

Professional Installations

by T. Scott Stose

When asked to install items that are unusually sized or shaped, or large or numerous pieces at one time, don't despair. These types of objects can be installed anywhere with the right knowledge, preparation, and hardware. Following are a few tips that can come in handy the next time a client asks if you do installations.

The Toggle Hanger

The toggle hanger is very useful for installing large frames side by side, or when you must get the frame exactly level with another object. Toggles are designed for use in hollow wall installs only. They are primarily used in drywall.

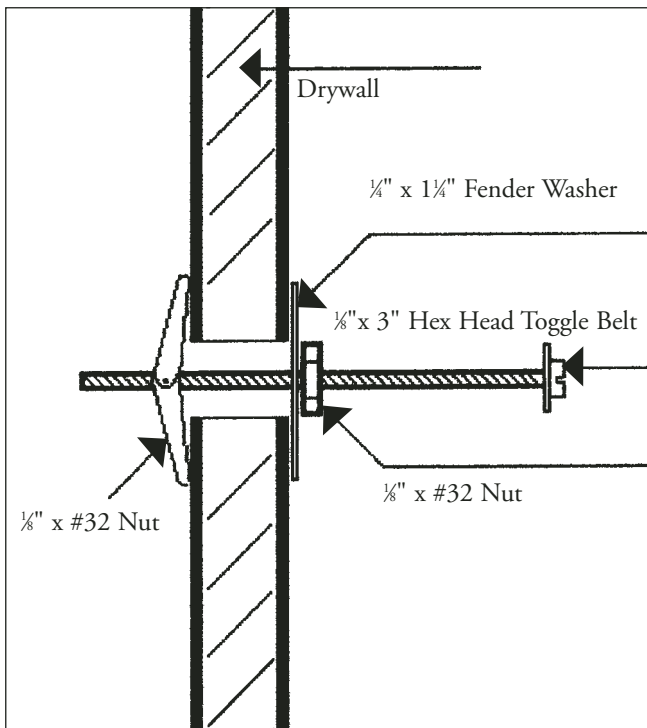


Figure 1: Shown here is the setup for a toggle hanger.

Not only is a toggle stronger than most anchors, but it can be adjusted slightly in any direction. Whether you have used strap hangers, D-rings, or a wire hanging on the back of your frame, toggles can help to support and fine tune your project.

Tools Needed

- Cordless drill
- $\frac{5}{8}$ " wood or masonry drill bit (for drywall only)
- Pliers or $\frac{5}{8}$ " open-end wrench
- Pencil
- Torpedo level or better
- Electronic stud finder
- Tape measure
- Hex head driver (for drill)

Materials Needed

- $\frac{1}{8}$ " x 3" toggle bolt hex head
- $\frac{1}{8}$ " x #32 nut
- $\frac{1}{4}$ " x $1\frac{1}{4}$ " fender washer
- $\frac{1}{8}$ " toggle wing

First decide if you need one anchor or two. I like to use two because it helps to steady and level the frame. Mark your two holes using cross-hairs with your pencil. Use your stud finder to check if there are studs or hollow wall at these spots. Use your level to make sure both marks are parallel.

Drill your holes out with a $\frac{5}{8}$ " drill bit. (Try to catch the dust off the wall with a piece of paper.) Run a nut down the shaft of the bolt to within $\frac{1}{2}$ " of the bolt head. Slide a washer down the bolt to meet the nut. Thread the toggle wing onto the bolt about $\frac{1}{2}$ ".

Insert the assembly through your pre-drilled hole, making sure the toggle wings expand to the other side (see Figure 1). Tighten the hex head togglebolt to within $\frac{1}{2}$ " of drywall while pulling out. Lastly, tighten the nut with your pliers or wrench until assembly is snug to drywall, leaving the togglebolt head and shaft extending no more than $\frac{3}{4}$ ".

Hang the artwork with confidence. If you need to adjust the piece up or over, you can loosen the nut and move the assembly up to $\frac{1}{4}$ " in either direction. After adjustments, tighten the nut again.

Security Hangers and Time-Saving Techniques

When using security hangers, the Z-clip or bracket is an industry standard (see Figure 2). However, it has some adjustment limitations. The slot in which the bracket is anchored is only $\frac{3}{8}$ " long. Therefore, when using a recommended #8 screw, there is only an adjustment of $\frac{1}{8}$ " up or $\frac{1}{8}$ " down from center, since the anchor screw is approximately $\frac{1}{8}$ " in diameter. This range is fine for most installations.

When drilling into hardened surfaces such as brick, block, mortar, and marble, the drill bit has a tendency to dance. This is when the drill bit slides off the measured point and follows the path of least resistance.

This will make the precise location of the anchor vary slightly, thus consuming some of the adjustment provided. When measuring from floors and ceilings that are not always true, it is important to be as precise as possible as this can further impede the inherent adjustment.

A simple way to solve this problem is to pre-drill (with a $\frac{3}{16}$ " metal drill bit) a few of the Z-clips ahead of time (at the points indicated by + in Figure 2). Use a drill press if pos-

sible. It will make the job faster and safer.

Be sure to clamp or hold the Z-clip with a tool. Z-clips have sharp edges and can be dangerous when spinning. Every pass made with the drill bit allows an extra $\frac{3}{16}$ " more adjustment. An $\frac{1}{8}$ " here and $\frac{3}{16}$ " there may not seem like much, but when using two clips on the top of the frame, one can

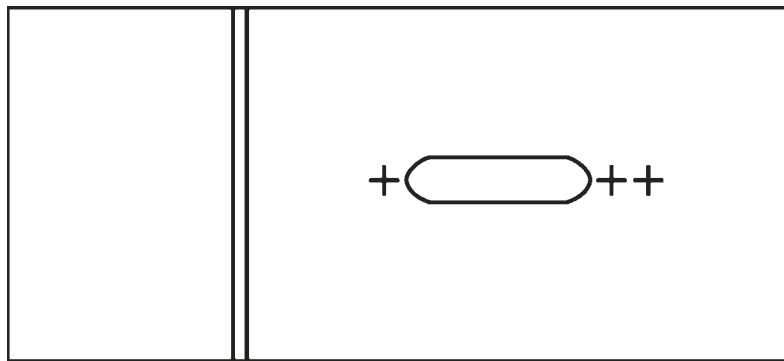


Figure 2: For more precise placement, pre-drill a few of the Z-clips at points indicated by the + marks.

be moved up while the other is lowered. This increases the adjustment by a factor of two.

Moving a Picture or Hanging a New One?

You need a way to remove the old anchor. If a Molly Bolt (now referred to as a hollow wall fastener) was used to hold up the picture or mirror, it can still be removed with minimal damage to the drywall.

After removing the fastener, load a 4" spackle knife with drywall compound (such as Durobond). Take a swipe across horizontally and one down vertically. This ensures an

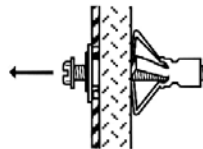
ample amount of compound will load the existing hole. Follow the directions of the compound for drying times.

Sand lightly with 80 grit sandpaper and a sanding block until the surface is smooth to the touch. Some holes may require a second coat of compound.

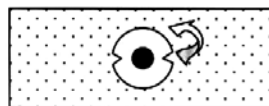
Wipe excess dust with a dry rag. Paint may now be applied. Molly Bolts can also be removed the same way from wood paneling and then using a wood filler. ■

Removal of a Hollow Wall Fastener

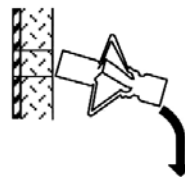
1. Remove screw.



2. Insert needle nose pliers into cut-out, on metal washer. Pry washer up.



3. Grab washer with side of pliers and rotate. The washer will snap off.



4. Push shell through the wall.



Figure 3: Removing a hollow wall fastener from the wall and leaving a clean look can be achieved with a few precautions.

T. Scott Stose founded Interior Installations International (III) in 1986. With more than a dozen employees, III has an office in Washington, DC and another near Baltimore, Maryland.