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1. INTRODUCTION AND SYSTEM OVERVIEW

The 3M 4US-RO-S01H Reverse Osmosis Drinking Water Filter System is designed to provide high-quality filtered water directly from your kitchen tap. This system effectively reduces a wide range of contaminants, offering a convenient source of clean water for drinking, cooking, and ice making.

The system utilizes a multi-stage filtration process, including pre-filtration, reverse osmosis membrane, and post-filtration, to remove particles as small as 0.5 microns, as well as chlorine taste and odor, microbial cysts, lead, select pharmaceuticals, chemicals, total dissolved solids, nitrates, nitrites, radium, and arsenic.



Figure 1: Overview of the 3M 4US-RO-S01H Reverse Osmosis Water Filter System, showing the main unit, storage tank, and dedicated faucet.

2. SAFETY INFORMATION

- Read all instructions thoroughly before installation and operation.
- Ensure the water supply is turned off before performing any installation or maintenance.
- Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.
- The system is designed for cold water use only (up to 113°F / 45°C).
- Check all connections for leaks after installation and during maintenance.
- Keep all components and tools out of reach of children.

3. PACKAGE CONTENTS

Verify that all components are present before beginning installation:

- 1 x 3M Reverse Osmosis System Unit
- 1 x Installation Kit (includes tubing, fittings, mounting hardware)
- 1 x 4US-RO-PREH Pre-Filter
- 1 x 4US-RO-M01H Reverse Osmosis Membrane
- 1 x 4US-RO-POSTH Post-Filter
- 1 x Dedicated Faucet



Figure 2: The 4US-RO-PREH Pre-Filter and 4US-RO-POSTH Post-Filter, essential for multi-stage filtration.





Figure 3: The 4US-RO-M01H Reverse Osmosis Membrane, the core component for contaminant reduction.

4. SETUP AND INSTALLATION

Installation of the 3M 4US-RO-S01H system requires careful attention to detail. If you are not comfortable with plumbing tasks, it is recommended to seek professional assistance.

4.1 Pre-Installation Checks

- **Location:** Choose a suitable under-sink location with adequate space for the system unit, storage tank, and access for filter changes.
- **Water Supply:** Ensure you have access to a cold water line and a shut-off valve. Consider installing an additional 1/4" valve for easier maintenance without turning off the main water supply.
- **Drain:** A drain connection point is required for the RO system's reject water. Inspect the saddle drain valve for any damage prior to installation.
- **Faucet Hole:** A dedicated hole for the RO faucet is needed. If one is not available, drilling may be required.

4.2 Installation Steps (General Guide)

1. **Turn off Water Supply:** Locate and turn off the cold water supply valve under your sink.
2. **Install Feed Water Adapter:** Connect the feed water adapter to the cold water line.
3. **Install Faucet:** Mount the dedicated RO faucet through the countertop or sink. Ensure the plastic spacer is correctly positioned next to the shim under the faucet to prevent leaks and interference with tubing. Improper installation of the O-ring or spacer can cause leaks.
4. **Install Drain Saddle:** Attach the drain saddle to the drain pipe. Ensure it is securely fastened and free from cracks.
5. **Mount System Unit and Tank:** Secure the main RO unit to the cabinet wall and place the storage tank in its designated location.
6. **Connect Tubing:** Follow the color-coded tubing connections as indicated in the diagram. Connect the inlet tube (yellow), drain tube (black), outlet tube (blue), and storage tank tube (red) to their respective ports on the system and faucet.
7. **Install Filters:** Insert the pre-filter, RO membrane, and post-filter into their housings. The quick-change design allows for easy, mess-free installation without needing to turn off the water supply for future changes.
8. **Turn on Water Supply & Check for Leaks:** Slowly turn on the cold water supply and carefully inspect all connections for any leaks. Tighten connections as necessary.
9. **Flush System:** Before initial use, flush the system as described in the Operating Instructions section.

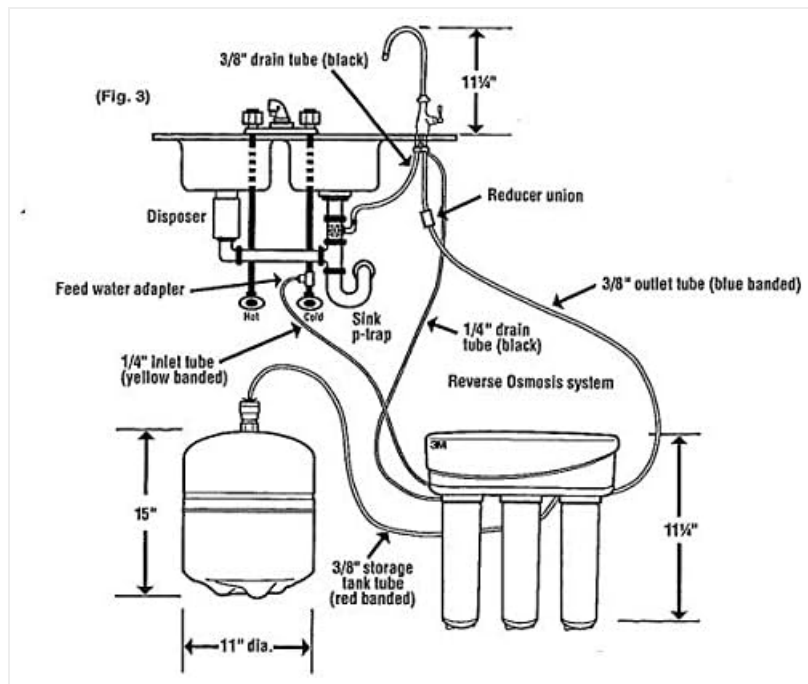


Figure 4: Detailed installation diagram showing component placement and tubing connections for the 3M 4US-RO-S01H system.

5. OPERATING INSTRUCTIONS

5.1 Initial System Flush

After installation, it is crucial to flush the system to remove air and carbon fines from the new filters:

1. Open the dedicated RO faucet and allow water to flow until it becomes a steady stream.
2. Close the faucet and allow the storage tank to fill completely (this may take several hours).
3. Once the tank is full, open the faucet again and let it run until the tank is completely empty.
4. Repeat steps 2 and 3 at least two more times. This ensures proper conditioning of the filters and membrane.
5. The system is now ready for use.

5.2 Normal Operation

To dispense filtered water, simply open the dedicated RO faucet. The system will automatically refill the storage tank as water is drawn. The regeneration cycle, which involves the system refilling the tank, may produce a noticeable sound; this is normal operation.

6. MAINTENANCE

Regular maintenance, primarily filter replacement, is essential to ensure optimal performance and water quality.

6.1 Filter Replacement

The 3M 4US-RO-S01H system uses quick-change filters, making replacement simple and mess-free. You do not need to turn off your main water supply to change filters.

- **Pre-Filter (4US-RO-PREH) and Post-Filter (4US-RO-POSTH):** Replace approximately every 6 months, or sooner if water flow significantly decreases or taste/odor issues arise.

- **RO Membrane (4US-RO-M01H):** Replace approximately every 24 months, or sooner if total dissolved solids (TDS) levels increase significantly or water production drops.

Replacement Procedure:

1. Twist the old filter cartridge counter-clockwise a quarter turn to release it from the manifold.
2. Pull the old cartridge straight down to remove.
3. Align the new filter cartridge with the manifold head.
4. Push the new cartridge up into the manifold and twist clockwise a quarter turn until it locks into place.
5. After replacing any filter, open the RO faucet and allow water to run for several minutes to flush out any air or carbon fines.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Low Water Flow / Trickle	Clogged filters (pre-filter, post-filter, or membrane), low water pressure, kinked tubing, air in system, depleted storage tank.	Replace clogged filters. Check household water pressure. Inspect tubing for kinks. Allow tank to refill. Perform system flush.
Water Leaks	Loose connections, damaged O-rings, improperly seated faucet spacer, cracked drain saddle.	Tighten all connections. Inspect O-rings and replace if damaged. Ensure faucet spacer is correctly installed. Replace damaged drain saddle.
Unpleasant Taste or Odor	Expired filters (especially post-filter), new system not flushed adequately, contaminated storage tank.	Replace filters. Perform thorough system flush. Sanitize storage tank if necessary.
Loud Regeneration Cycle	Normal operation as the system refills the storage tank.	No action required. This is a characteristic sound of the system.

8. SPECIFICATIONS

- **Brand:** 3M
- **Model Name:** 4US-RO-S01H
- **Purification Method:** Reverse Osmosis
- **Installation Type:** Under Sink
- **Material:** Plastic
- **Item Weight:** 6 Pounds (approximate, system only)
- **Upper Temperature Rating:** 113 Degrees Fahrenheit (45°C)
- **Special Feature:** Chlorine Reduction
- **Included Components:** 1 system, 3 filters (pre, membrane, post), 1 faucet, 1 installation kit
- **Replacement Filters:** 4US-RO-PREH (Pre-Filter), 4US-RO-M01H (RO Membrane), 4US-RO-POSTH (Post-Filter)

9. WARRANTY AND SUPPORT

For specific warranty information regarding your 3M 4US-RO-S01H Reverse Osmosis Drinking Water Filter System, please refer to the documentation provided at the time of purchase or contact 3M customer support directly. Warranty terms typically cover manufacturing defects and may vary by region and retailer.

For technical assistance, replacement parts, or further inquiries, please contact 3M customer service through their official website or the contact information provided with your product packaging.