

# 5-Stage Reverse Osmosis System

## Basic Installation Guide

WaterGnome SKU: WG-RO | Farris SKU: ROS5V | WaterGnome replacement configuration: 50 GPD membrane

### IMPORTANT - BASIC REFERENCE ONLY

This guide is intended to help a qualified plumber or water-treatment installer identify the basic installation layout. It is not a substitute for professional training, local plumbing/electrical codes, permits, inspection requirements, product labels, or the current instructions supplied with the actual components. The installer is responsible for verifying the equipment, flow direction, operating limits, materials, connections, code compliance, and safe commissioning before placing the system in service. If this guide conflicts with markings or instructions on the equipment, the equipment/manufacture instructions control.

## Before You Begin

- Inspect all cartons and components for shipping damage. Do not install a visibly damaged pressure-bearing component.
- Confirm the model/SKU and all components against the customer order before cutting plumbing.
- Locate and read all flow arrows, IN/OUT markings, pressure/temperature ratings, electrical labels, and component-specific warnings on the actual equipment.
- Verify a suitable installation location with access for future filter/media replacement and service.
- Verify the installation location is protected from freezing, direct weather exposure, impact, and other conditions outside the equipment ratings.
- Confirm the home plumbing can be isolated and depressurized safely and that required permits/backflow/thermal-expansion provisions are addressed under local code.
- Verify actual static and dynamic water pressure is within the ratings of every installed component. Add or adjust pressure regulation when required by the equipment or local plumbing conditions.

### DO NOT GUESS

Do not assume flow direction, port function, controller programming, tubing connection, electrical requirement, or pressure rating. Verify each item from the actual component markings and current manufacturer documentation.

## System Overview

WaterGnome records identify the replacement filtration set as: 10-inch sediment prefilter, two 10-inch carbon block prefilters, 50 GPD TFC membrane, and inline coconut-carbon postfilter. The actual system labels and tubing diagram supplied with the unit control if they differ.

COLD WATER FEED -> PREFILTERS -> RO MEMBRANE -> POSTFILTER -> RO FAUCET  
|  
+ -> DRAIN  
STORAGE TANK <-> PRODUCT WATER LINE

## Typical Components

- RO filter/manifold assembly
- RO membrane housing and membrane
- Pressurized storage tank
- Dedicated drinking-water faucet
- Cold-water feed connection / shutoff
- Drain connection
- Color-coded or labeled tubing and quick-connect fittings

### **POTABLE COLD WATER ONLY**

Connect the RO feed only to a suitable cold potable-water supply. Do not connect to hot water. The installer must verify the actual RO feed-pressure and temperature requirements from the system/component labels before commissioning.

## Basic Installation

1. Choose an accessible under-sink or nearby location that permits cartridge, membrane, tank, and tubing service without kinking tubing or placing equipment against sharp/hot surfaces.
2. Shut off and depressurize the cold-water supply. Install an approved RO feed connection and a dedicated shutoff in accordance with local plumbing code and the existing piping material.
3. Install the dedicated RO faucet in a location approved by the sink/counter manufacturer. Maintain required clearances below the mounting surface.
4. Install the drain connection at a code-compliant location on the sink drain. Use an air-gap arrangement if required by local code or the faucet/system design. Do not create a connection that can allow wastewater to backflow into the RO tubing.
5. Position the storage tank upright and accessible. Install the tank valve only as designed for the supplied tank; do not modify the factory air charge unless directed by the tank manufacturer.
6. Mount the RO assembly securely and leave room below the housings for filter replacement.
7. Install/verify the prefilters, membrane, and postfilter according to the labeled stages on the actual unit. Do not rely on cartridge color alone.
8. Route tubing using the port labels/tubing diagram on the actual system. Cut tubing square, remove burrs, and fully seat tubing in quick-connect fittings. Tug-test each connection after insertion.
9. Slowly open the RO feed shutoff and inspect all fittings and housings for leaks. Do not place the system into normal service until startup flushing required by the supplied membrane/cartridge instructions is complete.
10. Verify the drain line flows only when the system is producing water and that product water reaches the faucet/tank without leaks or tubing restrictions.

## Startup / Handoff

- ☐ Cold feed connection and shutoff are accessible and leak-free.
- ☐ Drain connection is secure and code compliant; no cross-connection/backflow condition is present.
- ☐ Faucet is secure and tubing is not kinked.
- ☐ Storage tank is stable, accessible, and connected to the correct product-water line.
- ☐ All quick-connect fittings were fully seated and tug-tested.
- ☐ Required initial flushing/discard period for the supplied membrane and cartridges is complete before customer use.

☐ Installer verified acceptable production and checked the system again for leaks after the tank began filling.

## Do Not

- Do not connect the RO feed to hot water.
- Do not drill a drain or faucet hole until the sink/counter material and safe drilling location have been verified.
- Do not install the drain connection where wastewater or disposal discharge can be forced into the RO drain line.
- Do not guess at membrane orientation or tubing ports; follow the actual housing arrows/labels.
- Do not adjust the storage tank air charge or any flow-control device without the applicable component instructions.

## Installation Responsibility & Warranty Note

**WaterGnome does not supervise the installer and cannot verify site conditions.** The installer/contractor is responsible for workmanship, code compliance, proper materials, leak-free connections, pressure control, support, drainage, electrical work, commissioning, and confirming the completed installation is safe and suitable for the property. Improper installation, freezing, pressure spikes, water hammer, misuse, unauthorized modification, or other external plumbing/site conditions may be excluded from warranty coverage. Refer to the current WaterGnome Returns & Lifetime Limited Parts Warranty for complete terms.