Overview

Thank you for purchasing the Time Saver Series Phaser Pure Water System. With proper care, this unit will provide you with years of trouble free service. This system was designed with professional window cleaners in mind. Bringing the latest technology & advancements to the pure water window cleaning industry, abc & Waterfed.com have produced the finest pure water window cleaning system available today. Only the highest quality parts & materials have been used to assure you years of system longevity.

The following is provided to help you understand how your system purifies water. The Phaser is a multi-stage water purification unit using carbon, reverse osmosis, and deionization filters to remove impurities from water before delivery to surfaces for cleaning. An optional boost pump module can be added for increased pressure and height achievement. General life span will vary depending on feed water TDS. Based on an average TDS of 100 in your water, approximately 10,000 gallons of water can be passed through the carbon/sediment filter before replacement. It is recommended that the carbon/sediment and DI cartridges be replaced at the same time. (A lower TDS produces more gallons, a higher TDS produces less gallons).

In The Box

Parts Check
- TS-2200 (Phaser) System
- DI Filter
- Sediment Filter
- TDS Meter
- Bypass Tubing

1. Unpacking/Inspecting The System

Your system is packaged to stay undamaged in transit. Please inspect all components to ensure no damage has occurred prior to continuing. Carefully remove the packaging material from around the system and discard. Your Phaser comes with all filters installed and ready for use. Inspect your Phaser for any shipping damage. If damage has occurred notify the shipping company that made delivery to begin a damage claim.
2. Initial Setup

Refer to your quickstart guide for more complete information.

You can also watch the quickstart video at: www.abcWindowSupply.com/PhaserQuickStart

1. Attach bypass hose to the fitting on the side of the RO filter.
2. Attach DI filter to outlet end of the RO filter. **Do not overtighten.**
3. Attach quick connect shut off to the DI filter.
4. Attach Carbon/Sediment filter to the inlet end of the RO filter. **Do not overtighten.**
5. Attach pole to quick connect shut off and turn to open position.
6. Turn on water.
7. Adjust bypass to a trickle.
8. Start cleaning windows.

3. Filter Replacement

Learn how to change your filters by video: www.abcWindowSupply.com/PhaserFilter

1. Unscrew the Carbon/Sediment filter (P/N WF2CSC-4) from the inlet side of the unit and discard.
2. Screw on the new Carbon/Sediment filter. **Do not overtighten.**
3. Remove quick connect shut off valve.
4. Unscrew the DI filter (P/N WF2CDI-4) from the outlet side of the unit and discard.
5. Screw on the new DI filter. **Do not overtighten.**
6. Attach quick connect shut-off valve to new DI filter.
7. Remove Carbon/Sediment and DI Filters.
8. Using a 3/8” wrench, remove the clamps from the RO Membrane housing that double as the stabilization base for the unit. Retain for future use.
10. Remove bypass hose.
11. Attach handle and clamps to new RO filter.
12. Attach bypass hose to new RO Filter.
13. Attach Carbon/Sediment and DI Filters. **Do not overtighten.**

4. Hooking Up To Water Source

1. Locate an external water source. Attach one end of the feed hose (not supplied) to the water source. ¼” garden hose is preferred. Open the faucet at the building and make sure all air is out of your source hose. Turn off water and attach to inlet of carbon/sediment filter. Turn water back on fully.

Carbon/Sediment Filter

1. Unscrew the Carbon/Sediment filter (P/N WF2CSC-4) from the inlet side of the unit and discard.
2. Screw on the new Carbon/Sediment filter. **Do not overtighten.**
5. Bypass Valve Operation

The system comes with a Bypass/Pressure Regulator valve. The bypass valve controls the amount of water that your RO membranes lose as bypass discharge (called brine). The more open your bypass valve is the lower your system pressure will be (potentially resulting in lower flow of pure water out of your system) and the more input water you will lose as brine. However your RO membranes use the brine to clean themselves. Thus, the more open your bypass valve, the longer your RO membrane will last and the lower the TDS of the clean water leaving the RO will be (this in turn lowers the work that your DI filter will have to do and can result in longer DI filter life). Closing your valve halfway (45 degrees) is a good place to start, as it restricts flow for elevated system pressure, but also allows some brine to exit your membranes. Some water must be coming from your bypass at all time when running system!

It is not recommend that you exceed 130 psi though your system as damage to your filters and connection hose could result. This should only be a concern if you supply additional pressure via a boost pump. Should your pump pressure exceed 130 psi, you can lower the system pressure by opening the bypass valve, as stated above.

It is recommended that you run your system with the bypass valve fully open for at least 60 seconds when you finish using your system to help clean out your RO membranes and help extend their life. This is called a forward flush.

6. Producing Pure Water

Connect your WaterFed® pole to the end of the production water hose. Open the shut-off valve between the hose and the pole to allow water to flow through the pole and wash glass. Do not drink pure water made from your system.

7. TDS (Total Dissolved Solids) Meter

Total Dissolved Solids are the particles dissolved within water that can lead to spotting on glass as the water evaporates. Your TDS meter measured the amount of dissolved solids by measuring the conductivity of the water.

Push the “On” button on the TDS meter (included) – capture a small amount of your production water in the cap of the TDS meter to get a reading of the water. A TDS reading of 0 – 10 is acceptable for cleaning windows, specific conditions and results may vary. When measuring source water before pure water TDS levels, it is important to rinse out any source water with pure water to ensure accurate readings. Even a single drop of source water will cause the pure water's TDS reading to be higher than it actually is. Read all sections before continuing for optimal system performance.

Your TDS meter also has a thermometer which reads temperature. This can allow you to monitor the temperature of your feed water. RO membranes require more pressure to create the same amount of clean water as the temperature of the water gets colder. Running your system at feed water temperatures of less than 10 degrees celsius (50 degrees fahrenheit) could result in low flow exiting the system.
8. Using A WaterFed® Pole

Once your Phaser system is hooked up, and you have a WaterFed® pole connected to the hose, you’re ready to clean windows.

Always begin by cleaning the top row or highest windows first, including scrubbing the frames. Work the WaterFed® pole up one side of the frames, across the top, and back down the other side. Scrub the glass in an up and down motion, moving the pole the entire length of the glass with each stroke if possible. Return the pole to the top of the window, and with a side to side motion, allow rinse water to flow completely down the surface of the glass.

Frame rinsing may not be required. If the height of the glass and the weight of the pole allow for it, hold the brush slightly off of the surface of the glass to rinse. If this is not possible, move the pole side to side slowly with the brush on the glass at the top, and let the water flow down the glass to rinse.

Once you have completed the top row or highest glass on one side of the building, repeat these steps for each tier or level of glass, working your way down. Providing a good initial scrubbing on the glass, followed by a complete rinse, will ensure that the glass dries completely spot-free.

Pure water is a great natural solvent for many soils. In some cases where there are heavy soils, a pre-soak or even a double scrub and rinse may be needed to achieve optimal results. The agitation of the brush, coupled with the flow of water through the brush when scrubbing, should break down and suspend most soils, readying them for complete removal via the rinse step.

As with any new procedure, practicing the use of your WaterFed® pole is the best way to achieve optimal results.

9. Soap Residue

A common issue encountered when transitioning buildings from traditional window cleaning methods to pure water cleaning is soap residue. After the initial cleaning with pure water, small white or gray spots and runs will be seen on the glass after drying. Most often this is soap and or detergent residue actually left behind by previous cleanings and brought out of the pores of the glass and out from under the side gaskets and seals of the glass on commercial installations by the pure water cleaning process. This condition is generally rectified by repeating the pure water cleaning process until it is eliminated.

10. Operating Without Power

The Phaser is designed to allow the free flow of water through the system. A minimum hose bib pressure of 50 psi is needed to push the water through the system. In areas where pressure may be lacking a booster pump is recommended to supplement more pressure.

11. Shutdown

1. Close the shut off valve to the pole. Open bypass valve to fully open position and flush out the system for 2-3 minutes.
2. Turn supply water off.
3. Disconnect water line and tip system on end if draining is desired.

12. Maintenance

Your Phaser system requires little maintenance to operate at peak performance. As stated above, forward flushing of the ROs is essential to achieving maximum RO lifespan.

Periodically check TDS coming out of DI outlet to ensure that you have good readings. Replace the Carbon and DI filter together once readings reach 10 parts per million.
13. Operating With Optional Boost Pump

The Phaser can also be used with an optional boost pump (P/N WF1000-BP) – sold separately - that will boost the pressure of the system and allow reach of up to 60 feet in optimal conditions. Follow these steps to hook your Phaser up to the boost pump:

1. Attach the short hose (included from the outlet of the second DI cartridge to the Inlet of the pump.
2. Attach your water feed hose (not included) to the outlet side of the pump.
3. On the Phaser, outlet of pump attaches to Hose reel
4. Plug power cord into standard 110v AC power outlet.
5. Follow normal operation guidelines for using your Phaserv unit.

14. Storage

Storage - Short Term (2-4 Weeks)

DO NOT ALLOW DI or RO Cartridges to DRY OUT. Dry DI resin tends to lose its charge (and thus its ability to attract contaminants). RO membranes tend to develop cracks which allow more dissolved solids to pass through the membrane. ABC recommends that you run water through your Phaser system once every 2 weeks or so not only help keep your filters moist but to also wash out any microorganisms that might try to grow in your filters.

Storage - Long Term (Winterizing)

Wrap Cartridges tightly in plastic wrap or plastic bags, seal with tape. Do not allow to freeze. Failure to do so will destroy your filters.

15. Troubleshooting

Low supply water flow or pressure
1. Ensure feed water is open and has water to it.
2. Check all hoses for kinks or blockage.
3. Connect to alternate water source.
4. Clean or replace Carbon/Sediment Filter (P/N WF2CSC-4).
5. Replace DI Cartridge (P/N WF2CDI-4).

High discharge flow with low water flow - Good system pressure
1. Remove DI Cartridge & Re-test system – replace if flow increases (P/N WF2CDI-2).
2. RO Membrane is plugged – replace RO membrane (P/N WF2CRO-40).
3. Feed water temperature too cold for system to process.
4. Replace Sediment Filter (P/N WF2CSC-4).

High pure water TDS and/or high pure water flow

Low system pressure with low production and/or low discharge water flow
1. Verify supply water has acceptable flow & pressure.
2. Clean or replace Carbon/Sediment Filter (P/N WF2CSC-4)
3. Replace DI Cartridge (P/N WF2CDI-4).

Water coming out of discharge hose
1. This is normal during system operation. This water is the discharge water and it contains a very high TDS. This water is not potable but is not harmful to plants or surrounding areas. DO NOT DRINK DISCHARGE WATER.
**Expressed Warranty**

abc Window Cleaning Supply warrants new water purification systems against manufacturing defects under normal use to the original purchaser.

abc Window Cleaning warrants new equipment for one year from the original purchase date to be free from manufacture defect. Any parts sent out for warranty are warranted from the original purchase date of the machine.

The customer must first contact abc Window Cleaning to notify them of the problem. abc may require the merchandise to be shipped back to them at the customer’s expense to evaluate the warranty claim. If the equipment is found to be a manufacture defect abc Window Cleaning will reimburse shipping expense and parts will be sent out at no charge including standard ground shipping. Rush shipping will be the sole responsibility of the customer.

Wear items exempt from warranty include filters and membranes.

This warranty does not apply to misuse or abuse causing failure of the system. The customer must contact abc Window Cleaning before attempting any repairs or modification to the system. Failure to do so will void your warranty.

abc Window Cleaning holds no responsibility for loss of labor, time or any costs associated with using the equipment. abc Window Cleaning holds the sole discretion of whether a claim falls under warranty.

**Returns**

If for any reason the customer wishes to return the system they may do so at anytime within 30 days of the original purchase date.

The customer must first contact abc Window Cleaning Supply to notify them of their intent to return the merchandise.

The customer is responsible for the return of all merchandise and insuring that the product is properly packaged to arrive in new resellable condition. The customer is responsible for all costs associated with returning damaged merchandise to new resellable condition.

The customer is also responsible for a 20% restocking fee, in addition to any costs associated with shipping and repairing the merchandise to new resellable condition. abc Window Cleaning Supply will issue a refund to the credit card on file once all repairs are completed.