TSMOUNT
Pure Water System

Effective November, 2026



Pure Water Window Cleaning System Operation and Maintenance Manual

Overview

Congratulations on your purchase.

Thank you for purchasing the TSMOUNT 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. The TSMOUNT will help you clean faster, safer, and better than ever before, leaving spot free results that you and your customers will love!

The following is provided to help you understand how your system purifies water. The TSMOUNT is a multi-stage water purification unit using Carbon/Sediment, Reverse Osmosis (RO), and Deionization (DI) to remove impurities from water before delivery to surfaces for cleaning. General lifespan of the filters will vary depending on feed water TDS (Total Dissolved Solids). Based on an average TDS of 100 ppm (parts per million) in your water, approximately 20,000 gallons of water can be passed through the Carbon/Sediment and DI filters before replacement filters are needed. Lower TDS levels in the source water will allow for a longer lifespan, while higher TDS source levels will lead to a shorter lifespan. It is recommended that the Carbon/Sediment and DI filters be replaced at the same time. The RO membrane is rated to process 100,000 gallons under ideal conditions. Failure to properly maintain the RO membranes will reduce the life of the filter.

In The Box

Parts Check

- TSMOUNT Frame
- Two 21-inch RO Membranes
- One 21-inch DI Filter
- One 21-inch Carbon Filter
- Two 3-way Hose Connections
- Filter Mounting Hardware
- TDS Meter
- Bypass Hose
- Quick-Connect Shut-off Valve

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. Inspect your TSMOUNT unit for any shipping damage. If damage has occurred notify abc as soon as possible to begin a damage claim.

2. Initial Setup

Follow these steps to start up the TSMOUNT.

You can also watch the quickstart video at:
www.window-cleaning-supply.com/
TSMOUNTQuickStart

Ver el vídeo de início rápido:
www.window-cleaning-supply.com/
TSMOUNTQSspanish



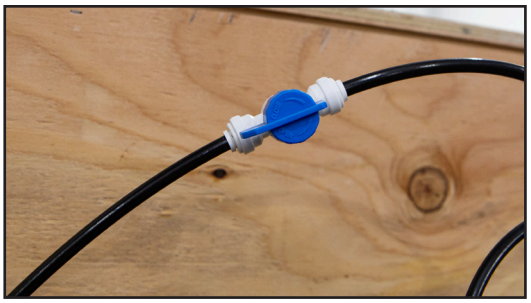
1. Mount frame in a secure location with at least 10” of clearance all around.
2. Attach the carbon filter to the far left position using the bottom bracket and included hardware. The inlet should be at the top, with brass fitting pointing to the left.
3. Attach the RO membranes in the middle two positions. Using the bottom bracket and included hardware. The bypass outlets should be facing up.
4. Attach the DI filter into the far right position using the bottom bracket and included hardware.
5. Attach one of the three-way connections to the top of the RO membranes and DI filter. **Do not over tighten.**
6. Attach the other three-way connection to the bottom of the RO membranes and the carbon filter. **Do not over tighten.**
7. Attach one end of the bypass Y to each push-to-fit connection on the RO membranes.
8. Fully open the bypass line so that the red handle is in line with the tubing.
9. Attach the shut off valve to the bottom of the DI Filter.
10. Attach pole tubing to the shut off valve and turn to the open position.
11. Attach feed hose to the inlet of the Carbon filter.
12. Turn on source water.
13. Partially close bypass valve to get desired flow from outlet. **Never shut off the bypass completely.**
14. Start cleaning windows.

3. Hooking Up To Water Source



Locate an external water source. Attach one end of the feed hose (sold separately) to the water source. Open the faucet at the building and make sure all air is out of your source hose. Turn off water and attach to the inlet of the Carbon/Sediment filter. Open the bypass valve fully and turn on source water. Once the air in the filters has left the bypass line, adjust the valve to desired flow rate. 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**.

4. Bypass Valve Operation



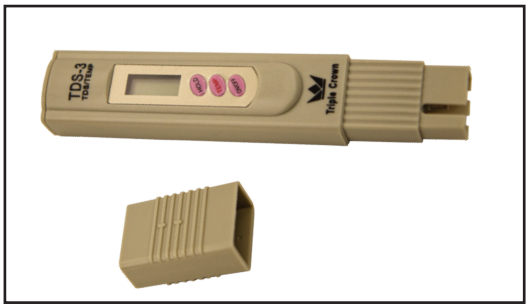
The system comes with a bypass tube and valve that controls the amount of water leaving the RO filter. This is the black tubing with a valve located on the bottom of your system. RO membrane filters use the bypass flow to remove concentrated dissolved solids from the filter. **There should always be water flowing out of the bypass tube.** Inadequate bypass flow will result in fouling and possible damage to the RO membrane.

The water coming out of the bypass tube may initially appear milky. This milky appearance is actually small air bubbles being pushed out of the filter housing through the bypass line.

The bypass valve is also the primary way you can control the pressure of your system. Opening the bypass valve more will reduce the amount of pressure that is used to produce pure water, resulting in lower flow rates at the brush. Slightly closing the bypass valve will increase the amount of pressure, which will lead to higher flow rates at the brush. Slightly closing your valve so that the flow of the bypass is roughly equal to the flow of pure water exiting the system is a good place to start.

Flushing water through the RO membrane after use will remove excess minerals from the membrane. **It is recommended that you run your system with the bypass valve fully open for 3-5 minutes each time you finish using your system** to help clean out your RO membranes and extend their life. See the Shutdown section of this manual for more details.

5. TDS (Total Dissolved Solids) Meter



Total Dissolved Solids are the minerals and salts within source water that lead to spotting on glass as the water evaporates. Your TDS meter measures the amount of dissolved solids using the conductivity of the water. The meter can test water before and after individual filters or the entire system to determine how they are performing. TDS levels are measured in parts per million (ppm).

Push the “On” button on the handheld TDS meter to get a TDS reading of the water sample. A TDS reading of 0 – 10 is acceptable for cleaning most windows, though specific conditions and results may vary.

Remove the cap from the TDS meter and fill it with the sample you wish to test. 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 TDS reading to appear higher than it actually is. Gather multiple readings, rinsing each time, to ensure accurate readings.

Your TDS meter also has a thermometer which reads temperature. This can allow you to monitor the temperature of your feed water. Running your system at feed water temperatures of less than 10 °C (50 °F) will result in low flow exiting the system. RO membranes require more pressure to create the same amount of clean water as the temperature of the water gets colder. A pump can help to compensate for low source water temperatures. Do not let the system or any filter freeze when operating at lower temperatures.

6. Using A WaterFed Pole



Once your TSMOUNT system is hooked up and you have a WaterFed® pole connected to the unit, 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.

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, such as 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. Learn more about basic technique at: **www.window-cleaning-supply.com/wash-and-learn/**



7. Soap Residue

Getting spotting when your TDS levels are below 10? 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 may be seen on the glass after drying. Most often, this is soap and/or detergent residue left behind by previous traditional cleanings and brought out of the pores of the glass by the pure water cleaning process. The soap can take up to 30 minutes to dissolve if it has been baked on or pushed into seals and frames. Soaking the glass 15-20 minutes before performing a normal agitation and rinse cycle will remove soap spotting. Repeat agitation and rinse if the spots persist.

8. Operating Without Power

The TSMOUNT is designed to allow the free flow of water through the system. A minimum hose bib pressure of 50 pounds is needed to push the water through the system.

9. Shutdown

1. If using a pump, shut off the pump before turning off supply water.
2. Close the shut-off valve to the pole. Open bypass valve to fully open position and flush out the system for 3-5 minutes.
3. Turn supply water off.
4. Disconnect the water line and seal system.

10. Operating With Optional Boost Pump

The TSMOUNT can also be used with an optional boost pump (P/N WF1000-BP) – sold separately - that will boost the pressure of the water through the system and allow even greater height of cleaning. Follow these steps to hook your TSMOUNT up to the boost pump.

1. Use the short length of hose included with the boost pump to attach from the Outlet port on the boost pump to the Inlet of the TSMOUNT Sediment/Carbon filter.
2. Turn on source water and check all fitting connections for leaks. Tighten as needed. Do not over tighten.
3. Plug power cord into standard 110v AC power outlet.
4. Follow normal operation guidelines for using your TSMOUNT unit.

11. Maintenance

Your TSMOUNT system requires little maintenance to operate at peak performance. As stated above, a flush of your system after each use will help maximize the life of the RO membrane.

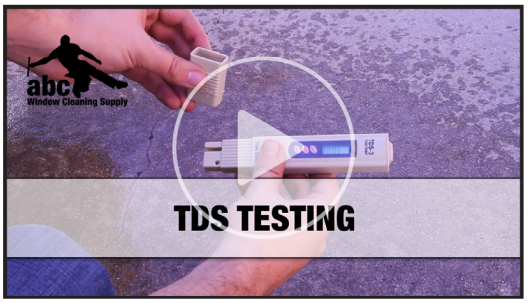
The Carbon/Sediment Filter should be replaced every 6 months with frequent use and should not be kept in service for more than a year. **Failure to replace the carbon filter regularly can lead to chlorine reaching your RO filter and result in damage to the membrane.** We often recommend that users should replace both their Carbon/Sediment and DI filters at the same time, as this usually ensures that the Carbon/sediment filter is kept fresh without having to track service dates.

RO membranes have the potential to process 100,000 gallons of water when properly maintained. To test the health of your RO membrane, remove your DI filter and compare the TDS levels of the source water to the level of pure water leaving the RO filter. For example, 100 TDS source water with 10 TDS leaving the RO indicates 90% rejection. When RO rejection rates drop below 80%, it is generally time to replace the RO filter canister. As stated above, bleeding the RO at the beginning of each use and flushing the RO at the end of each use are essential to achieving maximum RO lifespan. Trapped air can result in the plastic overheating and pressure rating of the RO housing dropping. Setting up your system out of direct sunlight on hot days will also help protect the plastic RO housing from heat damage.

The lifespan of your DI filter depends on the TDS of the water entering the filter. As your RO membrane nears end of life your DI filter will exhaust much faster.

Periodically check the TDS of the purified water leaving the DI filter with the provided hand held meter. When the TDS levels reach unacceptable levels for your application (abc suggests 10ppm or less for window cleaning and 40ppm or less for cleaning opaque surfaces) the DI filter is completely exhausted and should be replaced. See troubleshooting section below for more information on high TDS levels coming from the system.

12. Filter Replacement



Learn how to tell which filters to change:
www.window-cleaning-supply.com/FilterTime



Learn how to tchanges your filters:
www.window-cleaning-supply.com/
TSMOUNTChange

Ver el vídeo de início rápido:
www.window-cleaning-supply.com/
TSMOUNTChangeSpanish

Carbon/Sediment Filter

1. Unscrew brass fitting from the bottom of the Sediment/Carbon Filter (WF2CSC-21). Remove any hoses attached to the inlet.
2. Unscrew the bolt at the top of the Sediment/Carbon Filter.
3. Remove the Sediment/Carbon filter by pulling away and lifting.
4. Install the new filter into the holding clip.
5. Attach the bolt at the top of the Sediment/Carbon Filter.
6. Attach the brass fitting to the bottom of the Sediment/Carbon Filter. **Do not overtighten.**

DI Filter

1. Unscrew brass fitting from the top of the DI Filter (WF2CDI-21). Remove any hoses attached to the bottom.
2. Unscrew the bolt at the top of the DI Filter.
3. Remove the DI filter by pulling away and lifting.
4. Install the new filter into the holding clip.
5. Attach the bolt at the top of the Sediment/Carbon Filter.
6. Attach brass fitting to the top of the DI Filter. **Do not overtighten.**

RO Filter

1. Remove the bypass tubing from the RO membrane by pushing down on the retaining ring of the port while pulling on the tubing in the opposite direction.
2. Unscrew brass fitting from the top of the RO membrane.
3. Unscrew brass fitting from the bottom of the RO membrane.
4. Unscrew the bolt at the top of the RO membrane.
5. Remove the RO membrane by pulling away and lifting.
6. Install the new membrane into the holding clip.
7. Attach the bolt at the top of the RO membrane.
8. Attach brass fitting at the top of the RO membrane. **Do not overtighten.**
9. Attach the bypass tubing to the RO membrane quick connect.
10. Attach brass fitting at the bottom of the RO membrane. **Do not overtighten.**

13. Storage

Storage - Short Term (2-4 Weeks)

Do not allow the filters or system to freeze. Failure to do so could result in damage to your filters and TSMOUNT system. **Do not allow DI or RO filters to dry out.** Dry DI resin will lose its charge and won't be able to remove dissolved solids from the water. Dry RO membranes will develop cracks, which allow more dissolved solids to pass through the membrane. This will deplete the downstream DI filters at a faster rate. abc recommends that you run water through your Carbon and RO membrane filters once every 2 weeks or so, not only to help keep your filters moist but also to wash out any microorganisms that might try to grow in your filters. RO and DI filters need to stay moist but do not need to be full of water. Always run your source water through the Carbon filter before the RO membrane when flushing the filter.

Storage - Long Term (Winterizing)

abc strongly recommends flushing out the RO membranes once every 2-4 weeks to ensure the maximum lifespan of the filters. When flushing the RO membranes, the source water should always be passing through the Carbon/Sediment filter before the RO membranes. This will prevent damage to the membranes from chlorine and chloramine. Periodic flushing will ensure that the RO membranes do not dry out and will reduce the chance that biological growth will foul the filters while in storage.

If periodic flushing is not feasible, we recommend that users wrap filters tightly in plastic wrap or plastic bags and then seal with tape. This will reduce the chance that the filter dries out when in storage. **Do not allow DI or RO filters to dry out.** Dry DI resin will lose its charge and won't be able to remove dissolved solids from the water. Dry RO membranes will develop cracks, which allow more dissolved solids to pass through the membrane. RO and DI filters need to stay moist but do not need to be full of water.

Store filters indoors over the winter. **Do not allow the filters or system to freeze.** Failure to do so could result in damage to your filters and TSMOUNT system. After filters have been stored this way, they will need to be flushed thoroughly before use.

14. Troubleshooting

1. Low Pure Water Flow Out Of The Brush:

1. Low tap pressure is one of the most common causes of low flow of pure water. Source water pressure is the primary driver of system performance. Even sources that appear to have plenty of flow out of the tap may not have enough PSI to push water through the RO membrane. Ensure that the tap pressure is sufficient using a pressure gauge (TA-PG Sold Separately). Trying a different source may lead to better performance. Also check all hoses (incoming and outflowing) for kinks or blockages, especially hose reels that are wound too tight. Trying a larger diameter hose (½") or a shorter hose length between the system and the tap can also improve flow. Adding a pump, such as the abc Boost Pump (WF1000-BP Sold Separately), can help compensate for low source pressure. **Do not exceed 130 PSI** when using a pump.

2. Mineral fouling of the RO membrane will lead to reduced pure water production from your system. Processing water through the RO membrane without enough (or any) bypass flow will lead to increasing mineral concentration within the RO housing. In minor cases, this will result in a temporary drop in production from the RO membrane. Flushing the excess minerals from the housing will return the filter to normal production rates. In extreme cases, the mineral buildup will permanently reduce the flow rate of the filter. These cases can only be fixed by replacing the filter.

3. Biologic fouling is another potential cause of reduced pure water production from the RO filter. Algae, bacteria, and fungi can land and grow on the surface of the RO membranes. These organisms eventually block off pores in the membrane, leading to reduced production levels. Letting filters sit for long periods of time without running any water through them increases the chances of biological fouling. After long term storage, running a series of long flushes will often return the RO membrane to normal production levels. Fully open the bypass hose and then shut off your system's pure water outlet at the DI filter. Run it like this for 10 minutes and then open your pure water outlet and restrict your bypass to its normal running setting. Doing this flushing process 2 or 3 times may be required to return to normal production levels.

4. Expect decreased production rates when running your RO with colder source water. The ideal temperature for source water is 77°F. You can expect around half the flow for water at 50 degrees that you would get at 75 degrees, even if both sources are at the same PSI. Use your TDS meter to measure the temperature of your source water to determine if this is the cause of lowered flow rates.

5. Leaks in the system and the pole tubing can release pressure and take flow away from the jets in your brush. A couple of small leaks in the pure water lines can cut pressure to the jets in half. Read the “leaks” section below for more information on eliminating leaks in the system.

2. High TDS Coming From The System:

1. Retest your water sample. When you get a higher than expected reading on your handheld TDS meter, it is a good idea to use the water you are testing to wash out both the measuring lid and the measuring prongs of the meter itself. **Do not get the body of the meter wet; it is not waterproof.** Minerals can stay in the cup from other measurements and can make the sample appear to have a higher TDS than it actually does. Taking multiple samples ensures maximum accuracy.

2. High TDS coming out of the system usually indicates that the DI filter is spent. Testing before and after the DI filter will verify that there is not another issue. If the TDS levels before and after the DI filter are the same, the filter is completely depleted. Replace the DI filter (P/N WF2CDI-21) once depleted. If water coming from the RO filter has high TDS levels, check the RO performance as well.

3. Elevated TDS levels coming from the RO membrane can indicate that both the RO and DI need to be replaced. The best way to test your RO is to use your handheld TDS meter to measure the TDS water coming out of the RO and compare that to the TDS levels of the source water. Your RO should have a rejection rate of over 80%. If the rejection rates are below normal, follow the steps below to ensure that the RO filter needs to be replaced.

4. If your RO rejection is lower than expected, you can try running a 10-minute flush. Increasing flow through the filter housing will help the flushing process. Fully open the bypass and then shut off your system’s pure water outlet at the DI filter. Run it like this for 10 minutes, then open your pure water outlet and restrict your bypass to its normal running setting. Check your RO TDS to see if it is dropping to more acceptable levels. Repeat the forward flush 2-3 times if necessary to drop the RO TDS.

5. If the TDS levels coming from the RO membrane do not drop, your RO probably needs to be replaced. You can continue to use the spent RO; however, you will use up your DI resin faster than normal. Replace the spent RO filter (WF2CRO-21) as soon as possible.

15. Leaks

1. Leak Between Brass Fitting and Plastic Housing:

1. Unscrew leaky brass fitting.
2. Check brass fittings for damage or deformation. If necessary, replace brass fittings. Replacement parts can be ordered from abc or bought from a local store. The plastic hole size is ½” national pipe thread (NPT), and the Brass fitting connection is a standard ¾” Garden hose thread (GHT).
3. Fittings should be attached with an adhesive to prevent leaks. We recommend Liquid Nails Perfect Glue from Home Depot.
4. If damaged, use Gorilla Glue Two-Part Epoxy to help seal cracks.
5. If the leak persists, replace the filter.

2. Leak Between Brass Garden Hose Fittings:

1. With the source water off, check that fitting is properly tightened. Tighten until you feel the gasket engage. **Do not over tighten.**
2. Unscrew the leaky connection. Check the gasket in the female fitting for damage or deformation. Replace gasket if necessary.
3. Check brass fittings for damage or deformation.
4. If necessary, replace brass fittings. Replacement parts can be ordered from abc or bought from a local store. The plastic hole size is ½” national pipe thread (NPT), and the Brass fitting connection is a standard ¾” Garden hose thread (GHT). Fittings should be attached to the housing with an adhesive to prevent leaks. We recommend Liquid Nails Perfect Glue from Home Depot.

3. Leak On Push To Fit Connection:

1. Make sure that the tube is properly inserted into the fitting. Inserting the tube partway into the fittings will cause leaks.
2. Bending the tube as it enters the push to fit connection can also cause leaks. Reduce strain on the tube to prevent this.
3. Check brass fittings for damage or deformation.
4. Damage to the tube, such as scratches or cracking, will interfere with the sealing elements. Cut off any damaged tube and reinsert into the fitting.

4. Water Coming Out Of Bypass Hose:

1. Strong bypass flow is normal during system operation. This water is the bypass water, and it contains a very high TDS. This water is non-potable but is also not harmful to plants. Do not drink bypass water.
2. Milky white bypass flow is a common occurrence when starting up the system or using a new RO membrane. It is trapped air being pushed out of the filter housing and will stop once the air is gone.

Expressed Warranty

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

abc Window Cleaning Supply warrants new equipment for one year from the original purchase date to be free from manufacturer 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 Supply to notify them of the problem. abc Window Cleaning 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 manufacturer defect abc Window Cleaning will reimburse shipping expenses, 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 any time 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 ensuring that the product is properly packaged to arrive in a new, resellable condition. The customer is responsible for all costs associated with returning damaged merchandise to a 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 a new resellable condition. abc Window Cleaning Supply will issue a refund to the credit card on file once all repairs are completed.

Replacement Parts



RO Membrane
WF2CRO-21



DI Filter
WF2CDI-21



Carbon/Sediment Filter
WF2CSC-21



Shut-off Valve
WF601311



TDS Meter
HMTDS-3



Spider Assembly
TA-MOUNT-HOSEASSEM

Optional Upgrades



Outlet Splitter Kit
WF7000-OSK



10’ Source Hose
WF612010



Booster Pump
WF1000-BP



Pressure Gauge
TA-PG

Replacement Hoses available upon request. 1-800-989-4003

www.abcWindowSupply.com
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