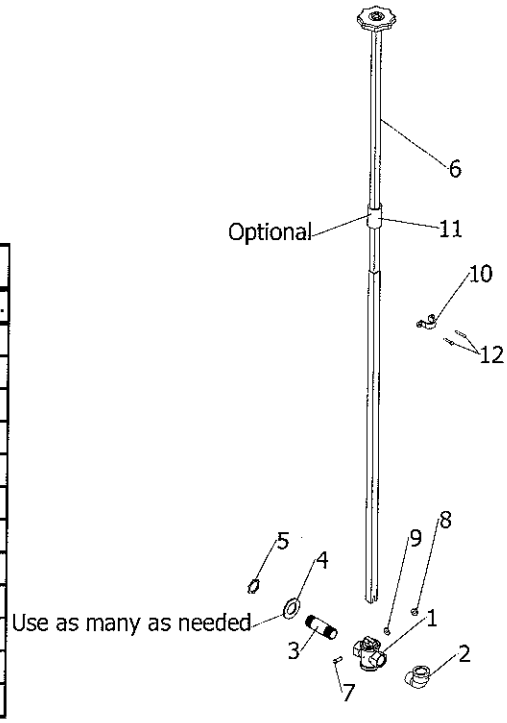
Installation Instructions
For the 54130168 Shut Off Kit

Thank you for purchasing the 54130168 Shut Off Kit. This kit makes it convenient to turn the water off for cleaning or servicing of the waterer or for completely shutting down the waterer if unit is not being used. The hydrant style drain back feature protects an unused waterer from freeze damage in cold weather. This kit is designed to be used with all of the Behlen Country Waterers except for the Automatic Stall Waterers.

Please read the instructions thoroughly and adhere to any local codes that would apply to this installation. The contents of this kit are listed below. To make the final connections you will need to purchase some items. A suitable pipe and fittings to make a riser pipe, a union or coupling to connect the valve to the supply line, and a suitable pipe sealant for the threaded connections, these items should be readily available at most hardware and plumbing outlets.

Hook up Kit (54130168)			
Item No.	Component Description	Part Number	Qty.
1	Valve Mark 2 Oriseal Curb	3888254	1
2	Brass Elbow, 3/4" NPT	1788150	1
3	Brass Nipple 3/4" NPT Npt 3"L	2668262	1
4	Washer Spacers	3948114	5
5	Nut, Conduit Locknut 7513K242	2688044	1
6	Telescoping Handle Assy.	54618708	1
7	#10 x 1 1/4" SS Bolt	3188380	1
8	#10 x 1 1/4" SS Nut	2688349	1
9	#10 SS Washer	3948200	1
10	U-Bracket	3888258	1
11	PVC Tube Spacer	3888259	1
12	Screw #8 x 1"	3188279	2



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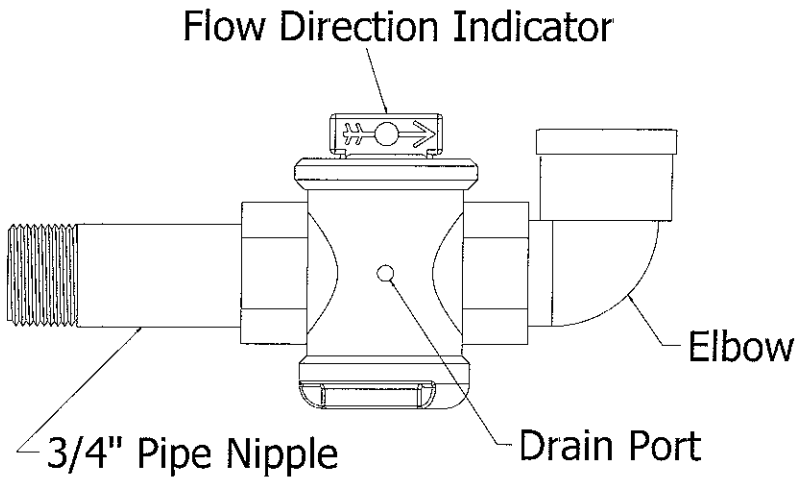
The shut off kit is designed to give years of trouble free service, however, care must be taken that unit is installed correctly. Here are some key points to be followed during the installation.

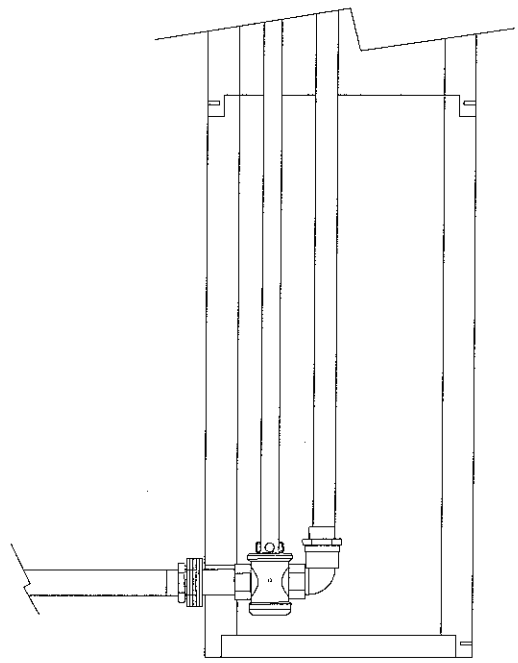
- **Please read the instructions thoroughly. There are different hookup options for different types of installations and waterers.**
- **The valve must be installed with the arrow matching the water flow.**
- **The valve must be mounted securely to prevent stress to the supply line.**
- **The angle of the telescoping handle must be straight enough so it doesn't bind.**
- **Be sure to use a suitable sealant on all threaded connections.**
- **The valve and connections must be leak tested BEFORE backfilling and pouring of the concrete platform.**

Installation Procedures Utilizing the Shut Off Kit with an Earth Tube

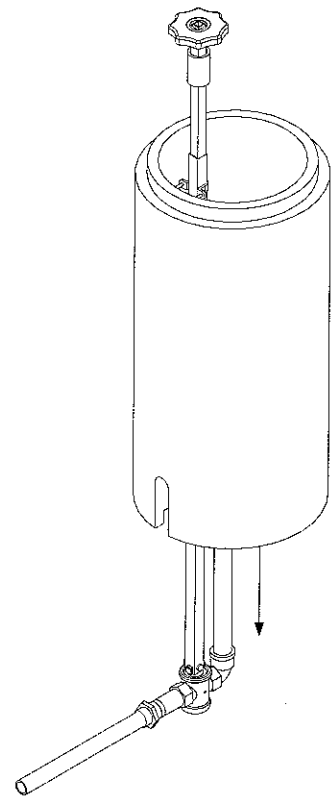
1. First dig a hole for your earth tube. Be sure that is deep enough to be below your local frost line, and big enough to accommodate the Earth tube plus room to work around the tube and hook up the valve. The hole must be at least 12" below the supply line and bottom of the earth tube. This cavity under the earth tube will need to be filled with gravel to provide a drainage area.
2. The trench for the water supply line must also be below the frost line and lead to the earth tube.
3. Before installation of the valve, make sure that the supply line is cleaned and flushed out; otherwise debris may get into the valve and cause a malfunction.
4. Assemble the valve as shown with the nipple and elbow, be sure to use sealant. Note the direction of the arrow on the valve; the water flow must match the arrow.



5. It is recommended that you mount the valve inside the earth tube to use the earth tube to provide support for the valve and reduce stress to the supply line. This can be done two ways. The first way is to drill a 1 1/16" hole in the side of the earth tube (a wood bit works well and if the hole is not the right size it can easily be enlarged with a knife). Be sure the hole is high enough so that valve will be above the gravel bed. Coat the exposed foam in the hole with a silicone sealer. Then insert the valve assembly through hole and using the washers and conduit lock nut mount the valve to the earth tube. Use only enough washers to hold the valve securely when the nut is tightened to the bottom of the threads on the nipple. Attach a riser pipe (not supplied with the kit) of the correct length to the elbow. Also attach the lower handle extension to the valve using the ¼" bolt and lock nut. The second method is to connect the valve assembly to the supply line, hook up the lower handle extension and riser pipe. Cut a slot in the bottom of the earth tube by drilling a hole and cutting a section out with a saw. Make sure that the slot is big enough to fit over the existing water line. Coat the exposed foam in the slot with a silicone sealer. Then line up the slot with the horizontal water line and push the earth tube down into position.



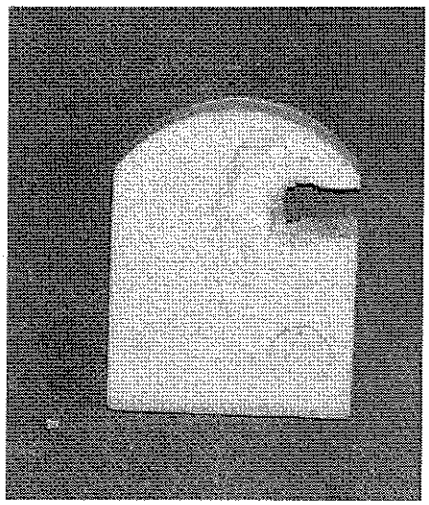
Hole through the tube method

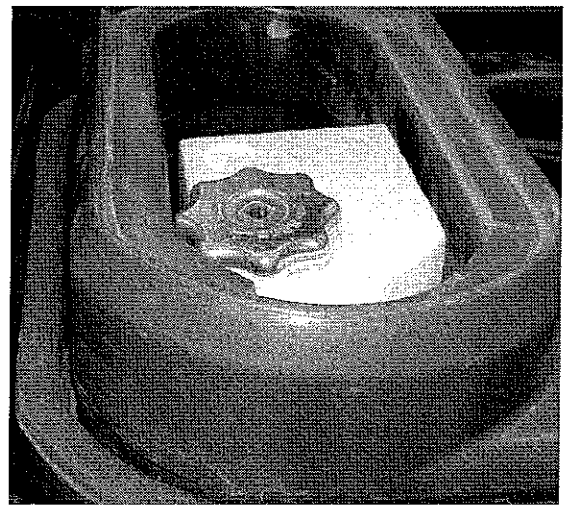


Slot in the tube method

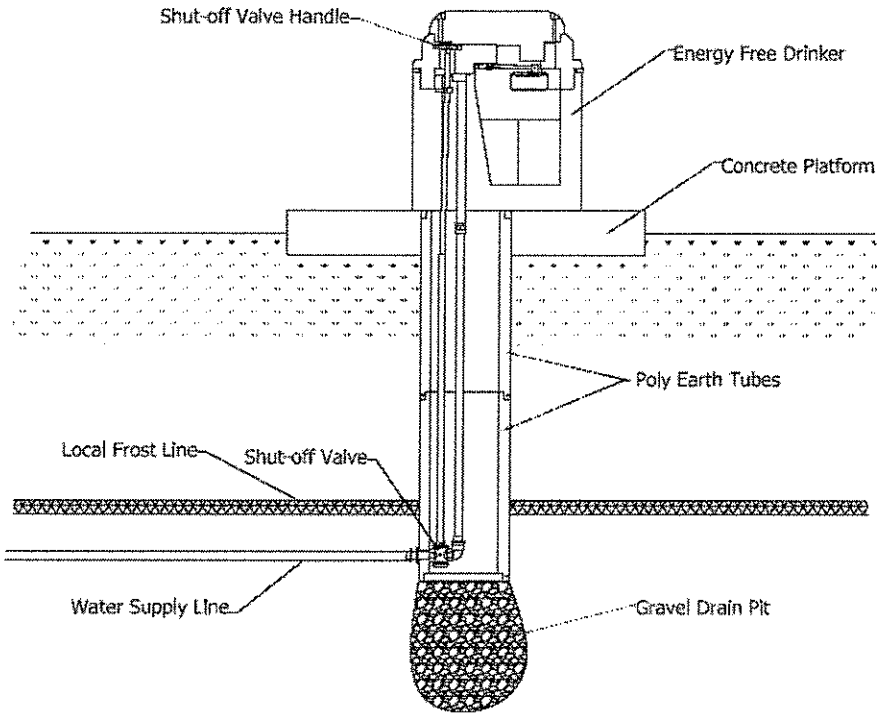
6. Connect the ¾"supply line to the valve by attaching an adapter (Suggest using a union) to the end of the supply line (be sure to use a sealer).
7. Before back filling the trench and the hole, test the valve to see that everything works and there are no leaks. Slide the upper part of the telescoping handle into the lower part to operate the valve. After you check for leaks fill the hole under the valve with 12"-14" of gravel, lava rock or other porous material, this provides a drainage area when the valve is turned off and the riser pipe drains to prevent freezing. Then backfill the valve and earth tube assembly with dirt.
8. After the platform is poured finish assembling the hook up kit. Coat the square shaft of the upper part of the telescoping handle assembly with grease to help protect the telescoping handle against corrosion. If the PVC spacer is being used side it over the upper handle and insert the upper handle into the lower handle.
9. Make sure that the valve handle comes up through the top of the energy free drinkers, or up into the base of the electric drinkers. Fasten the handle in place with a U-bracket (to the top of the Earth tube for electric drinkers, or to the top of the drinker for energy free drinkers). Note: in some cases it may not be necessary to use the spacer and or the U-Bracket.
10. With some of the Energy Free drinkers it will be necessary to trim some of the Styrofoam valve insulator away to make room for the valve handle. Please see the photos for details. It may also be necessary to telescope the handle up to service the fill valve and lower the handle to clear the float cover.
11. Be sure that the riser pipe does not contact the sides of the earth tube. This contact can provide a path for the cold to transfer to the pipe and freeze the riser pipe.

Please review following photos and illustrations for details on typical installations.

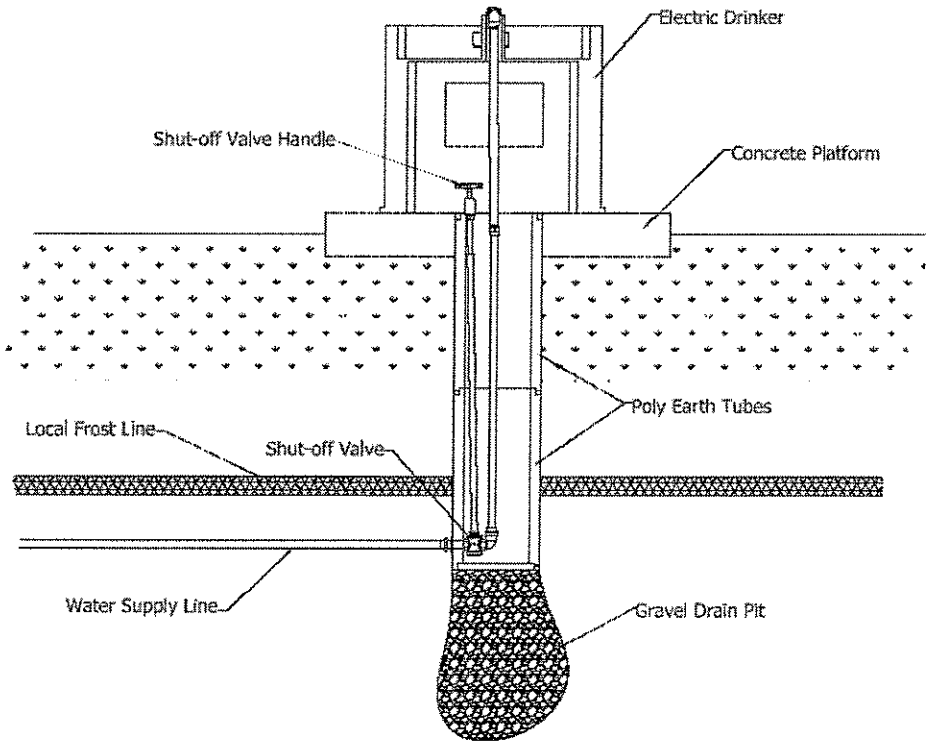




Trim the valve insulator to make room for the telescoping handle, telescope the handle up to slide the insulator under the handle.



Energy Free Drinkers



Electric Drinkers

In most cases you will want to be able to telescope the handle on the Energy Free Drinkers. If you are concerned that the handle can separate if you telescope the handle too far, you can restrict the travel of the telescoping handle by using a suitable wire or cable and making a lanyard to connect the upper handle to the body of the drinker.

Also in most cases with electric drinkers you will want to use the spacer to keep the handle up high enough so it is easy to operate.

These illustrations and photos are meant as a guide to assist you in the installation of the hookup kit. Your application and local codes may require you modify how the valve is installed.