

PSR-AC: Paragon Senior Water Pressure Systems

Installation, Operation, and Maintenance

WARNING: On/off operation for PSR-AC series pumps is controlled by adjustable pressure switch #69-WFC. DO NOT use PSR-AC pumps aboard gasoline-powered vessels or where combustible fumes may be present. Due to the open design of #69-WFC, PSR-AC pumps are not UL listed or CE recognized.

Use DC voltage PSR where UL listing or CE recognition is required.

PRESSURE STORAGE TANK: PSR requires the use of a Pressure Storage Tank. Use only GROCO PST-2, PST-3, PST-4 or PST-5. Multiple PSTs may be plumbed in parallel if desired. DO NOT use a single PST-1 because it does not have sufficient storage capacity.

IMPORTANT: Before applying power to PSR, the air charge in the PST must be checked and adjusted to 28-30 PSIG. There is an air valve on the tank at the opposite end from the plumbing connection. Remove the protective cap and check and set air pressure with no water pressure present; use a standard tire gauge to check the pressure. Excess pressure can be released by depressing the center of the valve. Use a hand pump such a bicycle pump to add air if necessary.

WATER PURIFIERS: We do not recommend the use of filters as they will seriously restrict the flow and pressure you desire. If you choose to utilize such a filter, it must be installed after the PST. DO NOT install a purifier between the supply tank and the pump.

the pump motor off if system pressure falls below 10 PSI (as would take place if the supply tank ran dry). To re-start the pump after a dry-tank shut-down follow the start-up procedure.

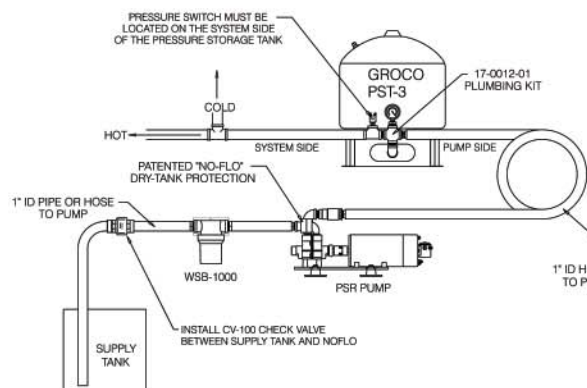
WINTERIZATION: Freezing will damage your pump and the connected plumbing. To winterize first allow PSR to pump the supply tank(s) dry. Shut off power when the faucets begin to pass air. Disconnect inlet and outlet hoses to drain the connecting plumbing and remove WSB-1000 bowl. Pour an ounce or two of potable alcohol (your favorite scotch will do fine) into the pump. Reconnect the hoses to prevent evaporation. DO NOT use automotive antifreeze to winterize as it may be poisonous.

MAINTENANCE: Check the WSB-1000 inlet strainer at least monthly. Check the air charge in the PST at least once monthly. This is done with no system water pressure present. With a tire gauge check the air charge. It should be the same as the cut-on pressure of the pump. Add or remove air as needed before pressurizing the system.

DO NOT lubricate any part of the pump.

SERVICE NOTE:

* Replacement switch #69-WFC is open and adjustable, but must not be used aboard gasoline powered vessels. Use DC voltage PSR where UL listing or CE recognition is required.



INSTALLATION: The motor and circuitry are not waterproof. Install PSR in a dry, well ventilated location not more than 10-feet above the water supply. If PSR will have a flooded inlet the pump may be oriented in any position; if PSR must self-prime orientation must be upright.

Mount PSR to a sturdy platform using the six (6) mount feet included. Operation will be quieter if mounted to a solid surface.

PLUMBING: Before making plumbing connections pour water into the pump inlet to aid in initial priming. PSR develops substantial pressure and suction; plumbing lines must be rigid pipe or heavily reinforced hose. The inlet to the pump must be 1" ID. Install WSB-1000 (1" NPT ports) pump strainer in the inlet line between the supply tanks and the pump in a location that can be easily serviced.

The discharge line between the pump and the Pressure Storage Tank (PST) must be 1" ID minimum, and must be free of filters, valves or any other device. (See note about filters and purifiers.) The plumbing size after the pressure storage tank may be reduced if desired.

Install CV-100 check valve (included) anywhere between supply tank and NOFLO™.

Use of a foot or two of hose at the pump inlet and discharge to help isolate vessel plumbing from pump pulsations.

ELECTRICAL:

Proper wire size is essential.

Use 12-gauge wire for wire runs up to 100 feet from the power source.

The motor can be wired for operation with 115VAC-60Hz, or 230VAC-60Hz power. Refer to the wiring diagram label on the motor; note that "low voltage" refers to 115VAC and "high voltage" refers to 230VAC.

START-UP: In preparation for start-up, check all plumbing and electrical connections. Open all faucets and shower heads half-way. Apply power at the breaker panel. Raise and hold the lever on the side of the pressure switch; the pump will run. Hold the lever until the pump runs without holding the lever (when system pressure reaches 10-PSI).

As water flows smoothly from each faucet or shower head, shut it off. The system will build pressure and shut off.

DRY TANK SHUT-DOWN: In addition to controlling on/off pump operation, #69-WFC pressure switch provides dry-tank protection by shutting

Voltage	Breaker
PSR 115VAC	10-A
PSR 230VAC	5-A
PSR 230-50VAC	5-A

Item	Part Number	Description	Qty
1-14	P-9000	Pump Assembly	1
1,10	P-9001/9002 Set	Pump Castings set	1
2	P-9009 Set	Carbon Bearings (2)	1
● 3	P-9014 Set	Impellers (2)	1
4,14	P-9003/4 Assy	Shaft and Eccentrics Set	1
5	P-9006	Separator	1
● ● 6	P-9005	Seals (2) (before S/N 850101)	1
● ● 2-010		O-Ring (2) (after S/N 850101)	1
● ● 7	2-041	O-Ring (before S/N 860101)	1
● ● 2-042		O-Ring (after S/N 860101)	1
8	P-9007	Impeller Guide	1
9	1420X34HS	Bolts	2
● ● 11	P-9015	Seal	1
12	P-9020	End Cap	1
13	1032x316SS	Set Screw	2
15	P-7005	Coupling	1
● ● 16	P-7006	Coupling Spyder	1
17	115VAC-J	Motor, 115VAC or 230VAC 60Hz	1
	230VAC-50-J	Motor, 230VAC 50Hz	
18	P-7004-A	Base	1
19	1420X234HS	Bolts	4
20	P-9022-A	Mount Foot Set (3)	2
● NS	WSA-1001	Filter Basket	1
● NS	WSA-1002	Strainer Gasket	
NS	NOFLO 7500	Dry Tank Protection (see control chart)	1
NS	P-9021-A	Check valve	1
NS	69-WFC	Pressure Switch	1
NS	P-8005-A	Pressure Gauge	1
	P-8005-B	Pressure Gauge (oil filled)	1
●	PSR REGULAR SERVICE KIT		
●	PSR MASTER SERVICE KIT		

