



Winterizing and Storing your RV

Winter Use

- Even during the extremely cold months, RV owners are still able to utilize their vehicles to accommodate for their winter recreational activities while returning to a warm, comfortable setting afterwards; however, some additional preparation and maintenance may be required.

Here are some helpful tips for RV use in cold-weather areas:

If the RV is being put into non-use storage during the winter months, you should follow these procedures as well as the ones recommended by the manufacturer:

- Many RV's are equipped with an insulated water system which prevents potential freezing problems that may occur throughout the cold months. One way to see if your RV has this particular feature is by searching the owner manual and noting the lowest temperature the unit is allowed to reach before potential freezing will occur. If your unit does not feature these capabilities, then you can use a portable water source. Since wasted water in the tanks may dilute the original anti-freeze, it may be necessary to add additional non-toxic anti-freeze to the holding tanks.
- If the RV is being put into non-use storage during the winter months, you should follow these procedures as well as the ones recommended by the manufacturer.
- When planning your trip, make sure to call ahead to your designated campground to ensure the particular park is open during that time period. And when parking your RV, it is wise to park with either the rear or front of the vehicle into the wind, near a windbreak, if possible.

When exposed to freezing weather, RV units, such as water lines, pumps, faucets, tanks, and water heaters that have not been prepared for such temperatures could be damaged by possible ice expansion.

Winter Storage

If the RV is being put into non-use storage during the winter months, you should follow these procedures as well as the ones recommended by the manufacturer:

1. The first thing that you need to do is protect your plumbing from freeze damage

To prepare your unit's plumbing systems for winter storage:

1. Drain the black, gray, and fresh water tanks.
2. Drain the water heater and close the drain valve.
3. Drain the fresh water plumbing system, open all faucets, and use low point drains if possible. Open all faucets and step on the toilet pedal as well. Get as much water out of the system as possible. Close the low point drains.
4. If your RV includes an icemaker or washer/dryer, then follow the manufacturers guidelines for winterizing.
 1. To protect your freshwater piping, you can either use a type of air pressure to remove the remaining water in the pipelines or you can use a non-toxic RV approved anti-freeze.
 - Using the anti-freeze may be the most advantageous because it is easy to use and guarantees that no pipes will freeze.
 - Make sure that the anti-freeze product you are using is labeled as non-toxic, it is specifically designed for RV water systems, and it is safe to use in drinking water systems!



- Most RV plumbing systems require 1-3 gallons of anti-freeze; however, if your unit does not have a water heater bypass it may be beneficial to use at least 6-10 gallons (depending on the size of your unit.)
 1. Bypass the water heater if you can.
 2. If you have an ADC cartridge water filter under the sink, remove the cartridge and install the manufacturer's antifreeze diverter.
 3. If you have a generic cartridge type filter, remove the filter element and replace the cartridge holder.
 4. Now, run the pump and open each fixture, allowing it to flow until you see pure antifreeze. Monitor the level in the antifreeze bottle and make sure it doesn't run dry.
 5. Flush the toilet and showerhead.
 6. Shut off the pump and remove the screen and washer from your city water inlet.
- An alternative method to using anti-freeze is using an air pressure compressor, which blows the water out of your fresh water lines. This method is cheaper than using anti-freeze, plus it prevents you from having to flush the anti-freeze residue from your system in the spring. Unfortunately, it is nearly impossible to remove every last bit of water from the low point or valve, which could cause damage from freezing and force you to drain the system manually.
 1. First, you will need a Blowout Plug, which fits into your city water inlet as well as connects to the air compressor.
 2. Hook up to your air source by setting it to no higher than 50 psi.
 3. Go through your unit, first starting with the closest fixtures and open them slightly, allowing the air to blow the water out.
 4. Next, flush out the toilet and showerhead.
 5. Once you have removed most of the water, remove the air source allowing the remaining pressure to release by opening the faucet.
 6. Remove the outlet and inlet line from your freshwater pump
 7. Since the check valve prevents air from cleaning out the outlet and inlet lines, you must drain them manually.

Now, you have complete protection of your freshwater plumbing from freeze damage.

Once you have completed this portion, it is necessary to take care of the other plumbing systems of the RV:

1. Pour a small amount of RV antifreeze down each drain to protect the trap.
2. Close the toilet flush valve and pour a small portion into the toilet.
2. Close the black and gray water tank valves. Leaving them open can cause problems with the seals, which can lead to leaks.



After taking care of the plumbing systems, follow the remaining winterizing procedures:

1. Close the LP gas tank valves
2. Cover the regulator on the propane cylinder
3. Shut down the refrigerator and remove all food. Clean the inside and leave the refrigerator door slightly open.
4. Double check the underneath the sink and storage areas for any other types of food or cleaning supplies (these products could freeze and split open.)
5. Prepare your generator for storage by following the manufacturer procedures.
6. Decide how you will deal with the batteries in your rig during storage:
 - a. If you plan on storing your RV where AC power will not be available, then it is advisable for you to remove the starting and house batteries from the unit.

You should charge your battery at least once a month and watch the water level. Be sure store it in an area with proper ventilation in order to aid in the removal of the hydrogen fumes given off by this type of battery. If you do not charge your battery, it is more likely to freeze and damage.
 - b. If you plan to leave your batteries on your RV, and then make sure to disconnect the battery as well as unplug the AC supply to the 12-volt converter.
 - c. Finally, if you plan on keeping your unit hooked up to a type of shore power, then it is all right to leave the batteries connected. But you must check the water levels because having the batteries constantly charging will cause a loss of water.
7. Retract all slide outs and store away any awnings.
8. Tape and cover all external vents, such as the furnace outlet, to prevent mice and other critters from entering your unit. Also, make sure to keep the range hood closed.
9. Check the condition of the roof, roof vents, and roof seams.
10. Check the unit's tire pressures. Bring all tires up to their maximum pressure rating and it may be a good idea to cover the tires in order to protect them from winter damage.
11. Consider opening one sheltered window and a roof vent just a little bit at the opposite end of the RV. This will provide some airflow through the unit and will help prevent musty odors or mildew. It also may be a good idea to add mothballs and fabric softener sheets around the unit as another method of preventing odors.
12. If you wish to wash your RV throughout the winter months, make sure you apply a coat of high quality wax in order to prevent the exterior from the damage of winter weather.
13. Finally, the best advice is to follow the instructions in the owner's manual for winterizing the unit and using the vehicle in cold weather.

GOOD LUCK!

Storing Your RV

If you are not planning on using your RV during the winter months, there are many storage facilities around the United States that can give you excellent rates for storing your RV unit.