



Winterizing Procedures for Pressure Washers

If temperatures drop near or below freezing point, take necessary precautions to protect your investment.

Hot Water Units

Proceed as follows:

1. Turn machine switch to STOP position.
2. Turn off water supply. Detach and drain water supply hose.
3. Detach and gravity rain high-pressure hose and trigger gun.
4. Have approximately 1 Gallon of a 50/50 auto antifreeze solution ready.
(DO NOT USE RV antifreeze).
5. Turn machine switch to MOTOR ON and pour antifreeze solution into float tank.
6. Immerse detergent suction hose in a separate container filled with antifreeze solution. Set detergent valve to high position if unit has a control setting. This will only protect the detergent line freezing, not the entire pump.
7. Allow antifreeze solution to emerge at machine outlet. Protection is now complete.
8. Turn machine switch to STOP position.

Cold Water Units (gas or electric)

Follow steps 1 thru 4 above.

5. Turn machine switch to MOTOR ON and draw antifreeze solution from container with the water supply hose. **Using detergent inlet suction line to draw in antifreeze solution WILL NOT protect pump from freezing.** You must use garden hose / water supply inlet to ensure solution fully protects pump.
 - Follow Steps 6 through 8 as above.

***NOTE: The best antifreeze protection is provided by using and storing the machine in a sheltered warm space.

Troubleshooting Guide

Engine won't start

SOLUTION

Engine switch is in 'OFF' Position	Set throttle to 'RUN' position.
Pressure build-up after pulling cord	Depress the trigger gun while you try to start it.
Carburetor not primed	Prime carburetor.
Carburetor jets clogged	Bring to shop for carb cleaning in an ultrasonic cleaner.

Won't draw chemical

Nozzle not in chemical draw position	Set nozzle to chemical.
Chemical screen is obstructed	Check chemical screen, clear obstruction.
Trying to draw chemical with a h.p. nozzle inserted	Switch to the black chemical/low pressure nozzle.
Injector orifice obstructed/stuck	Check & Clean. Poke paper clip down into chem nipple.

Pump running normally, but pressure doesn't achieve rated values

Water supply restricted	Check water supply & filter screen for blockage, kinks, leaks, etc.
Nozzle is in low PSI position (if applicable)	Set nozzle to the high-pressure position.
Nozzle too large or worn	Check & replace.
Pump sucking air	Check that hoses & fittings are airtight.
Nozzle blocked	Clean nozzle.

Fluctuating Pressure

Pump sucking air	Check that hoses & fittings are airtight. Purge air from garden hose.
Garden hose inlet strainer clogged	Clean & check filter frequently.
Worn seals or packing	Check and replace.
Inadequate water supply	Check flow available to pump.
Fouled or dirty inlet or discharge valves	Clean inlet & discharge valve assemblies. Replace if damaged.

Pressure is low

Nozzle is clogged or partially obstructed	Clean or replace.
Nozzle worn	Check & replace.
Valves worn, dirty or stuck	Check, clean or replace.
Worn piston packing	Check and replace.
Inadequate water supply to unit	Shorten supply hose or get one w/ larger diameter.
Leaky discharge hose	Check o-rings on q.c. & hose itself. Replace if cracked or punctured.

Pump noisy

Water supply inadequate	Shorten supply hose or get one w/ larger diameter.
Pump sucking air	Check that hoses & fittings are airtight.
Debris in valves or valves worn	Check, clean or replace.
Worn bearings	Replace pump.

Presence of water in oil (milky), Water dripping from pump

High Humidity	Change oil.
Piston packing & oil seal worn	Check & replace oil seals.

Water dripping from pump

Fittings loose	Tighten fittings.
O-rings or piston guide retainer worn	Check & replace.
Piston packings worn	Check and replace.

Oil Dripping

Oil seal worn	Check and replace.
Loose drain plug or worn o-ring	Tighten drain plug or replace o-ring. Do not over torque.