

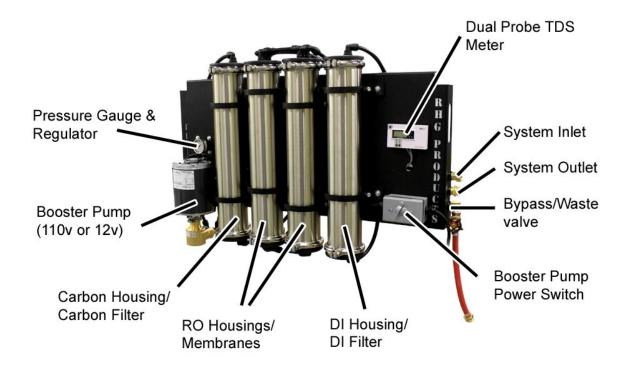
# Tucker® Fill 'N' Go Wall Mount 4-Stage RO/DI Water Purifier Manual

**RHG Products Company** 

www.rhgproducts.com

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### Tucker® Fill 'N' Go Wall Mount Filling Station System Features and Layout



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#### **General Purpose and Use**

The Tucker® Fill N Go Wall Mount is a stationary pure water window cleaning system to be used with a water-fed window cleaning pole. The system purifies water to a 100% pure deionized state.

The system will purify water without the aid of a booster pump. Boosting pressure to the system will increase water production rate as well as increase the efficiency of the RO membrane.

#### **Purification**

Tap water filtered through your FNG Wall Mount system goes through 4-stages of purification.

- 1. Carbon Pre-Filtration: Carbon filters remove heavy particulate, chlorine, and water disinfection agents from your source water, protecting your RO membrane.
- 2. Dual Reverse Osmosis Purification: RO Membranes reject solids from your pre-filtered water, creating a waste stream. Solids removed from the water flow out of your bypass valve at all times during filtration. A significantly more pure water stream is passed on to your DI filter, extending your DI media life.
- 3. Deionization Purification: Your RO permeate water is filtered through a DI Mixed Media Bed. New DI media produces 100% pure water. DI media is consumed in this process. The purified water exits the system to your cleaning equipment.

#### **New Machine Setup Procedure**

- Unpack unit and inspect for any damage that may have occurred during shipping.
- 2. Be sure to inventory all items that were to be included with your order.
- 3. Any damage or missing components must be reported within 24 hours to the supplier of your system.
- 4. Your Tucker® FNG Wall Mount is shipped complete in 1 box.
- 5. Install your bypass/waste valve assembly. It has been disconnected for shipment.

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#### **Battery selection for 12v models**

You will need to purchase separately a deep cycle marine grade battery. Larger battery capacity, measured in aH (amp-hours) will allow you to work longer with your system in between charges.

Your booster pump will always draw 18-20 amps. You can determine how much use you can expect out of a full charge by dividing the amps during use into the total aH provided by your battery.

You will need to purchase a 12v battery charger. Make sure the charger includes overcharge protection. A trickle charger like a Battery Tender or a faster charger like a Battery Genius is suitable.

#### **Operation Instructions**

- 1. (Optional) Attach a garden hose to waste valve assembly to divert waste water away from the system and work area.
- 2. Fully open bypass waste valve.
- 3. Attach a garden hose to the inlet of your system.
- 4. Turn tap water supply on.
  - \*\*ON NEW SYSTEMS OR AFTER A CARBON FILTER CHANGE, IT IS ESSENTIAL THAT YOU FLUSH YOUR CARBON FILTER BEFORE RUNNING YOUR SYSTEM. WALL MOUNT SYSTEMS ARE SHIPPED WITH RO INLET HOSE DETACHED. A PLUG IS IN PLACE AT RO INLET. RUN YOUR CARBON ISOLATED FROM YOUR ROS. THE CARBON WILL PRODUCE BLACK WATER. AIM IN A SAFE DIRECTION OR CAPTURE IN A BUCKET. REMOVE PLUG AND CONNECT.\*\*
- 5. On first use, allow system to flush for 15 minutes, then slowly close the bypass valve all the way. Although the valve is fully closed, water will still flow out of it. This is normal. Water will begin to flow to the system outlet under tap pressure. For daily use, flush the system for 5 minutes at the beginning of each job.
- 6. It will take a few minutes for all of the air to purge out of your system. Only turn on pump after air has been purged.
- 7. After the initial 'air purge' you will not need to purge air again unless you replace a filter

The purifier terminates in a ¾" Male Garden Hose thread. This is for connection to a hose or hose reel, or directly to a quick connect for a 5/16" pole hose adapter.

#### **Electric Motor Operation**

Fill N Go RO/DI systems come with electric pumps to boost water production in all models. An on/off switch is mounted to the face of the systems. 110v models come with a GFCI with TEST and RESET buttons. Simply connect to power to run pump. Observe correct polarity for battery powered units.

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#### **Maintenance**

#### **TDS Monitoring**

Water quality during purification may be continuously monitored with the Dual Probe TDS Meter.

The IN reading shows water purity after RO purification, measured in Total Dissolved Solids, parts per million. A properly functioning RO should be rejecting greater than 90% of solids. Compare your RO TDS against your tap water to ensure proper performance. This is best done when changing DI.

The OUT reading measures water purity after DI filtration. A new DI should produce water of Oppm TDS. This will slowly climb as the DI media is spent. You should be able to clean glass spot-free with water of up to 10ppm TDS.

Once the TDS levels rise above 10 parts per million you will begin to see spotting on windows and should consider changing your DI Filter.

Your Tucker® FNG Wall Mount is a water purification system and as such it needs to be maintained. Running water through the RO membrane every 2 weeks will help to keep the RO working at peak performance. Do not ever drain your system as it is important to keep the filters hydrated.

#### <u>Filter Replacement Schedule & Procedure</u>

Your carbon filter protects your system from damaging chlorine and water disinfection agents. It is recommended that you change your carbon every 40,000 gallons. Failure to do so will void your warranty. Order RHG #20051-C.

Your DI filter has a limited lifespan based on the amount of dissolved solids it is removing from the water. DI filter cartridges need to be replaced as needed for your cleaning application. Glass can typically be cleaned spot free with water up to 10ppm TDS. Non-glass surfaces may be cleaned with water up to 40ppm TDS. Order RHG #20051-D.

To change your filter cartridge, first disconnect any hoses from the elbow in the insert at the top of the filter housing. Remove the stainless steel retaining clamps. Pry the filter insert from the housing. A small slot is present at the rim of each insert should you need the aid of a flat head screw driver. Remove the spent filter cartridge and replace. Reassemble filter housing and reconnect hoses. Flush new carbon filter cartridge if needed.

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RO membranes have a much longer service life and in the experience of RHG may last the life of the system. However ROs are only warrantied for factory defect and may eventually diminish in performance or fail. If you experience a reduction in RO performance in your Rival system, contact RHG directly to troubleshoot.

To install the new filter, you may need to relubricate your filter housing insert which also ensures a tight seal. The white nipples on each end of the membrane will likely need to be lubricated to seat into the O-rings in the top and bottom of the housing. Use a silicone valve stem lubricant. RHG uses Dow Molykote 111. Put the new filter into the housing the same way the previous one was installed. There is a white O-ring on the membrane. This O-ring should go at the top end of the housing. Insert the membrane from the opposite end first. Reassemble filter housing and reconnect hoses.

Be sure to run water through the system without any booster motor/pump assembly powered on to purge all air out of the system before or you risk damaging the filters.

RO MEMBRANES SHOULD NOT BE ALLOWED TO DRY OR COLLECT STAGNANT WATER IN THE BOTTOM OF THE MEMBRANE. THIS WILL DIMINISH PERFORMANCE, POTENTIALLY TO THE POINT OF FAILURE. TO PREVENT THIS, ROS SHOULD BE RUN ON A REGULAR BASIS, AT LEAST EVERY TWO WEEKS, AFTER FIRST USE. EVEN DURING "OFF-SEASON".

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#### STAINLESS RO HOUSING SERVICE

DISCONNECT PLUMBING FROM SERVICE END LOOSEN HEX BOLTS W/ 1/2" WRENCH REMOVE RETAINING CLAMPS







REMOVE SPENT FILTER





LUBRICATE REPLACEMENT RO AT PERMEATE TUBES BOTH ENDS. REINSTALL RO AND REASSEMBLE HOUSING. BE SURE TO MAINTAIN ORIGINAL PLUMBING CONFIGURATION.

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#### **Shutdown Procedure**

- 1. Open the bypass valve fully to flush the system and turn off any pumps.
- 2. Flush the system for 4 to 5 minutes at the end of the each job.

\*\*If you leave the unit inoperative for longer than 2 weeks, remove your DI and run the RO in flush mode for 4 minutes and RO production mode for 10 minutes before replacing the DI filter. Flush for an additional 4 minutes.

- 3. Turn off the water supply to the unit.
- 4. Disconnect the water supply.

It is important to always flush the system after each use. Failure to do so will decrease the filters life.

## Any alterations to your system will void its warranty

#### **Troubleshooting**

#### My new DI isn't making pure water.

RHG/Tucker® Supplies only Virgin Mixed Bed DI resin. Sometimes, chemical residues left over from the manufacturing process will show up on a TDS meter, but should not spot. Wash a test pane and check for spotting. The TDS should zero out shortly. If you have refilled your own DI, make sure the bed is tightly packed into the housing, leaving no air gaps for water to escape around the media. Be sure the DI canister is installed with the black seal on top, nearest the black sump head.

#### My system isn't producing adequate water volume.

RO/DI systems will always produce less water than is supplied to the system. Half of the product is rejected as waste. The main point of restriction is the RO membrane. RO water production is dictated by incoming water pressure, and to a lesser extent, water temperature. RO production will cease completely a few degrees above freezing. Adequate volumes for cleaning in a residential setting are typically reached around 50-60psi. Low pressure and temperature can be overcome with the use of your booster pump.

If you have good pressure and are still experiencing low volume, there are areas to troubleshoot. Pre-filters are susceptible to clogging. Keep your pre-filters maintained within their service life. Cleaning in areas with unusually "hard" water can prematurely clog your pre-filters.

Check your bypass valve for proper function. Normal operation is for a bypass valve to allow the full rate of flow from the waste while open. While closed, the waste flow will be reduced greatly. The system should then begin producing clean water at the same rate as waste.

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