

Installation on house main water pipe using compression fittings

Note: It is recommended that a shut-off valve be placed on both sides of the filter.

NOTE: Be sure to allow a minimum space of 1-1/2" to 2" under the filter for removing the sump.

Minimum Materials Needed

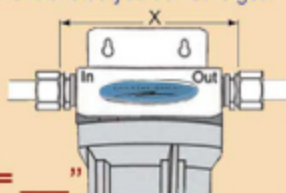
- 2 compression adapters, 3/4" or 1" x cmprs (compression end to fit existing copper pipe)
- wrenches, either open end or adjustable jaw, size to fit compression adapters
- pipe cutter
- Teflon[®] tape
- sandpaper or emery cloth

STEP 1 Cutting Water Line

CAUTION: Turn off the water supply and open a nearby faucet to drain the water out of pipes

- Using a tape measure or ruler, measure the distance "X".

NOTE: Have a bucket and towel available to collect excess water. Remove the nut and brass ferrule from both compression fittings and set aside. Using a tape measure or ruler, measure the distance "X". Mark these dimensions so you do not forget.

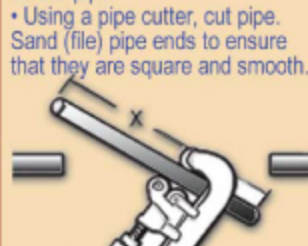


X = ____"

STEP 2 Cutting the Pipe

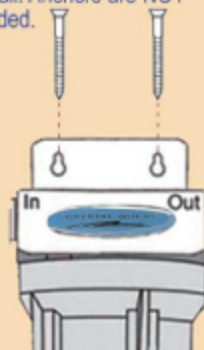
Refer to **Installing the Ground Wire** section before cutting the pipe.

- Select a secure location surface to install filter and mounting bracket. The location should align the filter system with inlet and outlet pipe and should not cause the pipes to bend or become damaged. Mark the distance "X" on the pipe.
- Using a pipe cutter, cut pipe. Sand (file) pipe ends to ensure that they are square and smooth.



STEP 3 Installing Mounting Bracket

- The bracket can be used as a template for marking the location of the mounting screws.
- Use four hex washer-head screws to mount bracket to the wall firmly. Use proper anchors on wall. Anchors are NOT included.



STEP 4 Attaching Compression Fittings to Filter Housing

- Apply several wraps of Teflon[®] tape to the threads of both compression fittings.



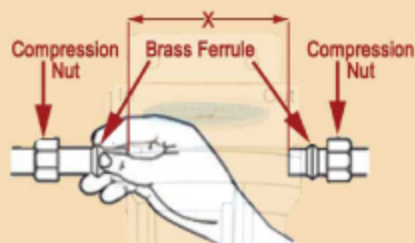
- CAREFULLY, turn the compression fittings into the water filter head inlet and outlet and tighten. Do not cross-thread or overtighten. This will damage the threads and crack the head.



**Measure to shoulder inside of fittings. Copper pipe butts against this shoulder.*

STEP 5 Attaching Compression Fittings to Water Line

- Slip a compression nut onto each pipe.
- Next, slip the brass ferrule onto each pipe.

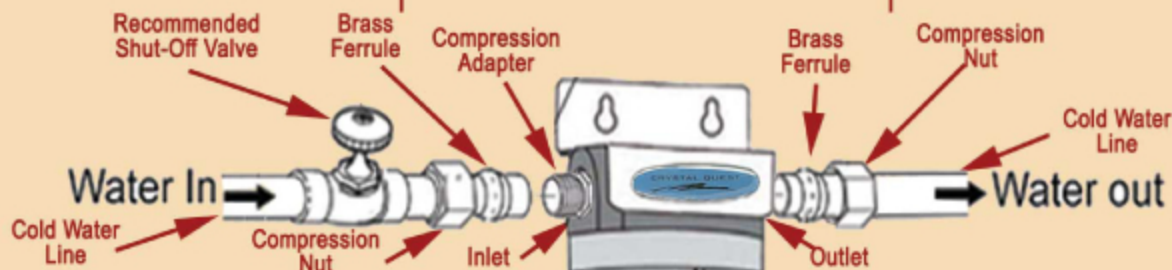


STEP 6 Installing the Unit

- Align filter assembly with pipe ends.
- With the inlet side of the water filter facing incoming water, spread the pipes apart and fit both pipe ends into the compression fittings.
- Move a ferrule and compression nut up to the fitting. Turn ferrule onto pipe and tighten the compression nut.
- Using two adjustable wrenches, hold incoming fitting securely with one wrench and tighten nut with second wrench.
- Repeat this procedure on the other side for the outgoing fitting.

STEP 7 Final Check

- Slowly turn on water supply.
- Check entire system for leaks.
- If the system leaks from the fittings, shut off the water flow and tighten or reseal the fittings. If the system leaks from the filter housing, tighten the housing with a wrench.
- After installation, flush the cartridge for 10 minutes. Wait one hour, then flush again for 10 minutes before use.



Please note all drawings, pictures, colors and sizes are approximate for illustrative purposes only and may not exactly resemble the end product.

NOTE: Be sure to allow a minimum space of 1-1/2" to 2" under the filter for removing the sump.

Materials Needed

- 2 sweat adapters, 3/4" or 1" NPT x sweat (sweat end to fit existing pipe)
- lead-free solder and flux
- soldering torch
- sandpaper or emery cloth, open end (to fit sweat adapter) or adjustable jaw wrench
- tubing cutter
- Teflon[®] tape

Installation on house main water pipe using soldered copper fittings

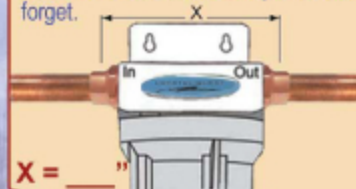
Note: It is recommended that a shut-off valve be placed on both sides of the filter.

STEP 1 Preparing to Install

CAUTION: Heat created when soldering can damage the water filter housing. Be sure to use the following procedures to protect the water filter.

- Turn off the water supply and open a nearby faucet to drain the water out of pipes.

NOTE: Have a bucket and towel available to collect excess water. Remove the nut and brass ferrule from both compression fittings and set aside. Using a tape measure or ruler, measure the distance "X". Mark these dimensions so you do not forget.

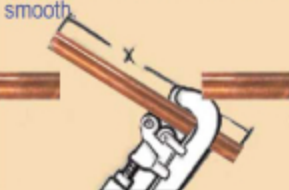


STEP 2 Cutting the Pipe

Refer to **Installing the Ground Wire** section before cutting the pipe.

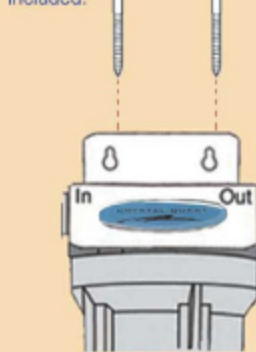
- Select a secure location surface to install filter and mounting bracket. The location should align the filter system with inlet and outlet pipe and should not cause the pipes to bend or become damaged. Mark the distance "X" on the pipe.

• Using a pipe cutter, cut pipe. Sand (file) cut ends of pipe to ensure that they are square and smooth.



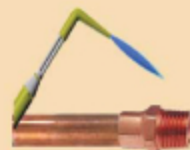
STEP 3 Installing the Mounting Bracket

- The bracket can be used as a template for marking the location of the mounting screws.
- Use four hex washer-head screws to mount bracket to the wall firmly. Use proper anchors on wall. Anchors are NOT included.



STEP 4 Attaching Soldered Copper Fittings to Filter Housing

- Solder a sweat adapter onto one of the pipe ends.



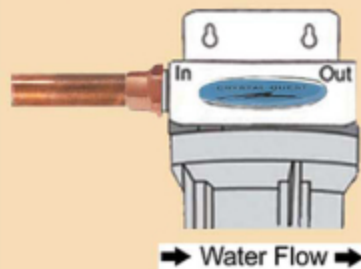
- Place, but do not solder, a straight connector onto the other pipe end.



Measure to shoulder inside of fittings. Copper pipe butts against this shoulder.

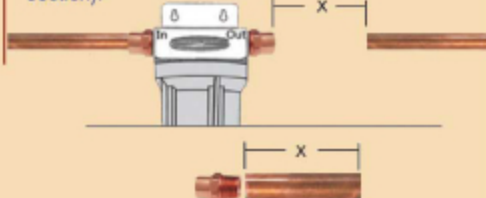
STEP 5 Attaching Soldered Fittings to Filter Head

- Remove the sump from the filter head and set the sump aside.
- After the sweat adapter cools, apply several wraps of Teflon[®] tape to the threads on the sweat adapter fitting.
- Carefully turn the filter head INLET (if water flow is from the left) onto the sweat adapter fitting. If water flow is from the right, turn the outlet side of the head onto the fitting. Do not cross-thread or overtighten. This will cause damage to the threads and crack the head.



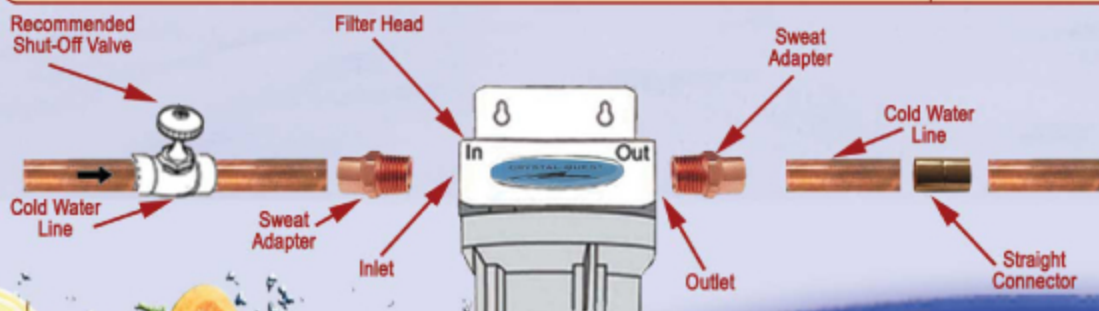
STEP 6 Installing the Unit

- Mark the distance of "X" on a length of copper pipe. Cut the length of pipe.
- Remove the sweat adapter fitting from the filter head and solder to the cut length of pipe.
- After the sweat adapter cools, apply several wraps of Teflon[®] tape to the threads on the sweat adapter fitting. Apply flux and place the pipe end of the soldered assembly into the straight connector, then turn the adapter end into the filter head and tighten.
- Solder both sides of the straight connector
- Before replacing the sump and turning on the water supply, install the filter cartridge. Tighten filter housing to seal (refer to Changing Cartridges section).



STEP 7 Final Check

- Install filter if not already done (refer to "Changing Cartridges" section).
- Slowly turn on water supply.
- Check entire system for leaks.
- If the system leaks from the fittings, shut off the water flow and tighten or reseal the fittings. If the system leaks from the filter housing, tighten the housing with a wrench.
- After installation, flush the cartridge for 10 minutes. Wait one hour, then flush again for 10 minutes before use.



Installation on house main water pipe using threaded pipe fittings

Note: It is recommended that a shut-off valve be placed on both sides of the filter.

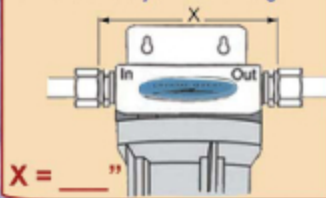
NOTE: Be sure to allow a minimum space of 1-1/2" to 2" under the filter for removing the sump.

- Minimum Materials Needed**
- pipe threading tool
 - pipe wrenches
 - pipe joint compound
 - union fittings and pipe nipples
 - pipe cutter
 - Teflon[®] tape

STEP 1 Cutting Water Line

CAUTION: Turn off the water supply and open a nearby faucet to drain the water out of pipes.

- Using a tape measure or ruler, measure the distance "X".
- NOTE:** Have a bucket and towel available to collect excess water. Remove the nut and brass ferrule from both compression fittings and set aside. Using a tape measure or ruler, measure the distance "X". * Mark this dimension so you do not forget.



*Measure to shoulder inside of fittings. Galvanized pipe butts against this shoulder.

STEP 2 Cutting the Pipe

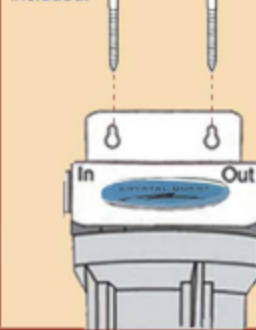
Refer to **Installing the Ground Wire** section before cutting the pipe.

- Select a secure location surface to install filter and mounting bracket. The location should align the filter system with inlet and outlet pipe and should not cause the pipes to bend or become damaged. Mark the distance "X" on the pipe.
- Using a pipe cutter, cut the pipe. Sand (file) cut ends to ensure they are square and smooth.



STEP 3 Installing Mounting Bracket

- The bracket can be used as a template for marking the location of the mounting screws.
- Use four hex washer-head screws to mount bracket firmly to the wall. Use proper anchors on wall. Anchors are NOT included.



STEP 4 Attaching Hex Nipple Fittings to Filter Housing

- Apply several wraps of Teflon[®] tape to the threads of both hex nipple fittings.

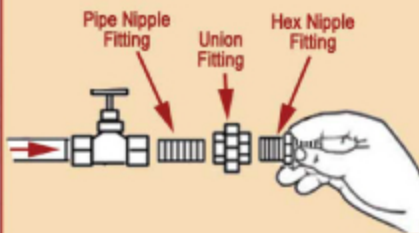


- CAREFULLY turn the hex nipple fittings into the water filter head inlet and outlet and tighten. Do not cross-thread or overtighten. This will cause damage to the threads and crack the head.



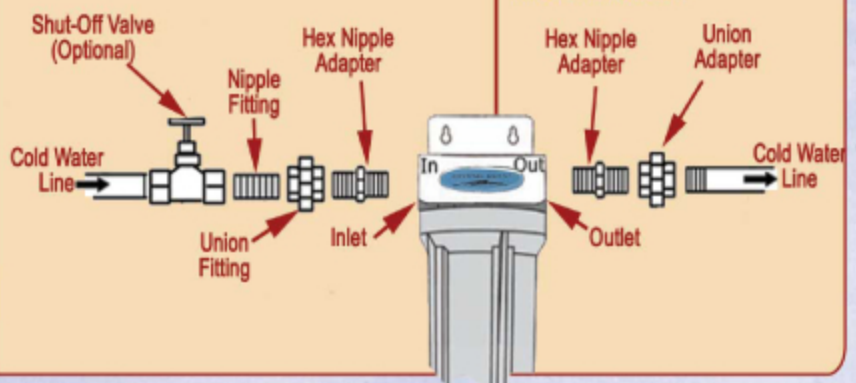
STEP 5 Attaching Union Fittings and Pipe Nipple Fittings to Water Line

- Use pipe joint compound on all external threads.
- Do not turn pipe or fittings too tightly into the filter head. This may cause the head to crack.
- Fit the pipe nipple into the union fitting, being careful not to cross-thread.
- Fit the union and nipple assembly into the shut-off valve.
- It is important to have some linear movement in the house main water pipe. This will allow you to tighten union fittings without damaging the filter head if pipe lengths are not exact.



STEP 6 Installing the Unit

- Align filter assembly with pipe ends.
- With the inlet side of the water filter facing incoming water, spread the pipes apart and fit both hex nipple adapters into the union fitting.
- Turn into union fitting and tighten.
- Using two adjustable wrenches, hold incoming fitting securely with one wrench and tighten nut with second wrench.
- Repeat this procedure on the other side for the outgoing fitting.



STEP 7 Final Check

- Slowly turn on water supply.
- Check entire system for leaks.
- If the system leaks from the fittings, shut off the water flow and tighten or reseal the fittings. If the system leaks from the filter housing, tighten the housing with a wrench.
- After installation, flush the cartridge for 10 minutes. Wait one hour, then flush again for 10 minutes before use.



To review the latest edition of the Installation and Operation Guide, visit www.crystalquest.com.

Use these guidelines for all Crystal Quest[®] Compact Whole House Water Filter Systems.

