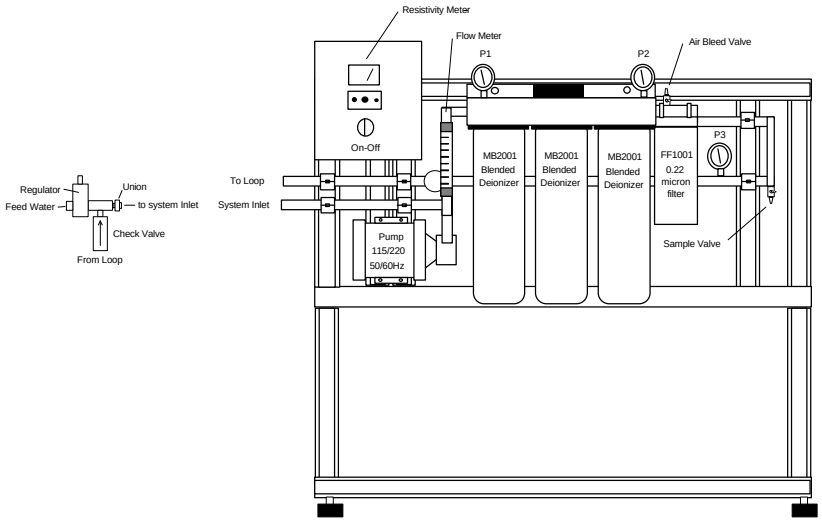
APS **POLARIS**™

Water Purification System

User Manual



An exclusive product from :

APS **WATER**

7320 Valjean Ave.
Van Nuys Ca. 91406
1-800-460-9011
http://www.apswater.com

Thank you for purchasing your APS **POLARIS**™ water purification system.

Specifications

Electrical Requirements

Voltage	220 vac
Hertz	50/60 Hz
Amps	4-7

Water Quantity and Capacity

Production Rate	1-2 g.p.m.
Capacity	8100 grains

Water Quality

Resistivity	15-18 megohm/cm @25C
Bacteria	< 1 cfu/ml
Total Dissolved Solids	< 0.1 p.p.m.
pH	5.0-7.0

Replacement Cartridges

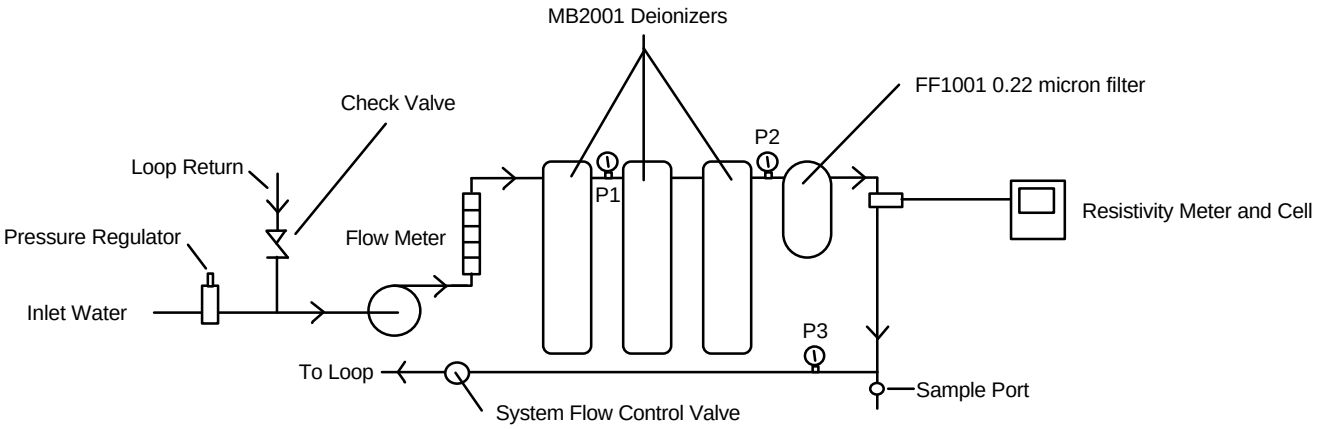
1st housing	MB2001 Blended Deionizer*
2nd housing	MB2001 Blended Deionizer
3rd housing	MB2001 Blended Deionizer**
4th housing	FF1001 0.22 micron filter

*may substitute CF2001 Carbon Filter if feed water contains high organic contamination
**may substitute OS2001 Organic Scavenger to produce low organic water

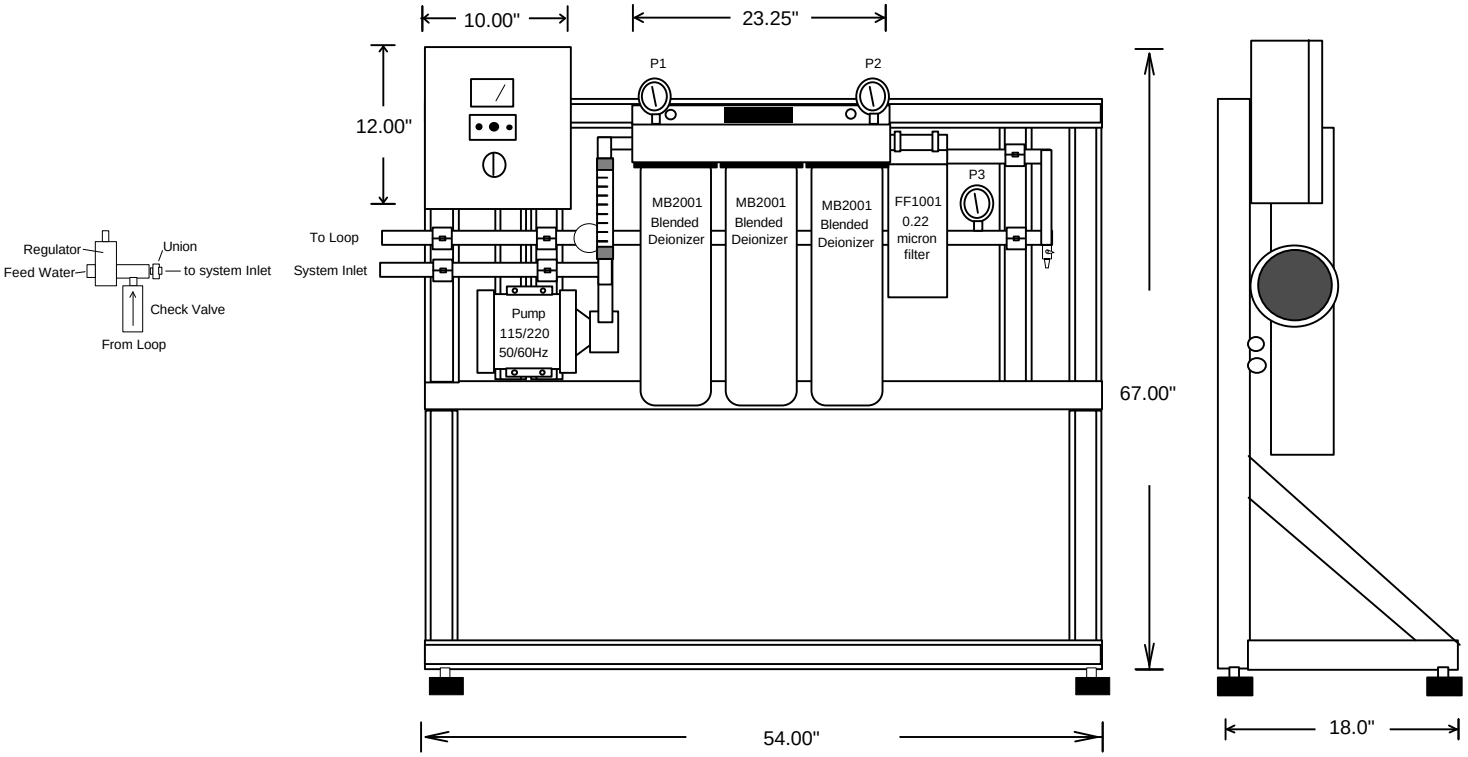
System Description

The APS **POLARIS**™ Water system is designed to provide a constant supply of ultra-pure water for industrial and medical applications. The POLARIS system uses a variety of technologies to remove ions, bacteria, particulates and organic contamination from water.

Flow Schematic



As Built Drawing



Installation Procedure

Unpack unit and place it in the desired location.

Secure to floor if desired.

Connect loop module to the water system inlet.

Connect feed water connection (but leave turned off).

Connect Loop return connection.

Connect loop feed connection.

Connect the power.

Install all filters.

Turn on feed water supply.

Open air bleed valve that is located on top of the 0.22 filter.

Leave open until water exits the valve. Close air bleed valve

Open sample port valve until water exits.

This should purge most of the air in the system.

Making sure that the air bleed valve and sample valves are closed and the feed water supply is on, set the regulator so that the system pressure is 20 p.s.i. It may be necessary to bleed off higher pressure by opening the sample port valve.

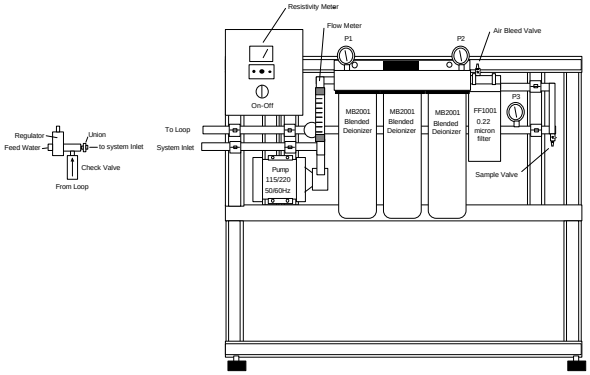
Turn on the system power by turning the on-off switch to ON. Watch the system pressure and if it goes above 60 p.s.i. turn off the system. The operating pressure is controlled by adjusting the acorn nut on the side of the pump head. Remove the acorn nut, and loosen the adjustment screw as much as possible without removing the screw. Turn the system back on and screw in the screw until the system pressure is 40-50 p.s.i. Replace the acorn nut and the system is ready to operate.

Occasionally, air may get trapped in the water system. This can be seen in the 0.22 housing. Air can be removed from the system by opening the air bleed valve on top of the 0.22 micron filter housing.

Daily Log

Please complete the following daily to assure consistent water purity

Parameter	Normal Range	Current reading	Notes
Flow Rate	1-2 g.p.m		excessive flow rate can cause shortened filter capacity
P1	40-50 p.s.i.		Adjust with regulator and pump bypass valve
P2	30-50 p.s.i.		
P1-P2	< 20 p.s.i.		high differential pressure can be caused by excessive flow rates or pluggage of the filters
P3	30-50 p.s.i.		
P2-P3	< 10 p.s.i.		high differential pressure indicates a need to change the 0.22 filter
Resistivity	15-18 megohm		Reading below 15 megohm indicate a need to replace the deionizer filters



Cartridge Change procedure

Turn off feed water

Open sample port valve until pressure on system reads 0.0 p.s.i.

Using the included housing wrench, remove all 4 filters

reinstall new filters ins the same order.

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Spare Parts

Catalog #	Description
Meter01	Resistivity Meter and cell
CC20Meg	Calibration Cell (20 Megohm)
PU1/3-5060	G.E. Motor, 115/220 vac 50/60Hz TEFC 1/3 hp
1604X	Stainless steel pump head
GA100SS	Pressure gauge 0-100 p.s.i. stainless steel
OR4	O-ring , Amatek style housing
HO2001	Filter Housing, 20” Big White, polypro
HO1001	Filter Housing, 10 Polypro
MB2001	Blended Deionizer
FF1001	0.22 micron membrane filter

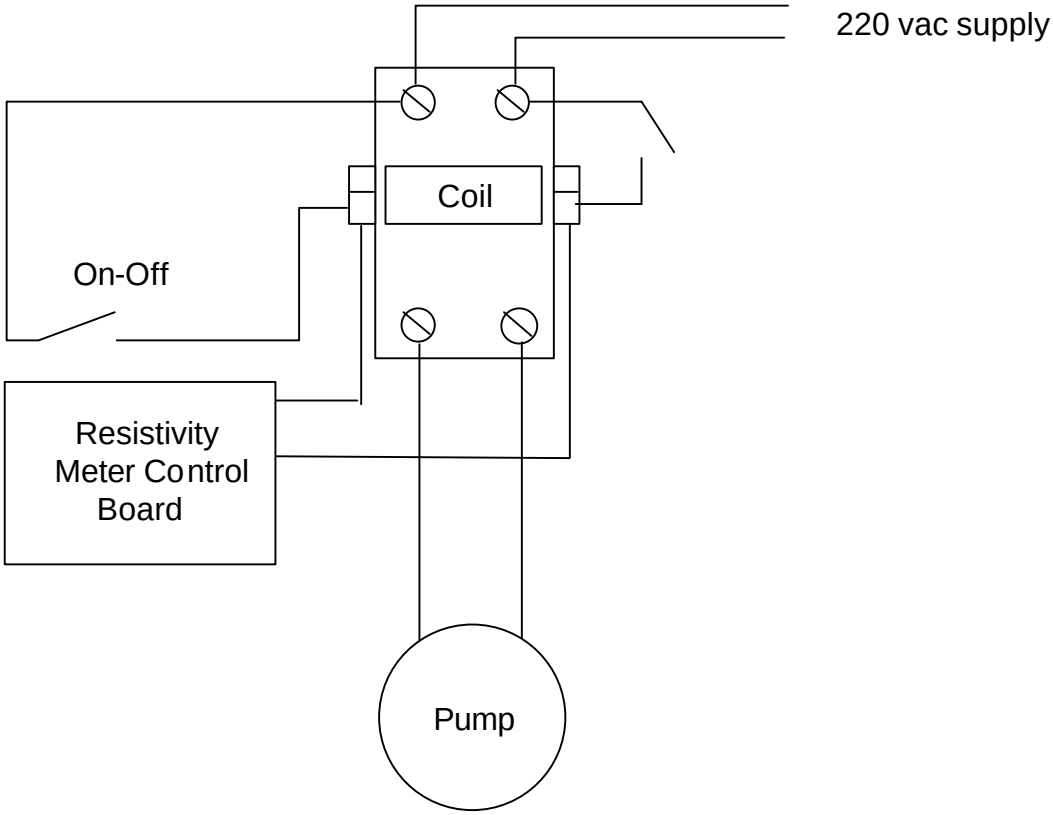
Alternate Filters

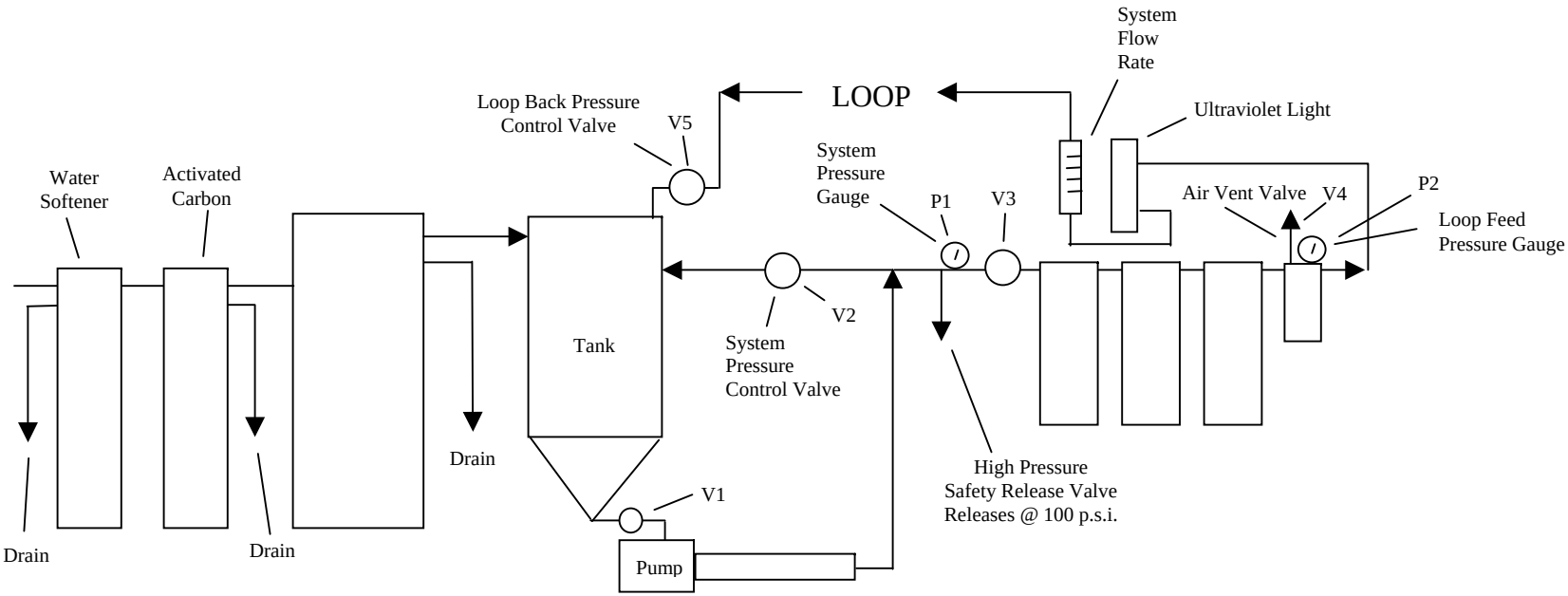
CF2001	Carbon Filter (1st housing alternate)
OS2001	Organic Scavenger Filter (3rd housing alternate)

For technical assistance we can be reached the following ways :

Phone	1-800-460-9011
E-mail	APSWATER@AOL.COM
Website	HTTP://WWW.APSWATER.COM
Fax	1-818-786-2347
Local	1-818-786-0600

Electrical Schematic





Important
Always start the pump with the system pressure control valve fully opened. Once the pump is running slowly close the system pressure control valve so that the system pressure gauge does not exceed 40 p.s.i. When closing the loop back pressure control valve you will need to simultaneously open the system pressure control valve so that the system pressure gauge does not exceed 40 .p.s.i.

Failure to do so can result in ruptured pipes or other damage as well as injury. The high pressure safety release valve will activate at 100 p.s.i. but damage to the piping may have already taken place.

Flow Schematic – 2/2012 MW