

# Preparing Your RV for Winter

## A. To begin winterizing your unit:

1. Remove all perishable and freezable items.
2. Wash countertops, sinks and cabinets with mild dishwashing detergent.
3. Turn off all lights.
4. Make sure all appliances are off.
5. Tightly close all windows and roof vents, let a screened window open a crack for ventilation.
6. Close blinds/window shades.
7. Remove any dry-cell batteries, (clocks, smoke detectors) and coat the contact points with petroleum jelly.
8. Inspect vent openings and recaulk if needed.
9. Turn off the LP gas.

## B. Air Conditioner

1. Remove air conditioning filter, clean, then replace.
2. Cover exterior vent to prevent rodent entrance/nesting. Use a cover especially made for the A/C unit. (Do not use plastic because condensation can cause damage to the unit.)

## C. Refrigerator

1. Remove all food.
2. Defrost unit/turn off refrigerator.
3. Clean and dry inside of refrigerator.
4. Latch the door slightly ajar (for ventilation).
5. Cover exterior vents. (See Appliance Vents section - letter J).
6. Place mothballs in the general vicinity of (but not in) the gas burner assembly of the refrigerator. The reason for this is that spiders are attracted to the smell of the gas and can cause gas flow blockages at the burner.

## D. Water System

1. Drain all tanks
  - a. Fresh water
  - b. Hot water heater (to cool water turn off prior to draining).
  - c. Septic
  - d. Gray
2. Open pressure relief valve on hot water heater (located top right portion of the tank) or open a hot water faucet inside. Remove drain plug until spring.
3. Open all additional drain valves, including low point drains and outside shower faucets (see item locator in your owner's manual or on the web site for location of these items on your unit).
4. Open all faucets inside (including shower head - disconnect shower hose at faucet).
5. Turn on the water pump and let it run until no water appears at the tap.
6. If temperature will be below freezing while unit is still in storage, continue with the next steps.
  - a. Open all taps and drain valves.
  - b. If you have a water purifier, remove it and store in a warm place.
7. Thoroughly rinse both gray and septic tanks and drain again (to do a really good job, fill both tanks with a few gallons of fresh water and drive around a couple of blocks before draining them).
  - a. Close the dumping valves and replace the cap.
8. Place mothballs in the general vicinity (not in) of the gas burner assembly of the hot water heater. The reason being is that spiders are attracted to the smell of gas and can cause gas flow blockages at the burner.
9. Two Methods of Winterizing - Wet & Dry.

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## Winterizing using non-toxic antifreeze - Wet Method

1. If your RV is equipped with a hot water tank bypass, close the appropriate valve to disconnect the tank from the remainder of the water system and pour 3 to 5 gallons of nontoxic "RV Approved" antifreeze into the fresh water tank or siphon antifreeze directly from jug if water pump is equipped with winterizing kit. (DO NOT use automotive type antifreeze. It is poisonous and will destroy the ABS piping.) Note: "RV Approved" antifreeze is recyclable and can be used next year.
2. If your unit is not equipped with a hot water bypass, you will need approximately 10 gallons of antifreeze.
3. Turn on the water pump, open each water tap one at a time, (hot water first then cold, don't forget the outside shower) until antifreeze appears at the spout, then close faucets.
4. Protect the drain system by pouring 8-10 ounces of antifreeze (or letting some run out of the faucet) down the drain at the sinks, lavatory and shower/tub pan.
5. Operate toilet flush mechanism until antifreeze appears (let a small amount enter the bowl).
6. Turn off the pump - Unit is winterized!

## Winterizing Using Compressed Air - Dry Method

1. Open all drains in the system, including the hot-water tank. (See item locator for low point drains.)
2. Purchase an air-fitting adapter for the city water fill so that you can blow the air from the lines at that location.
3. Run the 12V DC pump with a faucet open until it runs dry.
4. Connect the air fitting to city water hookup and open the faucet farthest from the water pump. Close all drains in the system, except the hot water tank. Blow air through the city hook-up line until only air comes out (use no more than 20-30 psi).
5. Open another faucet and then close the first one and blow out that line until it is clear. Continue this procedure throughout the unit until all lines have blown clean.
6. Leave faucets open (don't forget the outside shower). Keep the toilet flush valve open (by using a rolled up newspaper) and leave low point drains open (see item locator).
7. Pour 10-12 ounces of nontoxic "RV Approved" antifreeze down each drain (i.e. kitchen, bath sink, shower, & toilet) to protect p-traps. (DO NOT use automotive type antifreeze. It is poisonous and will destroy the ABS piping.) Note: "RV Approved" antifreeze is recyclable and can be used next year.
8. Unit is Winterized!

## E. Awnings

1. Need to be clean and dry when stored (trapped moisture can cause damage).
2. Lubricate all moving parts with silicone spray.

## F. Tires

1. To protect from sunlight and unchanging weight!
  - a. Steady weight creates weakened flat spots - take the weight off the tires by supporting the trailer with wooden blocks or manufactured jack stands (avoid hollow core concrete blocks). Consult your owner's manual for proper locations for jacking and supporting. Note: Do not use your unit's leveling jacks for an extended period. Over time they will work down.
  - b. Select a hard level surface for blocking the RV (not soil, it changes too much).
  - c. Decrease the air pressure to eliminate stress (preferably to about 10 or 12 lbs. so the tire keeps its shape).
  - d. Use a tire protectant, such as Protectant 303, to protect the tire sidewalls from cracking.

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## G. Furnace

1. Turn the main gas supply to the furnace off.
2. Turn off the electric power and turn off all thermostats.
3. Cover exterior vent (See Appliance Vent section - letter J). You may wish to use small screens on the intake and exhaust parts.

## H. LP System

1. Remove the regulator and pigtails (hoses) and store in a warm place.
2. Tape the supply hose shut to prevent moisture from entering the system.
3. Have an LP attendant put some anhydrous methanol in the cylinders to combat moisture.
4. Wash the cylinder and check for chipped paint (touch up as needed).

## I. Batteries

1. Check the water level and make sure the battery is fully charged.
2. Disconnect cables and coat the cable ends and the battery terminals with petroleum jelly (deters corrosion). If corrosion exists, clean with a solution of water & baking soda using a wire brush.
3. Remove the battery from your RV and store in a cool, dry place above freezing (i.e. unheated garage). Note: Do not place batteries on a concrete floor - batteries will discharge.
4. Check the charge state of the battery once every 3 months and bring the battery up to a full charge as needed - use a UL approved battery charger (around 10 amps) with complete shut-off to prevent overcharging.

## J. Appliance Vents

1. To prevent nesting of rodents and entrance of blowing snow:
  - a. Seal all visible openings such as furnace exhaust, water heater vent, refrigerator vent and kitchen fan exhaust with heavy gauge plastic or aluminum foil. Use metal covers where rodents might enter (they may chew through plastic).
  - b. Lubricate all door hinges (prevents rusting).
  - c. If your area has a problem with rodents - consider leaving traps with non-perishable bait inside (check regularly).
  - d. Place moth balls in both the interior and exterior compartments.

**K. Lock the unit and periodically check all covers and recharge batteries, remove snow accumulation with push broom while in storage. Note: Do not walk on the roof without proper support in place. Wait until Spring (see Spring start-up).**

**L. If you have questions or problems with this procedure, please contact your RV dealer or Service Department.**

## Sources

Sunline RV's Service and Production Teams

"Winterizing" - Chapter 12 - Woodall's RV Owner's Handbook

"Preparing Your RV for Storage" - Hans J. Gugger - Trailer Life magazine.

"RV Repair & Maintenance Manual" - Trailer Life - Edited by Bob Livingston

"Putting Your Wheels on Ice" - Michael Packard - Trailer Life - Dec. 1995