

EFSK Shut-off Kit 54130168

Hardware Kit 54900108

For questions about this product, or for parts inquiries, please contact our Customer Service Center listed below.

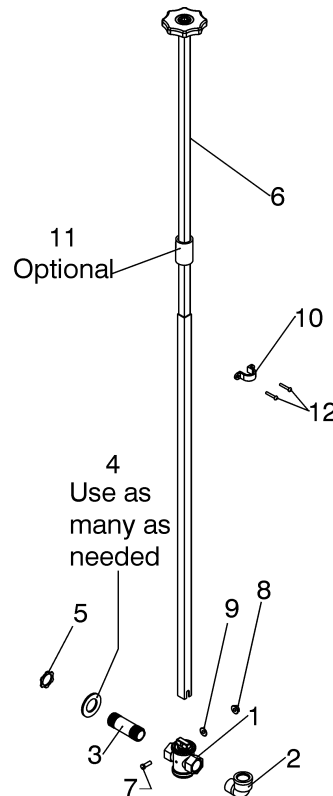
Thank you for purchasing the 54130168 Shut-off Kit. This kit makes it convenient to turn the water off for cleaning or servicing of the waterer or for completely shutting down the waterer if the unit is not being used. The hydrant style drain-back feature protects an unused waterer from freeze damage 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 the following items: a suitable $\frac{3}{4}$ " 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.

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

- Please read the instructions thoroughly. There are different hook up 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.

SHUT-OFF KIT (54130168)			
Item No.	Description	Part No.	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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PO Box 569
Columbus, NE
68602-0569

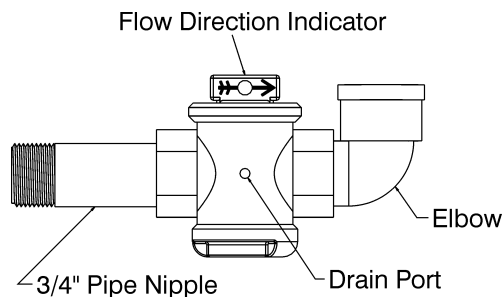
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- Be sure to use a suitable sealant on all threaded connections.
- The valve and connections must be leak tested BEFORE backfilling and pouring of the concrete drinker platform.

There are two ways to install the Shut-off Kit - either you will use the Earth Tube method (below) or the PVC Tubing for Remote Locations (See Technical Information Sheet 70138).

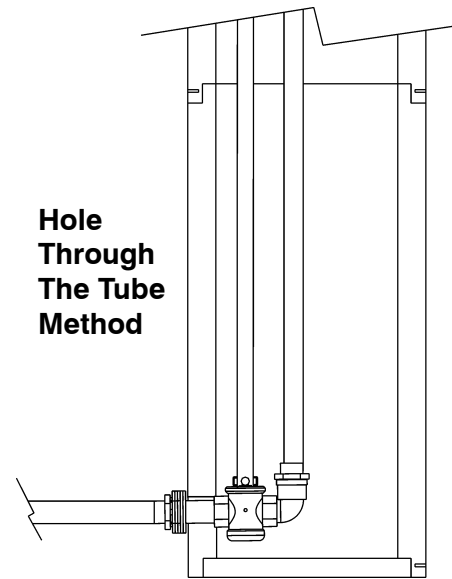
Installation Procedures Utilizing the Shut-off Kit with an Earth Tube

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 below 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.



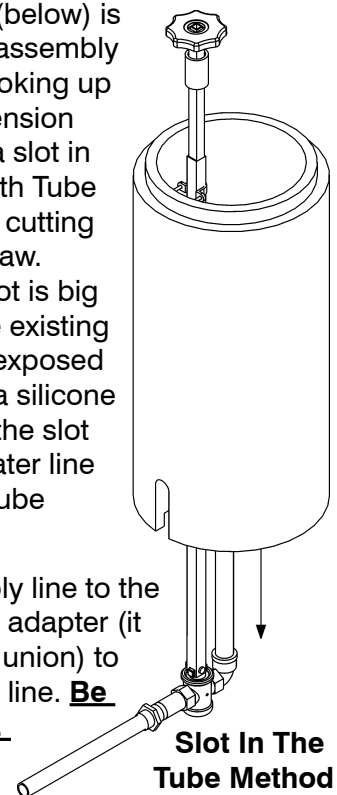
5. It is recommended that you mount the valve inside the Earth Tube using the Earth Tube to provide support for the valve and reduce stress to the supply line. This can be done in two ways. The first way is to drill a 1-1/16" hole in the side of the Earth Tube (a wood bit works well and if the hole is not the right size it can

easily be enlarged with a knife). Be sure the hole is high enough so that the 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 1/4" bolt and lock nut.



The second method (below) is to connect the valve assembly to the supply line, hooking 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.

6. Connect the 3/4" supply line to the valve by attaching an adapter (it is suggested 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 for the waterer is poured, finish assembling the Shut-off 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, slide 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 Waterers, or up into the base of the Electric Waterers. Fasten the handle in place with a U-bracket (to the top of the Earth Tube for Electric Waterers, or to the top of the drinker for Energy-free Waterers). **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 Waterers it will be necessary to trim some of the Styrofoam valve insulator away to make room for the valve handle (right). It may also be necessary to telescope the handle up to operate the valve and lower the handle to clear the float cover (photo below).



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.

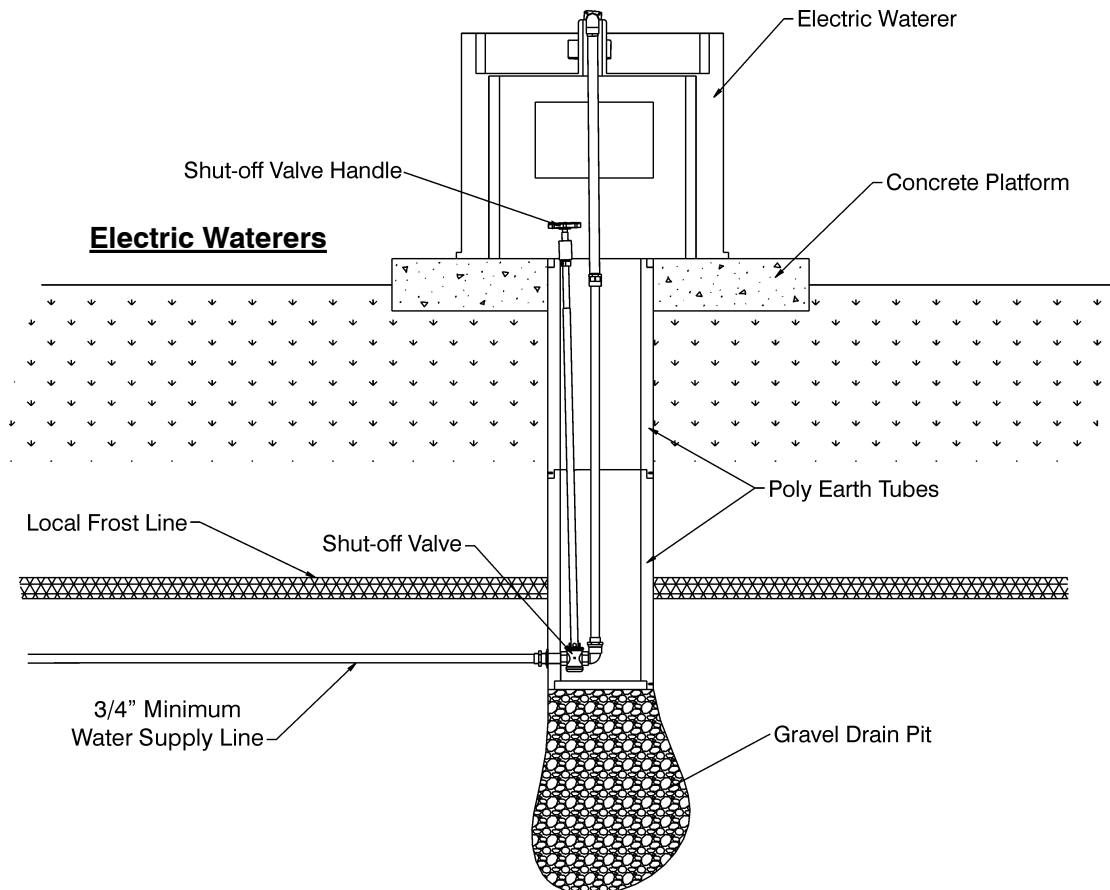
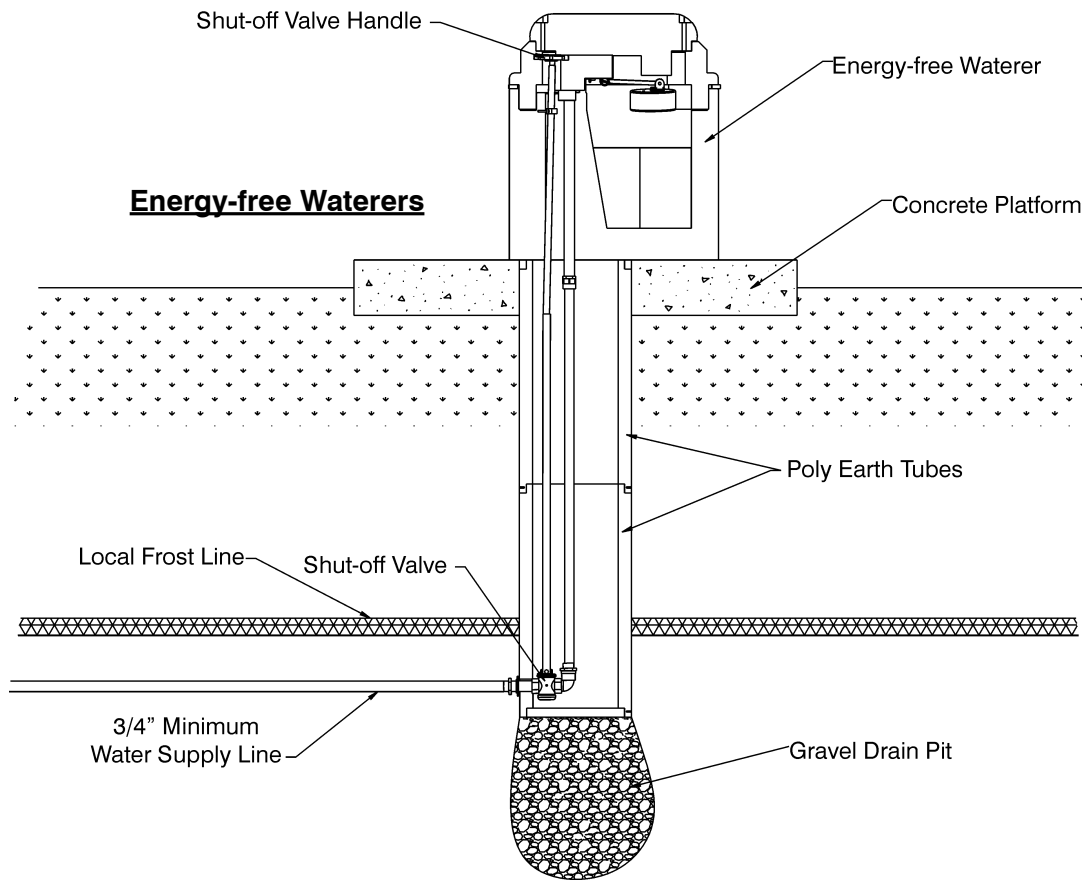
In most cases you will want to be able to telescope the handle on the Energy-free Waterers. If you are concerned that the handle can separate if you telescope the handle too far, you can restrict the travel of the telescoping handle by using a suitable wire or cable and make a lanyard to connect the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

Also, in most cases with Electric Waterers, 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 Shut-off Kit. Please refer to the drawings on the next page for typical installations.

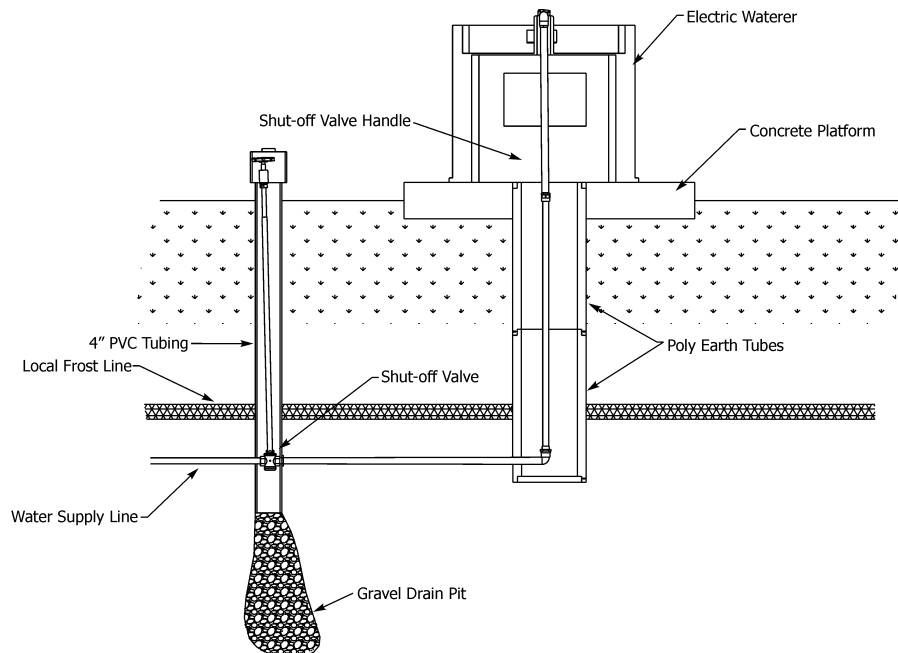
Your application and local codes may require you to modify how the valve is installed.

Please review the following illustrations for details on typical installations.



Typical remote setup with the EFSK Shut-off Kit

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Step One: Dig a hole for the shut-off valve shaft. Make sure that the hole is at least a 18" below the frost line, and that the hole is round enough to have room to work around the tubing. Note that frost lines differ from region to region, so make sure you find out where yours is at.

Step Two: Widen the bottom of the hole to at least 12" for about a foot. Then pour one cubic foot of gravel in the bottom of the hole for drainage. Make sure that no dirt is covering the gravel.

Step Three: Measure from the top for the gravel to ground level, adding a few inches to the measurement for cap exposure. This will be the measurement for your shut-off valve shaft.

Step Four: Take 4½" PVC tubing and cut it to the length of the measurement you just took. Measure up 5" from the bottom of the pipe and drill a 1-1/16" hole through the sides of the tubing. Make sure the holes are even and level.

Step Five: Take the shut-off valve handle and

connect it to the valve using bolts provided in the hardware package. Depending on the length of your tubing, you might need to extend the handle to the appropriate length and drill a screw into the handle so it doesn't fall down too far to reach.

Step Six: Insert the shut off valve in the bottom of the tubing. We recommend that you leave 3" of open space between the gravel and the bottom of the valve. Note that the arrow on the valve should be pointing the way that the water flows. Then insert the brass nipple through one of the holes you drilled in the tubing and screw it into the valve, (it doesn't matter which side of the valve you screw the nipple into).

Step Seven: Connect the supply line to the valve using appropriate parts that can be found at your local plumbing supply store. Then connect the valve to the drinker again using appropriate parts. For reference use the diagram at the top of the page.

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