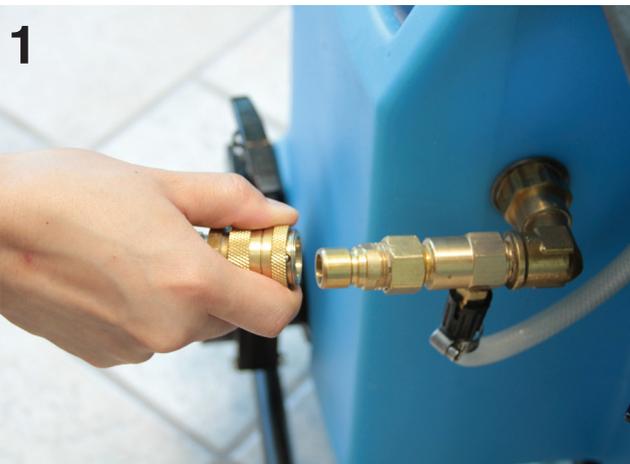


TECHNICAL SUPPORT

CHEMICAL INJECTION

How to Use Chemical Injection



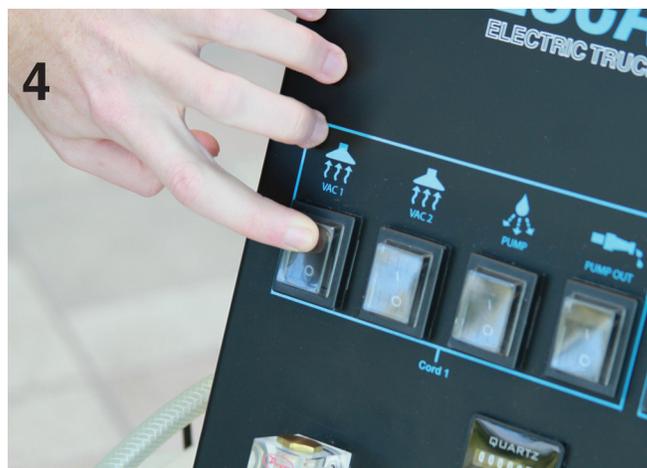
Step 1: Hook up hose to auto-fill fitting. This is a garden hose type fitting. Incoming pressure should be 40 PSI or lower, to ensure auto-fill will shut off completely. While water is filling, reach in with your hand and lift up on the auto-fill float to confirm that the auto-fill shuts off.



Step 2: The chemical bottle hangs on a holder on the side of the machine. Fill it with the desired chemical concentrate you wish to mix into the clean water tank.



Step 3: Set meter to desired ratio. Meter is measured in GPH (Gallons Per Hour), which indicates how many gallons per hour of concentrated chemical will be metered.



Step 4: Start machine, following instruction in manual. If machine is heated, make sure pump is powered on before heater is powered on. As tank fills with water through the auto-fill port, chemical will automatically be injected. Make sure the injector in the tank (where the clear hose hooks up) is fully open. Chemical will only be drawn while the tank is filling. If chemical is not flowing, check troubleshooting steps on the following pages.

Troubleshooting

Applies to models with chemical injection (LTD3, 5, 12, ETM).

Problem:	Possible Causes:	Solutions:
Chemical will not flow at all.	Chemical in bottle is depleted. (Filter is not covered.)	Refill.
	Filter in chemical bottle is blocked by buildup.	Check filter. If blocked, remove and clean.
	Hose from bottle to injector has kinks or blockage.	Clear any blocks in the hose.
	Injector valve has blockage due to chemical buildup or hardware scale.	Soak injector valve in System Maintainer to de-scale.
	Injector is damaged.	Replace injector.
Weak or inconsistent flow rate.	Chemical in bottle is depleted. (Filter is not covered.)	Refill.
	Filter in chemical bottle is blocked by buildup.	Check filter. If blocked, remove and clean.
	Air is getting into the system.	Check flow meter, bottle, injector, and hoses for any cracks or damage where air could leak into the system.
	Inbound water pressure may be too high.	Reduce pressure until proper injection begins to occur.
	Flow meter body is cracked, allowing air into system.	Replace meter.
	Injector valve is adjusted to closed position.	Fully open injector valve.
Adjusting meter does not change flow rate.	Inbound water pressure may be too high.	Turn pressure down until proper injection begins to occur.
	Meter may be clogged, which does not allow the meter ball to move properly.	Run a de-scaler (such as a System Maintainer) through the meter.
	Flow meter adjustment knob is damaged.	Replace meter.

Troubleshooting

Applies to models with automatic fill (LTD3, 5, 12, ETM).

Problem:	Possible Causes:	Solutions:
Auto-fill will not shut off when tank is full.	Incoming water pressure is too high.	Reduce pressure to below 40 PSI by turning down flow at spigot.
	Bad O-Ring in shutoff valve.	Replace valve.
	Float is cracked and has filled with water, not allowing proper floating action.	Replace valve.
	Valve arm is bent or misadjusted, causing float to move to "closed" prematurely.	Repair or adjust arm.
Auto-fill is not filling.	Valve is obstructed by debris or chemical buildup.	Clean and descale valve.
	Valve has failed in the "off" position.	Replace valve.
Auto-fill shuts off before tank is full.	Valve arm is bent or misadjusted, causing float to move to "closed" prematurely.	Repair or adjust arm.
Auto-fill is not properly metering chemicals.		See "Chemical Metering" troubleshooting guide.