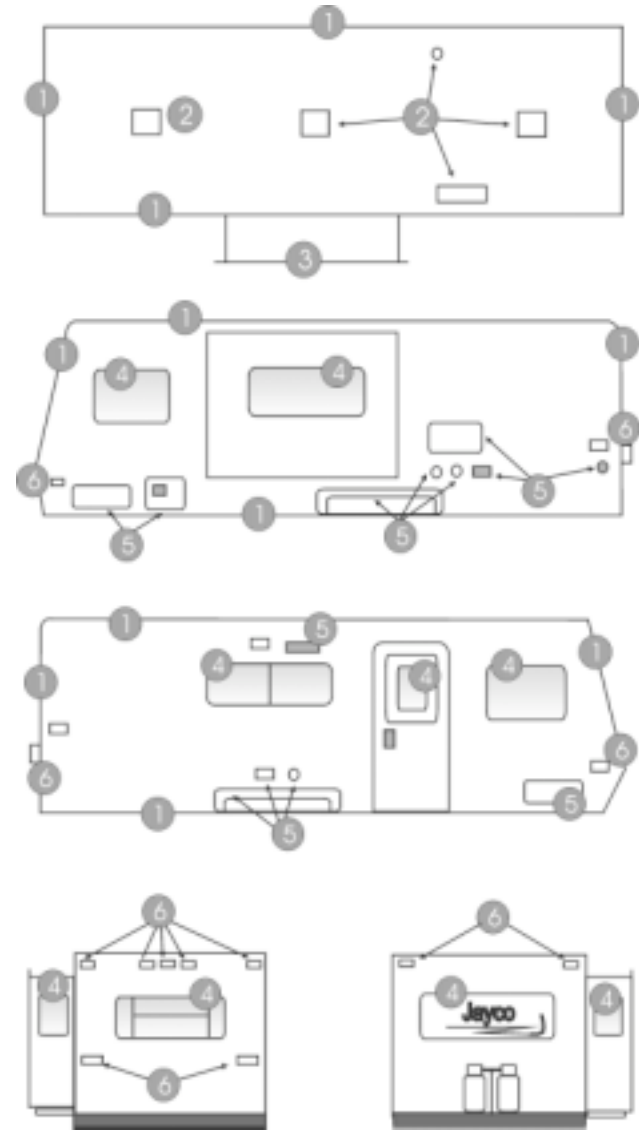


Fig. 8-5

COMPONENT	MAINTENANCE	AVOID
Exterior Lights	Inspect all exterior lights to make sure they do not have moisture trapped inside. The “weep” holes at the bottom of the lights must be kept open to allow moisture to escape from the light fixture.	
Entrance Door See Fig. 8-6 & 8-7	Inspect and seal the corners of the door frame threshold one time each year.	Do not ignore sealants in the lower corner of the entrance door.
Roof See Fig. 8-6 & 8-7	All roofs require maintenance. At least two times each year, inspect all seams: front, rear, around all vents, and along all moldings for voids, lifting, peeling or cracking. Reseal as necessary or at least one time each year. If you notice any deterioration in the seal, scrape off cracked or loose sealant and then reseal the area.	

INSPECTION POINTS FOR SEALING

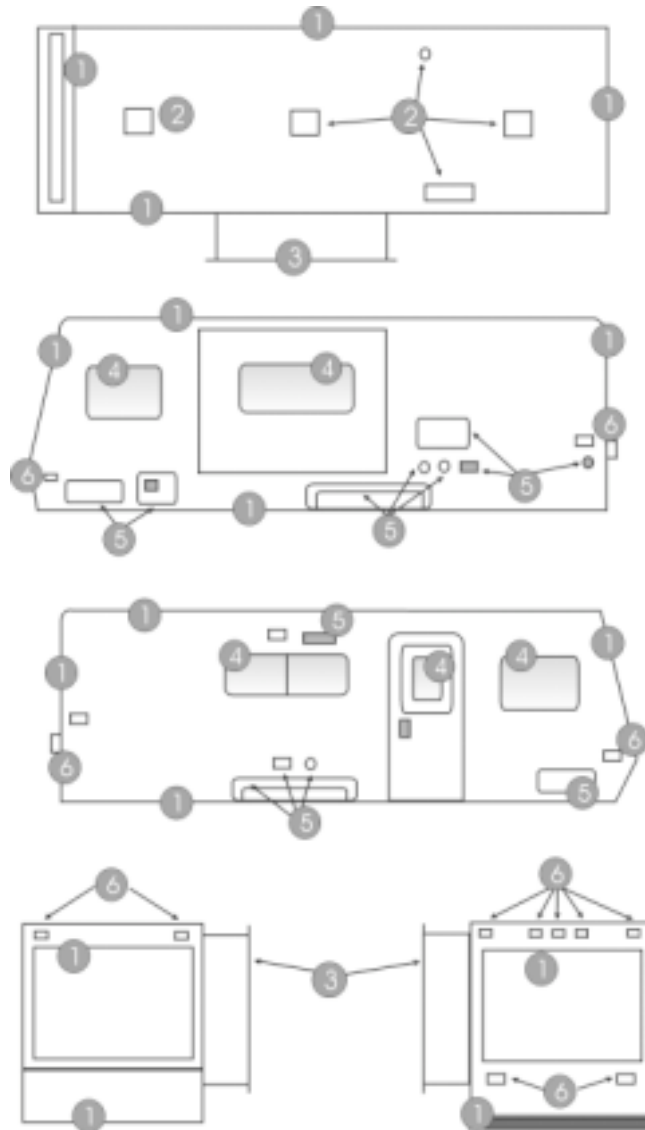
Fig. 8-6
Kiwi Too Travel Trailer



- 1. Moldings
- 2. Vents
- 3. Slideout Trim
- 4. Windows
- 5. Exterior Attachments
- 6. Marker & Tail Lights

Fig. 8-7

Kiwi Travel Trailer



- | | |
|------------------|-------------------------|
| 1. Moldings | 4. Windows |
| 2. Vents | 5. Exterior Attachments |
| 3. Slideout Trim | 6. Marker & Tail Lights |

MAINTENANCE CHECKLIST

Prior to First Trip

- Check the LP gas lines for leaks. Refer to Chapter 4.
- Test the LP gas detector. Refer to Chapter 4.
- Sanitize the fresh water system. Refer to Chapter 4.
- Check wheel nuts at specified intervals to listed torque values. Re-torque as needed. Refer to the axle manufacturer's manual or Chapter 3.
- Open all windows and the door and start the furnace. Leave the windows and door open and the furnace on until the odor from the initial use of the furnace is fully dissipates.
- Season the tent portions of the unit. Refer to Chapter 3.

First Ten, Twenty-Five and Fifty Miles

- Check wheel nuts at specified intervals to listed torque values. Re-torque as needed. Refer to the axle manufacturer's manual or Chapter 3.

First Two-Hundred Miles

- Check wheel nuts at specified intervals to listed torque values. Re-torque as needed. Refer to the axle manufacturer's manual or Chapter 3.
- Have the brakes adjusted by a qualified service technician.

Each Trip

- Test the LP gas detector. Refer to Chapter 4.
- Inspect the bed bow supports.
- Check the battery water level. (If equipped with battery.)
- Check the brake fluid level in the master cylinder reservoir. Keep it filled to within 1/2" from the top of the reservoir. (Hydraulic brake option only)
- Check the master cylinder cap for tightness. (Hydraulic brake option only)
- Check the tire pressure and wear. Make sure the tires are cold when checking tire pressure.
- Check the running lights.
- Inspect the safety chains for signs of wear.
- Test the brakes.

After Every Tire Change

- Tighten the lug nuts to specified torque values at 10, 25 and 50 miles (16, 40 and 80 kilometers) to assure they are correctly "seated" after the tire change. Refer to the axle manufacturer's owner's manual or Chapter 3.

Daily

- Recharge the battery after each use. (If applicable)
- Ensure the LP gas detector operation light is green in color.

Weekly

- Test the LP gas detector. Refer to Chapter 4.
- Check the tire pressure and wear. Make sure the tires are cold when checking tire pressure.

Monthly

- Clean and lubricate the coupler.
- 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 an ideal flame. Refer to the water heater owner's manual for an ideal flame. Have it cleaned and adjusted as necessary by a qualified technician.
- Compare the refrigerator pilot flame with an ideal flame. Refer to the refrigerator owner's manual for an ideal flame. Have it cleaned and adjusted as necessary by a qualified technician. (RV type refrigerator only)
- Inspect the refrigerator door seals.
- Inspect the refrigerator combustion seals. Have them cleaned and adjusted as necessary by a qualified technician. (RV type refrigerator only)
- Check the LP gas lines for leaks. Refer to Chapter 4.
- Inspect the LP gas cylinders for rust, pits, gouges, scrapes or sharp dents. Repaint them if rust is present.
- Drain and sanitizethe fresh water system.
- Check, clean, tighten and lubricate the battery cables.
- Check wheel nuts at specified intervals to listed torque values. Re-torque as needed. Refer to the axle manufacturer's manual or Chapter 3.
- Examine the tires for unusual wear, sidewall defects from possible cuts, wear, bulging and abrasions.
- Lubricate the tongue jack.
- Lubricate the hitch ball.
- 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 the entrance and baggage door locks.
- Clean and lubricate the stabilizer jacks.
- Inspect the wheels for cracks, dents or distortion.
- Inspect and reseal (as necessary) all sealant and putty tape. Refer to information found earlier in this chapter.
- 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.
- Lubricate the slideout.

Every Year or 12,000 Miles

- Lubricate all 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.
- Have the LP gas system inspected and serviced by a qualified technician.
- Inspect and seal the corners at the threshold of the entrance door.
- Inspect and reseal (as necessary) all sealant and putty tape. Refer to information found earlier in this chapter.
- 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.

Prior to Storage

NOTE: If storing for the winter, be sure all winterizing steps are followed. Refer to the winterizing section.


- Drain and flush all holding tanks.
- Drain all water lines.
- Close the LP gas tank valve(s). If your tanks do not already have a cover, consider purchasing at least a vinyl LP tank cover. Make sure the regulator is covered.
- Disconnect the 120-volt AC electric power to the RV.
- Remove all batteries from the RV and store them in a place where they will not freeze. Batteries that have been frozen will never hold a proper charge.
- 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.
- Inspect and reseal (as necessary), all sealant and putty tape. Refer to information earlier in this chapter.
- Turn off 12-volt/120-volt/LP gas 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 perishable items from the interior. Include in this are items that are susceptible to freezing, if storing during the winter months.
- Cover all external outlets, such as the furnace, exhaust, etc. to prevent “critters” from entering the unit.
- Thoroughly wash the interior and the exterior of your RV.
- Close all windows and roof vents.
- Cover tires that are exposed to sunlight to prevent weather checking and other UV damage.
- Cover the roof air conditioner.
- Consider the purchase of a tarp to cover your RV during storage. Make sure you invest in a good tarp that can “breathe”.
- Turn all cushions on edge to prevent the entrapment of moisture/mildew during long term storage.
- Do not use hydraulic leveling jacks during storage.

During Storage Period

- Remove snow loads from the top of your RV to prevent it causing damage to the unit’s structure.

CHAPTER 9 WARRANTIES

TOWABLE TRANSFERABLE LIMITED WARRANTY



TOWABLE TRANSFERABLE LIMITED WARRANTY
Folding Camping Trailer, Conventional Travel Trailer, Fifth-Wheel Travel Trailer
Two year limited warranty
Three year structural

SUMMARY OF WARRANTY:
Jayco, Inc. (Jayco) warrants every towable recreation vehicle to the first retail consumer and transferee, for a period of two (2) years from the date of purchase under normal use and service, when used for its intended purpose of recreational travel and camping, that all parts manufactured by Jayco, and for three (3) years on the its structural integrity, are free from substantial defects in material and workmanship. This warranty begins on the date the vehicle is sold to the first retail consumer purchaser or, if the dealer places the vehicle in service prior to retail sale, on the date the vehicle is first placed in such service.

This warranty may be transferred only once during the warranty period, with a proper application and a \$100 processing fee. Contact your dealer or Jayco for details.

STRUCTURAL WARRANTY:
Jayco warrants the structural integrity of the interior and exterior sidewalls, floor, roof, and frame against substantial material and manufacturing defects.

EXCLUSIONS:

- (1) This warranty does not apply to any vehicle manufactured more than two (2) years prior to the first retail sale, unless Jayco has issued an eligibility certificate for this specific vehicle VIN #. This may require inspection by a Jayco representative.
- (2) Items added or changed after the vehicle left the possession of Jayco.
- (3) Any vehicle used for commercial purposes.
- (4) Normal wear and usage, such as fading or discoloration of soft goods (mollstery, drapes, carpet, vinyl), screens, cushions, mattresses), fading or discoloration of exterior plastic components, glass components, tears, punctures, soiling, mildew, effects of moisture condensation inside the vehicle, or mishandling, neglect, abuse, misuse, tampering or other acts of nature, or corrosive atmospheres which can result in rusting, oxidation or pitting.
- (5) Minor imperfections, which do not affect the suitability of the vehicle for its intended use.
- (6) Normal and routine maintenance such as oil changes, lubrication, adjustments, tightening of screws, tightening of lug nuts, sealing, cleaning, or damages arising from neglect, or maintenance not performed as outlined in the owners manual and/or the component manuals.
- (7) Wheel alignment or adjustments to axles when caused by improper maintenance, loading or damage from road hazards, including off road travel, wheel damage or balancing, or damage resulting from tire failures.
- (8) Costs incurred for on site transportation of the vehicle to a dealer or costs incurred as the result of the consumer's request to have repairs performed at a location other than an authorized dealership.
- (9) Tires, Batteries, Microwave, Televisions, CB and DVD players that are supported by other established dealer network and warranty repair locations. The written warranty provided by component manufacturers is a direct responsibility of that manufacturer.

JAYCO RESPONSIBILITY
Any part of the vehicle to warranty, which is found to be defective in material or workmanship, will be repaired or replaced at Jayco's option, or the nearest authorized dealer at the customer for parts or labor. While any Jayco dealer can perform the warranty service, we recommend the purchaser return to the selling dealer. If the customer has moved or is touring the United States or Canada, please contact the nearest Jayco dealer for service or for purchasing parts.

HOW TO OBTAIN WARRANTY SERVICE:
In the event that a substantial defect in materials or workmanship is found to exist in parts warranted by Jayco, Jayco will bear the cost of the repair or replacement of such defective materials or workmanship, provided that the owner:

- (A) Notifies an authorized Jayco dealer or Jayco of the defect (If you are traveling or have recently moved, locate the nearest Jayco authorized dealer by calling 1-877-825-4782.) no later than 10 days after the expiration of the warranty.
- (B) Schedules an appointment and promptly takes the vehicle to the Jayco service center for necessary repairs.
- (C) Pays any freight or transportation costs, or import duties or fees involved.

No action to enforce this warranty shall be commenced later than three (3) months after expiration of the warranty period.

NOTE: Jayco does not control the scheduling of service work at dealerships. You may encounter some delay in scheduling or completion of work.

If the above steps have been taken and the repairs still have not been made, the customer should contact Jayco, at P.O. Box 460, Middlebury, Indiana 46540, Attn: Owner Relations Department or call 1-877-825-4782.

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TOWABLE TRANSFERABLE LIMITED WARRANTY, cont.

PURCHASER'S OBLIGATIONS:
 Purchaser shall notify Jayco and deliver this vehicle for warranty service within a reasonable time after discovery of the defect and in no event later than ten (10) days after expiration of the warranty period. All incidental and consequential expenses incurred by Purchaser in obtaining warranty service shall be borne by Purchaser. No action to enforce this warranty shall be commenced later than three (3) months after expiration of the warranty period.

CARE AND MAINTENANCE
 It is the Purchaser's responsibility to perform the care, maintenance and assure correct load distribution as outlined in the Jayco owner's manual. Other, separate manuals outline additional component care and maintenance. Please review all manuals supplied with your unit, and contact your dealer or the supplier if you have questions. Any damage to the vehicle as a result of the Purchaser's failure to perform such care, is not covered by the Jayco warranty.

INSTALLATIONS NOT COVERED
 Jayco cannot and does not accept any responsibility in connection with any of its towable products, for additional equipment or accessories installed at any dealership or other place of business, or by any other party other than Jayco, Inc. Installation of equipment or accessories installed by any other party other than Jayco, Inc. will not be covered under the terms of Jayco's limited warranty.

PARTS AND DESIGN CHANGES:
 Jayco may make parts and design changes from time to time without notice and repair and replacements may be made with new or different parts. Jayco reserves the right to make changes in the design or material or its products without incurring any obligation to incorporate such changes in any product previously manufactured.

DISCLAIMER OF CONSEQUENTIAL AND INCIDENTAL DAMAGES:
 You and any other user of Jayco products shall not be entitled to any consequential or incidental damages, including without limitation, loss of use of the unit, inconvenience, lodging, damage to personal property, interstate transportation, phone calls, meals, lost income or earnings. This warranty gives you specific legal rights and you also have other rights, which vary from state to state.

DISCLAIMER AND LIMITATIONS OF IMPLIED WARRANTIES:
 Jayco does not authorize any person to create for you any other obligation or liability in connection with the vehicle. Any implied warranty of merchantability or fitness for a particular purpose is hereby disclaimed. This warranty is limited in duration to the duration of this written warranty. The performance of repairs is the exclusive remedy under this written warranty or any implied warranty. Jayco shall not be liable for incidental or consequential damages resulting from breach of this written warranty or any implied warranty. Some states do not allow limitations on how long an implied warranty will last or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

WARRANTY REGISTRATION:
 Your warranty registration records should be completed and delivered to the manufacturers of component parts. Your Jayco Dealer will assist you in filling out the Jayco product warranty registration form, which must be returned to Jayco within ten (10) days of your taking delivery of your Jayco product. Your Jayco warranty will not be registered unless the warranty registration is completed and mailed to Jayco. Failure to file a warranty registration may cause you delays in obtaining the benefits of your Jayco Limited Warranty. All inquiries regarding this Warranty should be sent to:

JAYCO, INC.
 903 South Main * P.O. Box 460 * Middlebury, IN 46540
 Telephone: 1-877-825-4782

M.I.F. Revised 12/01

LIMITED WARRANTY TRANSFER APPLICATION

The warranty on your unit is transferrable one time only from the original owner to a subsequent owner. This form as shown here and on the next page must be completed by the dealership. The form should be sent with the \$100.00 to Jayco, Attention: After Market Services.

LIMITED WARRANTY TRANSFER APPLICATION

Mail original copy of Jayco, Inc. Limited Warranty Transfer Application, along with a transfer fee of \$100.00 payable to:

Jayco, Inc.
 Warranty Dept.
 P.O. Box 460
 Middlebury, IN 46540

REQUIRED FIELD _____
 Vehicle Identification Number _____

Transfer Coverage To:

A NEW OWNER INFORMATION

Last Name _____ First Name _____

Owner Address 1 _____

Owner Address 2 _____

Owner Address 3 _____

City _____ State _____

Zip _____ Phone Number _____

Date of Transfer _____ Odometer Reading _____ **Transfer MUST BE COMPLETED ON ALL MOTORIZED VEHICLES**

Transfer Coverage From:

B PRIOR OWNER INFORMATION

Last Name _____ First Name _____

C SELLING DEALER INFORMATION (IF APPLICABLE)

Dealership Name _____

Dealer Address _____

Address 2 _____

Dealer Address 3 _____

City _____ State _____

Zip _____ Phone Number _____

PLEASE READ TERMS AND REPRESENTATIONS PRIOR TO SIGNING.

D ALL TITLED OWNER SIGNATURES

I HAVE READ AND AGREE TO THE TERMS AND CONDITIONS ON THE BACK OF THIS FORM, AND UNDERSTAND THAT I WILL BE REQUIRED TO ARBITRATE ALL MY CLAIMS CONCERNING MY VEHICLE.

New Owner's Signature _____ New Owner's Signature _____

New Owner's Signature _____ Selling Dealer's Signature _____

THE BASIC 2 + 3 JAYCO, INC. LIMITED WARRANTIES MAY BE TRANSFERRED ONE (1) TIME DURING THE WARRANTY PERIOD WITH THIS APPLICATION AND A \$100.00 PROCESSING FEE. THE FOLDING CAMPERS EXTENDED TRANSFERABLE LIMITED WARRANTY MAY BE TRANSFERRED ONE TIME ONLY, AND MUST BE DONE WITHIN THE FIRST TWO YEARS OF OWNERSHIP.

Revised 3/2001 301F

TERMS AND REPRESENTATIONS

By my signature(s) on the face side of this form, and in order to induce Jayco, Inc. to transfer its Limited Warranty, I represent the following:

1. That I have received and read a copy of the Jayco Limited Warranty and Owner's Manual.
2. I understand that the unit is to be used only for recreational camping and travel.
3. That all information provided by me on the face side of this form is true and correct.
4. I understand that I am purchasing a pre-owned recreational vehicle and Jayco, Inc. does not make any representation as to its present condition.
5. I understand and agree that all my claims against Jayco must be arbitrated and that a court will enforce the arbitration award. The terms of arbitration are set forth below.

INFORMAL DISPUTE RESOLUTION AGREEMENT

I am entitled to receive a copy of this Agreement and I have reviewed it with my attorney before signing. I and anyone making claims on my behalf or through me, shall submit any and all claims I may have in connection with my recreational vehicle (RV) against any retail dealer, manufacturer, or supplier of component parts, to binding arbitration under the federal Arbitration Act, 9 U.S.C. § 1-14, to the extent permissible under federal law. I agree that if I have a claim relating to my RV, I will allow the dealer and Jayco to inspect it and make necessary repairs. If my claim is not then satisfied, I will notify Jayco and binding arbitration proceedings will be held after I have paid an initiation fee of \$125 to the American Arbitration Association and I cannot pursue my claim in court or in any administrative proceeding. Arbitration will be administered by the American Arbitration Association (AAA), pursuant to its Commercial Arbitration Rules, unless and until Jayco designates a different administrator, in which event a notice shall be mailed to my last known address. If my claim is less than \$10,000, Jayco will pay the initiation fee and arbitrator's fees in excess of \$125, and the arbitrator shall not award damages in excess of \$10,000. If my claim exceeds that amount or is not specified, I will pay one-half of the fees and costs in excess of \$125. I, the dealer, and Jayco will each pay their own costs and expenses in connection with the arbitration hearing. The arbitration shall be held by a single arbitrator, and will be held thirty (30) days after the claim is filed, unless all parties agree to a later date. The arbitrator shall be selected from a panel named by the AAA pursuant to its rules. The arbitrator shall be permitted only to award actual damages for financial loss, and shall not award damages for personal injury (or mental anguish, or other intangible claims), or punitive damages. Statutes of limitation, which would apply to a court proceeding for my claim, will apply to commencement of arbitration proceedings. If I default on any obligation to a lender in connection with my RV, my lender may exercise all of its rights without regard to this agreement. If I file a claim in court without having first complied with this agreement, I will be required to pay all fees, costs, and expenses, including attorneys' fees, for dismissal or referral to arbitration. This agreement will apply to me, my heirs and assigns, and anyone who purchases or leases my RV from me or operates or occupies it with my permission or without objection by me. Nothing in this agreement enlarges my rights or gives me any rights or claims I would not otherwise have. **FOR INFORMATION ABOUT HOW TO FILE A CLAIM OR ABOUT THE ARBITRATION PROGRAM, CALL JAYCO AT 574-825-0608, OR THE AMERICAN ARBITRATION ASSOCIATION AT 800-778-7879.**

NOTES

WELCOME TO THE JAYCO FAMILY!

As the owner of a new Jayco recreational vehicle we are proud to welcome you to our growing family.

All Jayco RV homes are built with care, under the watchful eye of our Quality Assurance program. And it is our sincere wish that you will have a lifetime of fun times with your new Jayco.

We are pleased you chose Jayco and want to do everything possible to make sure you stay as happy with your Jayco RV home as you were on the day you bought it.

We work closely with Jayco dealers to provide customer service for you. We honestly feel that Jayco dealers are on the whole the best in the business. And with nearly 300 of them in the U.S. and Canada you should never be too far from help if you ever need it.



In the months and years to come we hope you'll become a close member of the Jayco family. One way to enjoy your Jayco even more is through our owners club – the Jafari International Travel Club. It's lots of fun and a great way to meet other members of the Jayco family. If you're interested please talk to your dealer about the "flight" in your area. Or write to us directly and we'll be in touch.

From Jayco's family to yours: "Welcome Home!"



903 South Main Street • P.O. Box 460 • Middlebury, IN 46540