

# Instruction Manual

English

**ROS-4500-CFH**

**Reverse Osmosis**

For file reference, please record the following data:

**Model No:** \_\_\_\_\_

**Serial No:** \_\_\_\_\_

**Installation Date:** \_\_\_\_\_

**Installation Location:** \_\_\_\_\_

When ordering replacement parts for your Drinking Water Units or Accessory, please include the complete Model Number and Serial Number of your unit.

# Table of Contents

English Manual	3-7
Drawing	8
Warranty	9

# WATER TEC OF TUCSON, INC

## RO SYSTEMS

Your new drinking water system works on a process called Reverse Osmosis, in which water pressure is applied to a concentrated solution. Water is forced through a semi-permeable membrane from the concentrated side to the dilute side of the membrane. When water is passed through the membrane, dissolved particulate materials are left behind and are washed down the drain.

The system is designed to process potable water through three stages: (1) prefiltration of sediment and/or chemicals to protect membrane, (2) reverse osmosis membrane to reduce levels of TDS, and (3) post filtration to remove special contaminants. Our unique automatic shut off valve conserves water by shutting the system off when the storage tank reaches its optimum pressure. The RO system will perform better and last longer with frequent usage. We encourage you to use RO water to cook, make coffee, tea, mixed drinks, water houseplants, for pets, etc.

Please read and become familiar with all instructions, processes, and parts before installation.

## INSTALLATION INSTRUCTIONS

### 1. EQUIPMENT LOCATION

Make sure that there is enough space under the counter for installation. Locate the COLD water shut off and drain pipe.

Shut off the COLD water supply under the sink. Open the COLD water faucet on the sink to relieve pressure. On single handle faucets, the hot water may have to be turned off to prevent any hot water crossover. If the existing valve is inoperable, or the water continues to come out of the faucet, the main will have to be turned off.

**NOTE: Universal Plumbing Code (UPS) requires that systems with pressure above 80 psi must have a pressure regulator installed at the water inlet to dwelling.**

### 2. FEED WATER CONNECTION

**FEED ADAPTOR:** Assemble 90 angle valve, or ball valve, into the feed adaptor. Use Teflon tape on male threads of valve to prevent leaks.

3. **DRAIN CONNECTION:** Drain must be an air-gap drain, with the ability to handle a .75 gpm flow.

**NOTE: IF USING DRAIN LINE ADAPTOR (DLA) FOLLOW INSTRUCTIONS ENCLOSED WITH DLA KIT.**

**SYSTEM HOOK UP**

**3/8" RED LINE:** Connect from system to feed.

**3/8" BLUE LINE:** Connect from system to desired delivery system.

**3/8" YELLOW LINE:** Connect from system to holding reservoir.

**3/8" BLACK LINE:** Connect to drain.

**SYSTEM START UP:** Slowly open angle valve (on feed adapter) allowing raw water to enter system.

**CHECK FOR LEAKS:** Open ball valve on storage tank.

**CHECK FOR LEAKS:** Allow system to run while cleaning up tools. Check all connections, including those inside the unit for leaks. Before use, allow tank to fill.

## **HOW TO CHANGE THE FILTER CARTRIDGE**

**Please Read Through Each Step Before Beginning**

- STEP 1 Turn off the feed water valve to the RO system. Turn off Valve on the storage tank. Open RO faucet and allow all pressure to bleed off. (Allow a few minutes for the system to drain completely).
- STEP 2 Unscrew the filter housing and remove the used filter cartridge. (A special wrench is available from your Dealer).
- STEP 3 Carefully remove the o-ring seal from its groove and rinse out the housing. Be aware that the o-ring may lift out of the groove or stick to the cap.
- STEP 4 Wipe the o-ring clean with a soft rag or towel and visually inspect for any nicks, cuts, or abrasions. If damaged, replace the o-ring.
- STEP 5 Lubricate the o-ring lightly with a suitable o-ring lubricant. Replace the o-ring in the groove. This o-ring is important as it provides the watertight seal between the housing and the cap.
- STEP 6 Measure the new filter to be sure that it is the proper length (9 7/8").
- STEP 7 Place the new filter cartridge in the housing and carefully screw into place.  
**HAND TIGHTEN ONLY!!**
- STEP 8 Tighten all connections. (On prefilter replacement, disconnect the red feed line at membrane housing). Open the water supply valve. (On prefilter replacement only, allow water to run from the red line until you get a steady stream of water). Reconnect line to housing and inspect all connections for leaks.
- STEP 9 Turn storage tank valve on. Allow water to flow from RO faucet until it runs clear. Close faucet. System is now ready to use.

**Note: The filter assembly should be protected against freezing to avoid expansion, cracking, and a subsequent leakage.**

## RECOMMENDED SANITIZING PROCEDURES

1. Turn off feed water.
2. Drain storage tank by opening RO faucet.
3. Remove all membranes and filters.
4. Put 3 tablespoons of chlorine in prefilter housing.
5. Secure all housings to avoid leaks. Turn on feed water.
6. When water flow is constant and no air spurts are present, turn off RO faucet.
7. Let system set for 30 minutes.
8. Open RO faucet, let water run for a minimum of 5 minutes or until chlorine is no longer present.
9. Turn off feed water. When water stops flowing, remove all housings, being careful of overflow.
10. Replace all membranes and filters. Follow normal start-up procedures.

## TESTING

Unit performance should be checked every six months with a TDS meter, monitor or probe.

Water should be tested prior to changing the membrane.

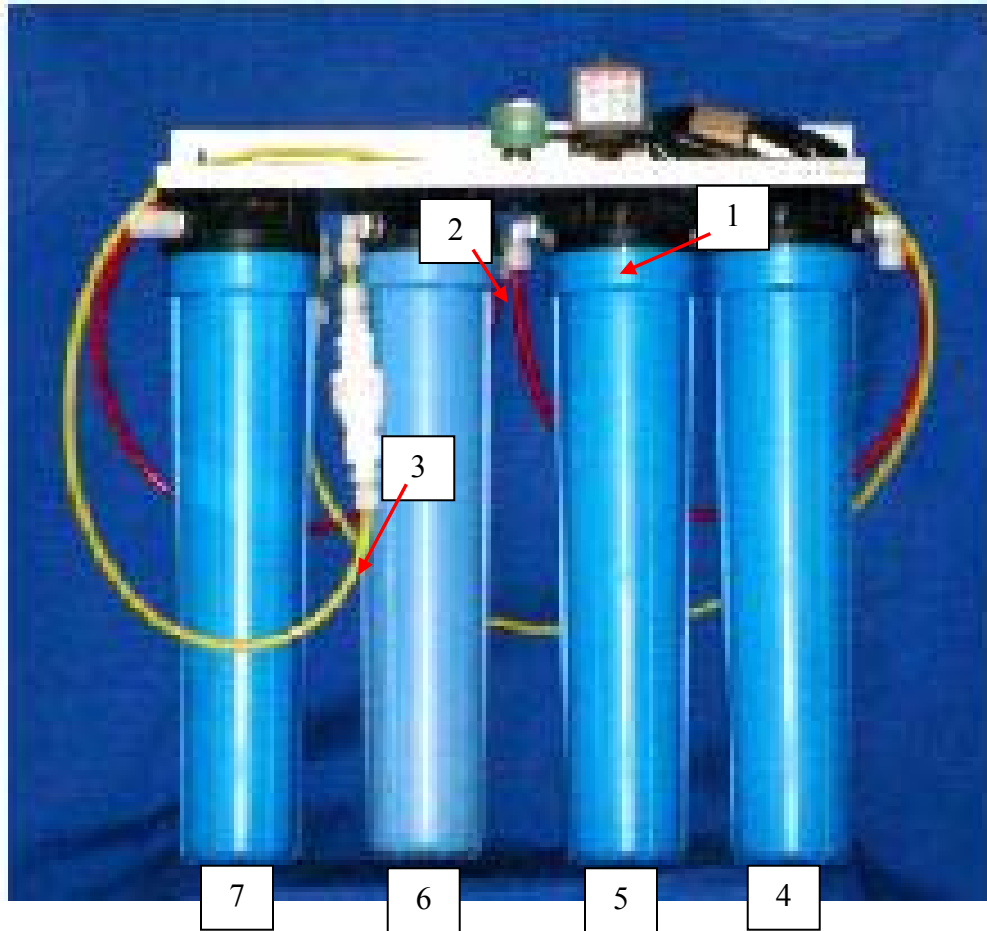
When product water is compared to supply (or untreated) water, the water quality should be improved at least 70%.

Your water treatment professional should check the TDS level during maintenance calls.

**DRINKING WATER INSTALLATION MANUAL  
TROUBLE SHOOTING GUIDE**

<b>SYMPTOMS</b>	<b>PROBABLE CAUSE</b>	<b>SOLUTION</b>
<b>NO WATER</b>	Tank improperly pressurized	Set empty tank pressure at 7-10 psi
	Water Supply turned off	Turn on water supply
	Low water pressure (40 psi min.)	Contact dealer for assistance
	Pre-filter clogged	Replace pre-filter
	Membrane damaged or clogged	Replace membrane
	Product line crimped	Replace line
	Post-filter clogged	Replace post-filter
<b>SLOW FLOW THROUGH OUTLET</b>	Ball valve closed on storage tank	Move valve to open (up) position
	Post-filter clogged	Replace post-filter
	Low air pressure in holding tank	Raise pressure to 7-10 psi
	Pre-filter clogged	Replace pre-filter
	Low water pressure (40 psi min.)	Contact dealer for assistance
<b>LEAKING MEMBRANE HOUSING</b>	Tank out of water	Wait 2 hours, try getting water again
	Threaded end cap leak	Lube o-ring and tighten
	Compression fitting leak	Tighten or replace fitting
<b>LEAKING POST-FILTER</b>	Leak at screw cap	Replace o-ring if damaged
	Leak at compression fitting	Tighten or replace fitting
<b>LEAKING FAUCET</b>	Leak at post-filter seam	Replace o-ring
	Fitting leak	Tighten or replace fitting
	Leak at base or brass barbs	Replace faucet
	Spigot drips	Install faucet repair kit
<b>BAD TASTE</b>	Overflow at air gap	Shorten 3/8" line from faucet To drain connection line must Be vertical as possible.
	Defective membrane	Replace membrane
	Restriction in waste flow	Clear restriction
	Carbon post-filter	Replace post-filter
	Taste in tank	Sanitize tank
	Low water pressure (40 psi min.)	Contact dealer for assistance

**NOTE: BEFORE CONTACTING DEALER, HAVE MODEL NUMBER, DATE OF INSTALLATION, & RECENT SERVICE AND/OR FILTER CHANGE HISTORY.**



**PART NUMBERS**

1) PRESSUER SWITCH

2) INLET SOLONOID VALVE

3) CHECK VALVE

4) PRE-FILTER      SEDIMENT FILTER

5) PRE-FILTER      CARBON BLOCK

6) 500GPD TFC MEMBRANE

7) POST-FILTER      CARBON BLOCK

**CF-SED-PS05-20**

**CF-CB20-10**

**ROC-MEM-32518**

**CF-CB20-10**

## **FIVE YEAR WARRANTY**

**WATER TEC OF TUCSON** warrants each new Reverse Osmosis unit to be free from defects in materials and workmanship under normal use within the operating conditions listed below. For a period of **THREE YEARS** from date of purchase we will repair or replace any part of this Reverse Osmosis unit which we find to be defective in operation because of faulty materials or workmanship. This warranty is valid only to the original owner, installed at the original location by authorized service personnel. There are two exceptions the disposable filter cartridges are not warranted, and the membrane is covered for manufacturing defects only and pro-rated as follows:

### **3 YEARS PRO-RATED WARRANTY**

\* First 3 months – No Charge \* 4<sup>th</sup> thru 36<sup>th</sup> month – Charged 1/36 of retail cost times number of months membrane in use.

Damage caused by accident, fire, flood, act of God, mis-use, mis-application, neglect, alteration, installation or operation contrary to our printed instructions, is not covered by this warranty.

As manufacturer, we do not know the characteristic of the water supply where the system will ultimately be installed. Please understand that the quality of water supplies may vary periodically, and that your water usage rate may vary as well. Water characteristics can also change considerably if your R.O. is moved to a new location. For these reasons, we assume no liability for the determination of the proper equipment necessary to meet your requirements, and we do not authorize others to assume such obligations for us. Our obligations under this warranty are limited to the repair or replacement of the defective parts of the R.O. and we assume no liability whatsoever for incidental and consequential damages, whether from corrosion or other causes.

Some states do not allow limitations on how long an implied warranty lasts, or exclusions or limitations of incidental or consequential damage, so the limitations and exclusions in this warranty may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

### **WARRANTY SERVICE POLICY**

In the event that a component breaks down on a system that is still under warranty, we ask that the following policy be followed so we can provide the necessary service to you:

- A. Any part that has malfunctioned must be sent prepaid to the factory with the model number, serial number, and proof of purchase for the system it came from.
- B. Upon receipt of these items, inspection and test will be made and a determination given as to repair or replacement of the item under warranty.
  - 1. If the part is under warranty, it will be repaired or replaced and returned at no cost, except freight.
  - 2. If the part is not covered by the warranty, the part will be repaired or replaced and returned and invoiced for the repair or replacement cost.

### **WARRANTY VALID ONLY IF OPERATED WITHIN CONDITIONS LISTED BELOW**

MEMBRANE TYPE	TFC
Feed Water Supply	No Chlorine
Water Pressure	40-80 PSI
Water Temperature	40 F-120 F
pH	3 – 11
TDS	2000ppm