

ESCAPE TRAILER INDUSTRIES OWNERS MANUAL

TABLE OF CONTENTS

Introduction	1
Warranty	1
Basic Maintenance Guidelines	
Exterior Maintenance	3
Interior Maintenance	4
Storing Your Unit for the Winter	4
Hooking Up Your RV	5
Towing Your RV	7
Setting Up Your RV	8
Fire Safety	8
Mechanical Operation of Your RV	
The Plumbing System	9
Winterizing Your Water System	12
The Propane System	14
The Electrical System	17
Annual Maintenance Log	18
General Maintenance Chart	19
Running Gear Maintenance Chart	20

ESCAPE TRAILER INDUSTRIES RECREATIONAL VEHICLE OWNERS MANUAL

INTRODUCTION

This manual is designed to give you an introduction to the basic operation of your recreational vehicle and its warranty. It is not intended to serve as a detailed service manual to be used to guide you through intricate repairs or servicing of your R.V. The mechanical systems designed to operate the plumbing, electrical and heating systems in your R.V. can be complicated to trouble shoot if there is a problem, therefore we advise that you contact a qualified R.V. technician for any major servicing work that may be required. This R.V. and its components are designed and engineered to meet with or exceed all applicable codes and regulatory requirements.

Recreational Vehicles are intended for part-time, short-term recreational use; they are not engineered or built as permanent year-round living accommodation. We are confident that you will experience many years of enjoyment in your new Escape Trailer.

WARRANTY

Basic Coverage

Escape Trailer Industries warrants all Escape trailers to be free from defects in material and workmanship under normal use and service. This warranty will extend coverage to the following Escape manufactured and installed components:

- **Chassis**
- **Fiberglass Body***
- **Interior Cabinetry**
- **Mechanical System (LPG system, Plumbing system, Electrical system)**
- **Windows and Entrance Door (Installation)**
- **All Molding and Sealants**

The factory maintenance schedule must be followed and completed by a recognized RV facility at the owner's expense or this warranty may be voided. The Factory Maintenance Schedule requirements are provided in the Owner's Manual.

This warranty does not cover:

- Tires, glass, appliances or those items which are under separate warranty from the respective manufacturers or where warranty service is available from their authorized facilities throughout Canada.

- Loss of time, inconvenience, commercial loss; incidental charges such as towing, telephone calls, hotel bills, loss of use of the unit or any consequential damage.
- Any deterioration of upholstery, paint, decals or finish due to normal wear and exposure.
- Minor adjustments such as adjusting or servicing appliances, doors, windows, latches, moldings, LP gas regulators etc. that may be required after the first 90 days of the Warranty Period as these adjustments are considered part of normal maintenance.
- Hairline cracks in the gelcoat (white exterior finish) are common with fiberglass RV's and are considered part of normal wear. They are purely cosmetic and will only be covered within the first 90 days of the Warranty Period.

This warranty applies to the original owner only and is not transferable.

This warranty will be in effect for TWO years from the date of retail purchase.

Adjustments and Cosmetic Limitation

Any adjustments required to doors (interior & exterior), windows, drawers or cosmetic touch-ups that do not interfere or affect the operation of the unit will be limited to 90 days from date of purchase.

Any damage to any fabric, flooring or blinds must be identified and noted prior to or at the time of customer delivery before it will be covered under warranty.

Your warranty may be voided if:

- There is evidence of excessive loading beyond the recommended GVWR of your unit
- Equipment is added or alterations made to the unit without prior approval of Escape Trailer Industries.
- Regular recommended maintenance of the unit is not maintained.
- There is evidence of customer abuse or use for other than its intended purpose.

Basic Maintenance Guidelines

Exterior Maintenance

Your new R.V. has been designed to provide you with many years of trouble free service, however, any material and finish will deteriorate over time. Exposure to the environment and airborne pollutants can result in changes to the composition of the appearance of exposed materials and cause dulling and fading of the finish. Many of these changes are cosmetic in nature and will not effect the overall operation or structural integrity of your unit. In order to ensure that your new RV will retain its "like new" appearance for as long as possible, routine maintenance is a must.

The finish on the fiberglass exterior can be kept bright and attractive by washing it regularly with cold or lukewarm water and a car wash soap containing wax. Avoid using chemical solvents, strong detergents or abrasives. Rinse thoroughly with clean water, dry, then apply an appropriate wax or polish, which may be obtained from an RV Dealer. We recommend that the unit receives a polish/wax containing carnauba wax at least twice a year.

Windows, Doors & Roof Vents

The sealants used in the construction of your RV are designed to withstand a certain amount of movement and weathering. However, even the best of materials will deteriorate from prolonged exposure to the elements. Neglect and non-compliance with routine maintenance requirements will affect your warranty. The sealant around all windows and exterior doors should be inspected on a regular basis throughout the year with a major inspection conducted annually. It is important that the sealant be repaired and maintained as required.

Brakes, Chassis, Wheels and Tires

The brakes, chassis, wheels and tires on your unit are all designed specifically for use on Recreational Vehicles. These components are all warranted by their respective manufacturers and require that a specific maintenance schedule be followed to ensure continued safe operation of the component and that the warranty be maintained.

Your trailer brakes have been tested before leaving the factory. You may experience some squeaking of the brakes during the first few kilometers of break-in of new brake linings. This will ease in time and is not a cause for concern.

Please note that replacement tires must be the same size and have at least equal weight carrying capacity as the original equipment. Replacement wheels must be of the same size, type and load capacity as the original equipment. Wheel nut tightness (90-120 foot pounds of torque) and tire pressure (50 psi max) should be checked prior to every trip.

Interior Maintenance

The walls and ceiling are covered with a 3/8" layer of foam and sealed with a fire rated vinyl finish for durability and easy maintenance. Clean this surface with all-purpose household cleaners or mild detergents. Never use solvents or abrasive cleaners.

Storing Your Unit for the Winter

When you are finished using your unit for the season, following proper winter storing procedures will ensure that your unit is easily prepared for next year's camping season. It is a good idea to finish each camping season by implementing the complete recommended maintenance schedule. This will eliminate the need for last minute maintenance on your unit before your first camping trip of the season.

- Leave the roof vents slightly open to promote air circulation and ventilation in your unit, also leave cupboard and cabinet doors open to promote ventilation.
- Be sure to remove all objects that may be subject to freezing.
- Thoroughly clean the refrigerator and prop the freezer compartment and main door and open for ventilation
- "Winterize" your batteries by:
 - o Checking water levels and ensure batteries are fully charged
 - o Disconnect cables and coat cable ends with petroleum jelly
 - o Check batteries monthly and bring to a full charge each month
- Sunlight and changing weight can damage tires; you may wish to cover your tires from the sun and take the weight off the tires by jacking the unit up on an approved jack stand. Decrease the air pressure in your tires to 25 lbs.

Hooking Up Your Recreational Vehicle

Tow Vehicle

It is very important that you follow the recommendations of the tow vehicle manufacturer for the size and weight of trailer you are towing. Consult your RV Dealer or Automotive Dealer in regards to the proper towing package for your unit. Tires with load carrying capacity equal to the added hitch weight must be used. In some cases, an equalizing-type hitch should be installed to spread the hitch weight as equally as possible over all wheels and axles.

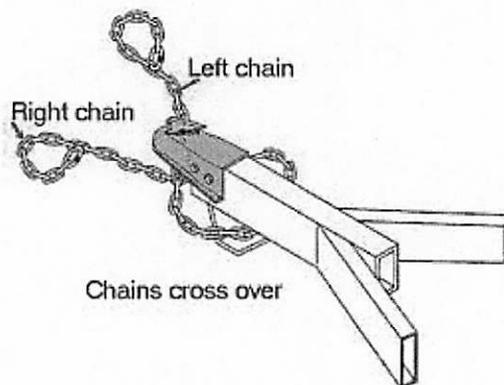
Hitch

It is important to keep the tow vehicle and trailer level in order to maintain equal weight distribution and ensure maximum steering control. The purpose of the weight-equalizing hitch is to divide the load between the tow vehicle axles and the trailer axle, which helps keep the tow vehicle basically level and maintains good handling and headlight alignment.

Trailer Hook-ups

Our travel trailers are all equipped with couplers designed to be used with a 2" ball only. Be sure that you have the right diameter hitch ball for the trailer coupler.

- Before dropping the coupler onto the hitch ball, make sure the coupler locking arm is in the unlocked position and then lower the hitch jack until the ball is firmly seated in the coupler.
- The latch is then moved downward to secure the coupler around the ball.
- A safety pin is then installed to prevent the latch from opening.
- Connect the safety chains in a criss-cross pattern so that the chains have satisfactory slack even when the trailer is being turned very sharp.



- Plug the 12 Volt DC electrical connector into the tow vehicle receptacle.
- Attach the brake away cable to a secure location on the tow vehicle.

CAUTION – On certain units, the lock arm on the coupler can go down even if it is not completely latched.

5th Wheel Trailer Hook-ups

Our 5th wheel travel trailers are all equipped with a standard 5th wheel pinbox designed to be used with all standard 5th wheel tow hitches.

CAUTION - Always make sure the trailer wheels are blocked before attempting to hook-up.

First put your tailgate on the truck down. On some 5th wheel hitches the hitch locking handle has to be pulled out to unlock the hitch. Check with your instructions to make sure you know this step. Back your truck up to the trailer, stopping short of the king pin on the trailer. At this point you may need to close your tailgate. Look to see the king pin is a bit lower than the 5th wheel plate on your hitch (approx ½"). When you back into the king pin, the hitch will lift the trailer. The king pin will slide onto the plate and slide into place. Then the hitch will have to be locked. By releasing the handle manually, or it may automatically close when the king pin is in place.

Now make sure your hitch locking handle is in the closed position.

Plug the 12 Volt DC electrical connector into the tow vehicle receptacle.

Attach the brake away cable to a secure location on the tow vehicle.

***NOTE**

Each time before hitching up your RV, conduct a routine check of you hitch components.

- Check for cracked or bent parts
- Check for cracked welds
- Check for deformed or stripped bolts
- Ensure the hitch ball is tight and well lubricated
- Check the trailer tongue or 5th wheel pinbox for cracks
- Make sure the ball locking device or 5th wheel hitch works freely
- Inspect all safety chains
- Ensure all defects are corrected before hooking up.

Wheel Nut Torque

Proper wheel nut torque is very important to safe and dependable RV towing. Although the wheel and axle system used in trailers is very similar to those used in passenger vehicles, there are some important differences. RV wheels must carry much higher loads per wheel than those on a normal passenger vehicle. **The wheel lug nuts should be properly tightened during the first 50-100 kms of initial break-in period and every 3000 kms thereafter. (90-120 foot pounds of torque)**

Towing Your Recreational Vehicle

It is almost impossible to overload a passenger vehicle because space tends to limit the amount of weight. You can't take your child's six friends to the baseball game if you are taking all of the team's Little League equipment in the back seat. Space, not weight, is the main concern.

Now you have an RV which is capable of being overloaded. Also the storage capacity offers any number of possibilities for improper weight distribution. Loading your supplies can have a major impact on how the vehicle handles, as well as on the durability of your tires. The results of improper loading or overloading can be serious. Passenger safety is at stake. Problems such as tire failure and/or poor handling can leave the driver with inadequate ability to control the vehicle during emergency maneuvers.

Too little tongue weight can cause the trailer to sway. Too much tongue weight can cause many problems, including not enough weight on the front wheels of the tow vehicle. When this occurs, the tow vehicle will be less responsive to steering. A weight-distributing hitch can remedy this problem by transferring weight to the front axle of the tow vehicle.

Load Ratings

You will find your RV's specific load rating information on the certification tag located on the front left-side exterior wall.

GVWR – Gross Vehicle Weight Rating. Amount the Recreational Vehicle may weigh when fully loaded.

GAWR – Gross Axle Weight Rating. Weight a single axle can carry.

Springs, wheels, axles, and tires are all affected by overloading. Tire failure can be disastrous in an RV, especially at high speeds. Be very careful and pay close attention to the inflation pressures stamped on the side of the tire.

Setting Up Your Recreational Vehicle

Leveling your RV on the site is not only necessary for comfort, but in order for your refrigerator to operate properly, it too must be reasonably level. Stabilizing your RV once it is parked is important to keep the RV from bouncing and swaying when people are moving around in it.

Stabilizer jacks are not designed to lift or level the RV or support its entire weight.

Stabilizing Procedures

1. Choose a site that is firm and as level as possible.
2. Once you have the unit situated on the site, place a block of wood under the hitch jack post in order to support it if on soft ground. Use wheel chocks to block the trailer wheels to ensure it will not roll forward or back. Now uncouple the trailer from the tow vehicle.
3. Level the trailer front to rear and check the level of the trailer with a level both front to rear and side-to-side.
4. Lower the stabilizer jacks at the front and rear. Adjust each jack to a snug, tight fit.
5. Be sure to raise all stabilizers before you resume traveling.

Fire Safety

The recreational lifestyle is not immune to the hazards of fire. Your RV is a complex piece of equipment comprised of many materials, some of which are flammable. However, like most hazards in life, the possibility of fire can be virtually eliminated by practicing common sense and implementing good maintenance practices.

Your RV is equipped with a smoke detector, Carbon Monoxide/Propane detector and a fire extinguisher; please read the operation manuals for these devices provided in your Owner's Information Package.

Mechanical Operation Of Your Recreational Vehicle

Your RV is outfitted with three main mechanical systems designed to provide the comforts of home while you are camping. The main systems are:

The Plumbing System

Providing fresh water and waste water and sewage disposal services in your unit

The Propane Gas System

Providing fuel to operate your stove, furnace, and refrigerator

The Electrical System

Providing 120V and 12V electrical power to operate lights, appliances and entertainment in your RV

All of these systems, though somewhat complicated, are designed to be operated and maintained with relative ease. Operational Instruction Manuals are provided with your Owner's Information Package for each appliance and piece of equipment in your RV. It is important to carefully review these instructions before operating any appliance or piece of equipment. We do not recommend that you attempt to conduct any repairs that may be required yourself, but rather seek the services of a qualified RV technician.

CAUTION

Repairs or alterations to systems or equipment done by unqualified or unauthorized personnel may affect your warranty coverage.

The Plumbing System

Fresh Water Supply

Fresh water is supplied from one of two sources:

- City water, provided under pressure when the RV is hooked up to a park or city water supply
- Water stored in the on-board fresh water tank with pressure provided by a pump operating automatically from your 12V system.

City Water Hook-Up

When camped in a park or near a city water supply, connect the RV as follows:

- 1 Turn water pump inside RV to **OFF**
- 2 Remove protective cap from the city water inlet on the exterior of your RV
- 3 Connect one end of the water hose to the RV inlet and the other end to the city water supply line
- 4 Turn on city water supply valve
- 5 Open taps inside your RV for a few minutes to flush lines
- 6 Check with the campground to ensure that the water pressure does not exceed 50psi. If it does, please use a water pressure regulator, which can be purchased from your local RV dealer.

CAUTION

Do not turn on the pump on until the city water line is disconnected or you may cause damage to the pump.

Disconnect city water connection if you are going to be away from the RV for an extended period of time.

On-Board Fresh Water Tank

Whenever a faucet is opened, the on-board fresh water supply automatically provides water to all systems. A 12V automatic, self-priming pump which functions any time power is available and the pump switch is on provides pressure.

Filling Your Fresh Water Tank

- 1 Your water tank is filled through a water filler spout on the exterior of your RV
- 2 After filling the tank, turn the water on and pressurize the system by opening each interior faucet until the air has been removed and water is present.
- 3 Open the hot water faucet until the hot water heater has been filled and water is flowing freely from the tap
- 4 Top up the fresh water tank to ensure your system is filled to capacity

Avoid leaving water in the tank when your RV is not in use. You can drain the tank by using the drain valve provided on the tank.

Make sure the pump is turned off when traveling.

If the pump does not come on when the taps are open:

Allow a tap to run until water pressure drops

If pump still does not run, check to see if switch is ON

If switch is ON, check the fuse located in your converter compartment

If the pump still does not operate, contact a qualified RV technician

If the pump continues to run when all taps are off:

Fresh water tank may be empty

If there is water in the tank, there may be a leak in the system

If no leak is found, turn off the pump switch and contact a qualified RV technician.

Waste Water System

Your RV may have a self-contained wastewater and sewage draining system consisting of one or two separate holding tanks. A black water tank that services your toilet and a gray water tank that services your shower and kitchen sink. The black water tank is more effective in removing solids when the tank is relatively full.

When draining your wastewater and sewage, please do so as follows:

- 1 Remove the sewer hose and adapter from storage located in the tube on the rear bumper
- 2 Remove the protective cap from the outlet by turning firmly counterclockwise.
- 3 Connect sewer hose to adapter and secure with clamp
- 4 Place the plastic termination adapter fitting over the drain outlet and secure by turning firmly clockwise, being careful that the clips catch firmly to hold the fitting in place.
- 5 Insert the opposite end of the sewer hose into a ground sewer or dump station inlet. Arrange sewer hose so that hose slopes evenly.
- 6 Pull open the large black water valve and allow sufficient time for the tank to be completely drained. Rinse and flush tank by inserting hose into tank or install a flush system. When finished push handle to close valve.
- 7 Pull open the small gray water valve (if equipped) and allow sufficient time for the tank to be completely drained. This tank should always be flushed last to aid in flushing outlets and hoses. Rinse and flush tank. When finished push handle inward to close valve.
- 8 Remove sewer hose by turning termination fitting counter-clockwise. Rinse sewer hose with a separate fresh water hose, then remove from dump station inlet.

Important Points on Holding Tanks

- Use approved RV holding tank cleansers to keep holding tanks clean
- Regularly add deodorizer or chemical additives approved for use in RV's to sanitize and improve tank action
- Keep your black water valve closed, permitting the tank to get as full as possible before emptying
- Keep both valves closed and the drain caps on when traveling
- Use only RV biodegradable toilet tissue, available from your RV Dealer
- Do not put facial tissue, paper, automotive anti-freeze, sanitary napkins, or household toilet cleaners in your holding tanks
- Don't put anything solid in your tanks that could cause damage

Winterizing Your Water System

When storing your RV for the winter it is necessary to protect the water system from freezing. There are **two** ways to winterize your RV.

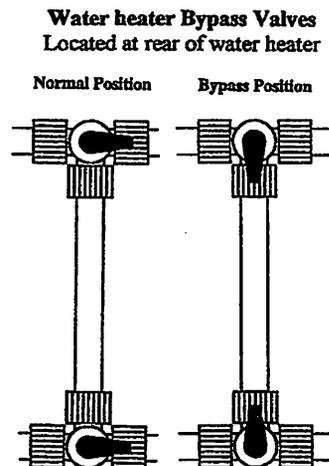
Method One: Installing RV/Marine non-toxic anti-freeze in the water lines.

CAUTION

Never use windshield or automotive type anti-freeze to winterize the RV water system.

Winterize your RV water system as follows:

- 1 Drain the fresh water tank by opening the drain valve on the tank.
- 2 Drain the hot water heater by removing the drain plug, (1-1/16" socket) which is accessed by opening the exterior water heater door. Open the safety valve to allow air to enter the water heater to assist water to drain.
- 3 Apply teflon tape to the threads on drain plug and re-install.
- 4 At the rear of the hot water heater, turn the cold (inlet) valve and the hot (outlet) valve to the bypass position. This will allow for economical use of the anti-freeze by not filling up the water heater.



- 5 Remove the inlet hose from the water pump (hose between pump and fresh water tank)
 - 6 Install a hose long enough to reach from the pump to your container of RV anti-freeze.
 - 7 With the pump on, open each tap until the pink colored anti-freeze is flowing freely. Do not forget the toilet, the shower and the exterior shower.
 - 8 Allow enough anti-freeze to flow into the P-Traps and holding tanks to prevent any water trapped in those areas from freezing.
 - 9 Reconnect water pump to the fresh water tank
- Never turn water heater on until it is filled with water**

Method Two: Draining the Water Lines

Winterize your RV water system as follows:

- 1 Drain the fresh water tank by opening the drain valve on the tank.
- 2 Remove the threaded black plastic plug from water line located beside fresh water tank drain. (Low Point Drain)
- 3 First, hold the toilet flush valve open for approximately 5-10 seconds to allow water to drain. Open all other taps (including exterior shower) and leave open.
- 4 Drain the remaining water out of the water heater by removing the drain plug, (1-1/16" socket) which is accessed by opening the exterior water heater door.
- 5 Apply Teflon tape to the threads on water heater drain plug and re-install.
- 6 Remove the screened washer on the City Water Fill. Behind the washer is a white plastic one-way-valve. Using your finger, lightly push this valve in to allow a small amount of trapped water to drain out.
- 7 Once there is no more water draining from the low point drain or fresh water tank, switch on the 12V water pump and run for approx 10 seconds. This will clear any water in the pump head out.
- 8 Re-install low point drain plug.
- 9 Pour 2 liters of RV anti-freeze into the toilet holding tank. Pour 1 liter down the kitchen sink drain, and pour 1 liter down the shower drain.

Never turn water heater on until it is filled with water

Preparing your RV for use in the spring:

Flush fresh water tank and water lines thoroughly before using.

If you used *Method 1* to winterize, turn the bypass valves to the normal position (see diagram on previous page)

Prior to operating the water heater, confirm it is full of water by briefly opening the relief valve. There should be no air present.

Manual Regulator

The manual regulator is factory adjusted to give proper line pressure for operating appliances.

- We advise that only one bottle be used at a time
- When this bottle becomes empty, it can be removed for filling. Do not open other tank until the other bottle has been replaced.
- If both bottles are open at the same time, the gas will flow from both bottles simultaneously and eventually run out at the same time, leaving you unknowingly with two empty bottles.

Automatic Change-Over Regulator

If your RV is equipped with an Automatic Change-Over Regulator it is factory adjusted to give proper line pressure for operation appliances.

- Open the valves on both bottles
- This regulator will use the fuel from one bottle until it is depleted then it will automatically switch over to the other bottle.
- When the first bottle is depleted and the change occurs, a red indicator will appear on the regulator showing that the supply tank has depleted.
- The arrow on the bottle selector points to the cylinder that is supplying propane so that you know which bottle to refill.
- Although this operation is automatic, a periodic look at your regulator is required in order to determine when a change-over has occurred.
- The depleted bottle can be removed without disturbing the flow of gas to the trailer.
- After refilling, it can be remounted and valve opened.

Gas Appliances

This manual is not designed to provide detailed operating instructions for your appliances; always follow the appliance manufacturer's lighting and operating instructions. If any of your appliances require servicing, contact an authorized repair facility. Do not attempt to service or repair appliances yourself or your warranty will be voided.

Refrigerator

- In order for the refrigerator to operate efficiently, the RV must be level. Serious damage may result to the fridge if it is operating while the trailer is not level.
- The refrigerator will operate on propane and 120V, and if equipped, on 12V.
- When the unit is not in use, open the refrigerator door to allow for air circulation.
- If the refrigerator does not seem to operate properly, check the electrical sources and the supply of propane. If these appear to be OK, see your RV Dealer or consult with a qualified RV technician.

The Propane Gas System

Propane gas burns readily and yields a great deal of heat energy. Under proper conditions and careful handling it is safe, economical and ideally suited for use in replace of less accessible conventional fuels.

CAUTION

Propane gas is highly flammable and is potentially explosive, if improperly handled

A strong odor has been added to the gas for safety; **if you smell gas:**

- Extinguish all open flames, pilot lights and all smoking materials
- Do not touch electrical switches
- Shut off the gas supply at the tank valves or gas supply connection
- Open all doors, windows and vents
- Leave the area until the odor clears
- Have the gas system checked and the cause of the leak repaired by a qualified technician before using the system again.

Under ordinary circumstances breathing small amounts of propane should not be harmful, it is not poisonous, however, it may induce drowsiness and may cause asphyxiation.

Filling up the Propane Tanks

To Remove the Tanks

- Close all valves tightly
- Loosen the nuts that secure the tanks to the flexible hoses
- The connection is controlled by a right hand thread connector
- Loosen the clamps that hold the tanks in place
- Take the tank at least 25 feet away from the RV for filling
-

CAUTION

When filling a tank for the first time or a tank that has been sitting empty for a period of time, have the tank purged in order to remove any moisture or condensation from the tank.

Regulator

The regulator is the heart of the propane gas system. It reduces the tank pressure, which can vary from 250 psi to 7 psi, to a steady 6 ounces per sq. inch to serve the appliances in the trailer.

Because the regulator is constantly "breathing" it is equipped with a vent.

- This vent must stay clean and free from obstruction
- Clogging from foreign material is the most common cause for regulator malfunction.
- Even a small amount of material that finds its way into the vent can result in improper pressure in the system.

Furnace

- The exterior furnace vent should be sealed during period of non-use to prevent entry by rodents, insects, birds, etc.
- The furnace motor is powered electrically by 12V, if voltage drops below 10.5V, the furnace will not function properly; it is most important to keep the battery fully charged.
- A wall-mounted thermostat similar to those used in your home controls the furnace operation.
- To start the furnace, set the thermostat to the ON position and set to desired temperature.
- The furnace will cycle on and off as required
- To stop the furnace, set the thermostat to the lowest setting and the OFF position
- If the furnace does not seem to operate properly, check the condition of the battery and the supply of propane. If these appear to be OK, see you RV Dealer or consult with a qualified RV technician.

Water Heater

- The water heater is located on the outside of your unit and is covered by a compartment door
- The water heater will either have to be lit manually or it may be equipped with a Direct Spark Ignition system
- Please follow the manufacturer's lighting instructions found inside the access panel of the heater on the outside of the trailer or in the operations manual.
- The water temperature is pre-set at the factory and cannot be altered
- **Never turn water heater on until it is filled with water**

NOTE

The warranty supplied by the respective appliance manufacturer is the only valid warranty supplied with these products. For extended warranty information see your RV dealer.

The Electrical System

The electrical system in your RV is composed of 120V and 12V capabilities. All installations are made in compliance with CSA codes.

NOTE

Any changes, modifications or additions made after delivery may cause a hazardous condition. Only qualified electrical technicians should attempt to make any changes, modifications or additions to the electrical system in your RV. Any unauthorized changes, modifications or additions to the electrical system may void your warranty.

120 Volt AC System

Your RV is equipped with approximately 25 feet of heavy-duty power cord, which is stored in the rear of the trailer accessible from the exterior. The connector and cord are molded together to form a weatherproof cable assembly that should not be cut or altered in any manner. When connected to an exterior 120v outlet, power will be supplied to operate your refrigerator, wall receptacles and any other 120V item.

CAUTION Before using portable appliances, check the rated amperage to be certain they are within the limits of the circuit capacity.

12 Volt DC System

The second electrical system in your RV is the 12 Volt DC system. When a 12Volt battery is installed, it will provide power for lighting and other living needs when 120 V is not available.

The 12V battery used must be a RV "Deep Cycle" Battery. Although it appears the same as an automotive battery, its' design and capabilities are quite different. A deep cycle battery may be fully discharged many times without serious damage providing it is properly recharged immediately after use.

Power Converter

Your RV is equipped with a 120V AC to 12V DC converter, which will automatically switch the load from battery to converter when the RV is plugged into a 120V source. Power is then supplied direct from the converter for use in your RV.

Included in the converter is a battery charge circuit, which is designed to recharge the RV battery and automatically shut off when the pre-set required voltage is reached.

CAUTION

If excessive loss of battery fluid is noted, contact a qualified service center. A short circuit or a defective battery can fool the charge module in the converter into not shutting off and boiling will result.

Fuses and Circuits

The power converter is located inside your RV. Inside the front cover, 120V circuit breakers and 12V fuses are easily accessed. If a breaker trips or a fuse blows, locate and correct the cause before resetting or replacing.

Ground Fault Interrupter

A Ground Fault Interrupter (GFI) protects the kitchen outlet. The GFI is provided to protect against electrical shock when using appliances in areas near water. Should the appliance develop a potential shock hazard, or if the electrical grounding circuit in your RV or at an RV campsite is faulty, the GFI will disconnect the outlet, protecting you from a harmful shock. If the kitchen outlet doesn't work, check the GFI and reset if necessary. If the GFI continues to trip, have the electrical system checked by a qualified technician.

Annual Maintenance Log

In order to keep your trailer in top shape for years to come, regular maintenance is required. Please have the following checked and serviced by yourself or a recognized RV facility.

1. Inspect all roof vent sealants
2. Inspect all door and window sealants
3. Inspect clearance lights for cracks and sealants around lights
4. Inspect all plumbing connections
5. Sanitize fresh water tank
6. Inspect all propane lines for leaks
7. Pack wheel bearings
8. Clean and lubricate vents, lock mechanisms and rock shield catches
9. Wax exterior
10. Lubricate all exterior locks and latches

General Maintenance Chart

Service to be Performed	Start of Every Trip	Before use or Weekly	Monthly	Every 3 Months	Annually
Inspect Safety Chains	✓				
Inspect Brake Wiring, 7 Pole Plug	✓				
Test Brake Away Switch	✓				
Check Tire Inflation	✓				
Inspect Tire for Wear / Damage	✓				
Check Wheel Nut Torque	✓				
Check Exterior Lighting	✓				
Inspect LPG System	✓				
Inspect LPG Detector	✓				
Black / Gray Tanks to be Chemi / Flushed		✓			
Check Smoke Detector		✓			
Check Fire Extinguisher		✓			
Inspect / Clean Battery Terminals			✓		
Check Battery Charge / Fluid			✓		
Test GFCI			✓		
Lubricate Coupler / Latch			✓		
Wash Exterior			✓		
Lubricate Breakaway Switch Pin			✓		
Clean Breakaway Switch Contact				✓	
Inspect Roof Sealants				✓	✓
Inspect Door / Window Sealants				✓	✓
Inspect All Plumbing					✓
Sanitize Fresh Water Tank					✓
LPG Leak Test					✓
LPG Working Pressure Test					✓
Inspect Brakes / Suspension					✓
Pack Wheel Bearings					✓
Clean Interior					✓
Wax Exterior					✓
Clean / Lubricate Vents					✓
Lubricate Entrance Door Mechanism					✓

Running Gear Maintenance Schedule

Item	Function Required	Weekly	3 Mths or 3000 miles 4,830km	6 Mths or 6,000 Miles 9, 656km	12 Mths or 12,000 Miles 19, 312km
Brakes	Test That They Are Operational	<i>At Every Use</i>			
Brake Adjustment	Adjust to Proper Operating Clearance		✓		
Brake Magnets	Inspect for Wear and Current Draw			✓	
Brake Linings	Inspect for Wear or Contamination				✓
Brake Controller	Check for Correct Amperage & Modulation			✓	
Brake Cylinders	Check for Leaks, Sticking				✓
Brake Lines	Inspect for Cracks, Leaks, Kinks				✓
Trailer Brake Wiring	Inspect Wiring for Bare Spots, Fray, etc.				✓
Breakaway System	Check Battery Charge and Switch Operation	<i>At Every Use</i>			
Hub / Drum	Inspect for Abnormal Wear or Scoring				✓
Wheel Bearings & Cups	Inspect For Corrosion or Wear Clean & Repack				✓
Seals	Inspect for Leakage Replace if Removed				✓
Springs	Inspect for Wear, Loss or Arch				✓
Wheels	Inspect for Cracks, Dents or Distortion			✓	
Tire Inflation Pressure	Inflate Tires to Manufacturer's Specifications	✓			
Tire Condition	Inspect for Cuts, Wear, Bulging, etc.		✓		

Gross Vehicle Weight Rating

Frequently Asked Questions

INFO
Sheet

AUGUST 2003

Q. What is the Gross Vehicle Weight Rating?

The GVWR refers to the maximum weight a vehicle is designed to carry including the net weight of the vehicle with accessories, plus the weight of passengers, fuel, and cargo. The GVWR is a safety standard used to prevent overloading.

Q. Who determines the GVWR?

Vehicle manufacturers set the GVWR based on requirements set by Transport Canada.

Q. How is the GVWR determined?

The manufacturer determines the maximum acceptable weight limits by considering the combined weight of the strongest weight bearing components (the axles) and the weaker components (vehicle body, frame, suspension and tires).

Q. What are the penalties for driving a vehicle loaded above its GVWR?

Regulations in B.C. were recently changed to address consumer and industry concerns about the GVWR.

If a vehicle, with a GVWR of 5,500 kilograms, or less, that is manufactured before January 1, 2001 is loaded in excess of its GVWR and an enforcement officer deems it to be unsafe, the driver of that vehicle may be given a Notice and Order. Most light trucks and RVs have a GVWR of less than 5,500 kilograms.

If a vehicle with a GVWR of more than 5,500 kilograms, regardless of the date it is manufactured, is loaded in excess of its GVWR, the driver of that vehicle may be given a violation ticket.

Driving a vehicle loaded above its GVWR creates a potential safety hazard because the vehicle's frame, suspension, brakes and tires are not designed for weights above the rating the manufacturer has set.

Q. What will be the penalty for driving an overloaded vehicle that has a GVWR of 5,500 kilograms, or less, if that vehicle is manufactured after January 1, 2001?

The driver of any vehicle manufactured after January 1, 2001, which is loaded above its GVWR, may receive a violation ticket. The GVWR is the standard for determining if a vehicle is overweight.

A change to the regulations affects the drivers of vehicles that have a GVWR of 5,500 kilograms, or less, and are manufactured before January 1, 2001. This change was made to allow owners of the exempted vehicles time to upgrade, if needed, to vehicles that are better suited to their load-carrying needs. The change will also give vehicle dealers time to ensure consumers are advised about the GVWR and its implications when purchasing a vehicle.

Q. What is the difference between a violation ticket and a Notice and Order?

If you receive a violation ticket, you must pay a fine. If you receive a Notice and Order, you are asked to bring your vehicle into compliance within a specified time. Or, if the vehicle is obviously unsafe, it may be ordered off the road until the defect(s) or situation is corrected.

Q. How does an Peace/Police Officer decide if a vehicle is unsafe?

Peace/Police Officers will use visual cues to determine if a vehicle is obviously overloaded. These cues include vehicles:

- that look unstable when moving
- that have a front end higher than the back end (the vehicle is not level)
- with tires that appear deflated



BRITISH
COLUMBIA

Ministry of Public Safety
and Solicitor General

Q. How can I find out if my vehicle is overweight or unsafe?

The easiest way to know your vehicle is safe is to ensure you do not exceed the GVWR. You can also use the same visual signs used by Peace/Police Officers to determine if your vehicle is unsafely loaded.

The best way to find out how much weight your vehicle can carry is to subtract the net weight of the vehicle from the GVWR (located on the driver's door post). The number remaining is the maximum weight your vehicle can carry.

If you cannot locate the net weight of your vehicle in your owner's manual or if you have added accessories that increase the net weight, you can have your unloaded vehicle weighed at an weigh scale.

Q. What is the difference between the licensed weight (GVW) shown on my Owner's Certificate (insurance papers) and the GVWR on the vehicle itself?

When you license a vehicle, you pay a basic road licensing fee based on the weight you plan to carry and tow. You may increase the amount you are licensed to carry and tow by paying a higher fee. Since heavier vehicles cause more damage to the infrastructure of our roads, the owners of these vehicles are required to pay higher licensing fees to offset the cost of maintaining roads. You may notice that the licensed GVW on your insurance papers is higher than your vehicle's GVWR. This occurs because the licensed weight (GVW) includes both the load you carry on, or in, your vehicle and the load you are towing.

GVW refers to the weight you are licensed to carry and tow.

GVWR refers to the weight your vehicle is designed to carry.

Q. How much can my vehicle tow?

Check your owner's manual to find your vehicle's towing capability. If you tow a load that is too heavy for your vehicle, you create a potential safety risk for yourself and others on the road. You may also damage your vehicle. It is important that you be able to stop both your vehicle and your trailer. Braking requirements for all trailers are regulated and enforced. You may receive a violation ticket if you carry more weight than you are licensed to carry.

Q. If I am towing a trailer (or other vehicle), is the weight of the trailer considered to be part of the load of the towing vehicle?

No, the weight being towed is not part of the load of the towing vehicle; therefore, you do not need to include it in your calculations. You do, however, need to include the weight your trailer will put on the trailer hitch or 5th wheel. The weight on the hitch (known as the tongue weight) is part of the load of the towing vehicle.

Q. What about the weight of the load in my trailer? Does that count as part of the GVWR of the vehicle towing the trailer?

Each utility trailer, recreational trailer, horse trailer and other towed vehicle usually has its own GVWR set by the manufacturer. The weight of the load in, or on, the trailer is not part of the load of the towing vehicle. The weight the trailer puts on the hitch of the towing vehicle is part of the towing vehicle's load.

Q. I have a U-build utility trailer that does not have a GVWR. How much can I carry in that trailer?

If there is no GVWR indicated on the utility trailer, it will be licensed to carry 1401 kilograms GVW, the average capacity of utility trailers. If you are uncertain about how much weight your U-build utility trailer can carry, you can have a B.C. certified engineer assess each component and assign the vehicle a GVWR. Check the Yellow Pages for the location of a certified engineer near you.

Q. Where can I get more information about the GVWR?

You can speak to your local RV or Auto dealer, or local Weigh Scale. Information is also available at our website at:
www.pssg.gov.bc.ca/cvse

Information on this Info sheet subject to change without notice. In the event of conflict with this Info Sheet and the Motor Vehicle Act and Regulations, the Acts and Regulations shall apply.



**BRITISH
COLUMBIA**

Ministry of Public Safety
and Solicitor General