

# High Pressure Pumping Operations Manual



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### SUPER SAVER 2500 / POWER PACK

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#### **OPERATING INSTRUCTIONS**

Once the Super Saver Model 2500 or Power Pack has been installed according to the installation instructions, it should be operated with caution. The equipment is designed to be coin-operated, and the proper operation is as follows:

- 1. Holding the safety trigger gun firmly in your hands, deposit coins into the coin meter.
- 2. Turn the selection dial to "Pre-Soak."
- 3. Squeeze the trigger on the safety gun. The pre-soak is delivered at low pressure through the safety trigger gun. Always direct the stream of spray away from your body toward the vehicle. Spray the enter vehicle with pre-soak.
- 4. When you've completed the pre-soak spray, turn the selection dial to "Tire Cleaner". The tire cleaner is also delivered at low pressure through the safety trigger gun. Apply this chemical to the tires of the vehicle.
- 5. After applying tire cleaner, turn the selection dial to "High Pressure Wash". The wash detergent is delivered at 1000 psi through the safety trigger gun. Avoid spraying in the direction of another person: serious injury could result if caution is not used when operating this equipment.
- 6. When the vehicle has been completely washed, turn the selection dial to "Foam Brush". Put the trigger gun into the wand holder, mounted on the bay wall. The foam brush chemical is delivered at low pressure, through the foaming brush assembly. Grasp the brush handle firmly and scrub the vehicle with the foaming brush. Return the brush to its holder upon completion.
- 7. Grasp the safety trigger gun firmly, and turn the selection dial to "Rinse". Rinse water is delivered at high pressure through the safety trigger gun. Rinse all foam and chemicals from the vehicle.
- 8. Turn the selection dial to "Wax". Wax is delivered at high pressure through the safety trigger gun. Spray wax over the entire vehicle, except for glass windows.
- 9. After the wax application, turn the selection dial to "Spot Free"; the Spot-Free Rinse is delivered at low pressure through the safety trigger gun. Spray the rinse water over the entire vehicle.
- 10. When all functions have been completed, turn the selection dial to "Off" and return the safety trigger gun to the wand holder, mounted on the bay wall.



### IMPORTANT SAFETY INSTRUCTIONS

DO NOT throw away these important safety instructions. The instructions pertain to risk of fire, electrical shock and/or injury to persons.

#### <<<<WARNING>>>>

#### WHEN USING THIS PRODUCT, THE FOLLOWING BASIC PRECAUTIONS SHOULD ALWAYS BE FOLLOWED

- 1. Read all instructions before using this product.
- 2. To reduce risk of injury, close supervision is necessary when a product is used near children.
- 3. Know how to stop the product and how to bleed pressures quickly. Be thoroughly with the controls.
- 4. STAY ALERT Always give complete attention to your actions.
- 5. Do not operate the product when fatigued or under the influence of alcohol or drugs.
- 6. Keep operation area clear of all persons.
- 7. Do not attempt to reach over equipment, or to stand on any unstable support. Keep good footing and balance at all times.
- 8. Follow the maintenance instructions specified in this manual.
- 9. Disconnect all power before installing or servicing this equipment. If the power disconnects is out of sight, lock it in the open position and tag it to prevent unexpected applications of power. Failure to do so could result in fatal electrical shock.
- 10. All wiring should be done according to local, state and federal electrical codes and by a qualified electrician.
- 11. This equipment must not be used in potentially dangerous locations, such as flammable, explosive, or chemically-laden areas, or in a wet atmosphere.



# **GROUNDING INSTRUCTIONS**

This product must be connected to a ground, metal, permanent wiring systems or an equipment-grounding conductor must be run with the circuit conductors and connector to the equipment grounding terminal or lead on this product. Use only copper conductors.

The grounding bus bar can be found in the bottom to the electrical control panel. A qualified electrician must complete this. To ensure a proper ground on the grounding, a qualified electrician must check the means.

This equipment is intended for general use only. It must not be used in potentially dangerous locations, such as flammable, explosive/chemically-laden areas or in a wet atmosphere.



# **USER MAINTENANCE INSTRUCTIONS**

This equipment contains various safety devices that require maintenance to ensure proper operations.

The pumping equipment has a Para plate regulator to properly control the pressure of the pumps. The regulator should be checked weekly for proper operation and oiled on monthly-bases to ensure the proper operation continues.

If the Para plate regulator should fail, there is a back-up safety pressure pop-off valve, which will open up to bleed off pressure. The pop-off valve is intended for a back-up system, only. If you notice that it has opened up and begin to bleed pressure, you should immediately repair or replace the Para plate regulator.

The safety trigger gun in the wash bay should be checked daily for proper operation. Replace the safety trigger gun if it is leaking, sticking or binding.

Refer to the suggestion "MAINTENANCE SCHEDULE" (Page 7).



TANK SIZE DIAMETER	TANK SIZE HEIGHT	CUBIC FT CAP PER TANK	SOFTENING CAPACITY	SOFT WATER RESERVE REQ
	-			
8 IN	44 IN	.5 CU FT	15,000 GR	45 GALLONS
9 IN	48 IN	1.0 CU FT	30,000 GR	50 GALLONS
10 IN	54 IN	1.5 CU FT	45,000 GR	55 GALLONS
12 IN	48 IN	2.0 CU FT	60,000 GR	90 GALLONS
13 IN	54 IN	2.5 CU FT	75,000 GR	120 GALLONS
14 IN	65 IN	3.0 CU FT	90,000 GR	125 GALLONS
15 IN	65 IN	4.0 CU FT	120,000 GR	155 GALLONS

#### FORMULA TO SET GALLON METER ON WATER SOFTENER

- 1. Measure resin tanks and determine softening capacity per tank.
- 2. Test incoming water for water hardness.
- 3. Use the formula below.

GALLON METER SETTING =	<u>CAPACITY PER TANK</u> - WATER HARDNESS	SOFT WATER RESERVE REQUIREMENTS			
EXAMPLE: For 9 grain hardness with a 10" x 54" tank =					
GALLON METER SETTI	NG= <u>45,000</u> 9	55 GALLONS			
GALLON METER SETTI	NG = 4,945 GALLONS				



# MAINTENANCE SCHEDULE

#### <u>Daily</u>

Check levels of chemicals in all drums. Replace with full drums, as needed.

### <u>Weekly</u>

Check oil in all pumps. Drain water from air filter on air compressor. Drain water from bottom of air compressor tank.

### <u>Monthly</u>

Check pressure on R.O. Membrane. Check product vs. reject flow rate. Reject should be at least twice that of product water. Check chlorine in water going to R.O. System. If chlorine is present, check carbon filter, and replace carbon if needed. Check pressure before and after paper filter, when unit is running. If pressure differs 10 psi or more, clean or replace paper filter.

### <u>Bi-yearly</u>

Change oil in all pumps. Use 30 WT Non-detergent Oil. Do not use a recycled oil product.

Lubricate Para plate regulator Check pressure on all pumps, and adjust as needed. Check belts, and tighten as needed. Change oil in air compressor.

### <u>Yearly</u>

Change oil in all pumps. Lubricate Para plate regulators. Change seals in pumps as needed. Lubricate the circulating pump on water heater and under-floor heat. Change oil in air compressor. Check all foot valves on Hydro minder, and replace as needed. Check and clean all dilution tips on Hydro minders.



### **R.O. MEMBRANE CHEMICAL FLUSH PROCEDURE**

- 1. Dilute two (2) pounds of acid cleaning powder into 30 gallons (30Gallon Drum) of warm water (95 to 105 F), and mix until dissolved.
- 2. Disconnect the city water from the ProCon pump-
- 3. Hook up a hose from the 30-gallon barrel to the inlet of the ProCon pump.
- 4. Take the R.O. reject hose away from the drain, and place it in the 30 gallon barrel.
- 5. Remove the paper cartridge from the housing.
- 6. Turn the T- Handle regulator counter-clockwise to reduce the pump pressure.
- 7. You may need to bypass the low-pressure switch next to the ProCon pump by jumping both wires together.
- 8. Turn the pump on, and check the pressure on the pressure gauge. It should be about 40-60 psi. Make sure the reject water hose is flowing water back into the barrel. If no water is flowing through the hose, you may need to prime the pump.
- 9. Allow the pump to run about 2-24 hours, circulating the cleaning solution.
- 10. After cleaning the membranes, reconnect the city water back to the unit and flush out all cleaning solution to the drain for about 10 minutes.
- 11. Now turn the regulator back up to about 130-190 psi. The reject water needs to be at least twice the rote of the product water. If the membranes do not produce the proper amount, you may need to repeat the cleansing procedure