

## **WARRANTY**

### **FOR LIVING QUARTERS MANUFACTURED BY GUNSLINGER CONVERSION, MANUFACTURE BY DALTON ENTERPRISE'S INC. SOLD IN THE UNITED STATES AND CANADA**

#### **COVERAGE PROVIDED:**

Your new living quarters conversion including the interior structure, plumbing, heating, and electrical systems and all appliances and equipment installed by the living quarters conversion manufacturer, is warranted under normal use to be free from manufacturing defects in material and workmanship. The warranty extends to the first retail purchaser and begins on the date of original retail delivery or the date the living quarters conversion is first placed into service (whichever occurs first). This warranty extends for a period of one year from such date on the workmanship & materials. Appliances and Upholstery (sofa/dinette) are warranted by their manufacturer. Written notice of defects must be given to the selling dealer or the manufacturer not later than ten (10) days after the expiration of applicable warranty. Warranty repairs, if required, will be made without charge after your living quarters is taken to the dealer or manufacturing plant location.

#### **OWNER'S OBLIGATIONS:**

The owner is responsible for normal maintenance; however, minor adjustments (such as adjustments to the interior or exterior doors, LP regulator pressure, cabinet latches, TV antenna control, etc.) will be performed by the dealer during the first ninety (90) days of warranty coverage. Thereafter, such adjustments are the responsibility of the owner as normal maintenance unless required as a direct result of repair or replacement of a defective part under this warranty.

If a problem occurs which the owner believes is covered by this warranty, the owner shall contact the selling dealer, or other authorized dealer, giving him sufficient information to resolve the matter. The owner shall deliver the living quarters to the dealer or manufacturing plant location for warranty service.

#### **DEALER'S OBLIGATIONS:**

By agreement with the manufacturer, the dealer is obligated to maintain the living quarters conversion prior to retail sale, to perform a detailed pre-delivery inspection and to repair any parts necessary to correct defects in material or workmanship.

#### **WHEN THE DEALER DOES NOT RESOLVE THE PROBLEM:**

If the dealer is unable or unwilling to resolve a problem which the owner is convinced is covered by this warranty, he should contact the manufacturing plant at the address listed below and provide the manufacturer with a description in writing of the problem and attempts made to resolve it.

#### **MANUFACTURING PLANT:**

Upon receipt of claim, where the dealer was unable or unwilling to resolve the problem, the manufacturing plant will repair or replace any parts necessary to correct defects in material or workmanship, or will take other appropriate action as many be required.

#### **WHAT IS NOT COVERED BY THIS WARRANTY:**

- 1) Batteries, appliances, audio and/or visual components and other equipment which are covered by the separate warranties of the respective manufacturers of these components.
- 2) Damage caused by or related to:
  - a. Accidents, misuse, or negligence
  - b. Alteration or modification of the living quarters conversion, or trailer which may adversely affect the living quarters conversion
  - c. Environmental conditions (hail, chemicals in the atmosphere, etc.)
- 3) Normal deterioration due to wear or exposure, such as fading of fabrics or drapes, carpet wear, etc.
- 4) Normal maintenance and service items such as light bulbs, fuses, lubricants, etc.
- 5) Extra expenses such as transportation to and from dealer or manufacturing plant location, loss of time, loss of pay, loss of use of the living quarters, inconvenience, commercial loss, towing charges, bus fares, vehicle rental, incidental charges such as telephone calls or lodging bills, or other incidental consequential damages
- 6) Any unit used as a commercial unit or used as a rental unit
- 7) Condensation on any window or other parts or any results of condensation.

Some states do not allow the exclusion or limitations of incidental or consequential damages, so the above limitation or exclusion may not apply. This warranty gives you specific legal rights and you have other rights which may vary from state to state. Dealers or any other persons are not authorized to make modifications to this warranty. Any additional statements concerning this warranty whether oral or written are not the responsibility of the manufacturer and should not be relied upon.

## **SAFETY REGULATIONS REGARDING LP GAS SYSTEMS AND LP GAS APPLIANCES**

The manufacturer of this Living Quarters Conversion is required to furnish the following consumer information as provided by the National Fire Prevention Association and the American National Standards Institute. The information and warnings found here may also be found in other sections of this Owner's Manual. Please see sections titled "Liquid Petroleum Gas System" and "Appliances" for other safety and operating information.

### **WARNING:**

LP GAS CONTAINERS SHALL NOT BE PLACED OR STORED INSIDE THE VEHICLE. LP GAS CONTAINERS ARE EQUIPPED WITH SAFETY DEVICES WHICH RELIEVE EXCESSIVE PRESSURE BY DISCHARGING TO THE ATMOSPHERE.

### **WARNING:**

IT IS NOT SAFE TO USE COOKING APPLIANCES FOR COMFORT HEATING. COOKING APPLIANCES NEED FRESH AIR FOR SAFE OPERATION. BEFORE OPERATION:

1. OPEN OVERHEAD VENT OR TURN ON EXHAUST FAN, AND
2. OPEN WINDOW

THIS WARNING LABEL HAS BEEN LOCATED IN THE COOKING AREA TO REMIND THE USER TO PROVIDE AN ADEQUATE SUPPLY OF FRESH AIR FOR COMBUSTION. UNLIKE HOMES, THE AMOUNT OF OXYGEN SUPPLY IS LIMITED, DUE TO THE SIZE OF THE RECREATIONAL VEHICLE, AND PROPER VENTILATION WHEN USING THE COOKING APPLIANCE(S) WILL AVOID DANGERS 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.

### **WARNING:**

PORTABLE FUEL BURNING EQUIPMENT, INCLUDING WOOD AND CHARCOAL GRILLS AND STOVES, SHALL NOT BE USED INSIDE THE TRAILER. THE USE OF THIS EQUIPMENT INSIDE THE TRAILER MAY CAUSE FIRES OR ASPHYXIATION.

### **WARNING:**

DO NOT BRING OR STORE LP GAS CONTAINER, GASOLINE, OR OTHER FLAMMABLE LIQUIDS INSIDE THE VEHICLE BECAUSE FIRE OR EXPLOSION MAY RESULT.

A warning label has been located near the LP Gas container. This label reads: DON NOT FILL CONTAINER(S) TO MORE THAN 80 PERCENT OF CAPACITY.

Overfilling the LP Gas container can result in uncontrolled gas flow, which can cause fire or explosion. A properly filled container will contain approximately 80 percent of its volume, as liquid LP Gas.

The following label has been placed in the vehicle near the range area:  
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 the area until odor clears.
6. Have the gas system checked and leakage source corrected before using again.

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

## **TABLE OF CONTENTS**

WARRANTY .....	1
SAFETY REGULATIONS REGARDING LP GAS SYSTEMS & LP GAS APPLIANCES .....	2
INTRODUCTION .....	4
SAFETY CONSIDERATIONS .....	5
PLANNING & PREPARATION .....	5
READ THE BOOK .....	5
LICENSES .....	5
INSURANCE .....	5
INSPECT & MAINTAIN .....	5
ON THE ROAD .....	6
LOADING & WEIGHT DISTRIBUTION .....	6
FEDERAL CERTIFICATION LABEL .....	6
CAPACITY .....	6
CONTROL OF THE TRAILER .....	6
PREPARATION FOR TRAVEL .....	7
CARBON MONOXIDE SAFETY PRECAUTIONS .....	7
SETUP .....	8
FUNCTIONS & USE .....	9
CONDENSATION .....	9
STORAGE COMPARTMENTS .....	9
TABLES & BEDS .....	9
DINETTE / SLEEPER CONVERSION .....	10
SOFA / SLEEPER .....	10
DIVIDER DRAPES & DOORS .....	10
SYSTEMS .....	10
ELECTRICAL SYSTEMS .....	11
ELECTRICAL (Direct Current-12v DC) .....	11
BATTERY DISCONNECT SWITCH .....	11
ELECTRICAL (Alternation Current-120v AC) .....	11
GENERATOR .....	12
GENERATOR POWER PLANT SERVICE .....	12
LIQUID PETROLEUM GAS SYSTEM .....	13
LP GAS TANK .....	14
LP GAS REGULATOR .....	14
LIGHTING APPLIANCES .....	14
SAFETY PROVISIONS .....	15
EXIT FACILITIES .....	15
SMOKE DETECTOR .....	15
FIRE EXTINGUISHER .....	15
ENTRY ASSIST HANDLE .....	15
LP GAS DETECTOR .....	15
CARBON MONOXIDE ALARM .....	15
SPECIAL TRANSPORTATION PROVISIONS .....	15
PLUMBING SYSTEMS .....	16
MONITOR PANEL .....	16
FRESH WATER SYSTEM .....	16
SANITIZING THE FRESH WATER SYSTEM .....	16
EXCESSIVE WATER PRESSURE .....	16
TROUBLESHOOTING THE FRESH WATER SYSTEM .....	17
WASTE WATER SYSTEM .....	17
TOLIET .....	17
DUMPING YOUR HOLDING TANKS .....	17
USE DURING FREEZING TEMPERATURES .....	18
BATTERIES .....	18
DOORS, LOCKS, WINDOWS, AND VENTS .....	18
SEALANTS .....	18
CARE OF UPHOLSTERY FABRICS .....	18
DRAPES, CURTAINS, BEDSPREADS, & PILLOW SHAMS .....	19
VALANCES & BLINDS .....	19
CARE OF WALLS & WOODWORK .....	19
CARPETING .....	19
SLIDE-OUT ROOM .....	19
PREPARING FOR STORAGE .....	20
STORAGE DURING NON-FREEZING TEMPERATURES .....	20
STORAGE DURING FREEZING TEMPERATURES .....	20
NOTES .....	21

## INTRODUCTION

Welcome to the recreational life-style and the growing family of recreational trailer owners. We sincerely thank you for choosing our product. Your living quarters conversion has been designed to provide you with many years of carefree, pleasant traveling and vacationing. This manual describes many features of your living quarters conversion and provides a guide to operating procedures so that you can obtain the best performance from those features. Your living quarters conversion has been designed to conform with, or exceed, the American National Standards Institute A119.2, NFPA 501C standards. These standards establish the plumbing, heating, electrical and other requirements for quality and safety. Compliance with these standards is indicated by the SEAL attached just outside the entry door. This SEAL is the outward sign of internal quality. Like all finely crafted equipment, your GUNSLINGER INTERIORS will require care and regular maintenance in order to retain its maximum performance characteristics. This manual, along with the information provided in your Owner's Information Packet outlines important areas of maintenance that you should follow to ensure safe, trouble-free service. Study these instructions carefully. A good working knowledge of your unit and how to care for it will help you enjoy many miles and years of recreational living. If you have any questions regarding operation, maintenance, or service, please contact your dealer immediately so he can assist you. Your dealer's Service or Sales Department is equipped to handle most any problem which might occur. Customer service is of utmost importance to your dealer and is just as important to the manufacturer. This manual contains a section outlining the warranty and explaining your rights and obligations, as well as the rights and obligations of the dealer and manufacturer, under the terms of the warranty. Please read this section carefully. You will be better informed in case you have a warranty related problem and your dealer will be better able to get you back on the road again in a timely manner. We sincerely believe that your dealer and the factory

Representative will be able to solve any problem which might arise. If their combined efforts are not satisfactory, please send a letter describing the circumstances to:

**GUNSLINGER INTERIORS**  
**206 GIENOW RD**  
**RURAL RETREAT, VA 24368**

Please include the dealer's name, and model and serial number of trailer. Thank you for choosing our product. Your dealer and we, the manufacturer, will continually strive to merit your confidence.

**NOTE:** Some equipment and features described or shown in this manual may be optional on your model. This instructional manual is of general nature, and applies only to equipment or structure assembled or manufactured by GUNSLINGER INTERIORS. Because of the continuous process of product improvement conducted by GUNSLINGER INTERIORS it is possible that recent product changes may not be included in this manual. Specifications may change without notice. This manual is accurate as of date of publication. The instructions included in this manual are intended as a guide, and in no respect extend the responsibilities of the manufacturer or affiliates beyond the standard written warranty as presented in this manual.

**NOTE:** Photographs or illustrations in this manual are representative of function and may not be specific in their depiction of actual equipment, fabrics, interior décor, or design options as installed on or in your living quarters conversion.

**NOTE:** This product is designed for recreational use and short-term occupancy only. It is not designed or intended to be used as permanent housing. Use of this product for long term or permanent occupancy may lead to premature deterioration of interior finishes, fabrics, carpeting, drapes, or components. Damage or deterioration due to long term occupancy may not be considered normal, and may under the terms of the warranty, constitute misuse, abuse, or neglect, and may therefore reduce or void your warranty protection.

## **SAFETY CONSIDERATIONS**

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

**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.

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

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

## **PLANNING AND PREPARATION**

The camping trip is one of the most popular types of vacations, and each year millions of Americans embark on camping trips using some type of recreational vehicle. Proper planning of your trip, including familiarity with your equipment, your itinerary, anticipated activities, and anticipated needs will ensure a pleasurable experience. That is what this manual is all about. The ideas and instructions presented here are intended to help you get the most from your new trailer, and enjoy your trip.

### **READ THE BOOK**

A thorough knowledge of your trailer is important if you are going to get the most out of the convenience and safety items built into your unit. Be as familiar with it as you are with your personal car or truck. Study all the booklets included in your Owner's Information Packet. These booklets cover details of operation for the major appliances and equipment built into your trailer for your comfort, convenience and safety.

### **LICENSES**

The vehicle licensing laws vary from state-to-state. Check with your state license bureau or nearest branch office for the requirements of your state. Be sure to renew your driver's license if it has or will expire during your trip.

### **INSURANCE**

Personal liability, property damage, collision, and theft of contents may be features of your automobile policy which apply to your trailer. Talk to your insurance agent about details for appropriate coverage. Always carry your policy card.

### **INSPECT AND MAINTAIN**

Follow a consistent schedule of inspection and maintenance for your trailer. Your continuing safety and comfort depend on it. This manual includes items of maintenance and recommended maintenance intervals. Adherence to these schedules will minimize the possibility of failure of any important system or part of your trailer. The time spent inspecting and maintaining your trailer will provide you with many years of recreational pleasure.

## ON THE ROAD

### LOADING AND WEIGHT DISTRIBUTION

Proper loading is one of the most important considerations when traveling in a trailer. Your trailer is built to withstand a certain maximum load. Check the certification label attached to the trailer to determine the safe load limits. For safety's sake, NEVER OVERLOAD THE TRAILER. This manual contains information about proper loading and weighing of your trailer.

Your trailer chassis (springs, wheels, tires, axles, and frame) is designed to carry a certain maximum load. This load includes everything; the weight of the empty trailer itself, your belongings, fuel, fresh water, waste water, and anything else that may be in or attached to the trailer. The maximum load for which the trailer is designed is called the GROSS VEHICLE WEIGHT RATING (GVWR). Another critical factor is the Gross Axle Weight (GAWR). This is the maximum weight a specific axle is designed to carry and each axle has its own GAWR. The GAWR's do not necessarily add up to the GVWR. Be careful, neither the axle loads nor the vehicle loads must ever exceed their respective weight ratings. A properly loaded vehicle is safer and easier to drive. Distribute your cargo evenly from side-to-side and front-to-back. Heavier items should be stowed on or near the floor and as centrally located as possible. They should be secured so they cannot slide during a panic stop causing damage, or upset the careful balance you had when you started. Lighter items can be stored in overhead cabinets. Remember to leave space and weight allowance for souvenirs and other items you may purchase during your travels. A properly loaded trailer can help you conserve fuel and prevent excessive wear on your tow vehicle's automotive system.

### FEDERAL CERTIFICATION LABEL

The Federal Certification Label (found on the exterior front road side of your trailer) lists the date of manufacture, GVWR, GAWR, (front and rear), tire size, rim size, tire PSI, Vehicle

Identification Number (VIN), and the type of unit. This information will be helpful in determining proper loading.

### CAPACITY

During the design and development of your trailer, the number and size of storage compartments, and the liquid tank capacities are maximized for value and convenience. According to National Highway Traffic Safety Administration figures, an average vehicle occupant weighs 150 pounds, each gallon of gasoline weighs six pounds (6 lbs), each gallon of diesel fuel weighs seven pounds (7 lbs), each gallon of water weighs over eight pounds (8.3 lbs), and each gallon of LP Gas weighs over four pounds (4.2 lbs). The operator is responsible for analyzing the conditions in which the trailer will be utilized for each trip.

**WARNING: DO NOT EXCEED GROSS AXLE WEIGHT RATINGS OF ANY AXLE. DO NOT EXCEED THE MAXIMUM HITCH WEIGHT RATING. DO NOT EXCEED THE GROSS VEHICLE WEIGHT RATING OF EITHER THE TOW VEHICLE OR THE TOWED VEHICLE. DO NOT EXCEED THE GROSS COMBINED WEIGHT RATINGS OF THE TOW VEHICLE. EXCEEDING ANY OF THESE RATINGS MAY CAUSE UNSTABLE DRIVING AND HANDLING CHARACTERISTICS, DAMAGE TO YOUR TOW VEHICLE CHASSIS OR TOWED VEHICLE, AND WILL VOID YOUR WARRANTY PROTECTION.**

### CONTROL OF THE TRAILER

Know how to control your trailer on the highway. Be familiar with passing and stopping requirements, and problems that can develop. Know how to brake properly, how to back up and how to turn. Practice in a secluded place until you become familiar with the handling characteristics and techniques of your trailer. Don't overlook the laws of your state or province that govern pulling your trailer. Your state Motor Vehicle Department office can provide you with the applicable vehicle codes that spell

out your rights and responsibilities as a trailer owner.

## **PREPARATION FOR TRAVEL**

Whenever you depart, be it from your home, rest area, or campsite, you should perform these pre-travel checks:

**TIRES** should be inspected before each trip for uneven wear, road damage, foreign objects, peeling or bulging, and correct tire pressure. Heat generated by surface friction will increase the tire's air pressure, therefore do not bleed air out of a hot tire. Check tire pressure after the vehicle has been parked for at least one hour. Inflate tire to recommended pressure as indicated on the side of the tire or in tire manufacturer's instruction booklet.

**CAUTION:** Proper tire inflation is extremely important.

**CAUTION:** When purchasing a new tire, be certain it is the same size and has the same ply rating and load range as the original tire. **DO NOT** mix radial ply with bias or bias-belted tires.

**WHEEL LUGS** must be tightened to the specifications in the trailer manufacturer's owner's manual.

**LIGHTS** should be tested, including brake lights, warning flashers, clearance lights, taillights, and turn signals. Clean all lens covers.

**REARVIEW MIRRORS** should be adjusted so the driver can see to the rear on both the right and left side of the unit.

**POWER CORD** (120-Volt Shoreline) must be unplugged from the external source, and properly stored for transit also making sure the cord hatch is secured.

**WATER FILL** hoses must be disconnected properly drained and stored, and the caps and hatches secured. Fill the fresh water tank as required prior to storing hoses.

**SEWAGE** should be emptied from the holding tanks for transit. Termination valves must be closed and locked. The sewer hose must be removed from the termination valve outlet and stored. Termination cap must be securely fastened to the termination outlet.

**ENTRY STEP** must be returned to its travel position. Pay special attention to this every time you move your unit. Sever damage may result if not retracted during transit.

**LP GAS TANK** level and gas line connections should be checked.

**CAUTION:** Some states prohibit vehicles equipped with LP gas tanks from using tunnels. A few other states prohibit traveling with the Service Valve open and the pilots lit. check the regulations of the states through which you intend to travel.

**INTERIOR DOORS AND DRAWERS** should be closed and secured. Loose items should be secured or stored away.

**EXTERIOR ACCESS DOORS** for storage and equipment should be closed and locked, also making sure that loose items are secured or stored for transit.

**REFRIGERATOR** door should be secured with the travel latch, and the items inside made ready for transit.

**WINDOWS AND VENTS** should be closed and secured or adjusted as desired.

**WARNING:** REAR WINDOWS SHOULD NOT BE OPENED DURING TRANSIT AS EXHAUST GASES MAY ENTER YOUR TRAILER.

## **CARBON MONOXIDE SAFETY PRECAUTIONS**

Carbon monoxide is a colorless, tasteless, odorless gas. It is a by-product of combustion in the engine. The engines in your tow vehicle and generator system produce it constantly while they are running. **CARBON MONOXIDE IS DEADLY.** Please read and understand the

following precautions to protect yourself and others from the effects of carbon monoxide poisoning.

**WARNING: EXHAUST GASES ARE DEADLY. DO NOT BLOCK THE TAILPIPE OR SITUATE THE VEHICLE IN A PLACE WHERE THE EXHAUST GASES HAVE ANY POSSIBILITY OF ACCUMULATING EITHER OUTSIDE, UNDERNEATH, OR INSIDE YOUR VEHICLE OR ANY NEARBY VEHICLES. OUTSIDE AIR MOVEMENTS CAN CARRY EXHAUST GASES INSIDE THE VEHICLE**

**THROUGH WINDOWS OR OTHER OPENINGS REMOTE FROM THE EXHAUST OUTLET. OPERATE THE ENGINE ONLY WHEN SAFE DISPERSION OF EXHAUST GASES CAN BE ASSURED.**

**WARNING: DO NOT UNDER ANY CIRCUMSTANCES OPERATE THE VEHICLE OR GENERATOR ENGINE WHILE SLEEPING.**

## SETUP

You'll want your unit to be level for your own comfort (you don't want items sliding off counters and tables and out of cabinets). But more importantly, the unit must be level in order for your refrigerator and drainage system, both of which function by gravity, to operate properly. Place a level on the bottom of the refrigerator compartment or in a normally level location inside the trailer to determine levelness.

**NOTE:** When the unit has been leveled side-to-side and front-to-back, you may wish to permanently attach levels on the front and/or back and sides of the unit. This will allow you to tell at a glance if you've stopped on a level site, and will help up the leveling process.

## FUNCTIONS AND USE

### CONDENSATION

Just as moisture collects on the outside of a glass of cold water during humid weather, moisture can condense on the inside surfaces of your living quarters during use in cold weather when humidity of the interior is high. This condition is much greater in a trailer than in most houses because the insulated walls of the vehicle are much thinner than house walls, and the small size and tight construction of the vehicle allow a quick buildup of high moisture levels in the inside air. Condensation can be a problem when the saturation point is reached as moisture is released in the form of condensation because of the relatively small air volume. Certain amounts of condensation should be expected, especially on cool surfaces such as windows and metal door frames. However, excess condensation can

damage walls and ceilings. Bathing, dish washing, laundry, appliances and unvented gas burners among causes of added moisture in the air. You can control this by allowing the moisture to escape to the outside. Use your vent hood and fan when cooking. Keep bathroom door closed and the vent or window open when bathing and for even a period of time when you have finished bathing, to allow for dissipation of all the moisture. Don't hang wet clothes in your unit to dry, and if you have a clothes dryer, be certain it is vented to the outside. In hot weather, air conditioning can help make you more comfortable because it removes excess humidity from the air, while lowering the air temperature. You can check on the humidity in your unit by installing a humidistat or hygrometer, which measure relative humidity. If humidity levels are



persistently high, particularly in winter, a dehumidifier may be necessary. If you use skirting, be sure that it is ventilated adequately, and be careful not to block engine exhaust.

## **STORAGE COMPARTMENTS**

Storage facilities in your living quarters have been designed to remain secure while the vehicle is in motion. Most exterior compartments have key-operated locks. The LP gas compartment is required by fire-prevention regulations to be non-locking. Interior doors and drawers have travel latches when closed. To open drawers lift slightly to clear the catch, then pull open. When storing articles: Always keep tools and equipment stored in areas where they will not shift while traveling. Whenever possible, place heavy articles in storage compartments which are low and near the axles for better weight distribution. Pack articles carefully in the storage compartments to minimize shifting. If necessary, use straps to prevent movement. Be sure liquid containers are capped and cannot tip or spill. Secure all glass containers and dishes before traveling. Secure all free-standing furniture. Exterior storage compartments may not be water-tight in all climate conditions. Carry any articles which could be damaged by water inside the trailer.

**WARNING: OUTSIDE STORAGE COMPARTMENTS ARE NOT SEALED OR VENTED ENCLOSURES, AND ARE NOT ACCESSIBLE FROM INSIDE THE TRAILER. DO NOT STORE FLAMMABLE VOLATILE LIQUIDS, HAZARDOUS CHEMICALS OR EQUIPMENT IN THESE AREAS.**

## **TABLES AND BEDS**

### **SYSTEMS**

The basic utility systems in your unit can be classified under four general titles: Electrical, LP Gas, Safety Provisions, and Plumbing. This section outlines these systems, describing their function, operation, and simple maintenance. This section is not intended as a service guide. Should a problem arise, we recommend that you contact your authorized dealer.

A monitoring panel (optional on some models) allows you to check the levels of these systems: the volume of fresh water, waste and gray water in your holding tanks, and the condition of your RV battery. Have your dealer explain and demonstrate the operation of the monitoring panel in the unit.

A variety of tables, many of which convert into beds, are used. Several types also can be extended. Have your dealer set up and demonstrate the tables and beds installed in your unit.

## **DINETTE / SLEEPER CONVERSION**

To convert the dinette table into a bed:

- 1) Raise the table several inches to disengage Posts from the table supports.
- 2) Reach under the table, raise leg posts from Base mounts and lay legs down on the floor.
- 3) Lower table top into position on table rest On face of the dinette seat to complete bed Base.
- 4) Slide seat and back cushion into place over Bed base

The under-seat storage may be reached by raising the cushion frame or, on some models, through the door at the end of the seat.

Depending upon road conditions, it may be desirable to store the table in the bed position to reduce the possibility of damage on rough roads.

## **SOFA / SLEEPER**

Several types of sofas are used. Some are ready to be used as a bed when the bottom is pulled out and the back folded down; others are like a Sofa Hide-A-Bed you may have in your home. Be certain your dealer instructs you in the proper operation of the type of sofa bed in your unit.

## **DIVIDER DRAPES & DOORS**

A divider drape, to separate the sleeping area from the living area may included in your model. A folding divider door, to separate the bedroom area in some models, slides along a track at the top of the doorway or ceiling. Secure open with tieback when not in use.

## ELECTRICAL SYSTEM

The electrical systems in your living quarters are designed and built in accordance with the latest codes, standards, and regulations effective at the time of construction. They consist of two types of systems (Direct Current/12-volt DC & Alternating Current/12-volt AC). Because of the many model variations and options, it is not possible to provide wiring diagrams in this manual. In certain situations, specific wiring diagrams may be available to help troubleshoot, however we recommend any electrical work to be done by your dealer or a qualified electrician. Complete wiring diagrams are not available.

**WARNING: REPLACE FUSES OR BULBS ONLY WITH THOSE OF EQUIVALENT SIZE AND TYPE AS MARKED ON THE FUSE OR BULB. INCORRECT SIZING WILL NOT MATCH COMPONENT CIRCUITRY CAUSING A POSSIBLE HAZARD.**

### **ELECTRICAL ( 12v Direct Current-DC)**

The DC electrical system operated by the auxiliary RV batteries and the power converter provide power to all 12-volt coach fixtures. Most 12-volt lighting fixtures have individual bulbs for replacement as needed. All fixture circuits originate at the fuse panel located with the power converter. This converter is the nerve center of the 12-volt system. When the converter is in operation it provides a charge to the RV batteries while also providing DC power to the 12-volt circuits. When AC power is not being used the 12-volt system draws its power from the auxiliary RV batteries. This circuitry is protected by the use of a 12-volt circuit breaker located in close proximity to the battery. In the event that you may lose 12-volt power, check first to verify that the breaker has not “tripped”. To reset the breaker, push in the small reset button on the end of the breaker. The power converter automatically switches the DC load from the batteries to the converter when AC power is provided. Battery charging is accomplished by

the converter (when AC power is supplied) or may be provided by the engine alternator when the tow vehicle engine is in operation.

### **BATTERY DISCONNECT SWITCH**

A battery disconnect switch is installed in your 12-volt system for convenient disconnecting of the battery power source during non-use times. When the switch is turned off **ALL** power is cut off to and from the house battery. Keep in mind this also eliminates charging to the battery from the converter. It is recommended the disconnect switch be turned on while the unit is plugged in to the 120-volt power source.

Battery maintenance is important for proper operation. Check batteries for proper securing cracks, clean terminals, and any evidence of acid leaks. If replacement is required, use batteries equivalent to original equipment.

**DO NOT USE REGULAR AUTOMOTIVE BATTERIES FOR REPLACEMENT.**

**WARNING: NEVER EXPOSE BATTERIES TO OPEN FLAME OR ELECTRICAL SPARK. CHEMICAL ACTION IN THE BATTERY GENERATES HYDROGEN GAS WHICH IS FLAMMABLE AND EXPLOSIVE. DO NOT ALLOW BATTERY ELECTROLYTE (BATTERY ACID) TO CONTACT SKIN, EYES, FABRIC, OR PAINTED SURFACES. WEAR EYE PROTECTION WHEN WORKING WITH BATTERIES.**

### **ELECTRICAL (120v Alternating Current-AC)**

The AC electrical system provides grounded electrical power to your 120-volt electrical appliances through the external shoreline or your power generator. The shoreline is a one-piece molded cord to provide a weatherproof cable assembly. Included in this cord is the third pin for grounding purposes. If any adapter is used, make sure the ground is maintained.

**WARNING: DO NOT REMOVE THE GROUNDING PIN OR ALTER IT IN ANY WAY.**

AC receptacles are located throughout your unit for your convenience. Certain circuits are dedicated to individual appliance (i.e. . . . air conditioner, microwave) because of load requirements. Your unit is provided with a ground fault circuit interrupter (GFCI) receptacle generally located in the bathroom, also providing protection to the exterior receptacle. The GFCI is designed to limit the time of exposure to an electrical shock caused by current leakage to ground. The GFCI DOES NOT protect against overloads.

**CAUTION:** The GFCI does not protect against contact with the hot and neutral power lines simultaneously.

**NOTE:** the GFCI should be checked once a month to assure proper operation.

1. Press the “TEST” button.
2. The “RESET” button will pop up. If the “RESET” button does not pop up, a loss of ground fault protection is indicated. **DO NOT USE** that outlet or other outlets on the same circuit until the electrical system has been checked out by a qualified electrician.
3. To restore power push the “RESET” button.

**NOTE:** If the patio receptacle does not work, check the GFCI receptacle to make sure the reset button has not been tripped.

**ELECTRIC WATER HEATER**

Your trailer may be equipped with an optional electric or combination gas/electric water heater. The electric portion of the water heater is powered through a selector switch sending electric power either to the water heater or the microwave. This is done because of electrical load requirements on a standard 30-amp electrical service. You may operate one or the other, but not both at the same time.

**CAUTION:** When operating the water heater on electrical power, make sure there is water in it prior to supplying power.

**GENERATOR**

Your living quarters conversion is available with and optional generator to provide independent AC power. When the generator is in operation an automatic switch will change the AC appliances to generator power from the previous AC source. A short delay occurs before the switching process is complete to allow the generator to stabilize its output.

**GENERATOR POWER PLANT SYSTEM SERVICE**

Generator power plant (optional) service, recommended by the generator manufacturer, should be performed at an authorized service center. Routine or emergency service, such as adding oil, changing filters, or replacing spark plugs, could be accomplished at an auto service center, but must be done in accordance with the service instructions specified by the generator manufacturer.

**NOTE:** Disconnect the shoreline power when the generator is in operation.

The generator is mounted to allow for easy access during service functions.

Refer to the generator owner’s manual for necessary service requirements and operating instructions.

**WARNING: EXHAUST GASES ARE DEADLY. DO NOT BLOCK THE TAILPIPE OR SITUATE THE VEHICLE IN A PLACE WHERE THE EXHAUST GASES HAVE ANY POSSIBILITY OF ACCUMULATING EITHER OUTSIDE, UNDERNEATH, OR INSIDE YOUR VEHICLE OR ANY NEARBY VEHICLES. OUTSIDE AIR MOVEMENTS CAN CARRY EXHAUST GASES INSIDE THE VEHICLE THROUGH WINDOWS OR OTHER OPENINGS REMOTE FROM THE EXHAUST OUTLET. OPERATE THE ENGINE ONLY WHEN SAFE DISPERSION OF EXHAUST GASES CAN BE ASSURED.**

**WARNING: DO NOT UNDER ANY CIRCUMSTANCES OPERATE THE**

## **VEHICLE OR GENERATOR ENGINE WHILE SLEEPING.**

### **LIQUID PETROLEUM GAS SYSTEM**

This vehicle is designed with a liquefied petroleum gas system to provide a safe and reliable fuel source for your range, furnace, water heater, and refrigerator. As with any flammable and volatile material, proper handling and precautions should be exercised at all times. The following warnings must be reviewed and adhered to for trouble free operation.

**WARNING: LP GAS CONTAINERS SHALL NOT BE PLACED OR STORED INSIDE THE VEHICLE. LP GAS CONTAINERS ARE EQUIPPED WITH SAFETY DEVICES THAT RELIEVE EXCESSIVE PRESSURE BY DISCHARGING GAS TO THE ATMOSPHERE.**

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

**Cooking appliances need fresh air for safe operation:**

- 1. Open overhead vent or turn on exhaust fan,  
And**
- 2. Open window.**

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

**WARNING: DO NOT FILL CONTAINER(S) TO MORE THAN 80 PERCENT OF CAPACITY.**

Overfilling the LP Gas container can result in uncontrolled gas flow, which can cause fire or explosion. A properly filled container will contain approximately 80 percent of its volume, as liquid LP Gas.

**WARNING: ALL PILOT LIGHTS AND APPLIANCES SHALL BE TURNED OFF DURING REFUELING OF MOTOR FUEL TANKS AND/OR LP GAS CONTAINERS.**

**WARNING: PORTABLE FUEL BURNING EQUIPMENT, INCLUDING WOOD AND CHARCOAL GRILLS AND STOVES, SHALL NOT BE USED INSIDE THE TRAILER. THE USE OF THIS EQUIPMENT INSIDE THE TRAILER MAY CAUSE FIRES OR ASPHYXIATION.**

**WARNING: DO NOT BRING OR STORE LP GAS CONTAINER, GASOLINE, OR OTHER FLAMMABLE LIQUIDS INSIDE THE VEHICLE BECAUSE FIRE OR EXPLOSION MAY RESULT.**

**WARNING: 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 THE AREA UNTIL ODOR CLEARS**
- 6) HAVE THE GAS SYSTEM CHECKED AND LEAKAGE SOURCE CORRECTED BEFORE USING AGAIN.**

**WARNING: THE LP GAS REGULATOR MUST ALWAYS BE INSTALLED WITH THE DIAPHRAGM VENT FACING DOWNWARD. REGULATORS THAT ARE**

**NOT IN COMPARTMENTS HAVE BEEN EQUIPPED WITH A PROTECTIVE COVER. MAKE SURE THAT THE REGULATOR VENT FACES DOWNWARD AND THAT THE COVER IS KEPT IN PLACE TO MINIMIZE VENT BLOCKAGE THAT COULD RESULT IN EXCESSIVE GAS PRESSURE CAUSING FIRE OR EXPLOSION.**

### **LP GAS TANK**

The LP Gas tank(s) is generally mounted on the exterior, below the gooseneck. The exact location varies from model to model. The tank(s) and fittings have been completely assembled; however, upon initial filling all connections should be checked for leakage. This may be done with a soapy water or bubble solution. Do not use products containing ammonia or chlorine, and do not use open flame when checking for any leaks on your LP gas system. The LP gas is stored in the tank as a liquid under pressure and vaporizes under the control of the pressure regulator for use with all of the LP appliances. The LP gas in the tank is much colder than the air that surrounds the tank, but as the air temperature drops closer to the temperature of the liquid in the tank, the liquid doesn't vaporize as easily. Consequently, the BTU value of the LP drops dramatically. The closer the tank is to full during cold temperatures the better the BTU value will be; however, do not fill the tank more than 80 percent of capacity. Freezing of the LP Gas system is a potential problem during cold temperatures because of moisture in the LP Gas or supply system. Precautions should be taken to keep your tank and system free of moisture, and check with your LP service station about approved antifreeze or de-icer that may be available to reduce the possibility of freeze up.

### **LP GAS REGULATOR**

The LP Gas tank has a regulator installed just downstream of the main shut-off valve. The regulator controls the pressure to the appliances

as required for proper operation. This regulator has been preset by the regulator manufacturer and should not be adjusted unless necessary, and then only by a qualified LPG service technician. The regulator has a vent to permit it to breathe allowing the diaphragm to move up and down, and also allow a release for excess pressure which may build up. This vent must be facing downward and should be checked periodically to make sure it is clean and free from obstructions. Clogging from corrosion, dirt, insects, and other debris is the most common cause of regulator malfunction.

### **LIGHTING APPLIANCES**

When lighting your LPG appliances for the first time, or after refueling the LPG tank, trapped air will need to be purged from the system which could take a few seconds or a few minutes depending on the distance of the appliance from the tank. Follow the appliance manufacturer's lighting and operating instructions found in the owner's information package. Make sure that the water heater has water in it prior to igniting.

## **SAFETY PROVISIONS**

Your trailer has been supplied with various safety features and equipment for your convenience and safe operation. As with all areas in life the chance of accidents is possible, and the recreational life is no exception.

### **EXIT FACILITIES**

Every sleeping area in your trailer is provided with two exits located remote from each other. These exits are either in the form of an exit window (which will be labeled in red letters EXIT). The exit window handles will be red in color also. Make sure all occupants are aware of the exit locations and their operation.

### **SMOKE DETECTOR**

At least one smoke detector is installed in every unit, generally in the hall area leading to the bedroom, as close to the living area as possible. This is a battery-operated smoke detector (battery included but not installed) which should be tested as indicated by following the warning:

**WARNING: TEST SMOKE DETECTOR OPERATION AFTER VEHICLE HAS BEEN IN STORAGE, BEFORE EACH TRIP, AND AT LEAST ONCE PER WEEK DURING USE.**

### **FIRE EXTINGUISHER**

Each recreational vehicle is equipped with a portable fire extinguisher mounted close to the main entry door. This fire extinguisher is rated for Class B (gasoline, grease, flammable liquids) and Class C (electrical) fires. Test your extinguisher manufacturer, and replace after use. Be familiar with your fire extinguisher location and its operation.

### **ENTRY ASSIST HANDLE**

Adjacent to each entry door is an entry assist handle for convenience and safety in entering and exiting your unit.

### **LP GAS DETECTOR**

An LP Gas detector located near the floor in the galley area, will sense the presence of LP gas leakage. The leak detector (if gas is detected) will sound an alarm. The detector is operated by 12-volt, thus when the unit is not in use for an extended

period of time or is being stored, switch the detector off to prevent discharging your battery. Test the leak detector each time your unit is relocated and set up for use. Refer to the gas detector owner's manual for proper testing and operation procedure.

### **CARBON MONOXIDE ALARM**

Carbon Monoxide (CO) cannot be seen, smelled, or tasted and can be fatal. Common sources of CO are malfunctioning gas appliances used for heating or cooking, vehicle engines, generators, portable fuel burning heaters, and operating a grill in an enclosed area. This is a battery-operated Carbon Monoxide Alarm (battery included but not installed) which should be tested weekly. The Carbon Monoxide Alarm will detect CO levels and sound an alarm when CO levels reach excessive levels for extended periods of time. Refer to the Carbon Monoxide users guide for operation, reading and testing procedures.

### **SPECIAL TRANSPORTATION PROVISIONS**

When transporting internal combustion engines or equipment, hazards exist and special precautions must be taken to provide a safe environment as noted in the warning below:

**WARNING: ANY MOTORIZED VEHICLE OR ANY MOTORIED EQUIPMENT POWERED WITH FLAMMABLE LIQUID CAN CAUSE FIRE OR EXPLOSION OR ASPHYXIAITON IF STORED OR TRANSPORTED WITHIN THE RECREATIONAL VEHICLE TO REDUCE THE RISK OF FIRE, EXPLOSION, OR ASPHYXIATION:**

- 1) DO NOT ALLOW PASSENGERS TO RIDE INSIDE INTERNAL COMBUSTION ENGINE VEHICLE STORAGE AREA WHILE VEHICLES ARE PRESENT.**
- 2) RUN FUEL OUT OF ENGINE AFTER SHUTTING OFF FUEL AT THE TANK.**
- 3) DO NOT STORE OR TRANSPORT SUPPLEMENTARY MOTOR FUEL WITHIN THIS VEHICLE**
- 4) VENTILATRE THE INTERIOR OF THE VEHICLE TO REDUCE THE RISK OF FIRE, EXPLOSION, OR SAPHYXIATION.**
- 5) DO NOT OPERATE GAS APPLIANCES, PILOT LIGHTS, OR ELECTRICAL EQUIPMENT WHEN MOTORIED VEHICLES OR MOTORIZED EQUIPMENT ARE INSIDE VEHICLE.**

## PLUMBING

Your trailer is self contained, able to carry fresh water in the potable water storage tank and hold the waste water in holding tank(s) for dumping when convenient. Water connections are also available for a “city water” hose hook-up to and external pressurized water source.

### MONITOR PANEL

The monitor panel allows you a convenient check of the approximate levels of all systems at the touch of a button. It is generally located in the kitchen area and includes the on/off switch for the pump, and test level buttons. The levels are registered as: E-Empty, 1/3, 2/3 or F-Full, Fresh Water Tank, Holding Tank (toilet waste) and Gray Tank (sink & shower wastes). The Battery indicator registers: L-Low, F-Fair, G-Good, and C-Charging. The monitor panel gives its reading by means of an electrical signal between the probes. If there is an extremely low mineral content in the water, or there is a build-up or coating on the sensor probes on the interior of the tank(s), the readings on the monitor panel may be incorrect. **NOTE:** Avoid pouring grease, oils, or similar substances down your drains or the toilet. If this should occur, the holding tanks may need to be washed out with a soapy water solution.

### FRESH WATER SYSTEM

The fresh water storage tank supplies potable water to all fixtures within your trailer by means of a 12-volt pump. This pump is located close to the storage tank and is equipped with a check valve for flow away from the tank, or to the fixtures only. The pump has an on/off switch located on the monitor panel. The pump will automatically build up pressure and maintain that pressure when turned on. The pump should be turned off when the fresh water storage tank has no water in it or when the trailer will not be in use. The fresh water tank can be filled by pouring water in the inlet next to the city water connection. A cap is provided to keep foreign matter out of the system and to keep water from sloshing out. The tank also has a drain to drain water out when the trailer is not in use. Low point drains are provided to enable draining the water lines. When possible, traveling with an empty fresh water tank will

provide for more cargo carrying capacity. When filling the tank, to maximize water capacity, fill all water lines and the water heater as well. The external “city water” hookup will provide pressurized water supply it gets from the RV park or city water supply hookup. The same waterlines are utilized as with the storage tank and pump; however, the pump’s check valve bypasses both the pump and the fresh water tank. While hooked up to city water, the pump switch may be turned off.

### SANITIZING THE FRESH WATER SYSTEM

Sanitize the fresh water system at least once a year, or whenever the trailer is unused for prolonged periods of time. This will help to keep your water system fresh and discourage the growth of bacteria that can contaminate the water supply. Use a chlorine and fresh water rinse as follows:

- 1) Prepare a solution of ¼ cup household liquid Chlorine bleach (5% sodium hypochlorite) to One gallon of water for each 15 gal. of tank Capacity.
- 2) Close all faucets and drains, and fill the fresh Water tank with the rinse solution.
- 3) Turn on the pump switch and circulate the rinse Solution through the entire system.
- 4) Once the rinse solution has been circulated Through the entire system, then continue to Fill the fresh water tank until it is full.
- 5) Close all faucets and drains and let the system Set for approximately three hours.
- 6) Drain the complete system
- 7) Flush the complete system with fresh water Only for several minutes.
- 8) Close all drains and fill the fresh water tank as You normally would. Make sure that the water Heater has water in it prior to igniting.

### EXCESSIVE WATER PRESSURE

Some campgrounds or “city water” hook-up locations may not have regulated water pressure which could be excessive and may cause damage to your water system. Check with your dealer for recommendations of water pressure regulators.

### TROUBLESHOOTING THE FRESH WATER SYSTEM

Normal travel can cause vibration and flexing of your fresh water piping system, possibly causing fittings to work loose. If you notice wet areas near water connections or the pump runs while the faucets are closed, and not other fresh water fixtures are used, you should suspect a possible leak. Be sure all low point water line drains are closed; the tank drain is closed and all fixtures are turned off. If a leak is still suspected check all connections for tightness. Do not over tighten fitting as this may cause leakage. Sometimes improper winterizing can cause water lines to freeze and split (Refer to STORAGE DURING FREEZING TEMPERATURES for proper winterizing). If this is the case return your unit to an authorized dealer for repairs.

### **WASTE WATER SYSTEM**

The waste water system is comprised of holding tank(s) with individual termination valves. The holding tank collects all of the waste material from the toilet. The gray water tank collects the waste material from the sinks and shower. Tanks are joined together after the termination valves to provide a single termination outlet (when possible) for convenient dumping of waste materials. A flexible sewer hose is required to make the connection between your units termination and the approved dump station inlet.

**CAUTION:** During the design of your unit, the holding tank capacities are maximized for your convenience. The installation of holding tanks lowers the ground clearance and caution must be taken to prevent damage during travel. Damage caused to holding tanks by rough roads or terrain, road hazards, etc. may be considered as misuse and not covered under the terms of the warranty.

The drainage system is very similar to that of your home. The system is trapped and vented to prevent waste gases from entering your trailer's interior. The drain piping is made of ABS material and is resistant to most chemicals. The "P" traps at the fixtures are separable for use as clean-outs if necessary. Vents and clean-out fittings may also be used as a clean-out access.

### **TOILET**

The toilet in your trailer is a flush type toilet. It can be flushed by pulling the flush handle at the back of the toilet or depressing the foot pedal in the lower front corner of the toilet, and will automatically refill the bowl with water when the lever is released. The toilet bowl should be emptied prior to travel to prevent water from sloshing out onto the floor.

### **DUMPING YOUR HOLDING TANKS**

As mentioned previously, your holding tanks terminate together at one location for convenience in dumping your tanks. A twist on cap is located at the termination outlet to help prevent leakage of waste material.

**WARNING: THE HOLDING TANKS ARE ENCLOSED SEWER SYSTEMS AND MUST BE DRAINED INTO AN APPROVED DUMP STATION. TANKS SHOULD BE THOROUGHLY DRAINED AND RINSED TO PREVENT ANY ACCUMULATION ON THE INTERIOR OF THE TANKS.**

To dump the tanks simply twist off the termination cap, connect the sewer hose, put the other end of the sewer hose into the approved dump station inlet, and open the termination valves. Rinse the tanks and hose thoroughly with fresh water before disconnection. Once cleaning is complete, close the termination valves, replace the hose to the storage location, and replace the termination cap on the outlet. You may want to add a deodorant chemical approved for your sewer system to aide in the breakdown of solid wastes as well as making your system more pleasant to use.

**NOTE:** Do not leave the termination valves in the open position, or open them prior to having the sewer hose connected. Do not remove the termination cap with the termination valves in the open position.



The most common holding tank problem is clogging, which can be minimized by following a few simple suggestions:

- 1) Prior to dumping make sure your tank is at least  $\frac{3}{4}$  full.
- 2) Keep the tank valve closed, and the termination Cap on
- 3) Cover the bottom of the tank with water after Dumping is complete and leave this water in the Tank.
- 4) Use only approved toilet tissue for RV systems.
- 5) Use approved holding tank deodorant chemicals
- 6) Do not put facial tissue, paper, or sanitary Napkins into your holding tanks.
- 7) Do not put solid objects into the tanks that Could puncture or scratch your tanks.

### **USE DURING FREEZING TEMPERATURES**

Special precautions must be taken if you intend on using your recreational vehicle during freezing temperatures or will be traveling through regions during freezing weather. Cold weather equipment such as extra insulation, storm windows, and special anti-freeze for RV use are a few items to consider. Consult with your dealer about your travel plans for specific procedures and equipment necessary to make your trip comfortable and pleasant.

### **BATTERIES**

Batteries are 12-volt batteries to provide living area power requirements. Have these batteries serviced when servicing other vehicle systems. When connected and operating properly, your vehicle alternator will be able to handle normal vehicle driving requirements and also apply a charge to the house battery when on the road.

### **DOORS, LOCKS, WINDOWS, AND VENTS**

Moving parts of all doors, locks, windows, and vents should be adjusted and lubricated at least once a year or as needed depending on use. Screws and fasteners should be checked and tightened periodically. Check weather-stripping sealers to assure proper fit and seal.

### **SEALANTS**

Weather proofing sealants are used around doors, windows, vents, and joints during construction of you trailer. These sealants are subject to the same

deterioration from exposure as the siding components, and must be checked periodically to assure the weatherproof integrity of your unit. If evidence of cracking or voids in sealants are apparent, have your dealer re-seal these areas, or if you choose to do the work yourself, he can recommend the proper sealant to use. Be sure to check all areas including the roof, floor, sides, front, and rear. Failure or neglect of proper sealant maintenance could result in leakage, and may reduce or void your warranty protection.

**CAUTION:** Before any sealants are applied, make sure that surfaces are clean and dry.

**CAUTION:** Do not seal or plug the “weep holes” on the bottom flange of the windows. These “weep holes” are designed into the windows to allow drainage of moisture from the window track caused by condensation or in the event of any leakage.

### **CARE OF UPHOLSTERY AND FABRICS**

The manufacturer uses a variety of fabrics in its living quarters models. Periodically clean to maintain appearance and prevent build-up of dirt and contaminants. Any stain, spill, or soiling should be cleaned promptly to prevent the possibility of permanent staining. When cleaning, always scrub gently using a soft cloth of nylon bristle brush.

**CAUTION:** Powdered abrasives, abrasive cleaners, and steel wool damage vinyl as do strong solvents, lacquer solvents, and inks. Lotions, suntan oil, waxes, and polishes, etc., contain oils and dyes that can cause stiffening and staining of vinyl. Never use steam, heat guns, or hair dryers on upholstery or fabrics.

## **DRAPES, CURTAINS, BEDSPREADS, AND PILLOW SHAMS**

Drapes, curtains, bedspreads, and pillow shams should be dry cleaned only.

## **VALANCES AND BLINDS**

Valances and blinds should be vacuumed or wiped with a damp cloth.

**NOTE:** Cushion, seat and drapery fabrics are subject to normal deterioration caused by wear and exposure. Normal protective measures, such as keeping the drapes closed while the unit is not in use can help reduce discoloration caused by the sun's rays.

## **CARE OF WALLS AND WOODWORK**

Walls and woodwork may be cleaned with a soft cloth using mild liquid detergent and water. Never use harsh abrasives detergents, or chemical cleaning agents.

## **CARPETING**

Vacuum carpet regularly and use only high-quality carpet cleaners.

## **SLIDE-OUT ROOM**

If your trailer is equipped with an optional slide-out room you have lots of additional space to enjoy. This room is operated by the use of a 12-volt electric motor. The room is covered on the exterior with a slide-out awning that automatically operates as you move the room in and out. To provide the best weather seal, make sure the room is fully extended **in** during travel and storage times, and fully extended **out** during usage times. When the room has reached its full extension, there will be a clicking noise and the room

movement will stop signifying it's time to release the slide-out switch. It is best not to leave the room extended out during high winds, or heavy snow as the awning could become damaged. In the event you lose 12-volt power, there is a manual override crank provided to operate the slide-out room.

**CAUTION:** When moving the room in or out always make sure there are no obstructions (inside or outside) that will hinder the rooms operation.

## PREPAING FOR STORAGE

### STORAGE DURING NON-FREEZING TEMPERATURES

If you intend on storing your trailer or will not be using it for an extended length of time, certain procedures should be taken to prepare your trailer. The following list can be used as a guideline; however, you may wish to add to or make your own list.

- 1 ) Clean your trailer exterior completely Including the underside. You may also want To wax it.
- 2 ) Check the tires for proper inflation. You may Want to block the unit off the ground slightly To take pressure off of the tires.
- 3 ) Park the unit in a level position and chock the Wheels.
- 4 ) Cover the tires from direct sunlight.
- 5 ) Check the batteries for proper charge and Disconnect the battery cables.
- 6 ) Drain all holding tanks, the fresh water tank, The water lines, and the water heater. When Completed, be sure to close all drains and cap All inlets and outlets.
- 7 ) Turn off the LP Gas supply at the LP tank
- 8 ) Turn off all appliances (refrigerator, furnace, Water heater, and range).
- 9 ) Turn off all electrical equipment
- 10) Remove all perishables from the refrigerator And cabinets.
- 11) Block the refrigerator door open slightly to Allow air circulation and place a small box of Baking soda inside.
- 12) Open closet and cabinet doors slightly to Allow air circulation there also.
- 13) Close all windows, exterior doors, and vents Except for one window in the front and rear Which should be slightly opened to allow air Circulation.
- 14) Cover exterior vent openings to prevent insect From getting in.
- 15) Close the drapes, curtains, or blinds.

### STORAGE DURING FREEZING TEMPERATURES

To store your unit during freezing temperatures, follow the same steps as done for non-freezing temperatures except for the following.

- 1) Prior to draining the fresh water tank, put and anti-freeze solution (approved for RV water systems) in your fresh water tank and run this solution through the entire system. You may wish to bypass the water heater to save on the use of anti-freeze. To bypass the water heater turn the cold line and hot line valves to the closed position (clockwise) and the valve in between to the open position (counterclockwise). This bypass will allow water to circulate through the entire system except the water heater. You can drain the water heater with the drain plug located behind the exterior water heater access door (See Water Heater Owner's Manual). There are also low point drains situated within your water piping system to allow for water line drainage.
- 2) Drain the water system completely leaving some ant-freeze solution in the "P" traps, but draining everything else.
- 3) If your unit is equipped with a water purifier, this must be removed.

**WARNING: DO NOT USE AUTOMOTIVE OR WINDSHIELD WASHER ANTIFREEZE IN THE WATER SUPPLY SYSTEM. THESE COULD BE HARMFUL IF SWALLOWED.**

**CAUTION:** Remember to fill the water heater Again prior to igniting.

