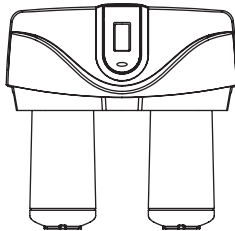




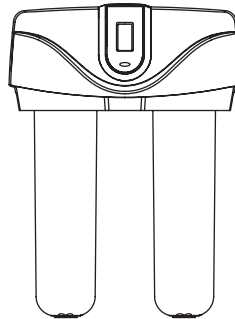
3M Drinking Water Systems

Installation and Operating Manual

For following models:



• DWS2000T-CN



• DWS2500T-CN

Please keep the manual for future reference.





Safety Information

Thank you for purchasing 3M Drinking Water System.

The Installation and Operating Manual contains information about the installation and maintenance of the system.

Please keep the manual for future reference.

INSTALLATION PRECAUTION

1. The packaging materials could pose as a danger to children. Keep the packaging materials (such as plastic bag) out of reach to children;
2. To reduce the risk of choking, do not allow children to have access to small parts during the installation of this product.
3. Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system. Systems certified for cysts reduction may be used on disinfected water that may contain filterable cysts.
4. Do not install on hot water supply lines. The temperature of the incoming water should be between 4.4-37.8°C (40-100°F).
5. Do not install if water pressure exceeds 172-862 kPa (25-125 psi). If water pressure exceeds 862 kPa (125 psi), you must install a pressure limiting valve.
6. Do not install filter system near high temperature area or equipment.
7. Do not install under direct sunlight.
8. Protect from freezing. When room temperature falls below 4.4°C, prevent freezing by turning on the faucet to allow water flow through the cartridges.
9. Do not install filter system in areas that are prone to knocks by other objects.
10. Do not install filter system near electric wiring or water pipes which may be in the path of drilling when fixing the mounting bracket.
11. Take care when using pliers or pipe wrenches to tighten plastic fittings, as overtightening may cause damages.
12. Allow a minimum of 8 cm above the filter system for battery replacement.
13. Allow a minimum of 6 cm under the filter system for cartridge change.
14. To ensure that the installation conforms to your country/state plumbing requirements, it is recommended that the installation be performed by a licensed plumber.
15. Failure to install the system as instructed will VOID the warranty.

Operating Parameters:	
Incoming Water Temperature	4.4 - 37.8°C (40 - 100°F)
Incoming Water Pressure	172 - 862 kPa (25 - 125 psi)

Filter Replacement

It is recommended to change the filter cartridge every 12 months. However, local conditions and actual volume of water can affect filter life.

Cartridge Replacement Guide		
For System Model:	1 st Stage Filter Cartridge	2 nd Stage Filter Cartridge
DWS2000-CN	PFS2000-C-CN	DWS2000-C-CN
DWS2500-CN	PFS2500-C-CN	DWS2500-C-CN



Contents

I.	System Parts	3
II.	Accessory and Installation Overview	4
III.	Drinking Water Faucet Installation	5
IV.	Mounting Bracket Installation	6
V.	System Installation	7
VI.	Filter Cartridges Installation	8
VII.	Batteries Installation	8
VIII.	Connecting LCD Cartridge Change Monitoring System	9
IX.	Fixing the Shroud	9
X.	Checking for Leaks and Initial Use	9
XI.	Activation and Re-setting of LCD Filter Monitor System	10
XII.	Checking Filter Cartridge Life	10



I) System Parts

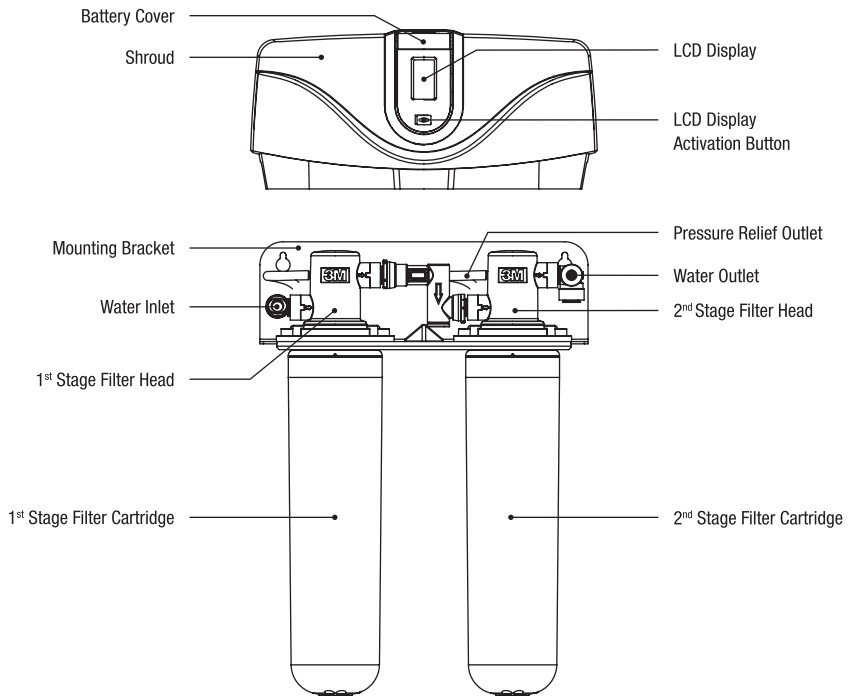


Diagram 1: Drinking Water System



II) Accessory and Installation Overview

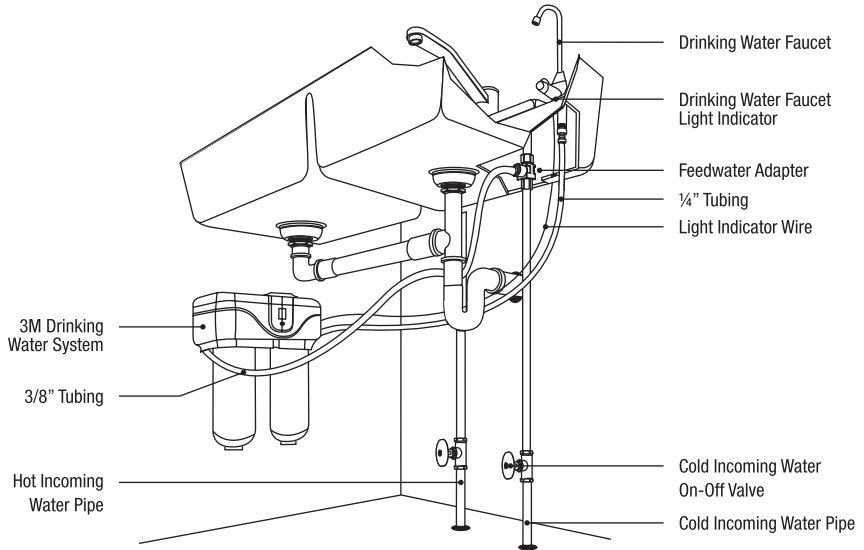


Diagram 2

Parts and Materials Included:

- | | |
|--|---------|
| 1. Drinking water faucet with attached 1/4" tubing | 1 set; |
| 2. Drinking water faucet light indicator | 1 unit |
| 3. Feedwater adapter | 1 unit |
| 4. 3/8" tubing (blue) | 1 unit |
| 5. Self-tapping screw | 2 units |

Installation Tools Needed:

- | |
|------------------------------------|
| 1. Drill; |
| 2. Phillips head screwdriver; |
| 3. Adjustable wrench; |
| 4. Utility knife or tubing cutter; |
| 5. Teflon tape |



III) Drinking Water Faucet Installation

NOTE

The drinking water system faucet should be located on a flat surface, conveniently located near the sink, so that it empties into the sink. Most sinks have pre-drilled holes designated for sprayers, soap dispensers, and other accessories. If your sink does not have an extra hole, then a 5/8" diameter hole must be drilled.

WARNING

Porcelain, enamel, and ceramic sinks require special procedures for drilling holes. See below for special instructions.

Drilling 5/8" Diameter Hole Through Countertop or Stainless Steel Sink:

1. Locate area to be drilled. Mark center of hole with center punch.
2. Drill hole with 5/8" drill bit suitable for countertop materials or cast iron/stainless steel.
3. With grinding wheel or file, smooth out any rough edges.

Drilling Hole Through Porcelain/ Enamel/ Ceramic Sinks With Sheet Metal or Case Iron Base

Recommended Tools:

1. Variable Speed Drill
2. Porcelain Cutter Tool Set (5/8" Size)
3. Plumber's Putty

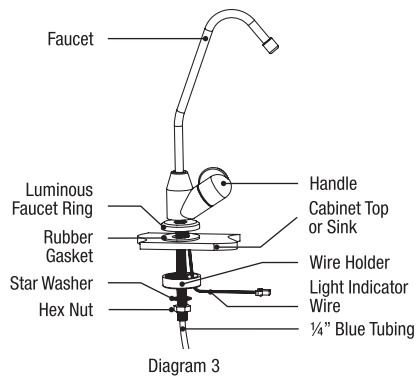
NOTE: It is important to understand this procedure.

1. The glassy layer of porcelain/enamel/ceramic must be scored through to the metal base, creating a disk.
2. This disk must be removed while protecting the surrounding decorative coating against chipping or fracturing.
3. The base metal must be drilled through to complete the hole.

Procedure:

1. Mark center for 5/8" hole.
2. Form a dam of shallow putty around hole location and fill with enough water to lubricate carbide drill bit.

3. Carefully drill pilot hole through porcelain/enamel/ceramic and base metal using a carbide pilot drill. Always operate drill with light pressure at slow speed (300 - 400 rpm).
4. Drill porcelain/enamel/ceramic using special 5/8" cutting tool, making certain a complete ring has been cut through to the sink's metal base.
5. Change to metal cutting drill bit and drill out the center of the ring, making sure not to contact other rim of decorative coating. Cut through metal sink base.



Installing the faucet:

1. Remove protective tape on the light indicator. Slide the light indicator up the 1/4" blue tubing and threaded brass stem.
2. Slide the rubber gasket up the light indicator wire, 1/4" blue tubing and threaded brass stem.
3. Next, feed light indicator wire, 1/4" blue tubing and faucet stem down through faucet mounting hole. Adjust the faucet to face the desired direction.
4. From underneath sink, slide the white wire holder through the 1/4" blue tubing & threaded brass stem. The light indicator wire should be threaded through the side hole of the white wire holder.
5. Next, slide in the star washer, and hex nut (as shown) onto the threaded brass stem and tighten by hand.
6. After adjusting the faucet to face the desired direction, tighten the hex nut with a padded adjustable wrench or spanner.



IV) Mounting Bracket Installation

PRECAUTION

Allow a minimum of at least 8cm above the filter system for the convenience of battery replacement and a minimum of at least 6cm under the filter system for the convenience of cartridge replacement (see Diagram 4.1 for more details).

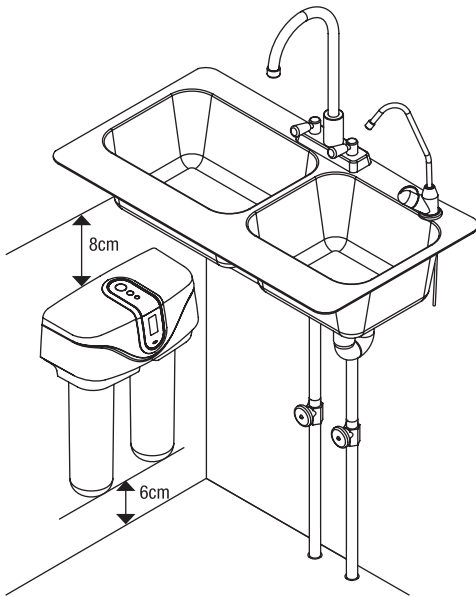


Diagram 4.1

Selecting the location to install the filter system

1. Position the mounting bracket on the installation location. Mark the hole location on the installation surface (see Diagram 4.2 for details);
2. Choose self-tapping screws or bolts based on the material of the installation surface (see Diagram 4.3 for details);
3. Install screws but only halfway so that you can slip the mounting bracket to the installation surface BEFORE tightening the screws.

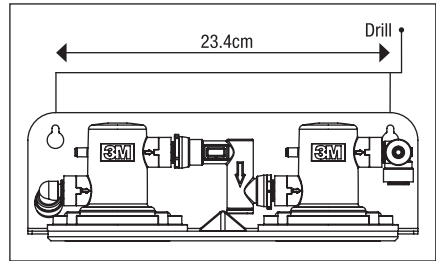
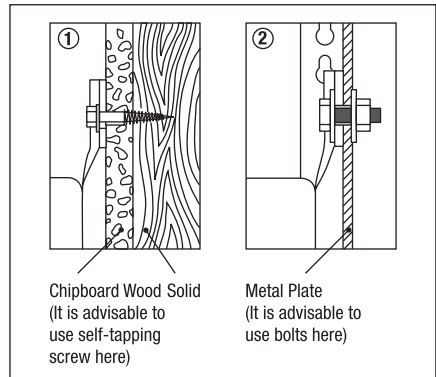


Diagram 4.2 Where to Drill



Chipboard Wood Solid
(It is advisable to use self-tapping screw here)

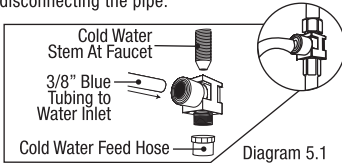
Metal Plate
(It is advisable to use bolts here)

Diagram 4.3 Types of Installation Surface and Accessory Parts to Use

V) System Installation

NOTE

Remove items under the sink. Place a container under the sink to collect small amount of water that may flow out when disconnecting the pipe.



1. Turn off the cold water supply valve;
2. Remove the cold water hose from the faucet stem;
3. Clean away any residual tape and rust on the faucet stem and wind a new layer of Teflon tape around it;
4. Locate the feedwater adapter that comes with your Drinking Water System;
5. Wind the Teflon tape around the threaded side of the feedwater adapter;
6. Screw the feedwater adapter onto the faucet stem. Do not over-tighten. If possible, the 3/8" tubing adapter should be facing the Drinking Water System;
7. Screw the cold water feed hose onto the threaded side of the feedwater adapter. Do not over-tighten;
8. Locate the 3/8" blue tubing. Determine the length of tubing required from the filter bracket to drinking water faucet and from cold water supply line by holding tubing in place ensuring it is of appropriate length. Do not kink tubing as this will impede water flow. If necessary, loop tubing around to avoid it being kinked.
9. Cut tubing straight with a utility knife. See 5.3;
10. Insert one of the 3/8" blue tubing into the 3/8" tubing adapter. See 5.4 "Using Push-In Fittings";
11. Insert the other end of the 3/8" blue tubing into the water INLET of the Drinking Water System;
12. After installing the drinking water faucet as shown in page 5, insert the 1/4" blue tubing that was attached to the drinking water faucet into the water OUTLET of the Drinking Water System.

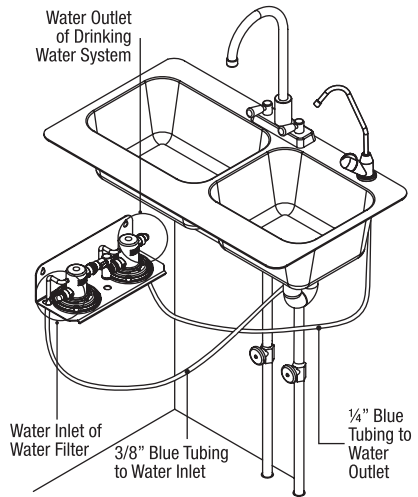


Diagram 5.2

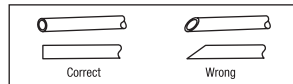
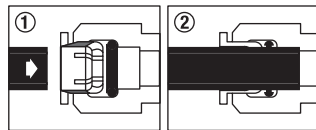


Diagram 5.3 How To Cut Tubing

To Attach Tubing

Push tubing in as far as it will go. Tubing must be inserted past o-ring and hit backstop. Pull tubing to ensure it is secure.



To Remove Tubing

Push in grey collet to release tubing. With collet held, pull tubing straight out.

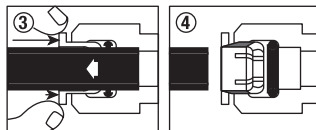
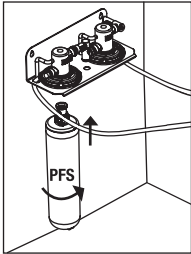


Diagram 5.4 Using Push-In Fittings

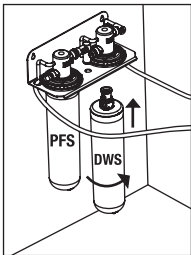


VI) Filter Cartridge Installation

1st Stage
Filter Cartridge



2nd Stage
Filter Cartridge



1. If there is a red plastic cover on the filter cartridge, remove it;
2. Insert the 1st stage filter cartridge to the head assembly with the BLACK label (near to the water inlet). Turn the filter cartridge to the right until it stops (about ¼ turn);
3. Insert the 2nd stage filter cartridge to the head assembly with the YELLOW label (near to the water outlet). Turn the filter cartridge to the right until it stops (about ¼ turn);

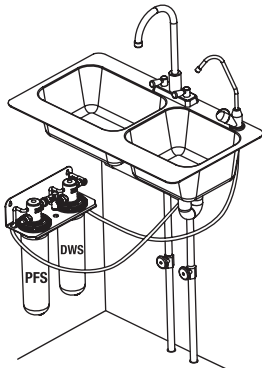


Diagram 6

VII) Batteries Installation

1. Slide the battery cover out;
2. Lift the battery cover;
3. Install three AA size alkaline batteries;
4. Place the cover back.

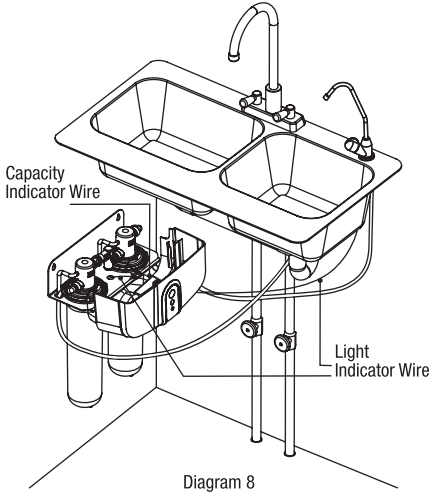
Three AA Size Alkaline Batteries
(use only alkaline battery)



Diagram 7

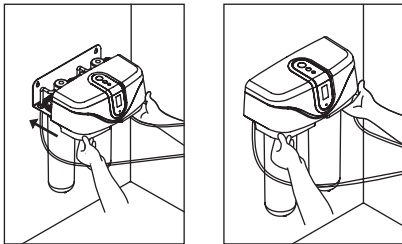


VIII) Connecting The LCD Cartridge Change Monitoring System



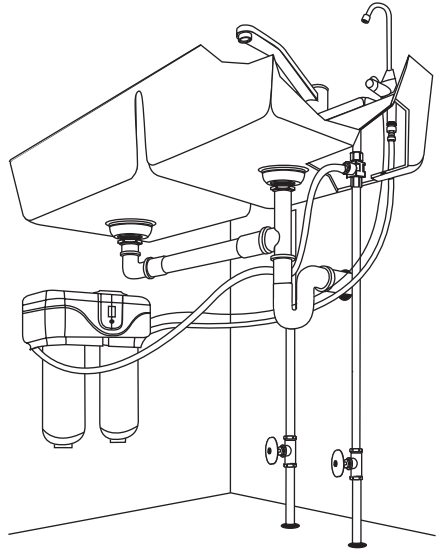
1. Connect the BLACK connector (light indicator wire) to the BLACK connector on the shroud;
2. Connect the WHITE connector (capacity/time indicator wire) on the bracket to the WHITE connector on the shroud.

IX) Fixing The Shroud



1. Slide the shroud onto the bracket as shown in the direction of the arrow.

X) Check for Leaks and Initial Use



1. Turn on the water supply;
2. Turn on the drinking water faucet to check for leaks. If leaks occur, reinstall the leaking points to ensure they are fully sealed.
3. If water leaks at the Push-In connections, push the tubing in as far as it will go. If leaks continue, shut off water at the water supply and remove tubing by pushing in on the connector collar while pulling out the tubing (see 5.4).
4. Inspect tubing for cracks and scratches. If tubing is cracked or scratched, simply cut that portion (see 5.3) and reinsert tubing into the push-in fitting.
5. Turn on the drinking water faucet again to full and flush the system for five minutes to remove any trapped air. Residual air may cause temporary cloudiness in water.



XI) Activation and Re-setting of LCD Filter Monitoring System on Shroud

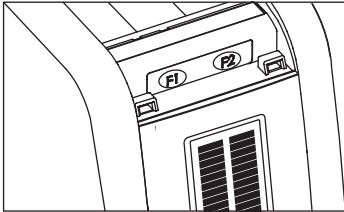


Diagram 11

The monitoring system is operated by two buttons (F1 & F2) for system start-up after initial installation and subsequent re-setting after each filter cartridge change-out.

1. Remove battery cover.
2. F1 button – After installation of your new 3M Drinking Water System or after replacing any of the two filter cartridges, press F1 button and hold for at least 4 seconds. The LCD display on the left side of the monitor will light up all 12 bars and you will hear one long buzz followed by three short buzzes.
3. F2 button – After installation of your new 3M Drinking Water System or after replacing any of the two filter cartridges, press F2 button and hold for at least 4 seconds. The LCD display on the right side of the monitor will light up all 12 bars and you will hear one long buzz followed by three short buzzes.

NOTE

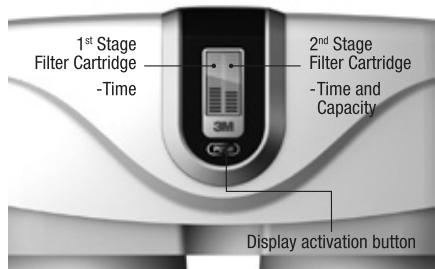
The sequence in which the F1 & F2 buttons are activated is not important and will not affect the performance of the monitoring system.

The left column of LCD display indicates the cartridge life of the 1st stage filter cartridge, which is monitored based on time (months).

The right column of LCD display indicates the cartridge life of the 2nd stage filter cartridge, which is monitored based on both time (months) and capacity (gallons/liters), whichever comes first.

When either of the displays is left with one lighted bar, the drinking water faucet light indicator will turn from blue to red, indicating that the filter cartridge should be changed. When this last lighted bar is depleted, the audio alarm will be activated 2 seconds after the drinking faucet is turned on each time. The alarm will remain activated for a period of 10 seconds until the filter cartridges are changed and the monitoring system re-set.

XII) Checking Filter Cartridge Life



To check the status of the filter system, press the “Push” button on the LCD display control panel.

Drinking Water Faucet Light Indicator



Diagram 13

1. Blue Light – Normal Operation
2. Red Light – Change Filter Cartridges



Warranty Registration:

For warranty registration, please contact your 3M authorized dealer or seller or local 3M office.