4 - Freeze Guard

When operating the CDS xDrive during the colder months of the year, ensure that you properly freeze guard the system. No part of the CDS xDrive System is covered by warranty if machine damage occurs because of freezing.

CAUTION

If freeze damage does occur to the engine and generator, those components can lock up and require replacement. Also, seals can fail, resulting in broken hoses and water leakage.

BE SURE YOUR MACHINE IS PROTECTED!
Freezing will cause component damage and void warranty.

This section of the manual includes information concerning:
- Draining the CDS xDrive
- Freeze Protecting Pump In System

The following precautions are recommended prior to and during cleaning:
1. Run the machine before leaving for the first job to ensure nothing has frozen the night before, including hoses and tool/wand.
2. Insulate the fresh water (garden) hose from the cold ground by running it through an extra 1½" vacuum hose.

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NOTICE

In colder climates, insulating the vehicle walls and floor boards will help protect the unit.

Do not procrastinate during the cleaning operation or the hot water solution line will also freeze on the ground. The solution line should be insulated in extremely cold climates.

Whenever possible, store the van in a heated garage at night or over the weekend. If not possible, place a 1,500 Watt electric heater inside the vehicle, aimed directly at the machine.

⚠ WARNING

Never use a propane heater. It causes excessive moisture on the vehicle ceiling and the possibility of it malfunctioning is therefore higher, which may cause bodily injury. If the machine and vehicle are left outside with a heater, drain water from the machine cleaning tools and hoses because they can be freeze-damaged also.

CAUTION

If the coolant mix in the engine incorrect (too much - too little), damage to the engine and generator can result which is not covered by warranty. Make sure that the coolant mix ratio is correct.

DRAINING THE CDS xDRIVE

To drain the machine, follow these steps:

1. Before shutting off the machine, remove the chemical line from the chemical jug and place in a mixture of 50/50 antifreeze and water. Turn the CHEMICAL SYSTEM valve to the 'PRIME' position until coolant registers in the flow meter. With the cleaning tool on, allow mixture to fill the remainder of the chemical system.

2. Open the water box drain valve and allow the water to drain thoroughly from the water box.

3. Close the water box drain and fill the water box with 50 / 50 antifreeze and water mixture. Run the unit for 1 minute to circulate the mixture through the machines low-pressure hoses. Spray through the wand or other tool into a suitable container until the water box shut-off switch activates (pump stops). This freeze guards the high-pressure circuit

4. Open the water box drain and drain out the residual fluid into a suitable container. This antifreeze solution may be retained for reuse (attach freeze guard fitting to inlet quick connect and vacuum water out of the inlet line).

NOTICE

WHEN DISPOSING OF USED ANTIFREEZE COOLANT: *Follow local laws and regulations. If required, dispose at facilities licensed to accept household hazardous waste. If permitted, dispose in sanitary sewer systems. Do not discard into storm sewers, septic systems, or onto the ground.*

⚠ WARNING

This warning appears on the label of one brand of antifreeze:

HARMFUL OR FATAL IF SWALLOWED*. Do not drink antifreeze coolant or solution. If swallowed, induce vomiting immediately. Call a physician. Contains Ethylene Glycol which caused birth defects in animal studies. Do not store in open or unlabeled containers.*

KEEP OUT OF REACH OF CHILDREN AND ANIMALS.

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FREEZE PROTECTING FRESH WATER PUMP IN SYSTEM

1. Drain the fresh water tank.
2. Open water box drain valve.
3. Turn on the fresh water tank pump and run for 1 - 2 minutes until all the water is purged from the hose.

CAUTION

The next time the CDS xDrive is used, it may take a few minutes before the water box begins to fill.