

Yard Hydrant Made Easy™

DIY Kit Instruction Manual

This manual is for DIY kit models only. If you have a different model, see corresponding instructions.

Model 101DIYK

Model 303DIYK



MIDWEST INNOVATIVE TECHNOLOGIES

Patent No. 8,413,675

IN GOD WE TRUST

US Customer Service: 618-740-0074

www.mitimfg.com

Find our **ASSEMBLY VIDEO** at mitimfg.com/videos.

Getting Started

Please note:

- This product is only compatible with $\frac{3}{4}$ -inch standard yard hydrants.
- DO NOT back-fill around the YHME without the yard hydrant first being installed. The hydrant needs to be in place in order to maintain correct positioning of all components during the back-fill process.
- DO NOT connect and tighten any water supply fittings to the YHME until your yard hydrant is installed with the top cap in place. Doing so could lead to misalignment of the pitless adapter.
- We recommend using at least 2' of flexible pipe/tube (PEX or soft copper) to connect the Yard Hydrant Made Easy™ to the water supply line. This will prevent strain on the pitless adapter in the event of shifting soil. "Black poly," or "black coil plastic," flexible tubing will serve this purpose, though this is not standard on new water line installations.

Additional Supplies Needed:

- New $\frac{3}{4}$ -inch standard frost-free yard hydrant
- 4" sch. 40 PVC pipe (to be cut to length and serve as the YHME casing sleeve)
- Minimum of 2 feet of flexible pipe/tube and fittings to connect to YHME's 1-inch female threaded inlet*
- Pipe thread sealant
- Flashlight
- Shovel
- Gravel for filling around the base of the YHME

*Note: You can use 1" PEX to connect to the YHME, but installers often use a 1"x3/4" bushing to accommodate a $\frac{3}{4}$ " water line. This line-size reduction reduces fitting cost. One way to do this would be to 1) connect a 1" MIP x 3/4" FIP brass bushing to the YHME, 2) connect a Legend Brass 3/4" T-4300NL No-Lead Bronze Pack Joint (CTS) x MNPT Coupling (or equivalent) to the bushing, 3) connect at least 2 feet of $\frac{3}{4}$ " PEX (CTS) to the fitting, and 4) connect the PEX to your water line.

Installation & Assembly Procedure

*We recommend this assembly to be completed on a clean, elevated surface and to view the assembly video prior starting.

1. Excavate the ditch to the required water supply depth. To accommodate the filtered drainage section of the YHME, dig a secondary hole roughly 12 inches in diameter and 8 inches deeper than the water line. Place a small amount of gravel in the bottom of this hole such that the 1" FIP inlet fitting on the YHME will line up with the water line.
2. Take measurements to determine the required length of 4" sch. 40 PVC pipe needed to serve as the casing sleeve. This can be done as follows:
 - a. Determine your waterline depth and add 18 inches to accommodate for the 6 inch drainage section and 12 inch above grade casing sleeve (more or less sleeve above ground can be adjusted to your preference, as long as the cap is accessible above ground).
For example, if your waterline depth is 3 feet, add 18 inches for a total of 54 inches in length for the casing sleeve. This accommodates for the 6 inch drainage section at the bottom and 12 inch casing sleeve above ground level.
3. Cut the 4" PVC pipe to the required length as determined in #2.
4. Position the 4" casing pipe horizontally. Use the hole saw provided with the YHME DIY Kit to cut a hole centered 6" above the bottom of the 4" pipe. Remove any cutting debris from the pipe.
5. Separate the pitless assembly removable portion from the fixed portion. See Figure 1. **Protect these components from damage and debris.**
6. Place the fixed portion of the pitless adapter with the rubber washer inside the casing pipe with the pipe fitting protruding outward through the hole. **Make sure the FLAT END of the brass is facing UPWARD and the ROUNDED END is facing DOWNWARD toward the drainage section.** There are two rubber washers included. The one used here has a single thickness.

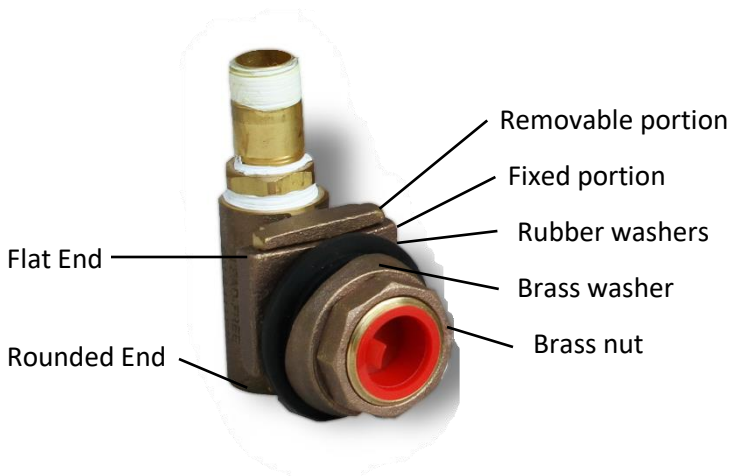


Figure 1: Pitless adapter assembly

7. Place the other rubber washer (with stepped thickness) flat-side-down over the outside of the fitting.
8. Place the brass washer over the fitting and on top of the rubber washer, with its contour matching that of the casing pipe.
9. Hand-tighten the brass nut, with the smooth side inward, onto the outside of the fitting (the rough side of the brass nut will be facing out). Leave the brass nut somewhat loose at this stage.
10. Apply thread sealant to the threads of the brass nipple on the removable portion of the pitless assembly and screw this piece into the bottom of your new hydrant. As you tighten this fitting note what direction you want your hydrant to face. If the optional dual check valve has been purchased, it is to be attached between your hydrant and the removable portion at this stage; be mindful of the flow arrow indicating water flow direction.
11. Attach the PVC top-cap adapter (the white coupling) to the top of the PVC casing pipe using PVC cement. If you want the top cap oriented a certain way, set the adapter accordingly.
12. With the casing pipe still in the horizontal position, slide the hydrant into the casing pipe from the top end and while reaching in from the bottom end, guide together the two halves of the pitless adapter.
13. Install the top cap onto the YHME using at least the one of the two provided stainless steel bolts. Do not overtighten as this can strip

out the plastic around the embedded thread insert. This step ensures that the pitless adapter is held in alignment while tightened.

14. Tighten the brass nut to about 45 ft-lb with a torque wrench (if tightening without a torque wrench, only tighten until the nut and entire adapter feels secure and the washer is pressed tightly. **DO NOT OVERTIGHTEN.**)
15. Insert the upper grate into the bottom of the casing pipe (**concave/open end MUST go in first, toward the brass adapter**) until it touches the rubber washer. Tap it in with a piece of wood or similar material. The casing pipe may need to be de-burred prior to starting this step.
16. Stuff the mesh fabric into the casing pipe behind the upper grate.
17. Install the lower grate (with flange at the bottom; i.e. concave downward) into the bottom of the casing pipe.
 - a. NOTE: If either of the grates do not fit snugly, a little PVC cement may be used to secure them in place.
18. Place the assembled YHME into the prepared hole and connect the water supply.
19. Remove the top cap so that you can see down into the casing.
20. Verify that the hydrant handle is in the “off” position and turn on the water supply to check for leaks.
21. While holding down on the yard hydrant riser pipe, turn on the hydrant until water flows out, and then shut it off. This will allow you to visually confirm that the hydrant weep hole does not continue to drain while the hydrant handle is in the “off” position. Some weep holes can take 1-2 minutes to drain the hydrant column, but some hydrants will require handle adjustment (per manufacturer’s instructions) if the weep hole continues to discharge.
22. Re-assemble the top cap using both stainless steel bolts. Do not overtighten.
 - a. NOTE: If the top cap does not seal snugly enough against the hydrant or if tamper resistance is needed, the enclosed 1-inch hose clamp can be installed on the hydrant riser, just underneath the top cap.

23. After confirming that there are no leaks at the connections to the YHME, backfill the hole surrounding the YHME. Begin by placing gravel around the drainage area of the YHME, up to the water supply connection. As you backfill, keep the YHME plumb and remember to leave the top cap of the YHME above ground.
24. Paint and/or tag the hydrant “non-potable” if/as required by local authorities.

For more information and an installation video, visit mitimfg.com.

Product Diagram

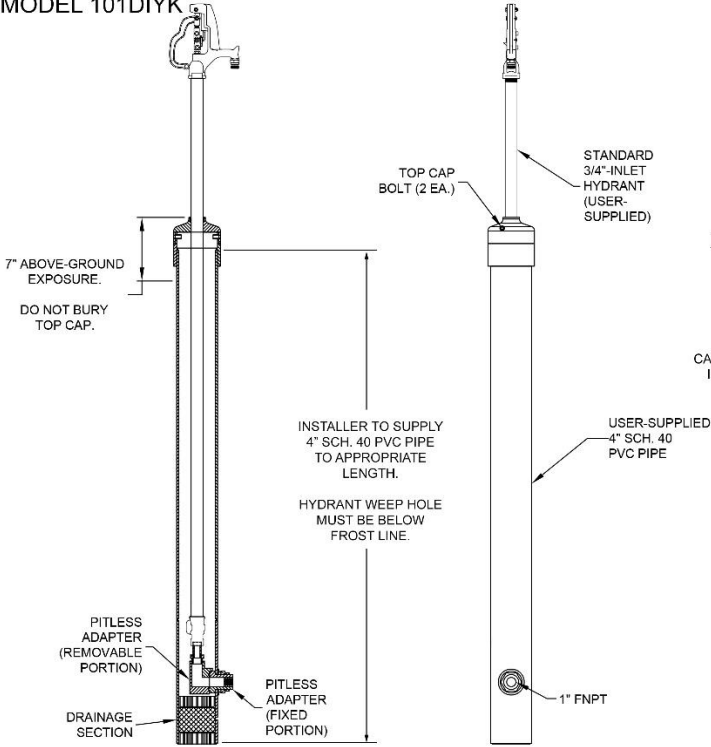
YARD HYDRANT MADE EASY™ PITLESS CASING SYSTEM

PAT. # 8,413,675

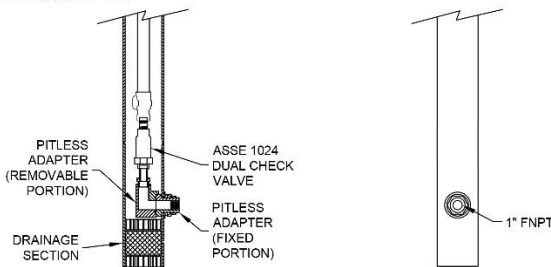


DESIGNED &
ASSEMBLED
IN THE USA

MODEL 101DIYK



MODEL 303DIYK



O-Ring Replacement Instructions

The Yard Hydrant Made Easy™ original o-ring (located in the removable portion of the pitless adapter) should give you several years of service but eventually may get damaged while changing a hydrant. No problem; the o-ring is easy to replace if you ever get a leak. Your YHME was shipped with a spare o-ring. If you need more, you can order them at mitimfg.com.

Items Needed:

- Small flathead screw driver
- Pick tool (optional)
- New o-ring
- O-ring lubricant (non-petroleum grease)
- Flashlight (for installing hydrant)

1. Pull the hydrant out of the Yard Hydrant Made Easy™, along with the removable portion of the pitless adapter. You will find the o-ring installed in a groove on this part of the pitless adapter.
2. Remove the old o-ring with a pick tool or a small, flathead screwdriver. Be very cautious to avoid scratching the machined surfaces of the pitless adapter.
3. Clean out the groove to ensure there is no debris or grease.
4. Press the new o-ring firmly into the groove and make sure it is completely seated.
5. Apply non-petroleum grease to the visible side of the o-ring and the surrounding brass face (no grease on back side of o-ring or in groove).
6. Slide the hydrant and the removable portion of the pitless adapter back into the Yard Hydrant Made Easy™, properly mating the pitless adapter halves.

NOTE ABOUT POURING CONCRETE AROUND THE YHME

The YHME can be a lifesaver when you want to bury your hydrant under a concrete slab. If doing so, be sure to place 1" of foam or other soft or removable material around the YHME before pouring concrete. That way, if the slab shifts due to shrinkage, settlement, or soil heaving, it will not affect the alignment or structural integrity of the YHME.

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