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ASME – A112.18.1
NSF – 61-9



PATENT NUMBERS
U.S. 5,505,227, 6,254,057, 6,382,585
Canadian 2,109,684
European 0654628
International & Other Patents Pending

INSTALLATION INSTRUCTIONS: Models 1780, 1781, 1782, 1784, 1786 & 1788

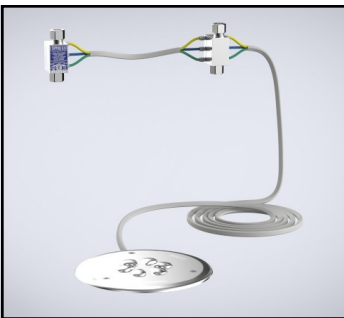
NOTICE & WARNING TO INSTALLER

****WARNING: Water lines MUST be flushed prior to installation****

Neither Tapmaster Incorporated nor its distributors will be held responsible for any repairs associated with improper installation.

The plastic control tube bundles connecting the valves are pressurized with water after installation. Take care not to kink or damage the control tubes or tube fittings when installing the valves. It is assumed the person who intends to install the *Tapmaster Hands Free Faucet Controller* has a basic working knowledge of tools and plumbing. Tapmaster Incorporated will not assume any responsibility or liability for damages resulting from the improper installation of this product. It is recommended that a plumber or other person skilled in the art be consulted if you are unsure of the proper procedure to install the Tapmaster.

GENERAL



This illustration shows a typical Model 1780 Tapmaster. The valve blocks connect in-line on the hot and cold water supplies with 3/8" O. D. compression fittings. The pilot/actuator valve is mounted to the underside of the activator disk which is mounted to the floor with the three #8 countersunk screws provided.

Model 1780, shown at left, features two in-line valve blocks, one each for the hot and cold water lines and one step on activator disk. Model 1781 features one in-line valve block with one step on activator disk and is used in situations where only one water line (typically tepid or recirculating warm water systems) is required. Model 1782 is essentially identical to Model 1781 with an additional activator disk added to permit water flow activation from two separate locations as would be found in an island sink. Model 1784 is essentially identical to Model 1780 with two in-line valve blocks and a second activator disk. Model 1786 features Hot/Warm/Cold (HWC) temperature selection. Model 1788 is essentially identical to Model 1786 except there are two HWC disks.

Installation of the valve blocks will vary according to the type of plumbing hardware. In some cases it may be simpler to connect the valve blocks at some convenient mid-point along the 3/8" supply tubes. It will be necessary to obtain a 3/8" x 3/8" compression connector (*available at most hardware stores*) to connect the inlet fitting to the water lines. Other plumbing arrangements may be encountered where larger than 3/8" O.D. tube size is used. In these situations reducing adapters (*available at most hardware stores*) must be obtained to permit installation of the Tapmaster.

Although Tapmaster will work with virtually any faucet, faucets that have handles which give a visual reference for flow and temperature are recommended.

INSTALLING THE IN-FLOOR ACTIVATOR



Figure 1

GENERAL: The following instructions for installing the in-floor activator are for a typical installation and only a guideline. Whether it is a retrofit situation or a new facility install, sink arrangements, floor coverings and construction materials will vary greatly.

LOCATION: As per **Figure 1**, locate the center of the faucet/sink and mark this location on the floor. Locate the leading edge of the sink or counter and extend this line to the floor to intersect the previously drawn center line. With the template provided locate the activator disk in the center of this position.

For new concrete floor installations, the in-floor activator is design to fit into a standard round PVC "concrete pour type" in-floor electrical box. These type of electrical boxes are available from manufacturers such as Hubbel, LEW, Carlon and Kraloy to name a few. PVC conduit is run from the in-floor electrical box and out of the wall just underneath the sink and above the water supply shutoff valves (see **Figure 2** next page). After the PVC box is cut as per the manufacturers instructions and the flooring placed, the Tapmaster activator disk is ready to be installed.

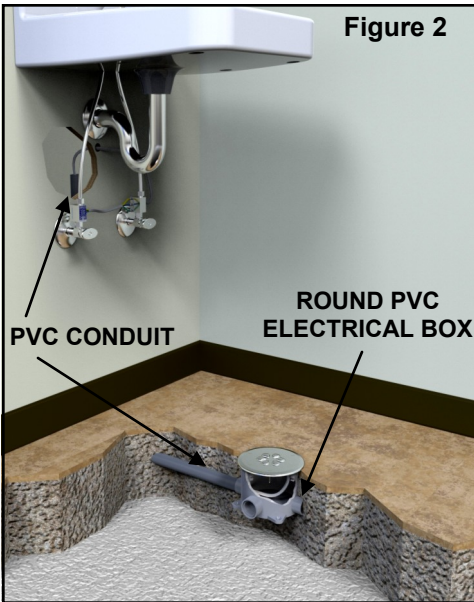


Figure 2

The activator disk is momentarily attached to the optional PVC box adapter ring (see **Figure 3**) with the #8 x 1" stainless steel countersunk screws. PVC cement is applied to the adapter ring, glued in place and the activator disk removed. Please proceed to Step #1.

Retrofit installations will vary according to the type of floor, the availability, if any, of access underneath the floor and the extent of other renovations that may be done in conjunction with the Tapmaster install. For example, for an "on-slab" (concrete floor - no under floor access) with a floor

covering replacement, it would involve cutting a small trench to accommodate a small diameter plastic or metal tube (eg: 1/2" PEX, soft or rigid copper) routed up into the wall underneath the sink through which the control tube bundle may be routed (see **Figure 4**). A small pocket would also be cut into the concrete to accommodate the actuator valve on the underside of the activator disk. The trench may be filled in with grout or concrete, the floor covering installed and finally the control tube bundle fished through the tube and the activator disk mounted to the floor with concrete anchors.

In a situation where the floor covering, such as ceramic or porcelain tile is to be left in place, a slot may be cut into the tile to accommodate the control tube bundle, routed into surface mount plastic conduit for the wall, and the control tube bundle grouted into the floor (see **Figure 5**).

Another example of a retrofit installation would be a wood floor with access underneath (see **Figure 6**). This situation would involve drilling a 2" (50mm) hole in the floor. Another hole drilled through the floor to allow access into the wall and other to allow access through the wall underneath the sink. (*Note: Model 1786 HWC requires a 4" [100mm] hole to accommodate 2 actuator valves*). The control tube bundle is fished through these holes and the activator disk mounted onto the floor with the template and screws provided.

Another example would be a concrete floor with access underneath. In this situation a may be simpler to drill or core one hole at the activator disk location and another to permit access into the wall behind you and the sink. A "U" shaped piece of conduit or plastic pipe (depending on local codes) could be installed to allow the control tube bundle to be fished through underneath the sink.

The examples discussed above are only one of many possible solutions to route the control tube bundle.

STEP #1 Route the control tube bundle through the rubber gasket supplied, using a fish tape, wire or other means route the control tube bundle through the floor/wall as per one of the methods described above to the water line shutoff(s). (see **figure 2 & 3** for PVC box install and **figure 4, 5 & 6** for retrofit install)

The control tube bundle may be shortened as required. Be sure not to kink or damage the control tubes in any way.

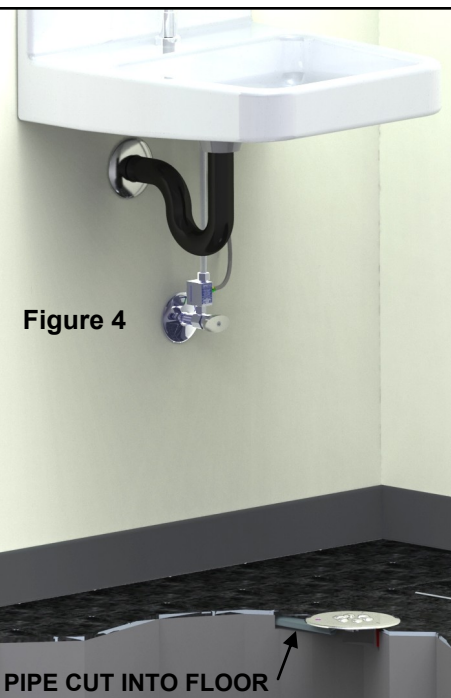


Figure 4

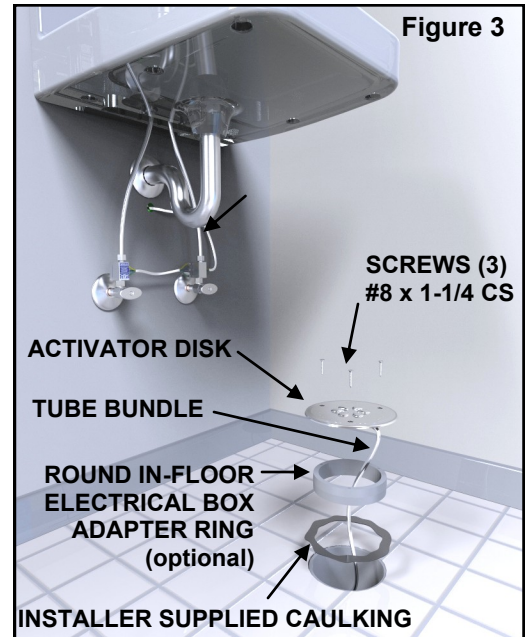


Figure 3

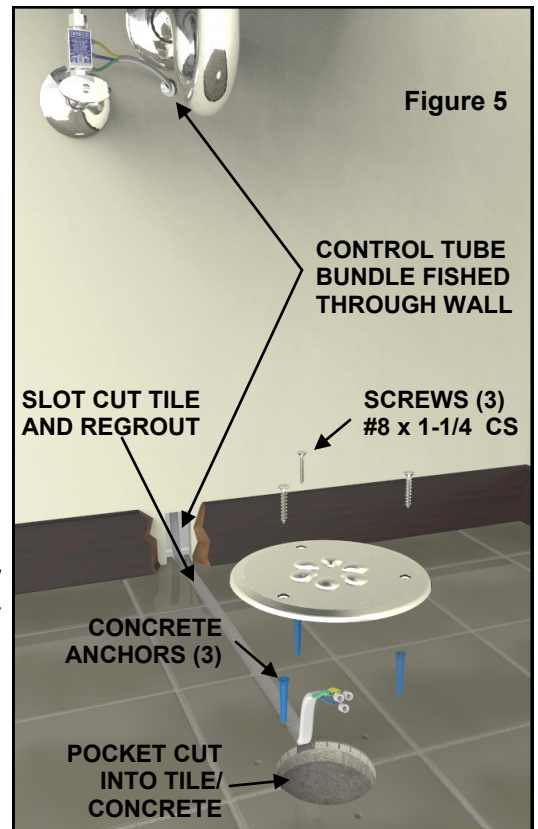


Figure 5

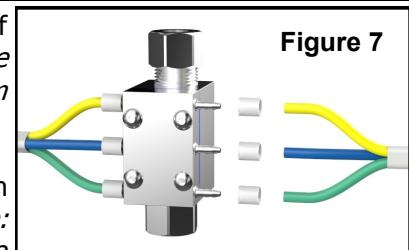


STEP #2 - Apply a quality silicone caulking compound to the floor side of the rubber gasket away from the activator disk. (*Warning; Do not use excessive amount of caulking as this may glue the activator disk in place and make removal difficult should future service be required*) With the #8 x 1" stainless steel countersunk screws provided mount the activator disk to the finished floor. Use the concrete anchors provided if required (*model 1780 in-floor activators are provided with regular #2 Phillips head screws or tamper-resistant 5/32" center to center hole type screws upon request*).

CAUTION DO NOT OVER TIGHTEN SCREWS particularly on uneven floor coverings such as ceramic or porcelain tile. This may damage the disk, cause it to warp and become unusable. Extra caulking or mortar may be required to "bridge" uneven sections. If the mounting service is exceptionally uneven use 3/16" ID washers on the screws between the activator disk and floor to bridge the gaps. The activator disk must be installed completely level and stable. If there are any questions or concerns in this or any other regard please do not hesitate to contact us at 1-800-791-8117 and ask for tech support.

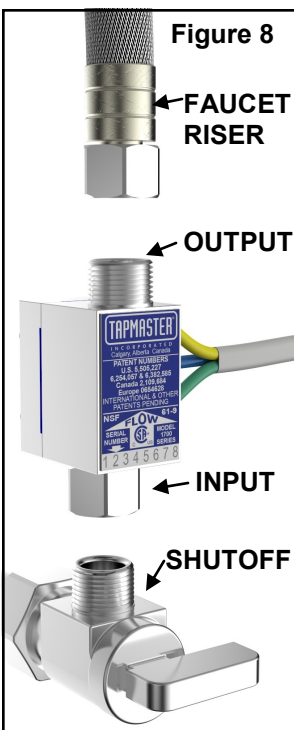
INSTALLING THE VALVE BLOCKS

The Tapmaster valve blocks are connected in-line between the hot and cold shut off valves and the faucet tubes as shown in **Figure 2**. (*Note: The valve blocks are identical in function and may be used on either hot or cold water lines. Position them according to how the control tubing will be routed*).



STEP #1 - Hook up the control tubes from the floor activator to the valve block with the plastic sleeves provided as per the color-coded arrangement in **Figure 7**. (*Note: To facilitate the installation of the tubing and sleeves, dip the ends of the tubing into hot soapy water and, using a pair of needle nose pliers, push the tubing on to the barb fittings. An adjustable wrench opened to the diameter of the tubing will assist in pushing on the sleeves. Take care not to damage the barb fittings or crush the tubes*). If a tube must be removed from a barb fitting, split the tube along its length with a sharp knife (*Do not pull as this may damage the barb*).

STEP #2 - Turn off the water supplies and place a bucket underneath the shut off valves to catch water that may run out of the plumbing. (*Hint: Closing the faucet handles will minimize leakage*). Loosen the compression nuts on the riser tubes from the faucet at the shut-off valves. If the faucet utilizes copper tube risers, bend and reposition the tubes in such a manner as to create a 1-1/2" gap (*Do not kink*). To simplify the installation, replace the copper risers with flex risers (*available at most hardware stores*). If this cannot be readily accomplished the tubes will have to be shortened approximately 1-1/2". Cut the tubes with a tube cutter. If a tube cutter is not available a hacksaw may be used, however be sure to de-bur and square the ends. Extra compression nuts and sleeves are provided should the tubes need to be cut.



STEP #3 - Prior to installing the valve blocks, open the shut-off valves momentarily to flush out any debris in the water lines. Large pieces of water borne debris will be trapped by the filter/screen in the valve blocks and may reduce water flow or cause noisy operation. As shown in **Figure 8** connect the valve block(s) with the integrated nut (input) to the shutoff fitting and the faucet riser to the compression thread (output). Finger tighten only until both valve blocks are in position. Be sure the plastic control tubing and fittings are not damaged in any manner.

STEP #4 - Proceed to tighten the compression nuts using a 5/8" wrench on the nut and a 7/8" wrench on the valve block body. Do not over tighten 3/8" compression fittings with O-ring seals such as the valve block input fitting. Hand tighten plus 1/2 turn with wrench.

STEP #5 - Verify that **all** connections are tight. Turn on the water supply(s) and inspect **all** connections for leaks. Set the faucet, both hot and cold, completely open and push the bar activator to start the water flow. Operate the bar activator on and off rapidly to clear air from the valves. The valves may experience some noise during on or off operation until the air is cleared. Allow significant time to pass and then re-inspect all connections for leaks (*Small leaks may take several minutes to show up*).

OPERATION

To operate the Tapmaster simply step on the activator disk and open the faucet to the desired flow and temperature. By stepping off the activator disk or releasing pressure shuts off the water flow to the faucet. Once the faucet has been adjusted it should be left open. As in other foot operated devices all operators should allow themselves some time to get accustomed to this unique method of operation..

The use of short bursts of water as required will maximize water savings.

TROUBLE SHOOTING

Symptom	Possible Cause	Remedy
The hot or cold water is very slow to turn on or will not turn on	Pinched tubing	Check control tubing (yellow and blue)
The hot or cold water is very slow to shutoff or will not shutoff	Pinched tubing	Check control tubing (green and blue)
Noise from the Valve Blocks while the water is running	The Valve Block may have excessive debris trapped under its Filter-screen	Service the Valve Blocks
Noise from the Valve Blocks when turning water on and off	Air in the system	Operate the pedal on and off rapidly to clear air from the valves.

Further information: www.tapmaster.ca or call 800-791-8117

FIVE YEAR LIMITED WARRANTY

Congratulations on your purchase of a TAPMASTER Hands Free Faucet Controller.

TAPMASTER products are thoroughly tested before shipment and are warranted to be free of defects in material and workmanship for five years from the date of original purchase. The sole obligation of Tapmaster Incorporated under the warranty is to provide replacement parts or at its option to repair the defective product or to provide the replacement product. Replacement parts furnished in fulfillment of this warranty are warranted only for the unused portion of the original warranty. Labor and shipping charges are not included.

Warranty conditions - The five year warranty is subject to exclusions and limitations as stated below:

Warranty extends only to defects which occur during normal use and intended applications and does not extend to damage to products or parts resulting from alteration, repair, modification or faulty installation. This warranty does not cover damage resulting from water borne debris or from media other than clean potable water. Tapmaster Incorporated makes no other express warranty on this product, all implied warranties including any implied warranty of merchantability and fitness for a particular purpose are hereby disclaimed and excluded. In no event shall Tapmaster Incorporated be liable for special, incidental or consequential damages resulting from the use of this product or arising from breach of warranty or contract, negligence, loss of time, inconvenience or loss of use of equipment.