■ Trouble shooting

Problem	Possible reason	Solution
System is not functioning	1.Controller box set at 0.	1.Make an adjustment.
	2.The pressure of feed water isn't high enough. (more than 1.5kg/cm^2)	2.Check water-in pressure and if pre-filter chokes.
	3.The location difference between RO system and feed water tank.	3.Change the control method of RO system and adjust low pressure switch.
	4.The power for RO system isn't normal.	4.Check power source and also adjust voltage. It's normal to be within the tolerance ± 5%.
System can't work after flushing	1.Control box in condition of high water level.	1.Check pure water tank and circuit of high water level.
	2.Control box in condition of low water level.	2.Check feed water and pre-filters and pump.
	3.Control box is out of order.	3.Change computer box.
Output of RO system isn't sufficient	1.Flush solenoid is out of order.	1.Change flush solenoid.
	2.Recovery needle valve is set too much.	2.Adjust recovery needle valve.
	3.Pressure needle valve is out of order.	3.Check pressure needle valve and check if needle valve is normal.
	4.RO water-in pressure isn't sufficient.	4.Pump head gets abrasive so pressure isn't sufficient.

PUREPRO DRINKING WATER SYSTEM

REVERSE OSMOSIS SYSTEM

1500G-6000G

USER'S MANUAL

Thank you very much for selecting Pure-Pro Water Corp.
In order to bring the best use of your system, please read the user's manual carefully before installation and follow the regulations.

■ Requirement for feed water

Feed water pressure	2KG/cm^2 ~ 4KG/cm^2
Hardness	＜50 PPM (AT CACO3)
Cl	＜ 0.1 PPM
Turbidity	＜ 1
Feed Water TDS	＜ 1000 PPM

PS: Please contact your technician if feed water doesn't meet the requirement.

■ System specification

Models	**1500G**	**3000G**
Dimension	(L)50-(W)43-(H)130	(L)50-(W)43-(H)130
N.W	68KG	90KG
Voltage	110V / 220V 1ø	220V / 3ø
Currency	50HZ /60HZ 50HZ /60HZ 15A /14A 8A/7A	15A / 14A
Booster pump	0.75 KW	2.20KW
In/Out diameter	IN 3/4", OUT 1/2"	IN 3/4", OUT 1/2"
Control	Computer control	
Pressure gauges	Feed water pressure / Purification	
Water quality indicator	T.D.S	
Pre-filters	20"-PPS x 2	20"-PPS x 2
RO membrane	TFC-4040 x 1	TFC-4040 x 2
Pump	1HP Pump/2507	3HP Pump

■ Trouble shooting

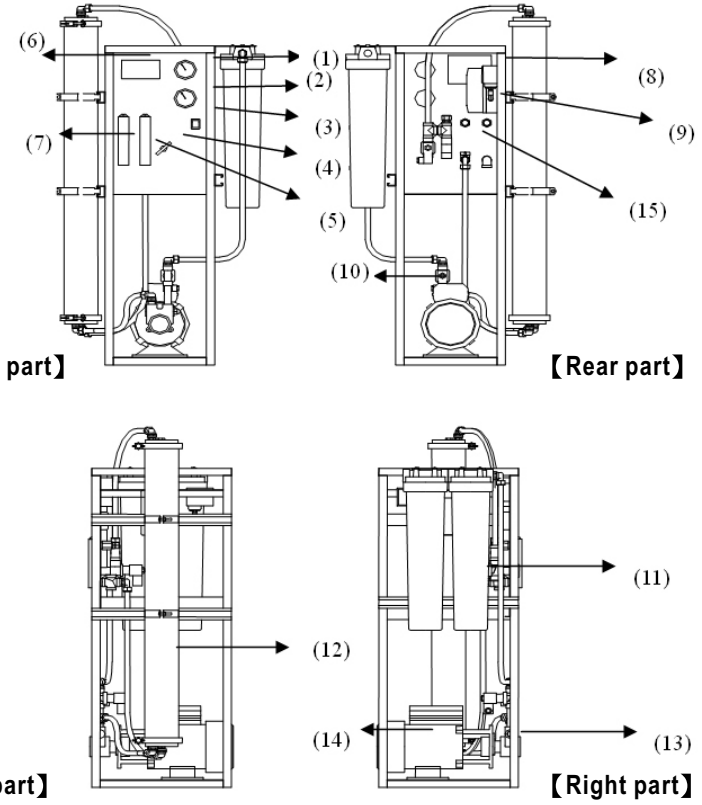
Problem	Possible reason	Solution
Membrane chokes	1.The soft water from softener doesn't suffice RO system.	1.Check the water softening process and also calculate if softening quantity can suffice RO system to purify.
	2.Drain valve or tubing chokes.	2.Check drain valve and tubing.
	3.The rate of drain and pure water isn't normal.	3.Adjust the rate more than 1:5.
	4.The TDS of feed water is too high.	4.Check feed water source and also decrease the recovering rate. The consistence of recovery must be less than TDS 800 PPM.
	5.Colloid suspension is too much.	5.Install UF or 0.45u minus filter on pre-filters.
	6.Feed water quality is too poor.	6.Improve the feed water quality or increase pre-filters.
	7.Iron is too much.	7.Expose to air or add medicament for re-filtration.

PUREPRO DRINKING WATER SYSTEM

■ Trouble shooting

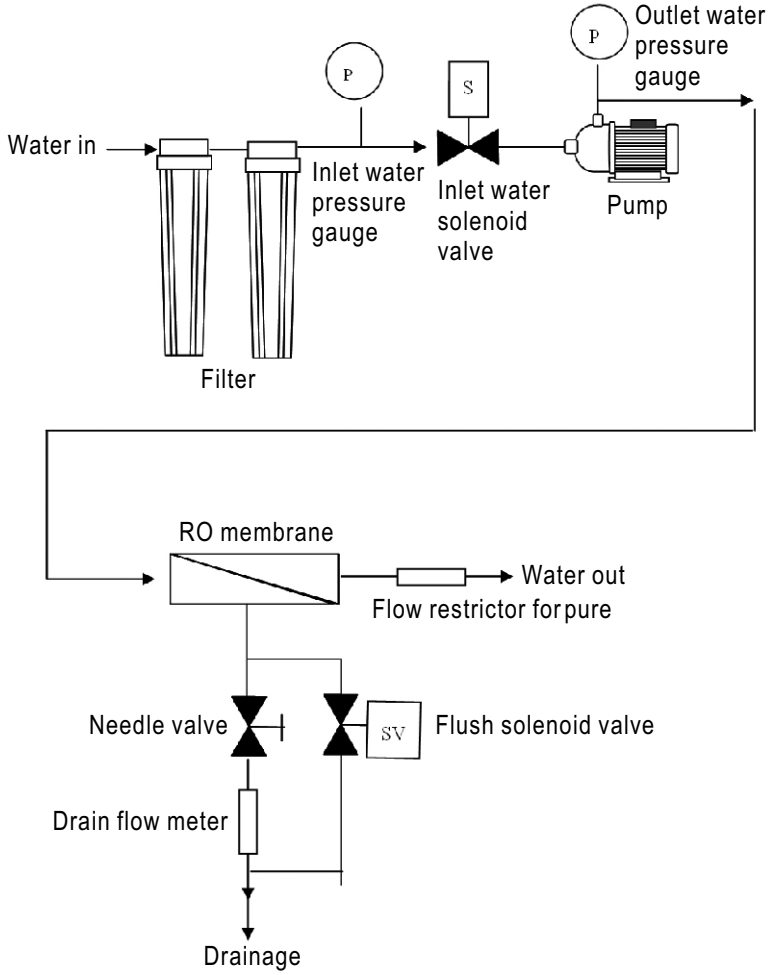
Problem	Possible reason	Solution
Pump doesn't work	1.Wrong power in.	1.Check power phase, which can be check by computer box.
	2.Magnetic switch is out of order.	2.Check magnetic switch coil and joint. (check if free or not with multi-meter RX1)
	3.Magnetic switch is overload, protective switch shuts down.	3.Measure the operation currency with clamp meter and also set the value to be 1.25 times. (Push the stick back)
	4.Control box is on the condition of lower water pressure.	4.Check the pressure difference between water-in and pre-filter and the joint to low pressure switch is free. (check if free or not with multi-meter RX1)
	5.High pressure switch is out of order, the joint between post carbon and sand filter isn't free.	5.Check if the joint between multi-meter RX1 and test point is free and if AB point is correct.
	6.Control box is out of order.	6.Check the if 5.7 point on the computer box feed power to magnetic switch and if power supply is normal.
	7.Axle center of pump is choked by rust.	7.Check if noise when pump works. Please change the pump if no work.
	8.pump head gets stuck.	8.Please take pump head away. Please change pump head if manual pump head can't work.

■ Part list



Item	Parts	Item	Parts
1	Feed water pressure gauge	9	Electronic Solenoid valve protector
2	Water-out gauge	10	1/2" Off Solenoid valve
3	Power switch	11	Pre-housing and filter
4	1/2" Needle valve	12	RO Housing and Membrane
5	Pure water flow meter	13	1504, 2507 Pump
6	Water quality computer controller	14	1/2HP, 1HP Motor
7	Drain flow meter	15	1/2" Flush solenoid valve
8	Low pressure switch		

System Diagram



Note：

1.Low pressure adjuster: Lower by anticlockwise, raise by clockwise.

2.Please confirm power supply matches system's electric current, voltage, and HZ.

3.This system is automatically controlled by computer program.
People under training are best recommended to operate the system.

Operation process

Attentions Before Operation :

A. Pressure of Inlet Water exceeds 1.0Kg/cm^2.

B. Supplying electrical power accord with the need of Equipment Device, Supplying Voltage be maintained within 5% as indicated scale for power of equipment.

C. Connected tubes for permeate water and concentrate water be fairly finished.

Operating Process : (Pre-operating have been checked)

A. Starting on-off switch.

B. Setting delay operating device (for 20 seconds) for lower pressure switch, to protect the motor for avoiding disorder by frequent starting of operation.

C. Adjust the ratio and pressure of permeate water and concentrate water.

a. Adjusting needle valve first, scale at the ratio 1:3 for permeate water and concentrate water, the ratio is according to the quality of inlet water, if TDS is higher then setting concentrate water be relatively more.

b. Adjusting the inner six-angle screw of Procon head (adjusting by-pass fluid) to accord with the production rate of RO system.

Maintenance

1. Pre-treatment Filter: According to the quality of water, usually be used for 1~3 months.
2. Check and record the actual fluid of permeate and concentrate water, if the permeate water production is less than the normal production for 10~15%, then RO membranes need for acid washing.
3. Check and record the pressures of inlet water and operation.
4. After replacement of Filter, press the red knob of filter housing for releasing the remaining air in the housing.
5. Press the compelling knob (flush) on the control panel to test whether the operation be normal.

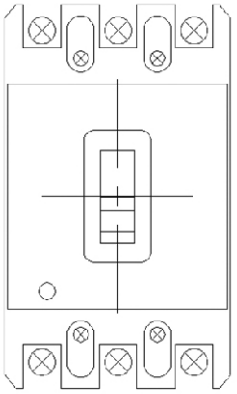
Installations

1. To connect 3/4" water-in PVC tubing and ball valve pipe.
2. To connect drain with 1/2" PE tubing.
3. To connect flush solenoid with 1/2" PE tubing.
4. To connect with 1/2" PE tubing to pure water tank.
5. To connect with the blue wire from control box to the floating ball switch on the tank to control for full tank.
6. To connect power source. (Note: voltage)

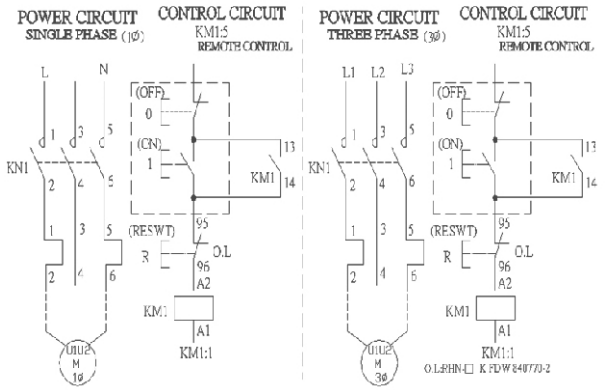
NOTE:

1. Please confirm the power specification.
2. Please confirm if the connection of pure and drain water tubing are right.
3. Please confirm the inner diameter of main power wire not less than 3.5mm^2.
4. The wire connected to full water switch and floating switch may not be used for others.
5. Reverse flush switch is necessary for the installation of pre-filter system so RO system could stop working for prevention from salt water to damage machine.
6. Please install pump before system if water-in pressure is less than 1.5 kg/cm^2.
7. Please clean pre-filters every week to keep the sufficient water-in supply.

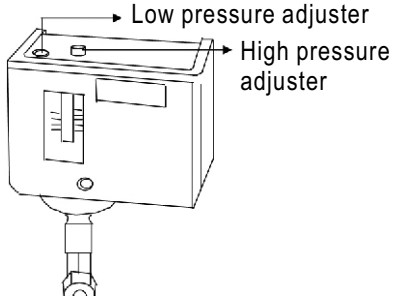
Electronic solenoid valve protector



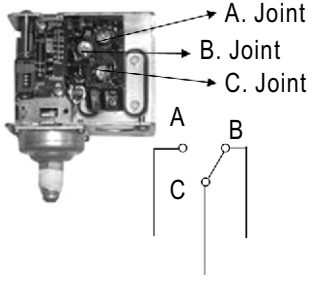
Circuit diagram



Low pressure switch



Circuit diagram



1. Low pressure adjuster:
   Lower by anticlockwise,
   raise by clockwise.
2. Low pressure adjuster:
   Lower by anticlockwise,
   raise by clockwise.

Joint direction:
1. No joint on B
2. A and B are connected to Control box with green wire.

■ Computer controller

Operation direction

The system has a automated computer controller, protection switch to detect full water level, and 24-hour auto-flush function.

<1>Wait for 10 seconds on power supply before start the system. Flush for 1 minute, and 30 seconds flush after tank with full water. Before the next water production, flush for 15 seconds.

<2>Setting items :

A. Water property (TDS) monitoring value setting.

B. Preset value for motor water making time.

C. Motor outlet pressure and flushing pressure steering (YES, NO).

D. Standby flushing time setting(YES, NO).

E. Fixed compulsory flushing.

<3>Use operating method :

1. Depress setting key 3 seconds to enter setting mode, the first display TDS (000PPM)setting, then press the second display motor water making time setting H00(YES,NO), then press the third display motor outlet pressure and flushing pressure P=0 setting (YES, NO), than press the fourth display full-water standby flushing F00 setting time (YES, NO).
2. To change settings, select a required mode display window, press (flush / 0 adjustment) to change settings value, automatically restore to normal display after 5 seconds to represent setting is completed.

A. TDS vate be set from 000ppm to 100ppm.

B. Water production period set from H09 to 99. Hoo represents invalid function.

Note: such function is to protect water tank from making water without stopping caused from abnormal operation on switch.

C. Motor outlet pressure and flush pressure setting(P=1, 0), (P-1 represents action, P-0represents malfunction).

Note: such function is to protect when motor makes water but fails to achieve normal pressure to cause Motor idle running and to stop water making.

■ Computer controller

D. Under full-water standby, it can set (F01-12) hours for flush setting, and flushing action time is 1 Minute or setting (F00) this function as ineffective.

Note: setting time automatic flushing to prevent machine from no operation for long time.

E. When power is off, depress setting key and strong flush key without release, then energize to wait the display flashing with bi sound, then release, after 13or bi sounds starts to control fixed flushing action to conduct film pipe acid washing action, when power is turned ON / OFF it restores to normal operation action.

F. Manual forcible flushing should require to depress strong flush key 3seconds for starting, and flushing time is 1minute.

G. Water tank Air pressure switch if not used it may cause connector JUMP.

(A) Source light flashes 20 minutes later on purifying mode.

(B) If detection is water-in

(a) Full water and source light flash on full mode.

(b) Source light flash on purifying. Purifying light shines 20 sec later. Water-in and pump turn on.

PUREPRO DRINKING WATER SYSTEM