

TLRV TRAVEL LITE



TRAVEL TRAILER 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	PLUMBING	23
DEALER RESPONSIBILITIES.	3	FRESH WATER SYSTEM	23
OWNER RESPONSIBILITIES	3	WATER PUMP CONTROL SWITCH	23
PRE-TRAVEL INFORMATION	4-8	WATER LINES	23
TOWING AND HANDLING	9-12	SANITIZING THE FRESH WATER SYSTEM	23
LP PROPANE GAS SYSTEM	13	WASTE WATER AND SEWER	
LP GAS PRESSURE REGULATOR	13	DRAINAGE SYSTEM (MOST MODELS)	24
LP TANKS	13	DRAINAGE LINES	24
FILLING LP GAS TANKS	13	STORAGE TANKS	24
LP GAS TANK INSTALLATION	13	TOILET	24
LP LINE CHECK	13	TOILET AND HOLDING TANKS	
LP GAS SAFETY PRECAUTIONS	14	DO'S AND DON'TS:	24
USING YOUR LP GAS SYSTEM		DOORS, WINDOWS & COMPARTMENTS	25
AT LOW TEMPERATURES	14	ENTRY DOOR, SCREEN, AND LOCKS	25
SAFETY AND WARNING DEVICES	15	ENTRY ASSIST HANDLE	25
LP/CO DUAL ALARM	15	WINDOWS	25
PROCEDURES TO TAKE DURING		EMERGENCY EXIT (EGRESS) WINDOW	25
AN LP (PROPANE) GAS ALARM	15	STORAGE COMPARTMENTS & CABINETS	25
SMOKE DETECTOR	15	WINTER PROTECTION OF YOUR CAMPER	26
FIRE EXTINGUISHER	15	CONDENSATION AND YOUR CAMPER	26
CARBON MONOXIDE (CO)	16	WHILE CAMPER IS IN USE	26
WARNINGS	16	PREPARING FOR WINTER STORAGE	26
SYMPTOMS OF		WINTER STORAGE OF YOUR CAMPER	27
CARBON MONOXIDE POISONING	16	OUTDOOR WINTER STORAGE	27
GENERAL SAFETY CONSIDERATIONS	16	EXTERIOR	27
APPLIANCES AND EQUIPMENT	17	INTERIOR	27
VENTING.	17	EXTERIOR MAINTENANCE	28
START-UP AND OPERATION		EXTERIOR FINISH	28
OF LP GAS APPLIANCES	17	SIGNS OF WEATHERING	28
REFRIGERATOR	17	WINDOWS, DOORS, VENTS, & LOCKS	28
LP FURNACE	17	TPO ROOF BY ALPHA SYSTEMS LLC	28
RANGE COOK TOP AND OVEN	17	INTERIOR MAINTENANCE	29
RANGE EXHAUST HOOD	18	REFRIGERATOR.	29
HOT WATER HEATER	18	STOVE AND SINK	29
MICROWAVE	18	UPHOLSTERY AND WINDOW SHADES	29
AIR CONDITIONER	18	CURTAINS	29
ROOF VENTS	19	VINYL TENT CANVAS	29
DOMETIC VENT	19	WALL AND CEILING PANELS	29
TV ANTENNA	19	BATHROOM AND SHOWER	29
TELEVISION	19	WOOD PRODUCTS	29
AM/FM PLAYER	19	COUNTER TOPS AND TABLE	29
ELECTRICAL SYSTEMS	20	VINYL FLOORING	29
110V AC SYSTEM	20	CARPET	29
12-VOLT DC POWER SYSTEM	20	PRE-TRAVEL CHECK LIST	30
BATTERY CHARGING	21	CAMPER TIE DOWNS	30
BATTERY DISCONNECT SWITCH	21	EXTERIOR	30
CIRCUIT OVERLOAD.	21	INTERIOR	30
FUSES	21	SYSTEMS	30
INTERIOR LIGHTING	22	CAMPGROUND REGULATIONS	30
SYSTEMS MONITOR PANEL	22	POST-TRIP CLEAN-UP	30
LEVEL INDICATOR SWITCH	22	PERIODIC MAINTENANCE CHART	31
SOLAR PANEL (OPTION)	22	LIMITED WARRANTY	32
		LIMITED WARRANTY	33

INTRODUCTION

Welcome to the lifestyle of TLRV travel trailers! Thank you for your business and confidence in our quality line of trailers.

We recommend familiarizing yourself with the contents of this manual before using your trailer. This Owner's Manual should provide helpful information to ensure your maximum enjoyment with your travel trailer. For the most current product information and changes, please visit our website at www.travelliter.com or contact your local TLRV dealer.

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 trailer 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 trailer.
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.

OWNER RESPONSIBILITIES

As the owner of a new TLRV travel trailer, it is your responsibility to properly maintain and care for your trailer. 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. All weights, fuel, liquid capacities, and dimensions are approximate.

PRE-TRAVEL INFORMATION

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

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

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

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

TOW VEHICLE

If you plan to tow your RV with a tow vehicle you already own, contact your automotive dealer to find out your vehicle towing capacity. If you plan to purchase a new tow vehicle, be certain to tell your automotive dealer the GVWR, size and type of RV that you will be towing (some tow vehicles can be purchased with an optional tow package). As a minimum requirement, the Gross Vehicle Weight Rating (GVWR) of your RV must not exceed your tow vehicle's towing rating. Some automotive manufacturers publish brochures that discuss towing considerations. Ask your automotive dealer how to obtain a copy of this information. If applicable, verify if the brochure ratings are listed "with" or "without" an optional tow package.

VEHICLE LABELS

Decals and data plates used throughout the RV aid in its safe and efficient operation; others give service instructions. Read all decals, data and instruction plates before operating your RV. If any decal, data or instruction plate is painted over, damaged or removed, it should be replaced. Keep a record of the 17-digit vehicle identification number (VIN) and your license number in the event theft or vandalism requires you to supply this information to the authorities.

WEIGHT LABELS

⚠️ WARNING

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

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

TIRE AND LOADING INFORMATION

TIRE	SIZE	COLD TIRE PRESSURE	SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION FD-323
FRONT			
REAR			
SPARE			

MANUFACTURED BY: JAYCO, INC. DATE: _____

FABRIQUE PAR: _____

INC. VEHICLE MFG BY: _____

VEHICULE FABRIQUE PAR: _____

CONFIRMED KG: _____

CONFIRMED KG: _____

PROTÉGÉANT: _____

INT. CONTRÔLE: _____

REAR AÉRIE: _____

TYPE OF VEHICLE/TYPE DE VÉHICULE: TRAILER / CARAVANE

MUSP/PURPOSE PASSAGE DE VÉHICULE/CHÔLE DE TOURISME À USAGES MULTIPLES

THIS VEHICLE CONFORMS TO ALL APPLICABLE U.S. FEDERAL MOTOR VEHICLE SAFETY STANDARDS AND STANDARDS APPLICABLE UNDER THE CANADIAN MOTOR VEHICLE SAFETY REGULATIONS EFFECT ON THE DATE OF MANUFACTURE/CE VÉHICULE CONFORME À TOUTES LES NORMES QUI S'APPLIQUENT EN VERTU DU RÈGLEMENT SUR LA SÉCURITÉ DES VÉHICULES AUTOMOBILES DU CANADA EN VIGUEUR À LA DATE DE FABRICATION/CE VÉHICULE

RECREATION VEHICLE TRAILER CARO CARRYING CAPACITY

VIN: _____

THE WEIGHT OF CARO SHOULD NEVER EXCEED:
XXX kg. OR (XXX Lbs.)

CAUTION:
A FULL LOAD OF WATER EQUALS XXX kg. OR (XXX Lbs.) OF CARO @ 1 kg/L (8.3 Lb/gal)

THE WEIGHT OF THIS RECREATION VEHICLE TRAILER AS COMPLETED AT THE FACTORY WITH FULL PROPANE CYLINDER(S) AND FULL GENERATOR FUEL IF APPLICABLE IS:

XXX kg. OR (XXX Lbs.)

CONSULT YOUR DEALER AND SEE OWNER'S MANUAL FOR DEFINITIONS, ADDITIONAL WEIGHT, LOADING, WEIGHING INFORMATION AND TOWING GUIDELINES.

You may question the total weight capacity of the tires on your RV being less than the GVWR; this is correct. In order to calculate the actual weight on the RV tires, it is necessary to include the tongue weight. The tongue weight is actually being carried by your tow vehicle, not the RV tires. For example: If the tires are rated at 2,000 lbs. each x 4 tires = 8,000 lbs. and the RV has a GVWR of 9,000 lbs. with a tongue weight of 1,200 lbs. The actual weight on the RV tires is 7,800 lbs. which is within the weight rating of the tires. If you have further questions, please contact your dealer or TLRV Customer Service.

PRE-TRAVEL INFORMATION

HITCH (CUSTOMER SUPPLIED)

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

Ask your dealer about the proper class and type of hitch you need to purchase for your individual tow vehicle/RV combination (a travel trailer requires a frame mounted hitch).

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

Maintain the proper tongue weight of the trailer. Stay within the target range of 10%-15% of the overall gross weight (travel trailer weight plus contents). Equipment that sometimes gives autos, trucks and sport utility vehicles a softer ride can accentuate swaying when pulling a RV; conversely, suspension that is too stiff will increase vibration, bounce and accelerate wear of your tow vehicle and trailer. Educate yourself to protect you, your family and other motorists.

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

HITCH HEIGHT & HITCH BALL

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

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

If you have additional questions, consult with your dealer. Travel Lite cannot be responsible for the suspension system of any tow vehicle. There are a variety of tow vehicle suspension systems available that will affect the ball height, stability and levelness of a hooked up RV. Make certain your Dealer is aware of the tow vehicle you are using so a compatible hookup is achieved. Depending on the model, your required travel trailer hitch ball diameter is either 2" or 2-5/16" (consult your dealer for assistance).

SWAY CONTROL (CUSTOMER SUPPLIED)

WARNING

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

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

Suggestions for sway situations:

- Slowly ease your foot off the accelerator.
- Turn the steering wheel as little as possible. Natural lag time reaction when counter-steering to correct sway could possibly make it worse.
- If the trailer is equipped with electric brakes, using the hand control will help to keep the vehicles aligned.
- As soon as possible, stop to determine the cause of the sway. Check all equipment and load distribution. If the problem cannot be solved immediately, contact your Dealer for a service appointment (travel at a very reduced speed on your way there).

CAUTION

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

PRE-TRAVEL INFORMATION

WEIGHT DISTRIBUTING SYSTEM (CUSTOMER SUPPLIED)

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

RV BRAKE SYSTEM

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

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

Braking system components include: Tow vehicle battery • Brake controller • Wire harness/connector plug
• Trailer battery • Breakaway switch

Tow vehicle battery

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

Brake controller (customer supplied)

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

Loading Your RV

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

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

WARNING

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

WARNING

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

WARNING

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

PRE-TRAVEL INFORMATION

WARNING

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

WEIGHING YOUR TOW VEHICLE & RV

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

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

Have your RV weighed periodically at a public scale to determine the proper load distribution.

Keep in mind that individual scales will operate differently. The surroundings of the scale need to be adequate to accommodate weighing each side of your RV.

To weigh your tow vehicle and RV

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

1. Weigh the RV including the tongue weight, while detached from the tow vehicle. This actual overall weight must be less than or equal to the GVWR for safe operation. If the overall weight is greater than the GVWR, some contents must be removed until the actual overall weight is less than or equal to GVWR.
2. Hitch the RV to your tow vehicle. Weigh the RV and the tow vehicle to determine the GCW. Make sure that this rating is less than or equal to the GCWR as specified by the manufacturer of your tow vehicle. If this overall weight is greater than the GCWR, some contents must be removed to bring the combination into compliance with the listed ratings.
3. Weigh the RV while attached to but excluding the tow vehicle. This will result in the actual weight that is exerted on all of the RV tires. This weight may be subtracted from the overall RV GVWR to determine the actual "tongue" weight.
4. With the RV still attached to the tow vehicle, weigh each wheel position separately to ensure each tire is not overloaded. To determine the wheel position weight:
5. Pull the RV onto the scale so only one tire is on the scale. Record the weight. Your RV must remain as level as possible on the scale (even though an axle or side is not physically on the scale). Obviously, to obtain the side-to-side weights, there must be enough space on either side of the scale to accommodate the RV being partially off the scale.
6. To calculate the opposite side of the RV wheel position weight, subtract the first side's weight from the weight determined in step #3.

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

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

WARNING

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

WARNING

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

PRE-TRAVEL INFORMATION

FIRST SHORT TRIP

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

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

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

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

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

RV DEPARTURE CHECKLIST

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

- Check the area under the RV after overnight parking and look for water or other fluid leaks.
If leaks are detected, find the cause and have it repaired immediately.
- Have someone observe the operation of all exterior lights while you activate the controls.
- Check wheel lug nuts for tightness and tires for proper air inflation pressure.
- Examine the tires for excessive tread wear or uneven wear patterns. Check for stones, nails, glass or other objects lodged in the tread. Inspect for tread cuts or sidewall cracks.
- Check the propane cylinder gauge to make sure there is propane available.
- Retract any awning(s) and secure them for transport.
- Close all the roof vents.
- If so equipped, disconnect any cable TV or phone hookups and lower the TV antenna.
- Turn off the interior lights and appliances.
- Secure any loose, heavy or sharp objects in the RV or exterior compartments.
- Disconnect the shore line power cord and ensure it is stored correctly.
- Fasten all interior and exterior doors securely. Lock them (if applicable).
- Make sure the stabilizer jacks and entry step are retracted to the travel position.
- Make sure the tongue jack (travel trailer) is retracted to the travel position and the dolly wheel removed.
- Walk around your RV one last time to make sure everything is stored away and the baggage compartments are closed and locked.
- Pull forward, clean the site (if applicable) and check for forgotten items.
- Secure and lock the entrance door.

TOWING AND HANDLING


BREAKAWAY SWITCH

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

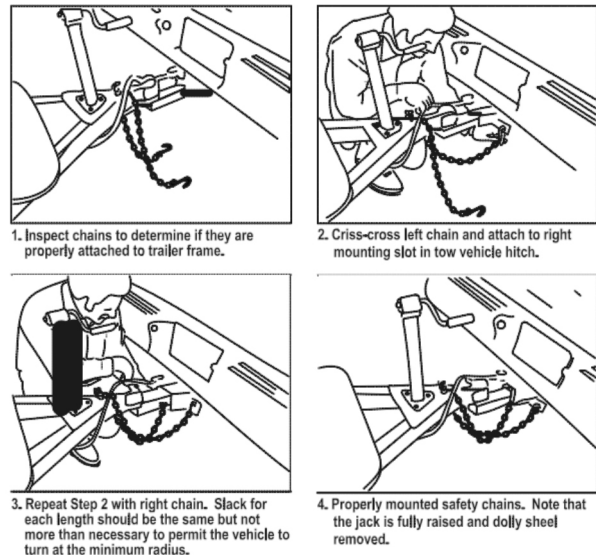
SAFETY CHAINS

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

Crisscross the left safety chain under the coupler and attach to the right mounting slot in the trailer hitch; repeat with the right safety chain. Slack for each length should be the same but not more than necessary to permit the vehicle to turn at its minimum radius.

**CAUTION**


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



STABILIZER JACKS

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

To raise each jack, insert the jack crank onto the applicable stabilizer jack shaft and turn the crank counter-clockwise. **The stabilizer jacks must be fully retracted before moving or towing the RV to prevent stabilizer jack damage.**

**WARNING**

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

TOWING AND HANDLING

TRAVEL TRAILER HITCHING PROCEDURE

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

1. Make sure the trailer wheels are blocked.
2. Turn the tongue jack crank to raise the travel trailer tongue above the hitch ball.
3. Open the coupler latch on the travel trailer hitch.
4. Back the tow vehicle into the proper position.
5. Turn the tongue jack crank to lower the coupler onto the hitch ball.
6. Close the coupler latch after it is completely seated.
7. Install the (customer supplied) weight distributing bars (equalizers) as directed by the OEM.
8. Remove the dolly wheel or platform and retract the tongue jack to its maximum height.
9. Attach the breakaway switch cable to the tow vehicle.
10. Walk around the RV to verify exterior lights are working correctly.
11. Attach the safety chains.
12. Plug in your wire harness/connector plug from the tow vehicle to the travel trailer.
13. Remove the trailer wheel blocks. If an Atwood brake actuator is used with an equalizing hitch, be sure the hanger chains hang between straight down and forward up to 34°. Do not use less than 6-1/2" hanger chain length. For optimum brake performance, hang chains forward 34°. Refer to OEM manual for more information.

WARNING

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

WARNING

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

TRAVEL TRAILER HITCHING PROCEDURE

You will find that your RV will travel safely and comfortably at most posted trailer highway speed limits. However, it will take longer than a passenger automobile to reach that speed. Keep this in mind when overtaking and passing another vehicle. Allow more time to go around the vehicle you are passing. You cannot cut back into the traffic lane as quickly due to the longer length of your tow vehicle/RV combination. Drive with caution to avoid situations that might require quick momentum changes. Even though your RV is equipped with brakes designed for GVWR, we suggest practicing stopping away from traffic until you become accustomed to your RV's stopping distance. A good way to practice is at a large parking lot (where it is permissible). Easing to a stop and starting smoothly saves wear and tear on your tow vehicle/RV combination. Drive defensively, try to anticipate problems

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

When descending a long hill, drop down into a lower gear (or lower range if you have automatic transmission). Avoid conditions that require excessive and prolonged use of your brakes. Apply and release brakes at short intervals to give them a chance to cool. The tow vehicle transmission and engine will help in controlling downhill speed and can lengthen brake life. The distance required to stop the RV is greater than an automobile's. Use care when accelerating or decelerating on a slippery surface. Abrupt speed changes can cause skidding and loss of control. Driving through water deep enough to wet the brakes may affect stopping distance or cause the vehicle to pull to one side. Check the RV's brake operation in a safe area to be sure they have not been affected. Never operate any vehicle if a difference in braking efficiency is noticeable.

TOWING AND HANDLING

TOWING BEHIND YOUR RV

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

WARNING

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

Vehicle Clearance

Remember some bridges, older ones in particular, may not support the weight of your tow vehicle/RV combination. Know the weight and size of your towing combination and observe any posted weight and clearance limits. The added height of roof air conditioners, TV antennas or floodlights may cause clearance problems around some tunnels, canopies and hanging signs.

Turning Corners

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

Backing up

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

Parking

After the RV is in the desired location, set the tow vehicle parking brake and place the transmission in park. Turn OFF the ignition switch. Go outside the RV and block all wheels securely with wheel chocks. The wheel chocks can be wood blocks or purchased items as long as they prevent the RV from rolling. Be aware of your surroundings. If parking at night at a rest stop, truck stop or parking lot chose a well-lighted area.

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

Have a pre-determined plan of action...

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

Be alert to all situations...

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

Trust your intuition...

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

Remember, nothing is 100 percent effective... Do not rely on your dog or an alarm system, etc. Always remain wary. Developing these habits may help prevent loss to you or your property as you travel and enjoy your RV.

TOWING AND HANDLING

EMERGENCY STOPPING

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

1. Place the first warning indicator on the traffic side of the RV, directed at the nearest approaching traffic.
2. Place the second warning indicator 100 feet behind the RV in the center of the lane and toward approaching traffic.
3. Place the third warning indicator 100 feet in front of the RV in the center of the lane and away from the traffic approaching from behind.

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

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

EMERGENCY TOWING

WARNING

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

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

CHANGING THE TIRE

WARNING

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

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

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

WHEEL LUGS

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

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

WARNING

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

1. Start all nuts by hand to prevent cross threading.
2. Tighten the nuts in the sequence shown.
3. Tighten the lug nuts equally in stages as indicated for your trailer's wheels

Check and re-torque after the first 10, 25 and 50 miles (16, 40 and 80 kilometers).

Thereafter, check and maintain the torque according to the listed torque values (see Wheel Lug Torque Chart.)

WARNING

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

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 TLRV 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.

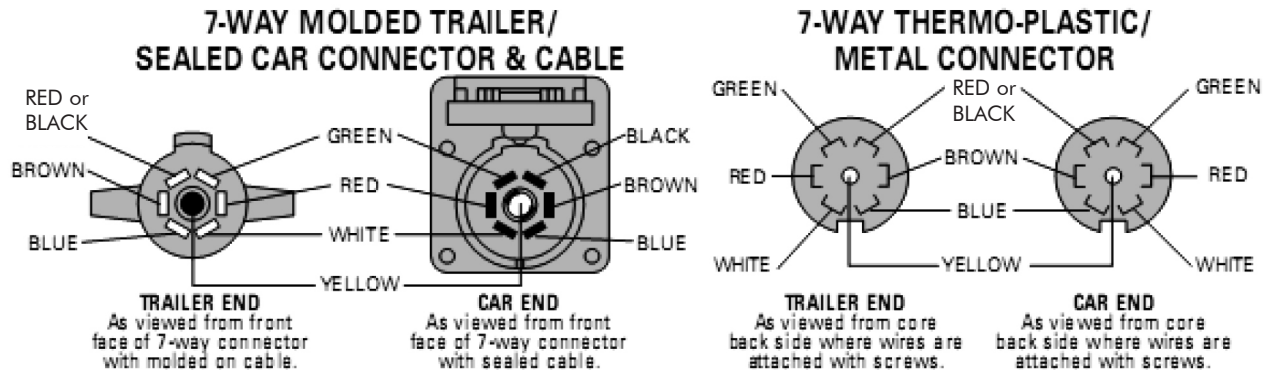
AM/FM PLAYER

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.

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 then 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

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 hypochloride).
- 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

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.