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# Brew Master RO Package

400GPD – 800GPD – 1,200GPD – 1,500GPD

# QUICK INSTALL GUIDE

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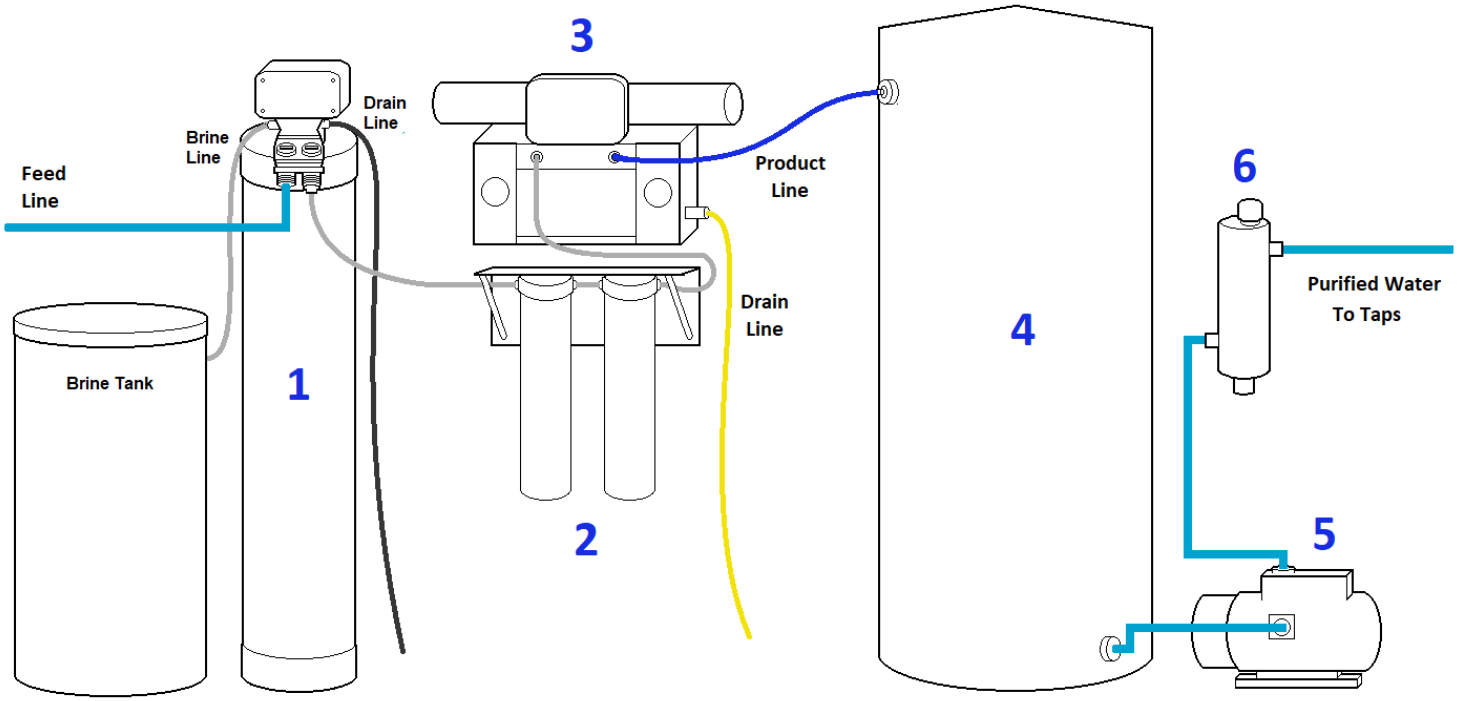
# How The RainDance Brew Master RO Package Works

Pressurized water from your city treated or well water source first enters the attached dual prefilter cartridge system. This pre-filtered water then enters the RO water purification system. The purified RO water will begin filling the near-by storage tank. If the optional TDS blending valve is used, prefiltered water taken after the prefilter system and before the RO purification is blended into the storage tank. Water will continue to fill the storage tank until the included tank float switch closes and shuts the entire system off. When there is a demand for water the repressurization delivery pump is activated and draws RO water from the storage tank to your taps. If enough water is used to the point where the float switch is reopened, the RO system is automatically reactivated and begins to replace the RO water in the tank that has been depleted.




**Figures not drawn to scale. Image should be used for flow description only.*

1. **Pretreatment System:** To extend the life of the membrane a water softener, iron filter, or other prefilter may be needed to provide protection to RO membranes.
2. **Dual Prefilter Assembly:** Integrated Sediment, Rust, and Chlorine/Organic Chemical Prefiltration
3. **RO System:** High Capacity Wall Mount Reverse Osmosis System available in 400, 800, 1,200, and 1,500gpd capacities – Provides more effective contaminant removal on all types of water sources.
4. **Atmospheric Product Storage Tank:** Tank provides on-demand purified water to the building. Includes float switch and float to shut RO system off when tank is full.
5. **Delivery Pump:** Draws water from storage tank and delivers high flow purified water to all taps.
6. **Optional UV System:** A post UV system can be added here to disinfect water before entering the building.

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1. **Reverse Osmosis System Installation:**

   Install the unit in an indoor location. Systems are designed to be wall mounted or shelf mounted. The supplied dual prefilter assembly can be installed directly on the RO unit (if wall mounted) or installed nearby the RO unit (if shelf mounted).

   Turn off the feed water supply and drain the lines by opening water taps until the water flow stops. Perform all plumbing according to local plumbing codes.

   There are (4) quick-connect tubing connections to make: connect **feed water tubing** (supplied, white) from main water line or pretreatment system to prefilter assembly INLET connector. Connect **prefilter tubing** (supplied, white) from prefilter assembly OUTLET connector to RO unit FEED connector. Connect **product water tubing** (supplied, blue) from RO unit PRODUCT connector to Post Remineralizer Filter INLET connector. Connect **drain water tubing** (supplied, yellow) from RO unit DRAIN connector to an appropriate drain.

   It is recommended to install a 3-Valve Bypass to provide water when the RO unit is down for service.

   The RO Product Water Storage Tank should be placed nearby the RO unit. Connect the Float Switch wire cord to the leads on the product water storage tank Float Switch.

   Turn on the feed water supply and plug the RO unit into the appropriate electric outlet.

2. **TDS Blending Valve Installation:**

   A TDS monitor and needle valve is pre-installed on the RO system. The inlet of the needle valve is connected to a tee between the dual prefilter cartridge assembly and RO membrane to only allow prefiltered water blending. The outlet of the needle valve is connected to a tee on the product water line coming from the RO membrane to combine prefiltered water flow with the purified water flow.

   The TDS monitor includes 2 sensors connected to the incoming feed water and the product water after the blending needle valve. This allows you to monitor the unfiltered water TDS and purified water TDS with just the push of a button.

   To use the TDS blending valve turn the needle valve knob to allow prefiltered water to combine with the purified water flow. Select the purified water TDS reading on the monitor to determine the TDS level as you turn the knob. To stop blending turn the knob back until it stops, closing the valve completely.

3. **Storage Tank Delivery Pump Installation:**

   Place the pump near the RO product water storage tank. The base should be rigid and the pump secured to the base.

   Locate the Inlet and Outlet ports on the pump. Install pipe on the Inlet port to the Outlet port on the storage tank. The Inlet line should be as short and straight as possible. Install pipe on the Outlet port to the main plumbing line to the building. Perform all plumbing according to local plumbing codes.

   Plug in the power cord to an appropriate electric outlet. Prime the pump before activating.

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# RainDance Brew Master RO Optional Equipment

1. **RainDancePRO Pretreatment System Installation:**

   This system is shipped preloaded with media and distributor tube already assembled for quicker installation.

   Place the unit where you want to install on a level and firm base. The unit should be located near a convenient drain and approved electrical outlet.

   Ensure the distributor tube is centered and flush with the top of the tank. Lubricate the control valve o-ring seal and place the valve on the tank, spinning without force until the valve stops. Then turn the valve between ¼ turn and ½ turn for a snug fit. Install the supplied bypass and connectors to the valve.

   With the feed water supply turned off and plumbing drained, cut away a section of the existing plumbing and install the appropriate pipe to connect to the Inlet/Outlet on the control valve. Perform all plumbing according to local plumbing codes.

   Install pipe or tubing on the Drain port and route the line to the drain source.

   Install the supplied tubing and fittings on the Brine port and connect to the Brine Well in the Brine Tank.

   This system is equipped with a pretreat lockout switch to automatically shut down the RO system when a regeneration is required – preventing untreated water from entering the RO system. Remove the valve cover and connect the pretreat lockout wires on the RO system to the switch inside the valve.

   With the feed water supply turned on, use the Bypass knobs to place the system in bypass and open a cold water tap to let water flush the new plumbing. Turn off the tap and use the Bypass Knobs to place the system in service and allow water to fill the filter tank. When the water flow stops slowly turn on a cold water tap to purge air in the new pipe lines then turn off the tap. Check for any leaks along the way.

   Plug in the control valve and add water and water softener pellets to the brine tank. Program the valve and run a manual regeneration by pressing the first button on the control valve.

2. **Post UV Disinfection System Installation:**

   The system can be installed horizontally or vertically – if installing the chamber in the horizontal position the outlet port must be pointing upwards. The ideal installation is vertical with the lamp connector on top. Select a wall location where there is enough space to allow the removal of the UV lamp. Mount the system to the wall using the supplied clamps.

   Connect the outlet pipe of the storage tank delivery pump to the inlet of the UV system – connect the outlet of the UV system back to the main plumbing line to the building. Perform all plumbing according to local plumbing codes.

   Mount the controller horizontally to the wall, near the chamber - above and away from any water connection point. Install the UV lamp into the chamber.

   When all plumbing connections are complete, slowly turn on the water supply and check for leaks. Plug the system into a GFI outlet. Allow the water to run for a few minutes to clear any air or dust that may be in the chamber.