

Model RODI-T2 RO+Type II DI System



- The system shall be listed in the US & certified in Canada by CSA International, and bear the CSA Mark as shown below. Systems for export that require the 'CE' mark shall meet the requirements for CE marking as shown below.
- The RO shall remove 94-99% of the dissolved inorganic ions, and up to 99% of the dissolved organics, suspended solids and microorganisms found in ordinary tap water. The Type II water produced shall meet ASTM, CAP, NCCLS, and USP 29 specifications for Type II reagent grade water.
- The system shall produce RO purified water at a rate of 10 or 20 Liters/hour (dependent on upgrades), and Type II DI at ~2 Liters/min. DI production is limited by the RO production and storage capacity.
- The system shall operate on 12 VDC internal power supplied by a 100-240 VAC, 50/60 Hz power supply.
- The system shall include a pressurized 42 Liter RO storage tank (15.5" diameter X 25" tall).
- The RO portion of the system shall operate automatically to fill the RO storage tank, and automatically shut off when the RO tank is full and/or in the event of low incoming water pressure.
- The RO portion of the system shall include a 10" 1-micron high performance activated carbon & sediment prefilter cartridge and a high performance TFC (thin film composite) reverse osmosis membrane.
- The RO portion of the system shall not require periodic back flushing, fast forward flushing, or cleaning cycles.
- The system shall include an external purity monitor light assembly, where water quality is continuously monitored. When the monitor light is green, the water quality is greater than two Megohm-cm. When the monitor light continuously flashes red and an audible alarm is heard, the water quality is less than two Megohm-cm. The system shall also include a hand-held portable digital conductivity meter to monitor RO water quality.
- The Type II system's standard ion exchange capacity shall be 3,000 grains as CaCO₃.
- The system shall include a 12 VDC virtually silent pump that continuously recirculates Type II water within the system, to maintain the best water quality at all times and eliminate the need to manually turn the system on prior to use.
- The system shall include 12 foot of dual tubing to recirculate DI water to a 1/4" NPTF dispensing valve.
- The system's overall dimensions for the cabinet shall be approximately 20" wide by 20" high by 12" deep.
- The system cabinet shall be bench, shelf, or wall-mountable at no extra charge.
- The system price shall include a **2-year** warranty in the USA and Canada, and a 1 year warranty elsewhere.
- **The system shall be manufactured in U.S.A. See other side for installation and start-up information.**

Site Requirements

1/4", 3/8" or 1/2" NPT female shutoff valve (not supplied with system)
on your incoming tap water supply source

Power supply..... 100-240 VAC, 50/60 Hz
Within 5 ft. of right side of the system cabinet

Suitable drain within 15 ft. of the system cabinet

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Basic Installation Instructions - Please follow the detailed instructions in the operating manual

As shipped, **AQUA SOLUTIONS** Compact Combination Reverse Osmosis plus Type II DI (RO+DI) Water Purification Systems can be bench, shelf or wall-mounted at no extra charge. While bench mounting affords more flexibility, shelf or wall mounting can get the system up and out of the way, conserving bench space for other uses. Regardless of the initial mounting method, it can be changed at any time. Complete, detailed mounting instructions are included in the Operating Manual.

The system requires a source of incoming feed water at 20-100 PSIG from a user-supplied shutoff valve located within 15' of the LEFT SIDE of the system, plus a grounded 100-240 VAC, 50/60 Hz electrical outlet within 5' of the right side of the system. Electrical consumption is less than 3 amps total. The system also requires a drain or sink within 15' of the system.

Note that the operating weight of the system can approach 100 pounds. If shelf-mounting, make sure the shelf can support this weight. If wall-mounting, make sure the wall can support this weight. In the case of wallboard attached to metal studs, attach a piece of 3/4" plywood directly to the studs first, and attach the system to the plywood. When wall-mounting, use 4 "industrial strength" 1/4" lag bolts, 1/4 " toggle bolts, or 1/4" masonry anchor bolts to attach the cabinet to the wall.

Except for the user-supplied inlet valve, all items required for installation are included with the system. More detailed instructions are included in the Operating Manual supplied with the system. The system cabinet measures approximately 20" wide by 20" tall by 12" deep. The storage tank is external to the cabinet. After mounting the system cabinet, proceed as follows:

- a. Use an existing, or install a new, 1/4", 3/8" or 1/2" NPT female shutoff valve (not supplied with system) on your incoming tap water supply source. *If a 1/2" valve is used, you will have to reduce the valve outlet end down from 1/2" NPT female to either 1/4" or 3/8" NPT female.*
- b. Open the valve fully and run water out of it at **full force** until it runs clear. This is particularly important on new construction, where the water line could contain a lot of debris and rust.
- c. Install a 1/4" (*Part Number: T-MC-4-4*) or 3/8" (*Part Number: T-MC-4-6*) NPT male by 1/4" Jaco type tube fitting (*both are supplied with system*) on your valved water source, using Teflon tape on the threads.
- d. Install 1/4" OD black polyethylene tubing (*20' supplied with system - cut to required length*) from the 1/4" push-in type water inlet fitting marked "Water Inlet", located on bottom left side of system cabinet, using a push-in elbow connector, to the Jaco type fitting just installed on the valved tap water source.
- e. Note that there are five inlet/outlet bulkhead fittings located on the right side of the system cabinet as follows:
Fitting # 1 is for 3/8" OD blue purified water tubing that transports RO purified water to and from the RO portion of the system and the RO storage tank. Thus, RO purified water travels in both directions through this tubing.
Fitting # 2 is for the 3/8" purified water outlet line.
Fitting # 3 is for the 3/8" purified water return line.
Fitting # 4 is for 1/4" OD red RO tubing to drain from the RO storage tank.
Fitting # 5 is for 1/4" OD red RO reject water tubing to drain.
- f. Install the conductivity sensor tee, dispenser valve tubing, drain lines, and the RO tank line on the right side of the cabinet.
- g. Open cabinet door and make sure water inlet valve (located on black water inlet tubing on left bottom inside the cabinet) is closed and ALL pressure gauges on the system read zero. Note that the valve is closed when the handle is perpendicular to the direction of flow, and open when parallel to it.
- h. Install the ten inch activated carbon prefilter cartridge in the clear filter bowl, making sure the black gaskets are in place. Attach the filter bowl to the housing located inside the system cabinet, making sure the O-ring on the bowl is in place, and hand-tighten firmly.
- i. Install the DI module in the system at this time. Note that the RO Cartridges are installed in the system during testing.
- j. Plug the AC power cord into the power supply, *but don't plug it into the AC electrical outlet at this time*. Plug the black 2-wire 12 VDC power cord that comes from the power supply into one of the shiny metal 12 VDC inlet connectors on the lower right side of the system cabinet. Plug the cord from the conductivity monitor into the remaining connector.
- k. Inspect work done, making sure that system water inlet valve is CLOSED and the system's ELECTRICAL CORDS ARE NOT PLUGGED IN. Follow detailed installation and start-up instructions in the Operating Manual.
- m. Call **AQUA SOLUTIONS** at 706-692-9200 or 800-458-2021 with any technical questions or comments.

