

TLRV TRAVEL LITE



TRUCK CAMPER OWNER'S MANUAL

To our customers:
For your maximum enjoyment
and safety, we recommend
familiarizing yourself with the
contents of this manual before
using your camper.

Happy Camping!

TABLE OF CONTENTS

| | | | |
|---------------------------------|----|-----------------------------------|----|
| INTRODUCTION | 3 | LEVEL INDICATOR SWITCH | 14 |
| DEALER RESPONSIBILITIES. | 3 | SOLAR PANEL (OPTION) | 14 |
| OWNER RESPONSIBILITIES | 3 | PLUMBING | 15 |
| LOADING AND UNLOADING CAMPER | 7 | FRESH WATER SYSTEM | 15 |
| BALANCING THE LOAD | 4 | WATER PUMP CONTROL SWITCH | 15 |
| TAKING THE CAMPER OFF THE TRUCK | 4 | WATER LINES | 15 |
| LOADING THE CAMPER ON THE TRUCK | 4 | SANITIZING THE FRESH WATER SYSTEM | 15 |
| ATTACHING THE CAMPER | 4 | WASTE WATER AND SEWER | |
| DUAL WHEEL TRUCK | 4 | DRAINAGE SYSTEM (MOST MODELS) | 16 |
| LP PROPANE GAS SYSTEM | 5 | DRAINAGE LINES | 16 |
| LP GAS PRESSURE REGULATOR | 5 | STORAGE TANKS | 16 |
| LP TANKS | 5 | TOILET (MOST MODELS) | 16 |
| FILLING LP GAS TANKS | 5 | TOILET AND HOLDING TANKS | |
| LP GAS TANK INSTALLATION | 5 | DO'S AND DON'TS: | 16 |
| LP LINE CHECK | 5 | DOORS, WINDOWS & COMPARTMENTS | 17 |
| LP GAS SAFETY PRECAUTIONS | 6 | ENTRY DOOR, SCREEN, AND LOCKS | 17 |
| USING YOUR LP GAS SYSTEM | | ENTRY ASSIST HANDLE | 17 |
| AT LOW TEMPERATURES | 6 | WINDOWS | 17 |
| SAFETY AND WARNING DEVICES | 7 | EMERGENCY EXIT (EGRESS) WINDOW | 17 |
| LP/CO DUAL ALARM | 7 | STORAGE COMPARTMENTS & CABINETS | 17 |
| PROCEDURES TO TAKE DURING | | WINTER PROTECTION OF YOUR CAMPER | 18 |
| AN LP (PROPANE) GAS ALARM | 7 | CONDENSATION AND YOUR CAMPER | 18 |
| SMOKE DETECTOR | 7 | WHILE CAMPER IS IN USE | 18 |
| FIRE EXTINGUISHER | 7 | PREPARING FOR WINTER STORAGE | 18 |
| CARBON MONOXIDE (CO) | 8 | WINTER STORAGE OF YOUR CAMPER | 19 |
| WARNINGS | 8 | OUTDOOR WINTER STORAGE | 19 |
| SYMPTOMS OF | | EXTERIOR | 19 |
| CARBON MONOXIDE POISONING | 8 | INTERIOR | 19 |
| GENERAL SAFETY CONSIDERATIONS | 8 | EXTERIOR MAINTENANCE | 20 |
| APPLIANCES AND EQUIPMENT | 9 | EXTERIOR FINISH | 20 |
| VENTING. | 9 | SIGNS OF WEATHERING | 20 |
| START-UP AND OPERATION | | WINDOWS, DOORS, VENTS, & LOCKS | 20 |
| OF LP GAS APPLIANCES | 9 | TPO ROOF BY ALPHA SYSTEMS LLC | 20 |
| REFRIGERATOR | 9 | INTERIOR MAINTENANCE | 21 |
| LP FURNACE | 9 | REFRIGERATOR. | 21 |
| RANGE COOK TOP AND OVEN | 9 | STOVE AND SINK | 21 |
| RANGE EXHAUST HOOD | 10 | UPHOLSTERY AND WINDOW SHADES | 21 |
| HOT WATER HEATER | 10 | CURTAINS | 21 |
| MICROWAVE (OPTION) | 10 | VINYL TENT CANVAS | 21 |
| AIR CONDITIONER | 10 | WALL AND CEILING PANELS | 21 |
| ROOF VENTS | 11 | BATHROOM AND SHOWER | 21 |
| DOMETIC VENT | 11 | WOOD PRODUCTS | 21 |
| TV ANTENNA | 11 | COUNTER TOPS AND TABLE | 21 |
| TELEVISION | 11 | VINYL FLOORING | 21 |
| AM/FM PLAYER | 11 | CARPET | 21 |
| 4-CORNER CAMPER JACKS | 11 | PRE-TRAVEL CHECK LIST | 22 |
| MANUAL JACKS | 11 | CAMPER TIE DOWNS | 22 |
| ELECTRICAL SYSTEMS | 12 | EXTERIOR | 22 |
| 110V AC SYSTEM | 12 | INTERIOR | 22 |
| 12-VOLT DC POWER SYSTEM | 12 | SYSTEMS | 22 |
| BATTERY CHARGING | 13 | CAMPGROUND REGULATIONS | 22 |
| BATTERY DISCONNECT SWITCH | 13 | POST-TRIP CLEAN-UP | 22 |
| CIRCUIT OVERLOAD. | 13 | PERIODIC MAINTENANCE CHART | 23 |
| FUSES | 13 | LIMITED WARRANTY | 24 |
| INTERIOR LIGHTING | 14 | LIMITED WARRANTY | 25 |
| SYSTEMS MONITOR PANEL (OPTION) | 14 | | |

INTRODUCTION

Welcome to the lifestyle of TLRV truck campers! Thank you for your business and confidence in our quality line of campers. At TLRV, we take immense pride in building the strongest, most versatile truck camper on the market at a price that can't be beat. With this in mind, we have grown over the years to be the largest manufacturer of hard-side truck campers in the Eastern U.S.! Enjoy your TLRV truck camper and "Explore Your World".

We recommend familiarizing yourself with the contents of this manual before using your camper. This Owner's Manual should provide helpful information to ensure your maximum enjoyment with your truck camper. For the most current product information and changes, please visit our website at www.travelliteriv.com or contact your local TLRV dealer. Travel Lite, Inc. reserves the right to discontinue or change specifications at any time without notice and without incurring any obligation whatsoever. All weights, fuel, liquid capacities, and dimensions are approximate.

Travel Lite, Inc. manufactures multiple product levels of truck campers. Some equipment and features shown in this manual may be optional or not available on some models. Photographs or illustrations in this manual are representative of function and may not be specific in their depiction of actual equipment, fabrics, interior or exterior décor, or design options as installed on or in your camper.

DEALER RESPONSIBILITIES

Your TLRV dealer is responsible for servicing your warranty claims under TLRV's warranty process, but he does not himself warrant the unit. The dealer is also responsible for pre-delivery inspection on all new units sold to his customers.

1. Review the Owner's Manual. If you have any questions, he has the expertise to answer them and will help with anything you do not understand.
2. Go through the setup procedure and inspect the camper for defects. Ask to make any adjustments you feel are necessary.
3. Have the dealer demonstrate the appliances and optional equipment, and safety procedures. Make sure that you understand the operation of your camper.
4. If he has not already done so, ask the dealer to install the propane bottle and check all connections for leaks and to check the LP regulator for proper pressure.
5. Ask the dealer about any other safety or convenience items that he feels you may need, such as tiedown equipment, water fill and drain hoses, or extension cords.

OWNER RESPONSIBILITIES

As the owner of a new TLRV truck camper, it is your responsibility to properly maintain and care for your camper. You should be familiar with the terms of the warranty, especially any exclusions, which might arise through misuse or failure to follow instructions set forth in the Owner's Manual or component manufacturer's instruction booklets.

Make sure your unit is insured. Contact your insurance agent before picking up your camper for information concerning your policy coverage.

We wish you many years of happy camping with your TLRV!

Sincerely,
The TLRV Family

NOTE: This manual is based on the latest information available at the time of publication. Due to continuous product development and improvements, Travel Lite, Inc. reserves the right to make changes in product specifications and components without prior notice or obligation

LOADING AND UNLOADING CAMPER

BALANCING THE LOAD

When loading the camper store heavy gear first keeping it on or close to the camper floor. Place heavy things far enough forward to keep the loaded camper's center of gravity within the zone recommended by the truck manufacturer. Store only light objects on high shelves. Distribute weight to obtain even side-to-side balance of the loaded vehicle. Secure loose items to prevent weight shifts that could affect the balance of your vehicle. When the truck camper is loaded, drive to a scale and weigh on the front and on the rear wheels separately to determine axle loads, the weight rating (GAWR). The total of the axle loads should not exceed the gross vehicle weight rating (GVWR). These weight ratings are given on the vehicle certification label that is located on the left side of the vehicle, normally the dash panel, hinge pillar, door latch post, or door edge next to the driver on trucks manufactured after January 1, 1972. If weight ratings are exceeded, move or remove items

TAKING THE CAMPER OFF THE TRUCK

Always unload the camper on a level spot. If the ground is soft, use planks or scraps of $\frac{3}{4}$ " plywood under the jacks to distribute the weight of the camper over a wider area. Once the storage spot is selected, lower the jacks to the ground. Disconnect the tie-downs and wiring harness. Raise the camper off the truck bed. Drive the truck clear of the camper. Put a set of (sufficiently strong) sawhorses or other type of support under the camper and lower each jack in turn until the camper is resting on the supports. Although the jacks could be retracted, longterm storage would be more secure with the jacks remaining on the ground giving additional support for maximum stability. We strongly recommend that you lower the camper from side to side not front to back. Each time only lowering the camper 2-3 inches per side. Travel Lite is not responsible for units that have been damaged during the raising or lowering process. **WARNING:** The sole function of jacks, of any type, is to temporarily support a truck camper to get the camper on or off a truck. The jacks alone should never be used for long-term storage or occupancy. For long-term storage, the floor should be supported by substantial sawhorses, or blocking and beams. The jacks may remain extended to the ground for additional stability.

LOADING THE CAMPER ON THE TRUCK

Before loading the camper on the truck, the tie downs should be attached to the truck. Position the truck in front of the camper before raising the camper on the jacks. Remove any cover and tie-down ropes, and then raise the camper high enough to clear the bed of the truck. **CAUTION:** We strongly recommend that you raise each jack from side to side not front to back. Each time only lowering the camper 2-3 inches per side. Travel Lite is not responsible for units that have been damaged during the raising or lowering process.

To keep the jacks from sinking into soft ground, and possibly dumping the camper, place $\frac{3}{4}$ " plywood scraps or heavy planks under the base pads. When the camper has been raised high enough, remove the long-term under-floor supports and back the truck under the camper. Have someone act as a spotter to help guide the driver. Make sure that the spotter stands clear of the camper and is visible to the driver through one of the side mirrors. The driver should be prepared to stop instantly if the spotter shouts a warning. When the truck is positioned correctly under the camper, retract each jack in turn until the full weight of the camper is resting on the truck. Retract the jacks and secure them in the storage position. Store the jack handles in the camper. Refer to the jack manufacturer's instructions for the operation and storage of the jacks. **NOTE:** When lowering the camper into the truck bed, be aware of the rubber docking bumpers on the front of the camper.

ATTACHING THE CAMPER

Using the tie-downs, fasten the camper securely to the truck. TLRV uses Torkliff.com, CRBrophy.com, or HappiJac.com tie-down systems. Your TLRV dealer should be able to supply the correct item. When the tie downs are in place, the chains **MUST** be pulling in opposing directions, front against rear, and side against side to prevent the camper moving any direction. The chains should be at an angle, opposing each other, and not straight up and down parallel to each other. **CAUTION:** Be sure to check approximately every 50 miles until you are sure that the tie downs are secure and not loosening from travel vibration. **CAUTION: DO NOT OVERTIGHTEN TIE DOWNS.** Snug them sufficiently to keep camper from moving around. Making them as tight as you can serves no purpose and will damage the camper. Such damage is not covered by warranty.

DUAL WHEEL TRUCK

When truck campers are installed on dual wheel trucks, special swing-out brackets are necessary to provide a wide enough stance between the front jacks to allow the truck's wheels to pass between them. Dual wheel brackets are available through TLRV or your local dealer.

LP (LIQUEFIED PETROLEUM) PROPANE GAS SYSTEM

Propane is an efficient, inexpensive, portable fuel that burns readily with intense heat. It is used for cooking, heating, and refrigeration. The propane systems in your TLRV camper are designed and built to rigid standards and are tested before leaving the factory for leakage. Beyond tightening connections and checking for leaks, an authorized propane supplier should perform propane system maintenance.

LP GAS PRESSURE REGULATOR

The LP pressure regulator reduces the high pressure vaporized LP down to a pressure of an 11" water column. At this pressure, LP gas is piped to and used by the various LP gas fired appliances. Correct line pressure is important to appliance operation. Line pressure should be checked at least every 6 months. Most propane suppliers have the equipment needed to do this check. Do not make any adjustments to the LP gas pressure regulator. Adjustments should only be made by an authorized LP gas service technician.

LP TANKS

The LP gas tanks are tested high-pressure cylinders. LP gas is stored in these tanks under high pressure, which maintains the LP gas in a liquid/vapor condition. The 10% valve or pressure relief valve has been placed on the top of the tank so that it will always be in the vapor area. If the tank is over filled or if the temperature of the tank is raised, this valve will release. This valve should be **HAND TIGHTENED ONLY**.

FILLING LP GAS TANKS

1. Be sure that all the appliances are off.
2. Close the tank valve on the empty tank.
3. Disconnect the bottle.
4. Loosen the clamp holding the tank to the unit.
5. Remove tank from unit; keep in an upright position.
6. Have the tank filled by an authorized LP gas technician.
7. Observe labels and tags.

DO NOT FILL CONTAINER(S) TO MORE THAN 80% OF CAPACITY

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

LP GAS TANK INSTALLATION

1. To avoid explosion, when reinstalling your LP tank, be sure that all valves are off and pilot lights out before you open the service valve on your refilled bottle.
2. Position filled tank.
3. Engage the spud-nut service connector to main tank valve. **IMPORTANT: THIS IS LEFT HAND THREAD.**
4. Tighten nut snugly with wrench. **DO NOT USE PLIERS. IMPORTANT:** This is a mechanical brass seal; it does not require pipe sealer.
5. Secure tank.
6. Check all tank and line connections to be sure they are tight.
7. Observe all labels and tags.

LP LINE CHECK The propane lines should be checked for leaks on a regular basis.

1. Turn off burners and pilot lights.
2. Open doors and windows.
3. Open propane bottle service valve.
4. Test all connections with an approved leak detector, or bubbly soapy water. Do not use solutions with ammonia or chloride, which will attack copper tubing or brass fittings. Tighten any leaky connections and test for leaks again. If leaking persists, contact your Travel Lite dealer.

LP GAS SAFETY PRECAUTIONS

- **WARNING: DO NOT use propane while traveling.** The main propane service valve must be shut off while traveling because of the danger of a fire or explosion if a propane line under pressure were ruptured in an accident. In addition to being unsafe, it is ILLEGAL in some states to operate a propane appliance while the vehicle is in motion.
- Inspect the entire LP gas system for possible leaks or damaged parts before each trip.
- When testing for leaks use soapy water.
- **WARNING:** Never check for LP gas leaks with an open flame.
- Never lock the LP gas compartments. The tank service valve should always be accessible in case of an emergency.
- **WARNING:** Do not place or store an LP gas container inside the vehicle. LP gas containers are equipped with safety devices, which relieve excessive pressure by discharging gas into the atmosphere.
- Only have the LP gas tank filled by an authorized technician.
- Always make certain that the tank is secured in place.
- **WARNING:** Always extinguish all LP gas appliance pilot lights before refueling the gasoline tank on your vehicle.
- Never use an upright tank in a lay down position or a lay down tank in an upright position.
- Use caution when drilling holes or fastening objects to the walls or floor of your camper. Gas lines could be damaged and present an extreme safety hazard.
- **WARNING:** Never use natural gas in your LP gas system.
- **WARNING:** Most LP gas appliances used in recreational vehicles are vented to the outside of the vehicle. When parked close to a gasoline pump, it is possible that the gasoline fumes could enter this type of appliance and ignite from the burner flame, CAUSING A FIRE OR AN EXPLOSION. FOR YOUR SAFETY, when refueling, shut off all LP gas appliances that are vented to the outside.

USING YOUR LP GAS SYSTEM AT LOW TEMPERATURES

Your gas system will function at low temperatures provided the system components are kept at a temperature above the vapor point of the LP gas.

NOTE: Propane vaporizes at about 40 degrees F below zero.

LP gas systems can and do freeze in very cold weather. It is a common misconception that the regulator or the gas itself freezes. Actually, it is moisture or water vapor that gets trapped in the system or is absorbed by the gas that freezes and causes the problem. This ice can build up and partially or totally block the gas supply. There are a number of things you can do to prevent this freezing:

1. Be sure the propane tank is totally moisture-free before it is filled.
2. Be sure the tank is not overfilled. This is also a safety consideration.
3. Keep the valves on empty tanks tightly closed.
4. Keep the valve closed during storage periods.
5. Have the gas tanks purged by the LP gas technician if freezing occurs.

NOTE: TLRV is not responsible for personal injury or property damage resulting from misuse or improper maintenance of the propane system or propane appliances.

SAFETY AND WARNING DEVICES

LP/CO DUAL ALARM

A permanently installed detector is located near the floor in the forward portion of the main camper floor area. The detector is powered by the 12-volt DC system and is always powered as long as the camper is connected to the truck, a charged battery, or 110-volt AC power. The fuse for the detector is located in the Power Distribution Center. **NOTE:** The detector is continuously powered; disconnect the battery if you are not using your camper so the battery is not depleted.

WARNING: DO NOT USE A CIGARETTE LIGHTER TO TEST THE CO/PROPANE GAS ALARM.
Butane gas may damage the sensors.

The unit contains an alarm that will sound, alerting you to the presence of propane or carbon monoxide. The Red LED will flash and the alarm will sound a steady tone whenever a dangerous level of propane or methane gas is detected. **IMMEDIATE ACTION IS REQUIRED.** The detector will continue to alarm until the Test/Mute switch on the front of the alarm is pressed. Ventilate the camper. The Red LED will continue to flash until the gas is cleared, or the gas alarm will reactivate in approximately 5 minutes if the gas is still present. **DO NOT RE-ENTER THE CAMPER.** This alarm will return to normal operation after the camper is properly ventilated.

NOTE: This device detects the presence of propane; it does not disconnect the gas supply.

Be aware of the difference between propane leaks versus propane escaping from an unlit, open burner. Pure propane from a leaking pipe or fitting is heavier than air and will buildup its heaviest concentration at the floor level first. Propane from open burners is intentionally mixed with air to induce burning and will dissipate into the air. The primary purpose of the detector is to detect propane leaks. The propane from open burners is mixed with air (oxygen) so that it will burn. When mixed with air, the propane becomes only marginally heavier than air and may not sink to the floor. If a burner is left on, the area around the burner, range and adjoining counter space will be combustible and will cause injury and damage if ignited. This condition may exist for an extended time period before the propane can reach the detector's location and be detected. The detector only indicates the presence of propane at the sensor. Propane may be present in other areas.

PROCEDURES TO TAKE DURING AN LP (PROPANE) GAS ALARM

Turn the propane off at the tank(s), turn off all propane appliances, extinguish all flames and smoking material and open all doors and major windows to air out the camper. Do not re-enter the camper until the alarm stops sounding. If the alarm sounds a second time after the propane is turned back on, leave the propane off and have a Travel Lite Dealer make the necessary repairs to the source of the propane leak.

SMOKE DETECTOR

Most fire casualties are caused by inhalation of toxic fumes (smoke) from a fire and not by flame. The smoke detector responds to smoke that enters the sensing chamber. It does not sense gas, heat or flame. A wall mounted, battery powered smoke detector is located in the living /cooking area of your camper. Please read the smoke detector Owner's Manual for details on testing and caring for this important safety device. Test the smoke detector after the camper has been in storage, before each trip, and at least once a week during use. The smoke detector should never be disabled due to nuisance or false alarm from cooking smoke, a dusty furnace, etc. Ventilate your camper with fresh air and the alarm will turn off. Do not disconnect the battery. Replace the battery once a year or immediately when the low battery "beep" signal sounds once a minute. If the smoke detector fails to operate with a new battery, replace the detector with a new unit.

FIRE EXTINGUISHER

The fire extinguisher in your camper is located near the main entry door. Your fire extinguisher should be replaced immediately after use or discharge. The fire extinguisher furnished with your camper is rated for Class B (gasoline, grease, flammable liquids) and Class C (electrical). Read the instructions on the fire extinguisher. Know how and when to use it. You and your family should be familiar with its operation. If you find it necessary to use the fire extinguisher, stand 45 degrees from the flame and spray side to side, starting at the top of the flame. Use caution to avoid standing upwind or uphill. If flames are climbing, spray vertical and work the retardant downwards. Dry chemical flame retardant should be cleaned away as soon as possible

CARBON MONOXIDE (CO)

Carbon Monoxide gas is colorless, tasteless, and odorless. It is a combustion by-product of fuel burning engines. The engine in your truck and generator system (if installed); produce it constantly while they are running. Carbon monoxide gas is deadly. Please read and understand the following warnings and precautions to protect yourself and others from the effects of carbon monoxide gas. Areas between the camper and truck bed are used for ventilation. Filling or blocking these areas could trap and prevent gases from escaping.

WARNINGS

1. Exhaust gases are deadly. Do not block the tailpipes 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.
2. Outside air movement can carry exhaust gases inside the camper through windows or other openings remote from the exhaust outlets. Due to this possibility, TLRV DOES NOT RECOMMEND that any passenger ride inside the camper while traveling.
3. Operate the engine(s) only when safe dispersion of exhaust gases can be assured, and monitor outside conditions to be sure that exhaust continues to be dispersed safely.
4. Do not, under any circumstances, operate any engine while sleeping.

SYMPTOMS OF CARBON MONOXIDE POISONING

- Dizziness
- Headache
- Weakness and sleepiness
- Nausea
- Vomiting
- Muscular twitching
- Throbbing in temples
- Inability to think coherently

If symptoms indicate the possibility of carbon monoxide gas poisoning:

- Turn off engine(s) immediately
- Get out into fresh air at once
- Summon medical assistance

Check the exhaust systems during routine maintenance and repair any leaks, damage, or obstruction before further operations. DO NOT modify any exhaust system in any way.

GENERAL SAFETY CONSIDERATIONS

Prevention is the best form of safety. Follow the same rules you would at home.

Please review and keep the following safety checks in mind while traveling:

1. Never overload your vehicle. Improper load distribution can cause serious handling problems on the road.
2. Never attempt to repair or alter a gas or electric appliance. Always consult an authorized and qualified Travel Lite dealer or service technician.
3. Portable fuel-burning equipment, including wood and charcoal grills and stoves, cannot be used inside the camper. The use of this equipment could cause fire and/or asphyxiation.
4. Do not bring or store LP gas containers, gasoline, or other flammable liquids inside the camper. Doing so could risk the danger of fire or explosion.
5. Do not smoke in bed.
6. Do not overload electrical circuits.
7. Do not use matches, candles or lighters as flashlights.
8. Do not permit children to play with or operate propane or electrical appliances.
9. Occupying the camper while off the truck is unwise and NOT RECOMMENDED. The camper is likely to be unstable. Occupying the cab-over bunk area will most likely tip the camper onto its nose, possibly causing injury or damage. This would not be warrantable.

APPLIANCES AND EQUIPMENT

Remember to read all the manufacturer's instructions BEFORE operating appliances.

VENTING

All LP gas fired appliances use oxygen from the air. It is necessary to provide proper ventilation when occupying your unit to avoid the danger of asphyxiation. For the best ventilation, open a window and roof vent.

START-UP AND OPERATION OF LP GAS APPLIANCES

- Check to be sure that all appliance gas supply valves are in the OFF position.
- Read the manufacturer's start-up and shut-off instruction manuals for each respective appliance.
- You are now ready to light your LP gas appliances.

IMPORTANT: It may be necessary to purge air from the LP gas supply lines on initial lighting of the appliances. To purge the air from the supply line, open a pilot or burner valve. Hold a flame near the burner, after several seconds the air will escape and the gas will ignite and burn.

REFRIGERATOR

TLRV offers 3 possible options for refrigerators:

- 2 Cubic Ft. 3-way refrigerator (12V DC/ 110V AC/ LP gas)
- 3 and 5 Cubic Ft. 3-way refrigerators (12V DC/ 110V AC/ LP gas)

The size and model of your refrigerator may vary with which model RV purchased and upgrade sizes are available as optional equipment. All sizes are equipped with the automatic switch over feature. The "auto" setting makes the proper power choice for you, shifting from "gas" to "electricity" to meet current conditions and connections. The 110-volt choice will only work if the refrigerator is connected to a 110-volt source (generator or land line). When not connected to 110 volt power use LP gas for cooling. 12-volt power is available, however it quickly uses up your 12-volt battery source.

To keep your refrigerator cold while traveling, plug in your camper the night before you leave, and let the refrigerator get up to temperature. Before traveling, turn it to DC current and your battery should maintain the temperature for you. When your vehicle is parked for several hours, make sure the vehicle is leveled to prevent loss of cooling.

Carefully consult the instruction manual provided with the refrigerator for detailed information for operation, defrost and maintenance procedures.

LP FURNACE

The furnace utilizes a sealed combustion system, which means the combustion chamber is completely sealed from the interior atmosphere of your vehicle. Combustion air is drawn from the outside and combustion products are expelled outside through a vent. Carefully read and follow the lighting and operating instructions from the furnace manual supplied with the RV. New furnaces sometimes emit smoke and an odor when first used due to paint or a light oil coating burning off the heating chamber. Do not mistake this for a malfunctioning furnace. You may want to open a window during the initial "breaking in" of the furnace. Remember thermostat readings may not always be a true indication of temperature throughout the living space. Use these reading as a guide to obtain the most comfortable level for you.

RANGE COOK TOP AND OVEN

Your range cook top and oven will give you fast, dependable and economical service using LP gas. Use your range just as you would any household range. Note that there is an exhaust fan mounted over the range, to help eliminate cooking odors and heat. The control knobs regulate the rate of gas flow and the amount of heat generated by the flame. The oven provides a complete range of heats and maintains temperature automatically for baking. The burner flames will vary during these settings. Carefully consult the instruction manual provided with the range for detailed information.

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

1. Cooking appliances need fresh air for safe operation.
 - a. Open overhead vent or turn on exhaust fan.
 - b. Open window
2. 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.

In addition to the hazards of toxic fumes and oxygen depletion, open flames add moisture to the interior air, increasing condensation. **DO NOT** use an air humidifier inside the camper. Water put into the air by the humidifier will greatly increase condensation.

During prolonged use in very cold weather, leave cabinets and closet doors partially open to warm and ventilate the interior of storage compartments built against exterior walls. The airflow will warm the exterior wall surface, reducing or eliminating condensation and minimizing possible ice formation.

RANGE EXHAUST HOOD

The power range exhaust hood is located above the range burners and operates on 12-volt power. Your power range hood has a filter that must be cleaned or replaced periodically for efficient operation. Wash with hot water in any household detergent, rinse thoroughly and dry. All dust and greasy surfaces, fan and motor should be cleaned frequently. Do not use abrasives in cleaning. Your range cleans easily with a warm detergent solution. For detailed information and maintenance, please refer to the owner's manual supplied by the manufacturer.

HOT WATER HEATER

Before lighting the water heater, be sure the fresh water system is filled. Purge air from the water heater by opening the faucets until water flows steadily from each faucet. Damage to the water heater will occur if the pilot is working and there is no water in the tank. Insure the water heater exterior door is firmly secured. The vent in this door is necessary for proper combustion. Do not block the airflow through the vent with any form of windshield. There is an automatic gas valve; no adjustments are necessary.

If hot water is used with some discretion, there should be an ample supply for all passengers. Gas is automatically supplied to heat the water to a desired temperature and then automatically shuts off, leaving the pilot light burning. If the gas supply is cut off for any reason, or if the pilot light is blown out, the gas supply is automatically cut off and controls will have to be reset to obtain pilot re-lighting. See your instruction book in your manufacturer information packet for proper care and use.

WARNING: DO NOT RUN THE PUMP IF THERE IS NO WATER IN THE FRESH WATER TANK. IT WILL DAMAGE THE PUMP.

MICROWAVE

For detailed operating information and maintenance, please refer to the owner's manual supplied by the manufacturer.

AIR CONDITIONER

If your unit is equipped with AC; it is operated on a 110-volt AC power source through a separate circuit breaker. This is accessed through 110-volt AC power from either a public utility or a generator (optional). Before using the air conditioner, read the owner's manual supplied by the manufacturer for a complete understanding of the proper operation and maintenance.

Replacing or cleaning the filter with soapy water is recommended if the air conditioner is used daily for a two (2) week period. A complete instruction manual is provided with the camper. Consult this manual before operation to insure you are clear of all information needed to correctly operate the air conditioner.

TLRV will not be responsible for damage caused by condensed moisture on ceilings or other surfaces. When air enters the camper, condensation may occur. The air conditioner removes this moisture from the air during normal operation. Keeping doors and windows closed when the air conditioner is in operation will minimize condensed moisture on cold surfaces.

ROOF VENTS

The roof vents are operated from inside and have built-in screens. To operate, turn the crank in the center of the vent clockwise to open and adjust. The bath vent may be equipped with an optional 12-volt exhaust fan. The switch to control the fan is located on the vent. These vents may be left slightly open while traveling, but be careful when traveling where vertical clearance is limited. Vent lids can crack if left open too far.

FANTASTIC VENT BY DOMETIC

The Fantastic high-volume power vents are designed to quickly exhaust stale hot air. These vents may be located in the bunk, bath, and/or center of the unit, if equipped.

Operating Instructions:

1. Open dome approximately 3 inches or more by turning the hand crank
(Dometic has a built in safety switch that will not allow motor to operate unless dome is partially open).
2. Turn 3 speed knob to desired performance level (0-Off, 1-Low, 2-Medium, and 3-High).
3. Slightly open a window of your choosing. The choice of window will determine how the air is going to flow through the cabin. Maximum airflow will be achieved through one slightly open window only.
4. Source of airflow is determined by the window opened. For best results, close all roof vents and open one window 3-4 inches near where maximum airflow is desired.

NOTE: Dometic does not recommend placing a vent cover over, or using a foam filter on your vent. This greatly restricts airflow, causing accumulation of dust and increased sound levels.

RECOMMENDATIONS: You may use your Dometic while driving or in windy conditions. In this case keep your dome fully open. When storing your RV, lower your dome until it is completely closed and turn the 3-speed knob to 0-Off.

NOTE: At 1/3 dome open, exhaust efficiency is reduced to 90%.
Fan-Tastic Vent wishes to assist any customer with any problem or need.
Please call 1-800-521-0298 for assistance between 8 am and 5 pm E.S.T.

TV ANTENNA

The roof-mounted TV antenna is HD ready and designed to provide the highest quality television picture and sound reception in local and remote areas. The TV jack outlet is located at the primary TV location. The booster switch should be turned "OFF" when not viewing the TV to prevent battery drain, as the red indicator light will use a small amount of current. It may be necessary to also unplug the TV as some also use a small amount of power when not being used. Before using the antenna, read the owner's manual supplied by the manufacturer for a complete understanding of the proper operation and maintenance.

TELEVISION

The TV is a digital, high-definition TV/DVD combo. It is located in the bunk area on a swivel mount for easier viewing. Please refer to the manufacturer's owner's manual for full instructions.

AM/FM PLAYER

The radio is an AM/FM player. It can be played through the indoor and outdoor speakers. Please refer to the manufacturer's instruction manual.

4-CORNER CAMPER JACKS

Consult the manufacturer's instruction manual for safe operation and regular maintenance required for the type and style of jacks mounted on your camper.

• MANUAL JACKS

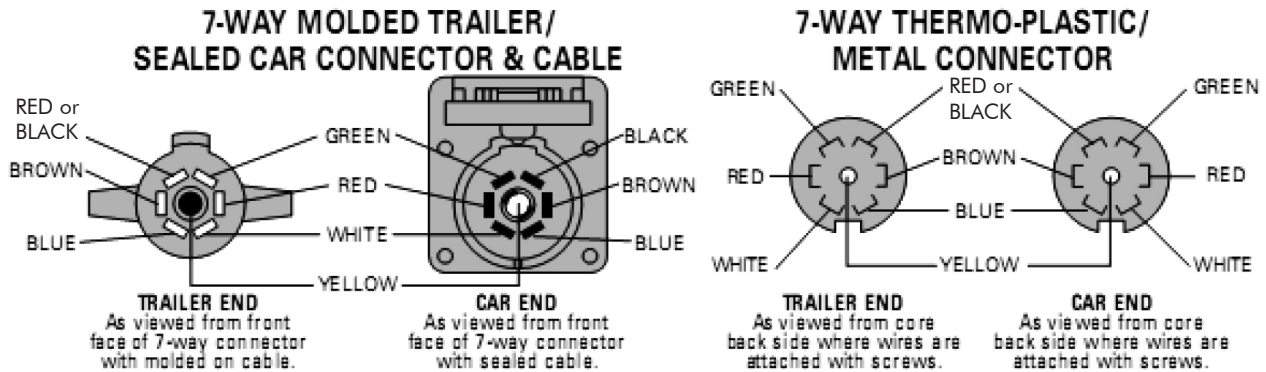
Manual jacks are raised and lowered with a crank handle and drill adapter that inserts in the receptacle located at the top of each individual jack.

IMPORTANT: Check to make sure that the awning(s) is locked in the closed position before traveling.

ELECTRICAL SYSTEMS

All electrical equipment must be handled with due care. Never try to repair or alter the electrical system by yourself, consult an authorized service technician. A 7-way connector pigtail is needed to connect the truck to the camper. The pigtail is wired into the truck and plugs into a matching 7-way chassis plug on the front end of the camper. Refer to the wiring diagram below.

7 WAY WIRING SYSTEM



7 - WAY WIRING INDEX

| Wire Color & Gauge | Molded Trailer/Sealed Car Connector Terminal | Thermo-Plastic/Metal Connector Terminal |
|--------------------|--|---|
| White / 10 gauge | Common Ground | #1 Common Ground |
| Blue / 12 gauge | Electric Brake | #2 Electric Brake |
| Green / 14 gauge | Tail & License | #3 Tail & License |
| RED / 10 gauge | Battery Charge | #4 Battery Charge |
| Red / 14 gauge | Left Stop & Turn | #5 Left Stop & Turn |
| Brown / 14 gauge | Right Stop & Turn | #6 Right Stop & Turn |
| Yellow / 14 gauge | Center Auxiliary | #7 Center Auxiliary |

110V AC SYSTEM

This system provides grounded electrical service for appliances such as the air conditioner, TV, microwave oven, etc. The 110-volt system also provides a power source for the power center. The 30amp power cord provided with your camper is normally adequate, but if you need an extension, be sure to use a 3-wire extension cord rated for at least 30 amps. DO NOT use a 2-wire extension cord or any cord or cable that does not assure appropriate and adequate ground continuity. Your unit would not be properly grounded and someone could receive a serious shock. **WARNING:** If using a 110-volt appliance outside the camper, use only the exterior receptacle that is protected by a GFI (ground fault interrupter) circuit breaker to protect against electrical shock.

NOTE: It is good practice to have everything in the unit turned off before plugging in the power cord.

12-VOLT DC POWER SYSTEM

All campers are equipped with an AC/DC "Power Converter". When your 110V lifeline is connected to an outside supply, the power converter will automatically convert. Then you can utilize your 12V fixtures as required. Some converters have trickle charges built in to charge the auxiliary battery while the converter is in use. The power supply cord for the 12V system of your vehicle is located on the driver's side of the unit. As with the 110V power cord, the 12V system only operates certain lights and appliances within the camper. When operating your camper without an outside power supply (110V), your 12V system is powered by the automotive battery of your pick-up truck (or an optional auxiliary battery in the camper). Never operate your vehicle for prolonged periods of time on the automotive battery. Depending on total amperage drawn by the number of fixtures and appliances being used, and age of your tow vehicle, your automotive battery may last only an hour or two. (We suggest disconnecting the 12V supply cord between the truck and camper if you do not wish to use the truck's battery while stopped and camping.) A battery isolator may also be purchased from your local parts store, which prevents the camper from discharging your truck battery.

BATTERY CHARGING

Normally the battery(s) will be kept charged by either the truck charging system while on the road, the roof mounted solar panel, or by the AC/DC power converter when plugged into AC service. On those occasions when the battery needs to be charged from a different charging source, please follow these safety guidelines:

- Disconnect both cables to prevent damage to the camper's electrical system.
- Do not smoke near batteries being charged or which have been recently charged.
- Please note that batteries are being charged while you drive, and while you are connected to 110-volt AC power through the power converter/charging circuit.
- Use care when connecting or disconnecting booster leads or cables while charging. Poor connections are a common cause of electrical arcs that can cause explosions.
- Check and adjust the electrolyte level before charging.
- Fill each cell to the indicator level with distilled water.
- Always remove the vent caps (if equipped) before charging the battery.
- Never expose the battery to open flame or electric spark. Chemical action in the battery generates hydrogen gas that is flammable and explosive.
- Before connecting the battery cables, turn off all electrical components to avoid sparks. Connect the BLACK cable to the POSITIVE (+) post on the battery. Connect the WHITE cable to the NEGATIVE(-) post.

NOTE: This is different than the automotive industry that uses red and black. There are fuses on the front of the power converter that will protect the camper's electrical system if you accidentally connect the battery in reverse.

BATTERY DISCONNECT SWITCH

The battery disconnect switch is located near the floor in the forward portion of the main camper floor area. To operate the battery disconnect switch, follow these steps:

1. When unit is plugged into an external electrical source, the battery disconnect switch needs to be pulled out in order for the battery to charge through the converter.
2. When traveling, the battery disconnect switch needs to be pulled out to allow your truck battery to "trickle" charge the camper battery.
3. When the battery disconnect switch is pushed in; it disconnects ALL power from the battery, both incoming and out-going.

NOTE: To extend the charge of your battery, all electrical accessories should be turned off when not in use.

CIRCUIT OVERLOAD

Circuit breakers located in the AC/DC Converter protect the camper wiring circuits when an overload occurs. To reset a circuit breaker after an overload:

1. Turn off all appliances.
2. Reset the breaker by turning it to the OFF position, then back to ON.

Find out why the circuit breaker "tripped". The cause could be nothing more than a circuit overload caused by too many appliances being operated at the same time. On the other hand, the cause might be a faulty appliance, or a short in the wiring. Both are hazardous and both should be repaired as quickly as possible.

FUSES

All the electrical circuits in your camper have fuses to protect them from short or overload. If something electrical in your camper stops working, the first thing you should check for is a blown fuse. Determine from the diagram on the fuse panel, which fuse or fuses control that component. Check those fuses first, but check all fuses before deciding that a blown fuse is not the cause.

Replace any fuses and check the component's operation. Do not install fuses with amperage ratings greater than that specified on the label. Replacing a fuse with one that has a higher rating greatly increases the chances of damaging the electrical system. If you do not have a replacement fuse with the proper rating for the circuit, install one with a lower rating until you can replace it with the proper rated fuse. If the replacement fuse of the same rating blows in a short time, there is probably an electrical problem with your camper. Leave the blown fuse in that circuit and have your camper checked by your Travel Lite dealer.

INTERIOR LIGHTING

The interior lighting operates on 12-volt DC power only. When connected to a 110-volt source, the power converter transforms 110-volts to 12-volts. However, when not connected to 110-volts, the entire load of lights, water pump, exhaust fans, etc., is on your 12-volt battery. Use conservatively to minimize battery discharging.

CAUTION: Some of the lighting fixtures may be equipped with halogen bulbs. The bulbs and fixtures may get very hot when they are on. Do not touch these lighting fixtures when they are on. Allow them to cool before attempting to replace a bulb or to clean. Replace all light bulbs with the same type and wattage as originally installed or as indicated on the fixture.

SYSTEMS MONITOR PANEL (OPTION)

The systems monitor panel allows monitoring of fresh water, gray water, black water and battery levels. All functions are controlled from one test switch for easy operation. All panels also have a lighted switch to control the water pump.

LEVEL INDICATOR SWITCH

When depressing the monitor switch, indicator lights for the black (waste), gray (sink) and fresh water tank will illuminate, indicating the existing condition of each component. The battery level is a digital display that reflects the battery voltage when the switch is depressed. Erroneous indications when checking water levels can be caused by water with low mineral content. Level is measured by a very low electrical signal traveling through the liquid. Some water that is low in mineral content may not conduct the signal properly.

SOLAR PANEL (OPTION)

The solar panel is mounted on the roof. Inside the cabinet next to the galley cabinet a voltage regulator is mounted. The panel wires terminate at the battery disconnect relay located inside the battery box compartment. The 12ga blue (+) wire is fused with a 10-amp fuse and connected to the 30-amp circuit breaker. The 12ga white (-) wire terminates at the battery negative (-) post. The solar panel is designed to "trickle charge" your battery system. It is not intended to be a fast charger. It also cannot supply large amounts of current to operate 12-volt DC electrical equipment.

NOTE: Weather conditions will affect the charging rate of the solar panel. Refer to the solar panel manual supplied in your Owner's Information Package. Titles and fuse sizes are marked inside the removable access door. If a fuse blows, locate and correct the cause. Turn off all lights and motors, and then install a fuse with the same rating. If fuses continue to blow, a short circuit is indicated. Have the system checked by authorized technician.

PLUMBING

Most campers will have both the fresh water and drainage waste systems. Depending on the complexity of the plumbing system, the holding tanks, water lines, drainage lines, and fresh water tank will be located and run differently.

FRESH WATER SYSTEM

The water pump is a self-priming, automatic system that operates on demand. The water should be changed if not used in a week's time.

WATER PUMP CONTROL SWITCH

This rocker switch controls the demand water pump. The water pump is pressure sensitive and starts (with the switch ON) when a faucet is open, causing pressure in the line to drop. When the faucet is closed, pressure builds in the line and the pump stops.

WATER LINES

- Most units are equipped to obtain water into the system through one of two ways. These two inlets are labeled and located on the exterior of the vehicle.
- The "gravity type" fill allows you to fill your fresh water storage tank by simply pouring water into the plastic inlet dish outside the vehicle. This will only fill the water storage tank and a water pump is needed to pump the water through the water line system.
- The other inlet, known as the "city water" fill, requires a special hose (approved for drinking water) to be connected to the special female swivel water service connector on the vehicle with the other ends connected to the park water service or the outside spigot of your house. This inlet is usually found next to the gravity fill. When using the city fill, your complete water line system will be filled and pressure from the outside water source will service the system.

SANITIZING THE FRESH WATER SYSTEM

- Make a solution of one gallon of water and ¼ cup of chlorine bleach (5% sodium hypo chloride).
- Make sure the fresh water tank is empty.
- Use 1 gallon of solution for each 15 gallons of tank capacity. (Each vehicle has different capacities.)
- After the solution has been added, fill the remainder of the tank with fresh water. Open all faucets of the fresh water system until all air has been released and the entire system fills with the solution. Once filled, close all faucets and valves.
- Allow system to stand for 3 hours.
- Drain and flush system with fresh water.
- Make sure you flush the water system several times to remove any taste of chlorine. To remove chloride or odor, which might remain, mix a solution of 1 quart of vinegar to 5 gallons of water. Pour this solution into the tank and fill the system with solution by opening and closing each faucet. Allow it to sit overnight, if possible, then drain and flush thoroughly several times with fresh water.
- Always drain your fresh water system completely when vehicle is not in use. A quick flush and a fresh water fill of the system before each trip will ensure the highest quality drinking water for your consumption.

The fresh water system is a demand system. The 12-volt pump will run whenever there is need for water at the faucet. Insure there is 12-volt power to the pump and the switch is on. Just turn on the faucet for a smooth, continuous flow of water at all ranges of operation. For units with the hot water heater you need to insure that the LP tank(s) is filled and that the pilot light is activated in order to have hot water supplied to the faucet. It is hard to realize just how much water we use every day in normal use. Newcomers to self contained RV's should discover that the water supply doesn't last long unless procedures for consumption are adjusted. You can drastically reduce water consumption for showers by first wetting down and then turning off the shower head, soaping yourself, then turning on the shower head to rinse off. Once you start this practice you will find a good shower only takes about a gallon or less of water.

When using the city water supply the water pump must be turned off. Connect a clean ½" minimum highpressure water hose to the water inlet fitting. The city water hook-up will bypass the water holding tank and provide water under pressure without using the 12-volt water pump.

Note: Within this fitting there is a built-in water pressure regulator. Because water pressure is different in each location of use you may want to consider adding an additional regulator for protection to your system.

WASTE WATER AND SEWER DRAINAGE SYSTEM (MOST MODELS)

Your camper has a drainage/sewer system, which functions much the same as the one in your home. The system consists of a main holding tank and an auxiliary holding tank. Waste from the toilet drain enters the main holding tank (black water) enabling you to use the toilet for several days away from disposal facilities. The wastewater from the kitchen sink, lavatory, and shower (when applicable) drain into the auxiliary holding tank (gray water). Each tank has its own dump valve, however, both tanks may drain into a common outlet with one drain hook-up, depending on the floor plan that you have. Note that the 690 & 700 model slide-in camper does not have either holding tanks (gray or black).

DRAINAGE LINES

- The major part of the drainage waste system is made of ABS piping. This plastic form of piping is not designed for certain types of cleaners. Always read instructions on any cleanser before use on these lines. Different vehicles have different capacities for waste holding. The size of the waste tanks and your personal hygiene habits will determine how long you may camp without a direct hook-up to a sewage disposal system. When preparing to camp, be sure to close all slide or knife valves on the waste tanks. The main dump will have a cap that must be closed.

STORAGE TANKS

- When using your camper, always prime the waste storage tanks with one gallon of water containing an odor control chemical. Most states and recreational parks have strict laws to prohibit dumping of any kind into anything other than approved disposal facilities or sewer systems. To find the closest "dump station" when traveling, check with a local service station or park operator at your campsite. After tanks have been emptied, put a couple of gallons of water in them to keep solids from building up on the bottom of the tank.
- **WARNING:** Holding tanks are enclosed sewer systems and must be drained into an approved dump station or ground disposal area. Holding tanks must be drained and cleaned regularly to prevent the buildup of harmful or toxic materials or fumes

TOILET (MOST MODELS)

Your toilet is designed to use very little water. See complete operating instructions and sanitizing instructions contained in the manufacturer's information package. Do not use detergents or bleaches since they remove lubricating oils and greases. Use only an odor control chemical as mentioned in your manufacturer information package. You must be careful to not spill any of this liquid on your clothing, carpeting, or flooring since this may cause an un-removable stain.

TOILET AND HOLDING TANKS DO'S AND DON'TS:

DO'S

- Clean the holding tank with an approved cleaner.
- Add a special chemical additive to sanitize and improve tank action.
- Guard the tank against freeze ups.
- Keep the dump valves closed to allow the tanks to get as full as possible to aid in draining.
- Use any soft, single ply biodegradable toilet tissue
- Open the bathroom vent to dispel condensation and odors.

DON'TS DO NOT put the following in the toilet or drains:

- Facial tissue, paper towels, sanitary napkins or items
- Household toilet cleaners, detergents or bleach (use a sewage tank deodorizer instead)
- Automotive antifreeze, ammonia, alcohols, or acetone
- Table scraps or other solids that may clog the drains
- Any foreign objects that could clog or damage tanks.

DOORS, WINDOWS AND COMPARTMENTS

Be sure all occupants in the camper know how to operate the entry door lock and deadbolt as well as the emergency exits in case of emergency.

ENTRY DOOR, SCREEN, AND LOCKS

The entry door lock and deadbolt are keyed alike. The key is double sided so it can be installed into the lock in either direction. Be sure to write down the key number and keep it in a safe place. Your Travel Lite dealer can obtain duplicates with this number. The screen door can be operated independently by releasing the catch on the screen door and swinging the screen door away from the main door. When using the screen door, you can secure the main door against the side of the trailer with the exterior door latch. NOTE: It is always a good idea to lock the entry door deadbolt before traveling.

ENTRY ASSIST HANDLE

Your camper is equipped with a deluxe rubber-gripped assist handle. It is located on the outside rear of your camper and will help support you when entering and exiting the vehicle.

WINDOWS

Depending on the model of your camper, the windows in your unit are either a radius corner-sliding pane made with safety glass or Seitz CS dual acrylic pane hinged windows with a double cassette blind and flynet system.

Operation of slider windows:

- Open by pulling out the latch knob; when the window is closed the latch will automatically lock into place

EMERGENCY EXIT (EGRESS) WINDOW

Read and understand these instructions before you need to use them. The emergency exit window is located in the cab over or bunk area of the camper and is identified by the red handles and EXIT label. The emergency exit window provides an escape route in case the camper must be evacuated under emergency conditions and the path to the main entry door is blocked.

Operation of the emergency exit window:

- Pull the red handles and swing the window outward. The window is hinged at the top.
- **DO NOT BLOCK EMERGENCY EXIT WINDOW.** When parked, be sure trees or other obstacles do not block the exit window.

STORAGE COMPARTMENTS AND CABINETS

Storage compartments with exterior access doors are fitted with key-operated locks. Interior cabinet doors have spring-loaded hinges to keep them from swinging open. A few simple guidelines will help keep loose objects in place during travel.

1. Keep tools and heavy objects stored low and away from the ends of the camper in areas where they cannot shift.
2. Pack articles in drawers and compartments so there is not room for them to shift, using straps or ties where necessary.
3. Secure glass containers and containers holding liquids to prevent spilling or breakage.
4. Storage compartments with exterior access may not be water tight.

WINTER PROTECTION OF YOUR CAMPER

CONDENSATION AND YOUR CAMPER

Interior moisture can accumulate on windows and ceiling vents when the outside temperature is dramatically colder than the inside temperature. This is a natural occurrence that can be reduced by partially opening one or more roof vents and windows to provide controlled circulation of outside air into the interior of the camper.

WHILE CAMPER IS IN USE

When using your camper in cold weather, be sure there is adequate circulation of warm air from the furnace around all water pipes. Leaving the bath door and cabinet doors open will help to avoid freezing pipes. Keep the ceiling vent slightly open.

PREPARING FOR WINTER STORAGE

- Level the unit – front to back and side to side
- Turn off LP tanks.
- Open all faucets, valves, and drains including toilet stool valve, water heater drain, and line drain.
- Run pump until all water flow stops through the faucets. Shut pump off immediately. Allow drains, faucets, and valves to remain open for several hours or blow all extra water out with air. Be sure all lines are empty.
- Close all faucets, valves, and drains. All 3 water heater by-pass valves should be in the vertical position.
- Use RV anti-freeze solution for potable water to have a more positive protection.
DO NOT use automotive anti-freeze.
- Completely drain holding tanks.
- Flush sink, shower-tub, lavatory, and stool with a solution of hot water and dishwasher soap. Allow it to drain and then flush with clean hot water.
- After tanks are dry, close dump valves and drain cap.
- Fill traps with RV anti-freeze; a cap-full per trap is adequate.
DO NOT use anti-freeze with an alcohol base.
- Turn off thermostat and lights, unplug all electrical items, and pull shades.
- Put graphite in all locks and steps, and lubricate all door hinges.
- Open refrigerator door and secure so that it **CANNOT BE CLOSED**.
- Close all vents and windows.
- Unhook battery and store in a dry warm place.
- Lock up your camper and all the storage compartments.
- **WARNING:** Automotive, radiator or windshield washer antifreeze could be harmful or fatal if swallowed.
DO NOT use them in the fresh water system or to protect drain traps from freezing.

WINTER STORAGE - SEE NEXT PAGE

WINTER STORAGE OF YOUR CAMPER

If at all possible, TLRV recommends that you store your camper inside

OUTDOOR WINTER STORAGE INSTRUCTIONS

Outdoor winter storage requires certain precautions to prevent condensation of excessive moisture, which can cause musty odors and mold.

EXTERIOR

- If you decide that it is important to protect your vehicle in areas of heavy precipitation through the use of a vinyl type tarp, do not cover the unit in such a way that no air can circulate. If your unit is covered, it is important to provide some air circulation within the unit by opening a roof vent and a window slightly.
- Check the roof for areas that may need resealed. Snow should not be allowed to accumulate on the roof. The action of thawing and freezing could cause damage to the vents and other items attached to the roof.
- If the unit is stored uncovered, it is necessary to close roof vents, windows, and the door tightly to prevent moisture from entering the unit.
- Always support the camper at the corners and outside walls. Incorrect placement of the blocks will result in damage to the sub floor and/or waste and fresh water tanks.

INTERIOR

- The interior requires little preparation for winter storage. All appliances, both electrical and LP gas should be turned off. All electricity going into the unit should be disconnected. It is recommended that you disconnect your 12-volt system by using your battery disconnect switch. This will stop any drain in the battery caused by your LP/CO detector while the unit is in storage.
- Since air circulation is virtually eliminated when the camper is totally closed, the following suggestions will help to reduce musty odors, mold, and excessive moisture:
- Clean the camper thoroughly and remove all perishable items.
- Clean out the refrigerator and SECURE THE DOOR OPEN. An open box of baking soda placed inside will help to eliminate odors.
- Remove and clean curtains and store inside camper.
- Spread out your upholstery so that air can reach all portions.
- Open all cabinet doors and drawers.
- Place one or more containers of moisture gathering beads in the camper.
This will help to reduce condensation and excessive accumulation of moisture inside the camper.

EXTERIOR MAINTENANCE

Routine maintenance is the best way to insure against cosmetic changes on the exterior components. Routinely wash and wax the exterior of the camper thoroughly to help prevent surface deterioration.

Check the weather sealant every couple of months.

Your TLRV dealer can inspect the camper and completely reseal, if necessary.

The dealer can also recommend the appropriate sealants if you prefer to do this job yourself.

Seals and caulk are not covered under warranty.

EXTERIOR FINISH

The exterior walls of the camper are made of aluminum or gel-coat. Metal, rubber, and plastic components may also be attached to or part of the exterior structure of the camper. The finish on those materials is durable, but not indestructible. Any material or finish will deteriorate in time. Exposure to the elements and airborne pollutants can chemically alter the composition of many materials causing dulling, yellowing and fading to the finish. Most often these changes due to weathering are on the surface and do not affect the strength of the exterior components of the camper.

SIGNS OF WEATHERING

- Chalking. The surface finish has broken down into a fine powder that will usually just wash off.
- Fading. The color of the finish has changed. This can be caused by chemicals, pollutants in the air, ultraviolet rays of the sun, or by changes in the pigments used in the finish. Some fading is normal over a period of time.
- Yellowing. This is usually caused by chemical changes in the material and pigments due to ultraviolet rays of the sun.

WINDOWS, DOORS, VENTS, & LOCKS

Keep moving parts of windows and latches adjusted and maintained. Lubricate the windows with a light oil or powdered graphite at least once a year. Periodically check and tighten the screws holding the windows in place. Lubricate locksets, hinges on entry door, and exterior storage compartments at least annually with oil or silicone lubricant. Check the weather sealant annually. If the camper is exposed to salt or winter chemicals, more frequent sealing and lubrication may be required.

Your TLRV dealer can inspect the camper and do complete resealing if necessary. The dealer can also recommend the appropriate sealants if you prefer to do this job yourself.

TPO ROOF BY ALPHA SYSTEMS LLC

Due to possible personal injury or damage to the camper roof, TLRV does not authorize any person to be on the roof of the camper for any reason. Take your camper to an authorized and qualified TLRV dealer or service technician annually for routine maintenance of your roof.

The following are suggestions for proper care of the roof:

1. Cleaning: For normal cleaning, standard household detergents can be used to wash the rubber roof material. Rinse thoroughly after cleaning. Be sure to keep the sidewalls wet to reduce streaking when cleaning roof.
2. Care: The rubber material itself does not require annual coatings or additional sealants. Periodic washing with soap and water is all that is required.
3. Visually inspect the roof at least every 6 months in areas that have sealant added (around roof vents, TV antenna, etc...) and any seams in the roofing material. If re-sealing is needed, take your camper to an authorized RV service center.
4. Sharp objects and/or tree limbs can cut the rubber roof material.
5. Repair kits are available through your dealer if the roof material is cut or torn. Remember that the roof requires special adhesives and material from the original manufacturer.
6. If you add accessories or new equipment onto the roof, use a qualified installer, or consult your TLRV dealer. Doing this on your own will void the manufacturer's warranty of this unit.

INTERIOR MAINTENANCE

Practice good housekeeping. Keeping a clean, well-maintained camper will result in many years of camping fun. Following the suggested cleaning procedures will eliminate many of the problems associated with poorly maintained units. A poorly maintained unit can result in voiding of the warranty, as will negligence, misuse, or the installation of equipment not authorized by TLRV. Become familiar with the information in the manual and in the appliance manufacturer's instruction sheets.

REFRIGERATOR

Never use harsh detergents or abrasive cleaners. Clean with warm soapy water (dish soap) and wipe dry.

STOVE AND SINK

Clean with appropriate cleaners.

UPHOLSTERY AND WINDOW SHADES

Professionally clean only. Frequent vacuuming or light brushing between periods of professional cleaning will prevent accumulation of dirt. Use of water-based or detergent-based cleaners may cause shrinking. Water stains may become permanent.

CURTAINS

Hand wash with mild detergent and drip dry.

VINYL TENT CANVAS

Use vinyl cleaner or warm soapy water.

WALL AND CEILING PANELS

Never use harsh detergents or abrasive cleaners on walls or ceilings. Most surfaces will clean with a soft cloth moistened with mild liquid detergent warm water. Do not use large amounts of water, which could saturate the material.

BATHROOM AND SHOWER

For routine cleaning use a non-abrasive cleaner. Never use harsh detergents or steel wool to clean surfaces.

WOOD PRODUCTS

Remove dust with a clean, slightly damp cloth. Apply a quality furniture polish and buff with a soft, dry cloth. Never use harsh detergents or solvents.

COUNTER TOPS AND TABLE

Clean with warm soapy water (dish soap) and wipe dry.

VINYL FLOORING

Wash with warm, soapy water, rinse and wax.

CARPET

A foam type cleaner for carpets may be used; be sure to follow manufacturer's instructions.

PRE-TRAVEL CHECK LIST

Proper planning of your trip will ensure a pleasurable experience.

A thorough knowledge of your truck camper is important if you are going to get the most of the convenience and safety built into your camper. You should become as familiar with your camper as you are with your own personal car or truck.

CAMPER TIE DOWNS

Before traveling, make sure that the camper is securely fastened to the truck with a good set of tie-downs. When securing your unit to the truck, make sure you do not over tighten the tie downs. They should be hand tightened plus ½ turn. Be sure to check approximately every 50 miles until you are sure that the tie downs are secure and not loosening from travel vibration. Spring loaded camper tie downs are recommended.

EXTERIOR

- Disconnect water, electrical, and drainage lines.
- Check LP gas tank level and refill if necessary.
- Check batteries.
- Check running lights and turn signals.
- Be sure all four jacks are in the full UP position.
- Be sure all roof latches are in locked position (if pop-up camper).
- Make sure awning is locked into closed position (if installed).
- Fold up step (if installed).

INTERIOR

- Lower TV antenna (if installed).
- Turn off water heater.
- Turn off water pump.
- Turn off furnace.
- Turn off range pilot.
- Close stove top cover.
- Close roof vents.
- Close and lock all windows
- Secure freestanding furniture and drawers.
- Pull out battery disconnect switch
- Lock deadbolt in entry door(s).

SYSTEMS

- Fill fresh water tank
- Drain holding tanks and secure drain cap
- Check operation of interior lights and appliances
- Check propane gas level. Check for kinked propane lines and possible leaks

CAMPGROUND REGULATIONS

You should always check the campground for their regulations upon arrival. This will help avoid any unnecessary conflict with the campground management and/or other campground users.

POST-TRIP CLEAN-UP

- Clean unit and check for damage
- Drain waste-holding tanks
- Clean waste drain hose and secure drain cap
- Drain fresh water tank and rinse
- Close outlet valve on propane tank
- Disconnect the battery cables or Push in battery disconnect switch.

PERIODIC MAINTENANCE CHART

| Item | Each Trip | Each Mo. | 3 Mo. | 6 Mo. | Each Year | *As Req. | Procedure |
|--|-----------|----------|-------|-------|-----------|----------|--|
| Fiberglass/ Metal Exterior Siding and Extrusions | | X | | | | | Wash with warm water and mild detergent |
| | | | | | X | | Wax with non-abrasive liquid or paste wax |
| | | | | | X | | Reseal seams and openings |
| Roof and Roof Components | | | | X | | | Inspect components and re-seal if needed |
| | | | | | X | | Lubricate roof vent mechanisms with light oil and clean completely |
| Windows and Doors | | X | | | | | Check vinyl seals when washing exterior |
| | | | X | | | | Check seals for damage and repair if needed |
| | | | X | | | | Lubricate door hinges and step components with WD-40 |
| | | | | | X | | Adjust and lube window latches with powdered graphite or light oil |
| | | | | | X | | Lube door locks, including exterior storage and access doors |
| Seals and Adhesives | | X | | | | | Inspect and re-seal as needed |
| LP Gas System | X | | | | | | Check for leaks and crimped lines |
| | | | | X | | | Have a qualified technician check pressures and complete system |
| Water and Drainage | | X | | | | | Check hoses, fittings and connections for leaks and signs of wear |
| | X | | | | | | Check drainage system for leaks and road damage |
| | | X | | | | | Sanitize fresh water system |
| | | | | | X | | Winterize system depending on local seasonal conditions |
| Electrical Systems | X | | | | | | Inspect wiring and connections |
| | | | | | | X | Check and service batteries |
| Appliances | X | | | | | | Remove food and ice from refrigerator |
| | | X | | | | | Clean fan blades and wash filter on range hood exhaust |
| | X | | | | | | Check for obstructions and dirt on exterior appliance vents |
| Safety Equipment | | | | | X | | Clean smoke detector components |
| | X | | | | | | Test smoke detector operation |
| | | | X | | | | Check fire extinguisher pressure and condition |
| Wood Surfaces | | X | | | | | Clean pre-finished panels and wood |
| Weight Distribution | X | | | | | | Be sure unit is within specified load limit of your truck |

This schedule should be followed to maintain the life of your camper. The seal along the edges of the roof and at the corners of the camper should be checked every 60 days.

TLRV TRAVEL LITE WARRANTY

WHAT AND WHO IS COVERED

This TLRV Recreational Vehicle ("RV") is distributed by Travel Lite, Inc. As such, Travel Lite, Inc. ("TLRV" or "Warrantor") supplies the warranty. The TLRV warranty covers this RV, when used only for its intended purpose of recreational travel and camping. It covers RV's sold in the United States, U.S. Territories and Canada, only. The warranty period is 2 years from the date of manufacturer or 1 year from the date of retail purchase whichever comes first. In the event manufacturer warranty runs out the dealer is responsible for 1 year warranty from the date of purchase. In the event that a substantial defect in material or workmanship, attributable to TLRV, is found to exist during the warranty period, it will be repaired or replaced, at Warrantor's option, without charge to the RV owner, in accordance with the terms, conditions and limitations of this limited warranty.

WHAT IS NOT COVERED

By way of example only, this limited warranty does not cover any of the following: defects in materials, components or parts of the RV not attributable to TLRV; items that are added or changed after the RV leaves the possession of TLRV; additional equipment or accessories installed at any dealership, or other place of business, or by any other party or rv owner, other than TLRV; any RV used for rental or other commercial purposes or permanent residence (Note: It shall be concluded that the RV has been used for commercial and/or business purposes if the RV owner or user files a tax form claiming any business or commercial tax benefit related to the RV, or if the RV is purchased, registered or titled in a business name); any RV sold outside the United States, U.S. Territories or Canada; any RV not used solely for recreational travel and camping; any RV purchased through auction or wholesale; any RV purchased from a dealer that is not an authorized dealer of TLRV; normal wear, tear or usage, such as tears, punctures, soiling, mildew, fading, or discoloration of exterior plastic or fiberglass, or soft goods, such as upholstery, drapes, carpet, vinyl, screens, cushions, mattresses and fabrics; the effects of condensation or moisture from condensation inside the RV; mold or any damage caused by mold to the inside or outside of the RV; imperfections that do not affect the suitability of the RV for its intended purpose of recreational use or items that are working as designed but that you are unhappy with; problems, including water leaks, related to misuse, mishandling, neglect or abuse, including failure to maintain the RV in accordance with the owner's manual, or other routine maintenance such as inspections, lubricating, adjustments, tightening of screws and fittings, tightening of lug nuts are warranted for 90 days from date of purchase. **PERIOD.**) UV attacks and it is effected by the environment, rotating tires; damage due to accident, whether or not foreseeable, including any acts of weather or damage or corrosion due to the environment, theft, vandalism, fire, or other intervening acts not attributable to TLRV; service items such as lubricants, fluids, filters, etc.; damage resulting from tire wear or tire failure; defacing, scratches, dents, chips on any surface or fabric of the RV; damage caused by off road use, overloading the RV or alteration of the RV, or any of its components or parts; wheel alignment or adjustments to axles when caused by improper maintenance, loading or damage from road hazards, including off road travel, wheel damage or balancing or damage from tire failures. Also, any costs associated with obtaining service, including by way of example, travel costs, are specifically excluded from the coverage of this warranty.

In addition, this limited warranty does not cover any material, component or part of the RV that is warranted by another entity, including, by way of example, tires, tubes, batteries, gauges, generator, hydraulic jacks, inverter, converter, microwave, television, DVD/CD player, radio, speakers, television, refrigerator, range, hot water heater, water pump, stove, carbon monoxide detector, smoke detector, propane detector, furnace or any air conditioner. (Note: The written warranty provided by the manufacturer of the component part is the direct responsibility of that manufacturer) Defects and/or damage to interior and exterior surfaces, trim, upholstery and other appearance items

TLRV TRAVEL LITE WARRANTY

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

EVENTS DISCHARGING WARRANTOR FROM OBLIGATION UNDER WARRANTY

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

LEGAL REMEDIES

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

WARRANTY REGISTRATIONS

Your warranty registration records should be completed and delivered to the manufacturers of component parts inside your RV. The selling dealership will assist you in completing and filling out the TLRV product warranty registration form. That form must be returned to TLRV within ten (10) days of your purchase of the RV. Your warranty will not be registered unless this warranty registration is completed and received by TLRV. Failure to file this warranty registration with TLRV will result in voiding of limited warranty. Warranties are also not transferable after first retail purchaser. Send registrations to registration@tlrvs.com.

CARE AND MAINTENANCE

Dealer are responsible for returning DIF (in 48 hours of unit arrival) and dealer maintenance while on lot until retail sold. Dealers should have a maintenance log. (Especially seal maintenance.) It is the owner's responsibility to perform proper care and maintenance of the RV, and to assure correct load distribution. For details regarding this, please see your RV owner's manual and the owner's manuals of the chassis manufacturer and other component part manufacturers. These outline various care and maintenance that is required to maintain your RV. Please review all manuals supplied with your RV and contact your selling dealership or supplier of the component part if you have questions. Note: Failure to maintain the RV as noted in those manuals voids this limited warranty, and any damage to the RV as a result of your failure to perform such care, is not covered by this limited warranty.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS THAT VARY FROM STATE TO STATE. WARRANTY, POLICIES, AND REGULATIONS ARE SUBJECT TO CHANGE AT ANY TIME.