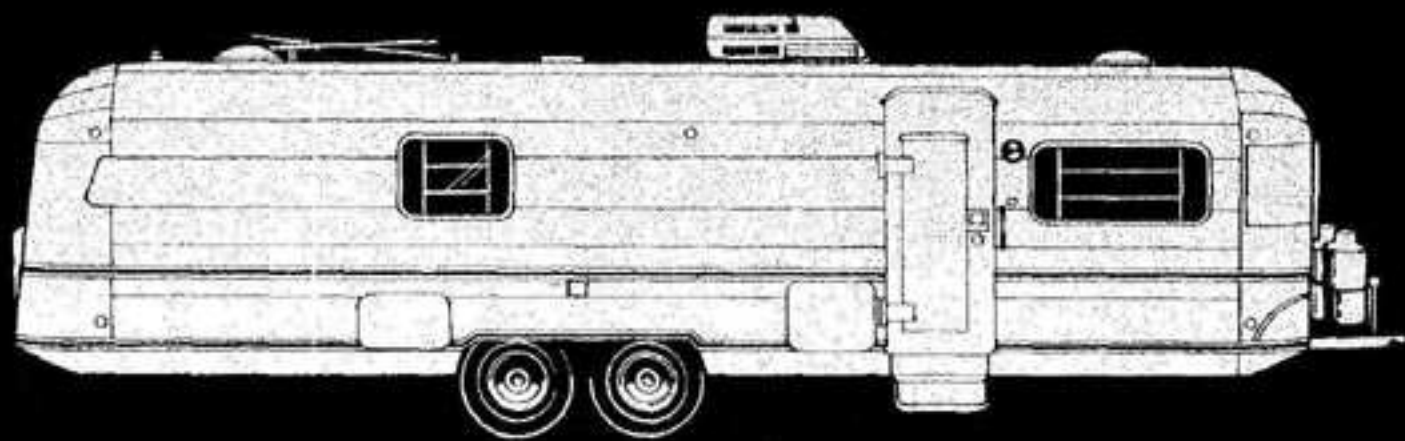


SILVER STREAK

The standard of quality for a quarter of a century



OWNERS MANUAL

SILVER STREAK

OWNER'S MANUAL

SILVER STREAK WARRANTY FACTS

LIMITED WARRANTY (12 MONTHS)

Silver Streak warrants for its trailers that it will repair or replace any parts, except tires and batteries, found under normal use to be defective in factory materials or workmanship within one (1) year of the date of original purchase.

All we require is that you properly operate and maintain your trailer and that you **RETURN FOR WARRANTY SERVICE TO YOUR SELLING DEALER** or in the event you are traveling, moved a long distance or need emergency repairs, to the Silver Streak factory or any Silver Streak dealer or Silver Streak approved service facility.

There is no other express warranty on this trailer.

Any implied warranty of merchantability of fitness is limited to the twelve (12) month duration of this written warranty.

To the extent allowed by law, neither Silver Streak nor the selling dealer shall have any responsibility for loss of use of the vehicle, loss of time, inconvenience, commercial loss or consequential damages.

Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations may not apply to you.

This warranty gives you specific legal rights, and you also may have other rights which vary from state to state.

TIRE AND BATTERY ADJUSTMENT

Tires and batteries are subject to separate service adjustments offered by the manufacturer, not Silver Streak or the selling dealer. If you have a tire or battery problem, take your trailer to a representative of the tire or battery manufacturer. Your selling dealer or Silver Streak will help you discuss tire and battery problems with the manufacturer's representative if you need assistance.

FOLLOWING IS A LIST OF FREQUENTLY ASKED WARRANTY QUESTIONS:

Q. WHAT SHOULD I DO TO OBTAIN WARRANTY SERVICE?

- A. The dealership where you purchased your Silver Streak has the responsibility for performing warranty repairs; therefore, take your trailer to that dealership. Your dealer will be required to contact Silver Streak prior to performing a warranty repair to enable evaluation of the repairs required, and for claim reimbursement approval.

If you are traveling, have moved a long distance, or need emergency repairs, the Silver Streak factory, any Silver Streak dealer, or Silver Streak authorized service facility can do the warranty work. **FACTORY APPROVAL PRIOR TO COMMENCEMENT OF THE WORK IS REQUIRED.**

If you encounter a service problem, refer to the service assistance section in your Owners Manual for suggested actions.

Q. IS THERE A BREAK-IN ADJUSTMENT PERIOD?

- A. Yes, service adjustments that are refinements in fit, alignment and performance, as required in normal use, will be provided free of charge to the owner during the first 90 days as follows:

Adjustment in fit of windows, entry door, trunk door and other compartment doors as necessary.

Brake adjustment.

Adjustments to appliances to ensure proper performance.

After 90 days such service adjustments will be charged to the owner, unless they are required because of defects in materials, all of which are covered for twelve (12) months from date of original purchase.

Q. WHAT ITEMS ARE NOT COVERED BY THE WARRANTY?

- A. Silver Streak will correct all defects in material and workmanship, except tires and batteries. The owner is responsible for repairs caused by:

Accident, fire or other casualty damage.

Modifications, changes, alterations, repairs or replacements, except such as have been made by Silver Streak factory, selling dealer, or other Silver Streak authorized dealer or service facility in fulfilling the obligations of this warranty.

Damage caused by overloading, misuse, natural or normal deterioration, or changes affecting the stability of the trailer.

or assistance call or write:

Silver Streak Trailer Company
Parts and Service Department
2519 No. Chico Avenue
So. El Monte, CA 91755
(213) 444-2646

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INTRODUCTION

The Silver Streak Trailer Company has prepared this Instruction Manual to ensure that the buyer of a new Silver Streak will derive the most efficient operation of his trailer home. This manual includes descriptions and instructions on the use and operation of the various systems and appliances.

For more detailed information regarding a specific appliance or accessory, kindly refer to the manufacturer's instruction booklet. May we remind you to make sure that all individual warranty cards are mailed to the respective manufacturers to validate any repairs or replacements that may be required.

If any questions should arise regarding any function of your new trailer home, please contact your Silver Streak dealer.

Silver Streak maintains a continuous product improvement program and reserves the right to modify specifications and prices without notice or obligation.

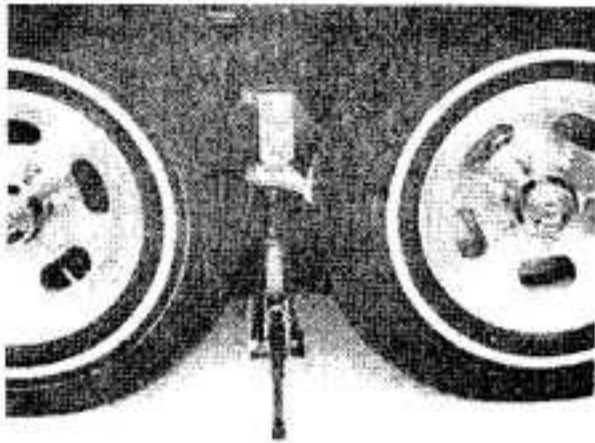


Figure 1.

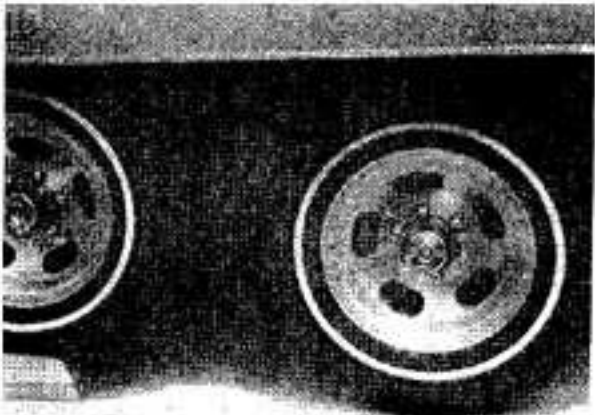


Figure 2

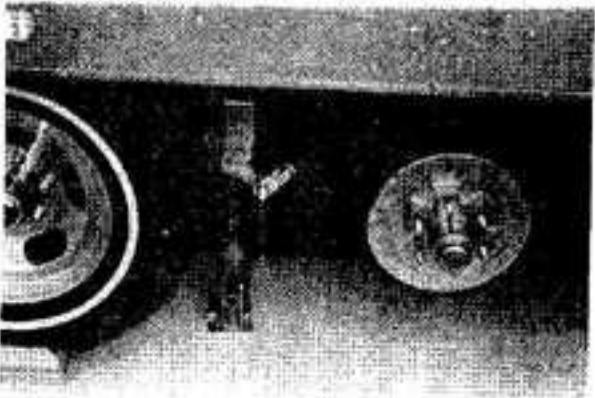


Figure 3

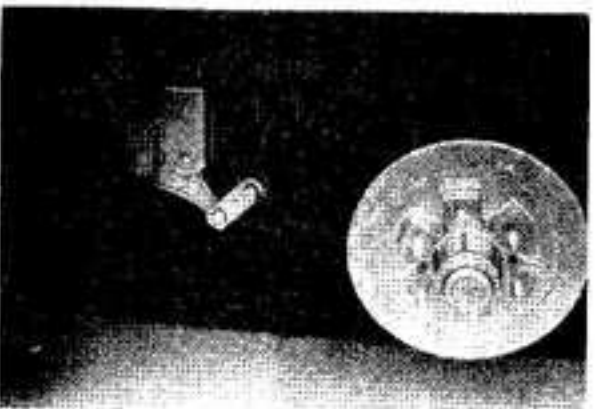


Figure 4

TIRE CHANGING

Place jack under center spring shackle and raise trailer until flat tire can be removed. Fig. 1

On tandem axle models, a flat tire may be changed without a jack. On trailer side with flat tire, simply pull good wheel onto wood block at least 6 inches high and 3 feet long. This will allow the necessary clearance to remove wheel. Fig. 2

If a spare tire is not available, the flat tire may be removed and the trailer safely towed for a distance not to exceed 100 miles at a maximum speed of 30 mph by performing the following:

- Place jack under center spring shackle and raise trailer until flat tire can be removed.
- Insert wood block between rear shackle and frame. Fig. 3
- Lower jack until frame rests on wood block and jack is free. Fig. 4

A four-wheel unit can now be towed on three wheels. Fig. 5

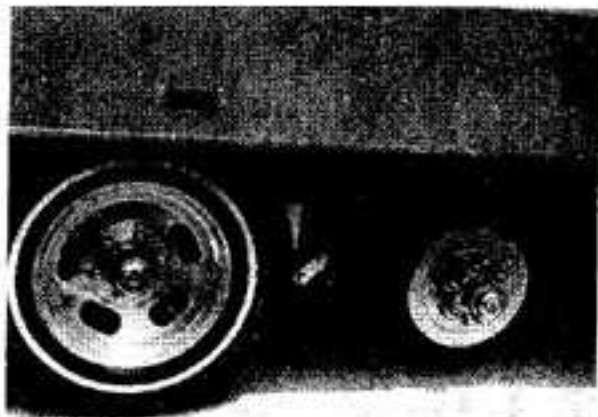


Figure 5
Trailer Can Be
Towed With 3 Wheels

LOAD CHART

Model	GVWR	Factory Weight (Supreme Models)	Allowable Additional Weight*
2911	8,000 lb	5,420 lb	2,580 lb
3111	8,000 lb	5,640 lb	2,360 lb
3411	8,000 lb	6,480 lb	1,520 lb

*Allowable additional weight includes all options and accessories, waste, food supplies, clothing, and other personal cargo.

VARIABLE WEIGHTS

LPG (full tank)	20-gal	83 lb
Water Tank (all models)	45-gal	284 lb
Water Heater (all models)	6-gal	50 lb
*Septic Tank	22-gal	184 lb
*Gray Water Holding Tank	30-gal	250 lb

*These capacities subject to change from time to time due to supply availability and the possible changes in frame or floor designs.

POWER JACK

OPERATION

- The power jack utilizes a momentary spring return switch placed conveniently out of the way at the bottom of the motor housing.
- To raise your trailer push this switch toward the jack post; to lower, push switch away from the jack post.
- When the power jack reaches the end of its travel, either raising or lowering, a built-in torque limiter goes into operation with a clicking noise. STOP IMMEDIATELY and reverse switch for 2 seconds only.
- This torque limiter permits the final drive gear to slip and thus protects the unit. PROLONGED OPERATION OF THE TORQUE LIMITER MAY CAUSE EXCESSIVE WEAR, THUS REDUCING THE LIFTING CAPABILITY OF THE JACK.
- If an electrical failure should ever occur, you may remove the power head by loosening the two allen set screws holding it to the jack post. Once removed, the emergency handle may be inserted into the jack post coupling and the jack can be raised or lowered.
- When lifting both trailer and tow vehicle, use at least 6 inches of blocking and leave tow vehicle transmission in "neutral." DOLLY WHEELS ARE NOT RECOMMENDED. Don't forget to reverse switch for 2 seconds after raising load to required height.
- Once a year, the power head should be removed and a liberal amount of grease (preferably a grease with high melting point) applied directly to the coupling on which the drive pin rests. DO NOT POUR OIL into top of jack post. This may damage brake and cause jack to lower out of control.
- When placing the power head back on the jack post, make sure that the drive pin is securely engaged in the jack post coupling; push head down then raise it about $\frac{1}{8}$ inch. Tighten allen set screws.
- Once every two years, the housing cover should be removed and the gears inspected for proper lubrication. Remove 4 screws and top around edges of housing to free the cover — DO NOT INSERT screwdriver blade — this may damage mating surfaces. Before replacing cover, clean mating surfaces and apply light coating of sealing compound. If lubrication is needed, use LUBRIPLATE 630-AA or comparable material.

HITCHING TRAILER

The following procedure is to be followed to hitch trailer to towing vehicle.

- Remove safety pin and raise locking lever on trailer hitch (Figure 1).
- Using the power jack with which your Silver Streak comes equipped, raise trailer hitch until there is clearance for the hitch ball to slide under (Figure 2).
- Using the power jack, lower trailer hitch onto the hitch ball (Figure 3).
- Close locking lever and insert safety pin.
- Raise trailer and car to full height of power jack and attach leveling bars (Figures 3 and 4).
- Lower trailer and car. The hitch ball should be level to trailer hitch.
- Plug in electrical connector and check running lights, directional lights, and brake stop lights (Figure 5).
- Route breakaway switch cable through frame and under coupler, and attach to welded portion of hitch or car-frame, but never to the removable ball mount.
- Attach sway control bar (customer-furnished) by sliding one end onto ball mount and the other end to bracket on hitch (Figure 6).
- Cross the safety chains under the hitch and inside the sway control bar and attach to the towing hitch (Figure 7).
- Raise the power jack completely for maximum ground clearance.

CAUTION: Never tow your trailer with the jack down.

If towing vehicle is equipped with adjustable load leveling air shocks, it must first be loaded with typical luggage and passengers and brought back to level. Then attach trailer and adjust the load leveling bars. If this is not done, the rear wheels will be overloaded.

The hitch ball on towing vehicle should be installed at a height of 21½ inches to the top of the hitch ball when vehicle is unloaded. If it is installed lower, tailwagging may occur.

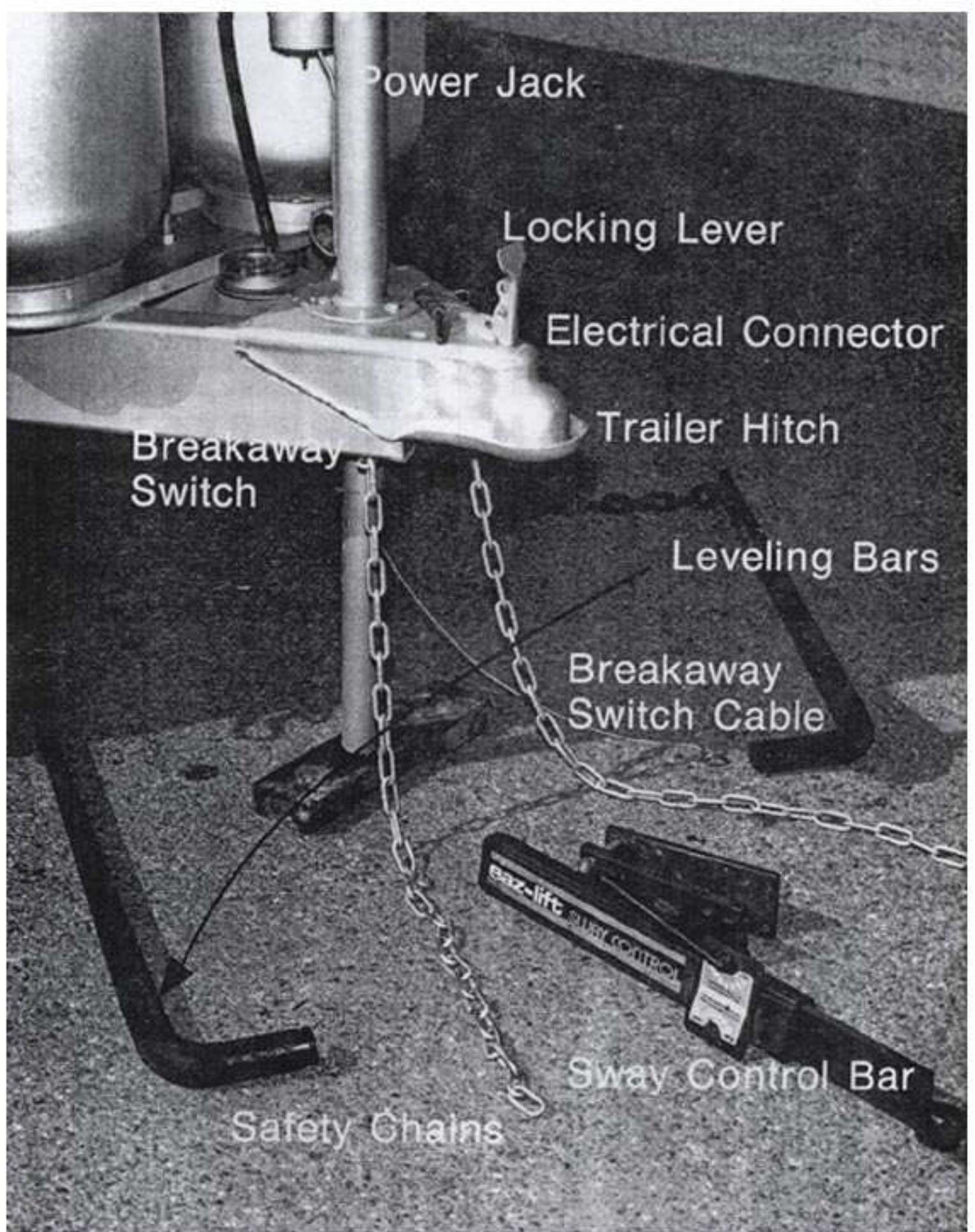


Figure 1

Figure 2



Figure 4
Leveling Bars



Figure 6

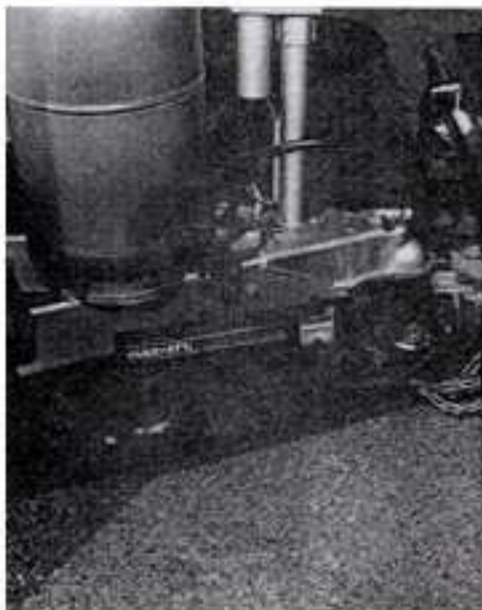


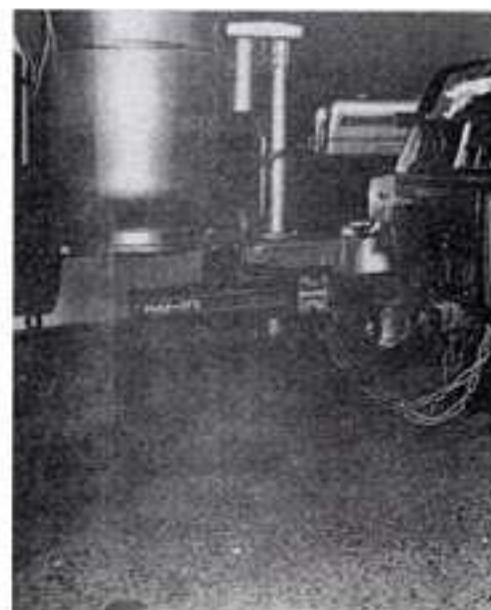
Figure 3



Figure 5



Figure 7



PRE-TRAVEL CHECK LIST

Interior

- Turn off air compressor/water pump switch.
- Check battery water.
- Close windows and vents.
- Turn off gas to range and oven.
- Lock all interior cabinet doors.
- Lock refrigerator door (seal containers first).
- Hold down or stack securely all loose, hard, and sharp objects.
- Fasten sliding and foldette doors.
- Drain toilet bowl.
- Turn off interior lights.
- Secure and lock main door.
- Pull up step.

Exterior

- Disconnect and stow:
 - electrical hook-up cord
 - sewer hook-up hose (flush out)
 - water hook-up hose.
- Turn off gas line shut-off valve to appliances.
- Remove and stow leveling jacks and wheel chocks.
- Check hitch: it must be properly attached.
- Check safety chains and breakaway switch cable.
- Fully retract power jack.
- Check clearance, turn indicators and stop lights.
- Check lug bolts.
- Check tires, for current pressure.
- Check that T.V. antenna is pointed forward and dipoles closed.
- Adjust car mirrors.
- Pull forward 50 feet, test brakes, and check site for forgotten objects and cleanliness.

TOWING TIPS

A few hours of towing practice in a large parking lot will make pulling your trailer much easier. Line out two corners to make left and right turns and to practice backing and parking. Observe that the tracks made by the trailer wheels are distinctly different from those made by the towing vehicle. Your vehicle should have rear-view mirrors on both sides for maximum visibility. In many states, they are required by law.

- On freeways or expressways, try to stay in one lane, maintaining at least the length of the towing vehicle plus trailer (for every 10 mph) between you and vehicle ahead.
- Remember, that to pass another vehicle will take longer to accelerate and you must also allow for the length of the trailer when returning to the right-hand lane.
- On a two-lane road, vehicles may start lining up behind you because you are traveling at a slower speed. It is both courteous and sensible to signal and pull onto the shoulder allowing them to pass safely.
- Your Silver Streak is designed to be towed easily at any legal speed. Consequently, you may be inclined to forget it is there. Your towing vehicle brakes will automatically apply the trailer brakes first, if properly adjusted, allowing you to stop evenly and smoothly.
- When traveling, you may encounter a temporary cooling system overload during severe conditions — such as on hot days on a long grade, when slowing after high-speed driving, or during long idle periods in traffic jams. If the overheat indicator light comes on and your air-conditioner is on, turn it off. If the light does not go off within 1 minute, pull over to the side. Do not turn off the engine but increase idle speed. Lift the hood and check for leaks of the radiator, radiator hoses, or radiator overflow outlet. Check all drive belts. *CAUTION: Never remove cap from radiator when the engine is hot! Check coolant level when engine is cool.*
- When going downhill, downshift so that engine compression will slow you down.
- Drive over dips and depressions in road slowly.
- On icy pavement, drive slowly, and if you feel your vehicle is skidding, gently apply the trailer brakes only. This will bring both vehicle and trailer back into a straight line. Chains are not recommended for trailer wheels.
- If you must drive over bad roads, the stones and gravel thrown back by the tires may dent and scratch the trailer. To prevent this, use masking tape to secure sheets of cardboard to the front of trailer.
- When a large bus or truck passes you, the displaced air first pushes the trailer rear to the right and then the front. Do not apply the brakes! Instead, steer slightly toward the bus or truck. This will compensate for the sway caused by the passing vehicle.
- If you must stop on a hill or slope, *check the trailer wheels to be doubly safe.*

CAUTION: Never use the breakaway switch as a parking brake, because it will burn out the magnets and drain trailer battery.

- To back up, line up towing vehicle and trailer in a straight line. Back up slowly and turn the steering wheel in the desired direction watching out the window or rear-view mirror until the trailer is pointed in the right direction. *(Stop immediately if the trailer is turning the wrong way.)* Always try to back to your left because visibility is better. If trailer is turning wrong, pull forward into a straight line and start again.

TRAILER LEVELING

When planning to stay at a particular location for an extended time, your trailer should be leveled. The attitude of your trailer can be checked by the use of the spirit level located at the trailer hitch "A" frame. If a correction is necessary, leveling must be done from side to side first. This is easily done by pulling the low side wheel onto 2-inch by 6-inch boards approximately 4 feet long. (We recommend bringing these boards along expressly for this purpose.)

Level from front to rear by disconnecting hitch from car and adjusting the power jack up or down, until trailer is level.

Block or chock the wheels to keep trailer in position.

Use the permanently attached stabilizing jacks installed on the trailer, to eliminate the natural spring action of the axles.

CAUTION: Never use stabilizing jacks to lift trailer.

Figure 1



EXTERIOR

The exterior of your Silver Streak is anodized aluminum and requires minimum care. Oil, grease, dust, and dirt may be removed by washing with a mild non-abrasive soap or detergent. Always clean your trailer in the shade when the exterior is cool. Cleaning should be followed by a thorough clean water rinse. Spots and streaks can be prevented by drying with a chamois or soft cloth. To keep your trailer looking new, paint the "A" frame and rear frame periodically.

Check the electrical connector periodically for dirt or corrosion. Keep contacts clean.

LPG SYSTEM

Your Silver Streak is equipped with two aluminum liquid petroleum gas (LPG) tanks. LPG burns with a clean blue flame and produces more heat than natural gas. The LPG system is piped with black steel pipe that runs underneath the trailer underbelly and is connected to each LPG appliance with $\frac{3}{8}$ -inch copper tubing. The two LPG tanks are installed on the trailer hitch and are connected to an automatic LPG regulator.

OPERATION

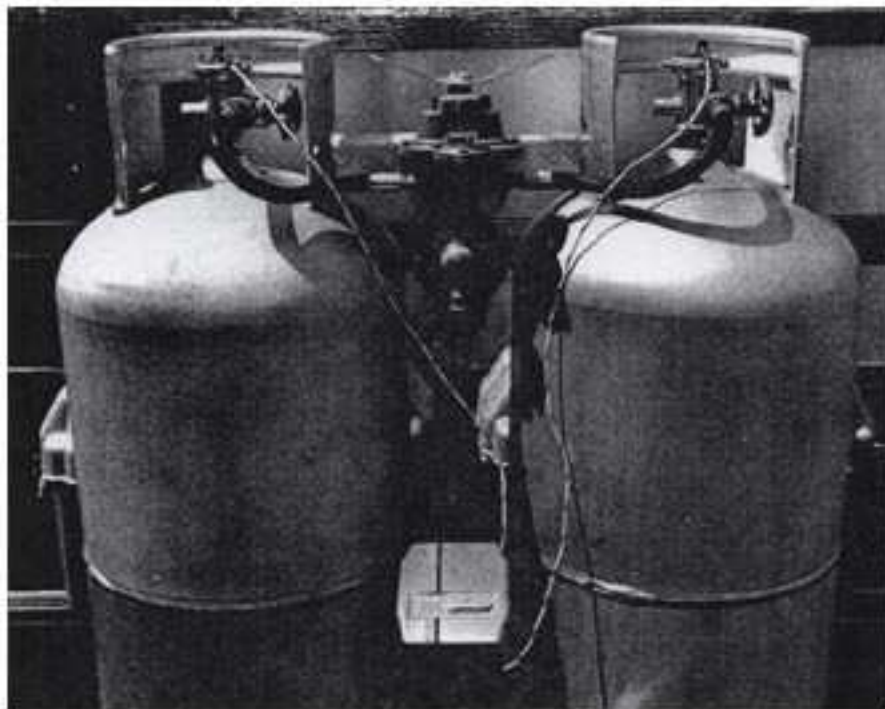
Place one of the two tanks in supply by rotating the changeover knob either way, as far as it will go. The arrow will point to the tank in use. When one tank is depleted, the regulator automatically switches to the full tank and a red warning flag appears at the indicator window.

Before removing empty tank, be sure to rotate knob so that arrow points to tank now in use. The red warning flag should not be visible now. The empty tank can be removed for refilling without disturbing tank in use. Simply close the tank valve, disconnect the flexible tubing with a wrench, and loosen the bar handle which holds the tanks in place.

CAUTION: Before turning LPG on at supply tanks, make sure that all LPG appliance valves are closed.

If both tanks are inadvertently allowed to run out, air may get into lines, in which case this air must be forced out by LPG pressure before you will be able to light any appliance.

Check all LPG line connections and appliance valves before and after opening supply tank valves. If it is necessary to check for leaks, cover pipe joints with a soapy water solution and watch for bubbles.



LPG Tanks and
Automatic Gas Regulator

DEMAND WATER SYSTEM

The water system in your Silver Streak has been designed to function the same as the water system in your home. It is equipped with a water storage tank and a water pump for complete self-containment and can also provide full water service when a city water source is available.

When the self-contained system is in operation, the water pump must be turned on by the switch located on the Control Panel. The pump draws water from storage tank and forces it through water lines to faucets, etc. This system is supplied from a 40 gallon water storage tank and a 6.2 gallon water heater.

When city water is available, connect a high-pressure hose to the water inlet fitting. (Fig. 1) Turn water on and slowly open an inside faucet until the lines are clear of air. The system is now ready for use.

NOTE: The water pump must be turned off when system is connected to city water source.

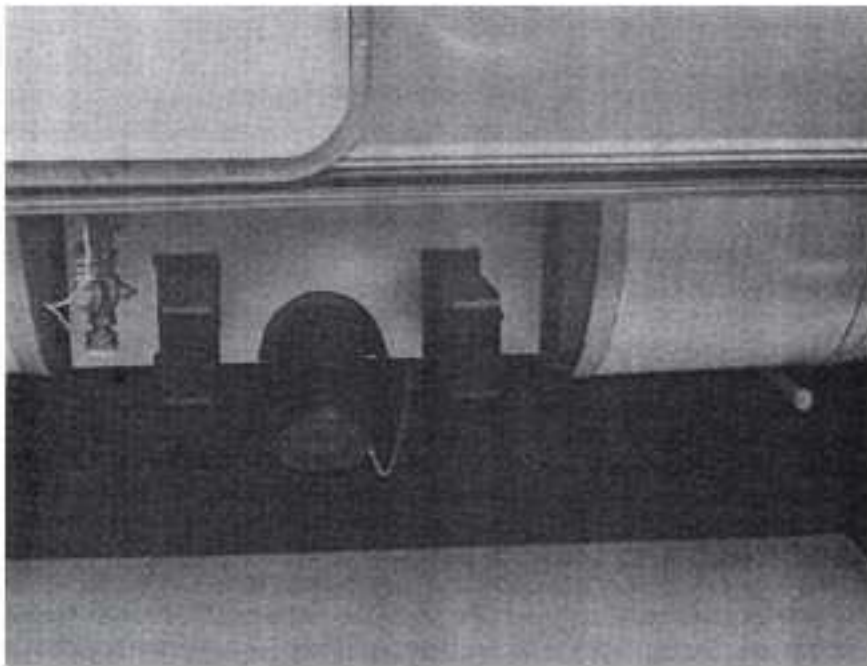


Figure 1

DRAIN AND WASTE SYSTEM

Your Silver Streak is equipped with a drain and waste system similar to the one in your home. The system includes two waste-holding tanks made of molded plastic free from corrosion, and troublefree dump valves. The septic tank enables the use of the toilet away from disposal facilities. The gray water tank holds the waste water from the sink, shower, bath, and lavatory. Each tank has its own dump valve; however, both tanks drain through a common outlet. Therefore, only one connection is necessary when hooking up in a trailer park with sewer facilities.

When the toilet will no longer drain, the septic tank is full and must be emptied. To empty the two waste-holding tanks, attach the sewer hose (stored in outside sewer hose compartment) by pressing the bayonet fitting onto the dump valve outlet and rotate clockwise until secured. Attach the outlet end of hose to sewage outlet making sure that hose is placed to drain completely. To open the dump valve, make one-quarter turn and pull outward.

The septic tank must be flushed until all tissue and waste material is removed. Close dump valve and refill tank with clean water and repeat until clean.

When connected to a sewer outlet, keep the septic tank dump valve closed and the gray water tank valve open. Empty the septic tank regularly, or when tank is almost full. By releasing a large amount of water through the septic tank, tissue and other solids will be completely washed away. This practice will avoid the accumulation of solids in the tank, which could lead to an unpleasant cleaning job.

To help conserve water, flush toilet with the hand spray:

- Hold hand spray in ready position over bowl.
- Depress thumb button and step on the foot pedal, which sprays water and dumps the contents at the same time.
- Spray the bowl clean.
- Release foot pedal, shutting off water flow.
- To refill bowl with water for next use, depress foot pedal until water reaches desired level.

If you are able to empty the septic tank frequently, you can use the automatic flush. This uses little water and the tank will accommodate requirements of two adults for several days.

Whenever water is scarce, using the hand spray flush allows you to stay longer in areas where the septic tank cannot be emptied. To flush for urine only, first wet the bowl with water, and again after use. To flush for solid matter, spray just enough water in bowl to float tissue and solids. After use, rinse down the sides and empty the bowl.

There are certain items that should never be put into toilet or tank; facial and other similar tissues have wet strength and do not dissolve easily. Toilet tissue, especially white, dissolves satisfactorily after traveling.

Use only trailer sewage tank deodorizers. Ammonia, alcohols, and acetones may cause damage to the tank, valves, fittings, and drain hose.

ELECTRICAL SYSTEM

The Silver Streak electrical system provides the use of lights and appliances whether operating on self-contained battery power or connected to 110-volt city power. The 12-volt trailer light fixtures will furnish the same light as household light fixtures. When operating on self-contained battery power, all 12-volt appliances and lights will operate except the 110-volt convenience outlets and the electrical operation of the refrigerator.

Convenience outlets for both 110-volt and 12-volt are located throughout the interior of the trailer.

When operating on city power, make certain that the service is 110-volt and *not* 220-volt. The power supply cable (stored in power panel compartment) has a three-wire plug; consequently, there will be no problem with proper polarity or grounding when connecting to city power. In some recreation parks and certain locations where three-wire outlets are not available, the following precautions must be taken to ensure proper grounding and polarity:

- Attach the three-wire plug to a two-wire electrical adapter. This adapter has a third wire which is the ground lead.
- Connect the ground lead to a grounded outlet box or to a cold water pipe. When no water pipe is available, sink a ferrous copper conductive metal rod 2 feet into the ground and attach the ground lead to it.

To operate on self-contained battery power, simply disconnect the power supply cable from the city power outlet and store the cable in the power panel compartment.

When your trailer is connected to a 110-volt source, the converter/battery charger automatically charges the trailer battery. The speed and degree of charge depends on how much power is being used for lights and appliances, as only the surplus goes to charging the batteries. If you are making an extended stay, keep your trailer connected to a 110-volt source (if available). If your battery is allowed to discharge, make certain that the recharge is done at a slow-charge. Quick charges will shorten the life of the battery, as will repeated complete discharges.

The 110-volt circuit breaker panel is located in the power panel compartment (see Exterior Identification). When you are connected to a 110-volt power source, the wiring is protected by circuit breakers in the circuit breaker panel. If failure of a 110-volt circuit occurs, check the proper circuit breaker first. If the circuit breaker continues to trip after being reset, the circuit may be overloaded with too many appliances or there may be a short in the circuit. If disconnecting some appliances does not correct the problem, consult a Service Center or a Silver Streak dealer.

Trouble with your electrical system is extremely unlikely, but if it should occur, it is recommended that you contact your nearest Service Center for repairs. (A troubleshooting chart is included in this manual for emergencies only.)

When being towed, the 12-volt battery in your trailer is receiving a constant charge from the towing vehicle generator and alternator through the electrical connector. The charge rate is controlled by the voltage regulator. It is important to keep the electrical connector clean. Inspect it periodically.

GFI

The ground fault circuit interrupting receptacle is designed to protect people from the hazards of line-to-line electric shock. This protection is afforded people using tools or appliances operating from the receptacle. If protection is fed to the rest of the circuit, those receptacles are also protected if properly installed. It does not prevent electric shock, but limits the shock time to a period deemed safe for normally healthy persons.

It does not protect a person who comes into contact with both power lines.

The ground fault circuit interrupter receptacle does not protect against overloads, which must be done at the fuse box by fuses or circuit breakers.

If an appliance continuously trips the GFI receptacle, the appliance is defective and should be repaired or replaced.

TO TEST

- Push "TEST" button. The "RESET" button should pop up, showing a red line which indicates that power to the protected circuit has been discontinued.
- If the "RESET" button does not pop up when test button is pushed, a loss of ground fault protection is indicated. Do not use. Call a qualified electrician.
- To restore power, push the "RESET" button.

BATTERY

A stored battery will discharge in 30 to 45 days; therefore, it is necessary to periodically check the battery and charge it as necessary. We suggest checking the battery at least every 2 weeks in freezing weather. A fully charged battery will not freeze under normal circumstances; therefore, it is imperative that you keep your battery fully charged during the winter. A safe level of charge is a specific gravity reading of 1.225. A fully charged battery has a specific gravity of 1.250 to 1.280. Always use a hydrometer which has a temperature correction scale.

Maintain a clean battery and check terminals and cables for tightness and cleanliness. A dirty battery will dissipate its charge through surface contamination. Clean battery with a damp cloth and dry thoroughly. To clean terminals, neutralize with a solution of baking soda, rinse in clear water, and dry. Coat terminals and battery posts with a light film of nonmetallic grease. Petroleum jelly will require more frequent application. Important: reconnect the battery cables to the correct battery posts. For example, if negative ground, the black cable should be connected to the negative (-) post and the red cable to the (+) post. The polarity may be determined by inspecting the battery post which is grounded on the towing vehicle, since it must always match the trailer.

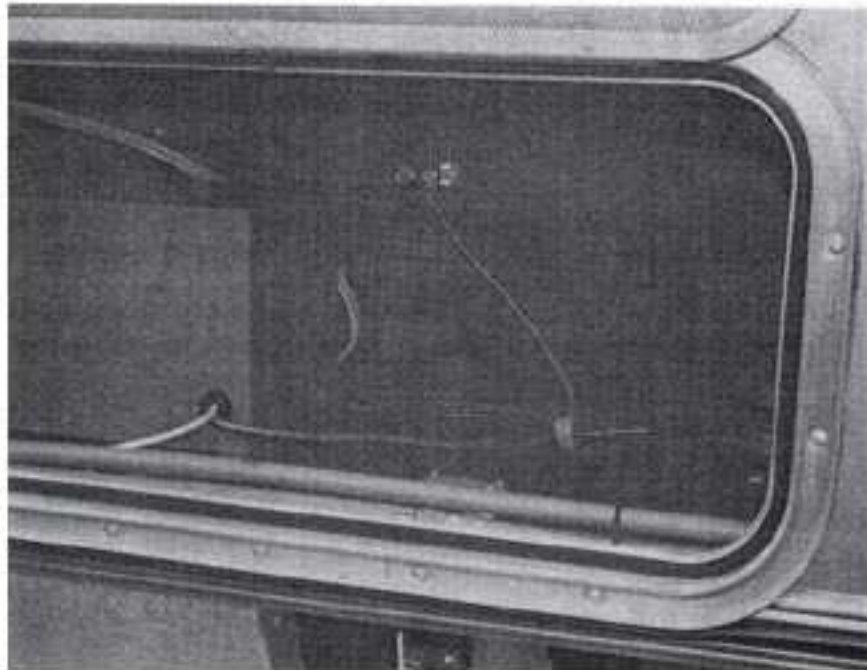
Add water to cells as necessary. Check the electrolyte level at least once a month. When you are traveling for an extended period of time, or you are in climates above 90°F, check the electrolyte level every 2 weeks.

Caution: The gases generated within a storage battery cell may be ignited by an open flame or spark in the vicinity of the battery. Do not use a match to provide light for checking the level of water.

During the winter, the battery should be removed from the trailer and stored in a cool, dry place. It should be kept full of water, cleaned, and charged monthly. A battery which is allowed to completely lose its charge will never regain its original power or a full charge.

CONVERTER/BATTERY CHARGER

This converter is designed to provide true electrical self-containment for recreational vehicles. It converts 110 volts AC into 12 volts DC to operate lights, fan motors, waterpump, etc., within the vehicle. Everything except refrigerator and air conditioner operates efficiently and safely on a 12-volt low-voltage system and the unit even charges your battery while in operation. The advance design of this 40-amp converter provides exceptional reliability. The use of a ferroresonant constant voltage control maintains output at a constant voltage regardless of different input voltages that may be encountered in different areas.



Battery Charger/Converter Compartment

ELECTRICAL TROUBLESHOOTING

Symptom	Possible Cause	Remedy
No 12-volt power (Lights, appliances do not work)	Input line and/or battery not connected.	Make necessary connections.
	Trailer battery on wrong polarity.	See Electrical System.
Blown fuse	Overloaded circuit (over 40 amps).	Turn off switches to reduce load. Replace blown fuse.
	Electrical short.	Find blown fuse and identify circuit. See wiring diagrams and check circuit for defective wiring, lamps, or motors.
	Shorted battery.	Replace battery and fuse.
	Battery terminals not properly connected.	Make proper connections; replace fuse.
Dim lights or sluggish fan motor	25- or 50-cycle power (some foreign countries).	Use 60-cycle power.
	Discharged battery (when operating without 110-volt line).	Charge battery.
	Battery is low on water.	Add distilled water to battery.
Converter/battery charger will not charge battery	Input line not connected.	Connect input line.
	Battery not connected (or polarity reversed).	Connect battery to converter/battery charger.
	Bad battery.	Replace battery.
	Too many lights and appliances in use.	Reduce electrical load.
	Fuse blown.	Replace fuse.

LUBRICATION AND MAINTENANCE

Item	Every 1,000 miles or 30 days	Every 5,000 miles or 90 days	Every 10,000 miles or 6 months	Procedure
All Exterior Door Locks	X			Lubricate with dry graphite.
Battery	X			Check water level — fill with distilled water only.
Battery Charging				See Electrical System.
Brakes			X	Inspect and adjust.
Breakaway Switch		X		Pull pin and lubricate with light household oil.
Entrance Door Hinges	X			Lubricate with light household oil.
Hitch Ball Latch	X			Lubricate with engine motor oil.
LPG Hold-Down Knob	X			Lubricate with light household oil.
Main Door Step		X		Lubricate moving parts.
Range Exhaust Hood	X			Clean fan blades and wash filter.
Refrigerator Flue Cleaning				See Refrigerator Section
Roof Vent Elevator Screws	X			Lubricate with light household oil.
Strike Pocket on Main Door	X			Coat with paraffin.
Tires	X			Check for foreign objects. Air Pressure — See Tire Section.
Wheel Bearings			X	Clean, repack, and adjust.
Wheel Lug Bolts	X*			Check for tightness.
Window Seals/Door Seals	X			Clean with mild detergent and coat with window seal lubricant.
Electrical Connector and Receptacle	X			Clean contacts and coat with "Spra-Kleen" or equivalent.

*On new trailers check lug bolts every 200 miles for the first 1,000 miles.

WINTERIZING

The main consideration in winterizing is to guard against freezing damage to the hot and cold water systems, the waste drain system (including the traps), the waste-holding tanks, the water heater, and the battery.

When storing your trailer for short or long periods, flush out all the drain lines and the holding tanks. Drain the entire water system including the water heater and the water storage tank. To winterize your trailer, follow this procedure:

- Level the trailer from side to side and front to rear (see Trailer Leveling Section).
- Open all faucets.
- Turn water pump switch to "OFF" position.
- Open all drain valves. One is located on the water heater and is accessible through the water heater access door. On all models, two are located in the converter/battery charger compartment. There is a drain valve on the city water inlet.
- Open and flush the toilet flushing valve. Depress hand spray thumb button of the water-saver toilet and hold the spray head below rim of toilet and drain the hand spray line.
- Lower the front of trailer as low as the power jack will allow until water ceases to drain. Then raise trailer as high as power jack will allow so that any remaining water will drain out the rear drain valves.
- After the water has stopped draining, apply air pressure (if available) to drain lines with all valves and faucets open. This will force any remaining water from the water heater and any water trapped in low areas.
- Pour a cup of antifreeze (Glycol) into the lavatory, sink, and tub drains to prevent freezing of water in traps.
- Open the waste-holding tank drain valves and drain and flush tanks thoroughly.
- Remove the lower portion of Water-Gard purifier and drain.
- Remove any items from interior that might be damaged by freezing.



Drain Valves
in Converter/Battery Charger
Compartment

Manufacturer Identification

AL-KO	AL-KO levers are very flat. The brake shoes do not have anything unusual about them. AL-KO uses only one return spring at the top on both 10 and 12-inch units. With the drum off, you can tell what size the system is if the magnets have never been replaced. The 10-inch brake will have a magnet with light green wires and the 12-inch brake will have white wires.
Dexter	Dexter uses a stamp on the back of the backing plate that identifies the size of the brake. Looking on the back side you will see a triangle. Around the triangle you will see Dexter and the size (i.e. 10" X 2 1/2" or 12" X 2"). Dexter uses 2 return springs on all late model brakes; some early 12-inch brakes used a single return spring.
Hayes	Hayes brake shoe webs have a tooth that hangs down at the top and use a single return spring. Early 12-inch brakes used a dual return spring. Hayes axle is owned by AL-KO. AL-KO backing plates have been seen on some of the new Hayes axles. It looks as if they are still using the Hayes name and are starting to use AL-KO parts.
Fayette	Fayette axles are obsolete. If you find a Fayette axle tag and the trailer is worth keeping you should consider changing the axles to AL-KO or Dexter. At that time it is recommended that the spring hangers and bushings also be replaced.

KELSGY

Brake Size Identification

Axle Identification	Axles generally have an ID tag located on the axle crossbar that gives you the axle capacity. Check there first. This would give you a starting reference point.
Brake Drum / Shoe Size	Measuring is the same for all brands. Using a tape measure you can do a random measurement as to the diameter by measuring across the drum. If it is a 10-inch drum you will measure approximately 11 inches across for an outside measurement. The 12-inch brake will measure approximately 13 inches for an outside measurement. The drum would need to be removed to get the correct diameter and width.

Magnet Identification

Magnets can be identified by the color of the wire used

Dexter 7" X 1 1/4"	The magnets are round. Prior to April 1990 they had yellow wires, after 1990 the magnet has white wires. Replacement of magnets will need to be done in pairs and updated to the new magnet along with the lever. The early levers are weak and will bend and hang up as they wear.
Dexter 10" X 1 1/2"	The magnet wires for the early model round magnets are white and the late model oval magnets are yellow.
Hayes 10" X 1 5/8"	The magnet wires for the early model round magnets are red and the late model oval magnets are green.
AL-KO 10" X 2 1/4"	It will have light green wires.
Hayes 10" X 2 1/4"	The early model round will have red wires and the late model will have oval green wires.
Dexter 10" X 2 1/4"	It uses green wires.
Fayette 10" X 2 1/4"	The round magnets will have white wires (obsolete).
AL-KO 12" X 2"	It will have white wires.
Hayes 12" X 2"	The early model round magnet will have red wires, the late model will be an oval magnet with white wires.
Dexter 12" X 2"	It will have white wires.
Dexter Centerline 12" X 2"	The 4.5K axles will have red orange wires, the 6.7K axles will have red wires (obsolete for both sizes).