HOMEOWNER REPAIR GUIDE

# INSTALLING A CLEAN OUT

*Between your downspout and storm sewer drain*

Because tree roots can invade your storm sewer, periodic snaking is routine maintenance for many homeowners. To insert a snake cable into the storm sewer, most people chip out the mortar that seals the downspout into the clay tile hub below it and pull out the downspout. By adding a clean out at that junction, however, you can have easy access to the storm sewer without having to disconnect the downspout each time.

## PARTS

A clean out for the storm sewer system can be easily constructed from schedule 20 PVC parts. You'll need:

| PART | DESCRIPTION |
|---|---|
| **Wye** | A 4" S&D ("storm and drain") wye |
| **Pipe** | Two pieces of 4" S&D pipe about 4" long |
| **Cap** | A regular 4" round cap |
| **Downspout adaptor** | A specialty adaptor to connect your 4" round storm sewer pipe to the size and shape of your downspout drain (in most cases, a 4" round to 2" x 3" rectangular fitting.) |

If you can't find the parts at your local home improvement retailer, check a plumbing supply store.

## ASSEMBLY

1. Glue the wye, one of the short pieces of pipe, and the downspout adaptor together using PVC primer and adhesive.
2. Insert the downspout into the adaptor, and lock it in place with a sheet metal screw.
3. Then, glue the second short piece of pipe into the other fork of the wye and screw on the cap.
4. Mortar the assembled clean out into the clay tile crock (see Illustration 1).

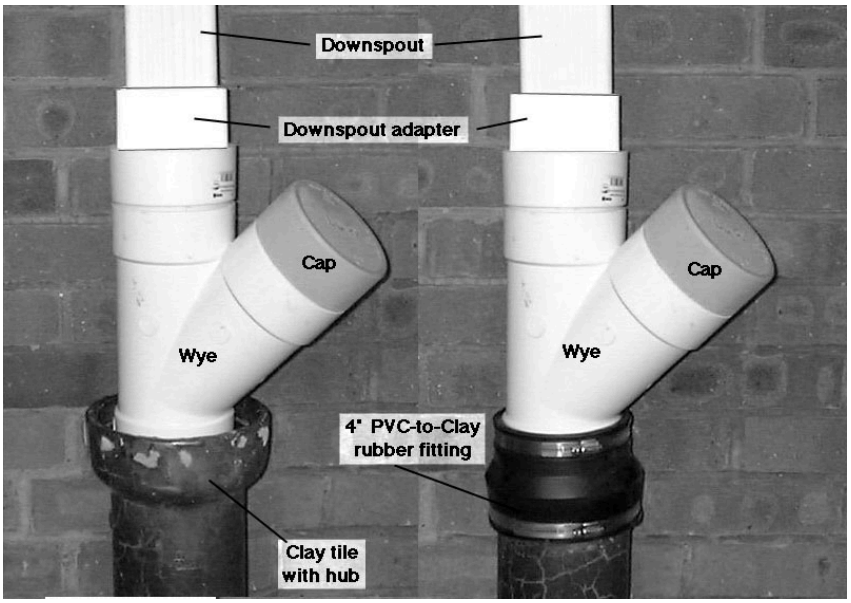



*Illustration 1 – Left: clean out mortared into the clay tile hub. Right: clean out joined to the tile pipe with a PVC-to-Clay rubber fitting.*

## IF THE TILE HUB IS BROKEN

If the bell-shaped tile hub where you insert the clean out has broken away, you have a couple of options.

### OPTION 1: REPLACE THE TILE PIPE

The first is to dig down to the next hub joint, remove the broken piece, and purchase a replacement tile pipe at a building supply company. Should the new piece of clay tile pipe be too long, cut it to length outside with a concrete saw or an angle grinder with a masonry cutter blade. Connect the new pipe to the next one with a rubber gasket (purchase it where you buy the replacement piece), or you can mortar it in place; then, mortar the PVC wye into the new hub.

### OPTION 2: USE A RUBBER COUPLING

The other method is to use a PVC-to-Clay rubber coupling to join the PVC fittings to the tile pipe (see Illustration 1). Use an angle grinder to smooth and level any jagged edges on the clay pipe before slipping on the rubber fitting.

> **BURY THE COUPLING**
>
> Because ultraviolet light (UV) rays can cause the rubber fitting to dry out and crack, arrange the connection in such a way that the coupling is buried in the soil to protect it.



4-1/2" angle grinder w/ diamond masonry blade

*Illustration 2*

## USING YOUR CLEAN OUT

You can install a clean out on all your downspouts, or just the one(s) used for snaking. The clean out will also give you an easy access to add copper sulfate (diluted according to package directions) to your drain lines.

### COPPER SULFATE

Copper sulfate will kill the roots (but not the tree) trying to grow into your storm sewer, so you won't need to snake as often. It will not dissolve existing roots, however – you'll need to snake to remove them.

Home Repair Resource center

Home Repair Resource Center empowers homeowners to maintain their homes for sustainable and diverse communities.

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