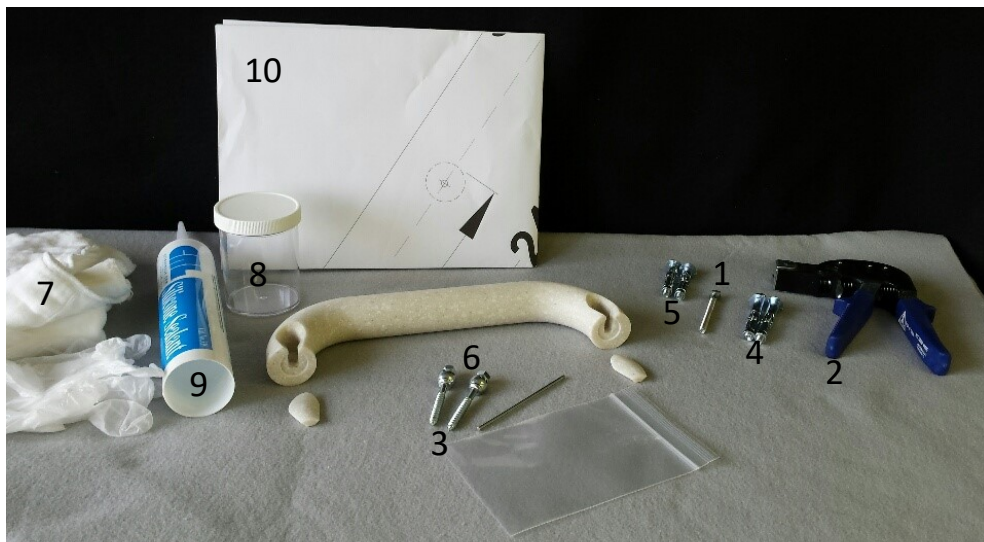


Griffform Innovations ~ Grab Bar Installation



Supplies Provided

1. 1/4" Poly conversion Bolt(1)
2. Poly Setting Tool
3. Ball Nuts (2)
4. Large Molly Bolts (2)
5. Small Molly Bolts (2)
6. 1/4" Nuts (2)
7. Clean White Rag
8. Denatured Alcohol
9. Silicone (1)
10. Template

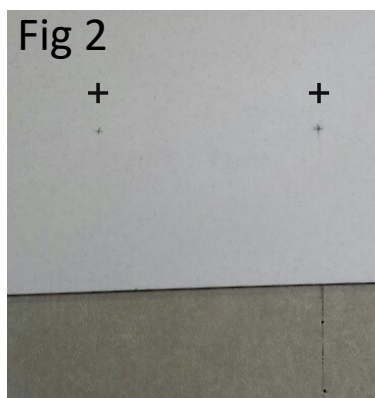
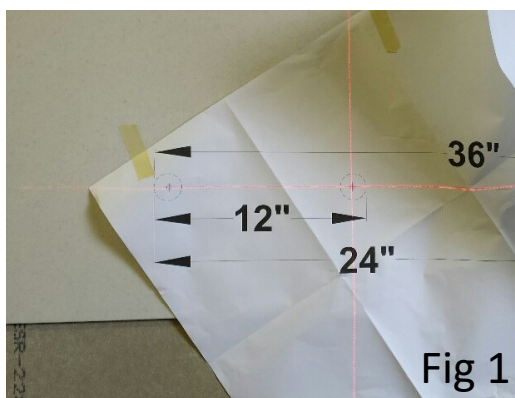
Supplies Required

1. 3/16" and 5/16" Drill Bits
2. 7/16" Drill Bit (Possibly)
3. Power Drill
4. Caulking Gun
5. Phillips Screw Driver
6. 7/16" End Wrench
7. Tape Measure
8. Pencil

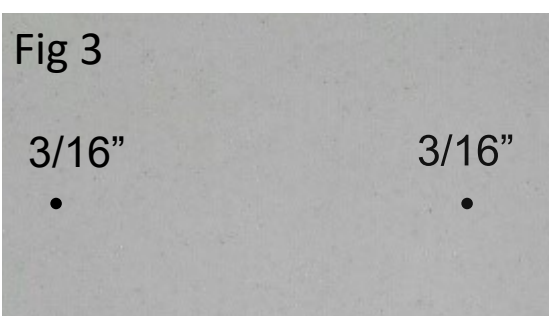


1. For **SAFETY**, placement of the grab bar wall mounting hardware should be fastened into wall studs or framed backing board to ensure integrity of the installation. Solid backing attachment is fundamental for grab bar success.

Hollow wall fasteners are not recommended for grab bar installations. However, in residential re-model applications where access is not possible hollow wall fasteners might be considered. It is suggested to place at least one standard wall hanger screw fastener into a solid stud or backing. Instructions and supplies for hollow wall fasteners are included to provide a possible option. ***Use at the owner's risk, attachment will vary with wall conditions and how the application is applied. We will not be responsible if this method is used and the bar attachment fails.***



2. Layout the location using the template provided. (Fig.1 and Fig.2)



3. Start with the first fastener in a stud or wall backing. Drill the 3/16" holes as deep as the wall hanger lag bolt, approximately 2" deep. (Fig.3) Then with a 5/16" drill enlarge the same holes only to the stud or wall backing material, no deeper. Clearance through the shower wall materials. i.e., tile, solid surface etc. is to allow space for expansion and contraction.

4. Using the 7/16" end wrench, screw the lag bolt into the wall to within about 1-1/4" from the shower wall finish surface. (Fig.4) Use the 7/16" end wrench and the ball nut wrench to remove the 1/4" nut. (Fig.5)

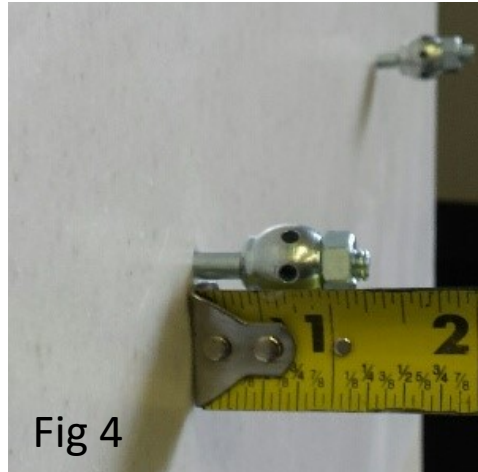


Fig 4

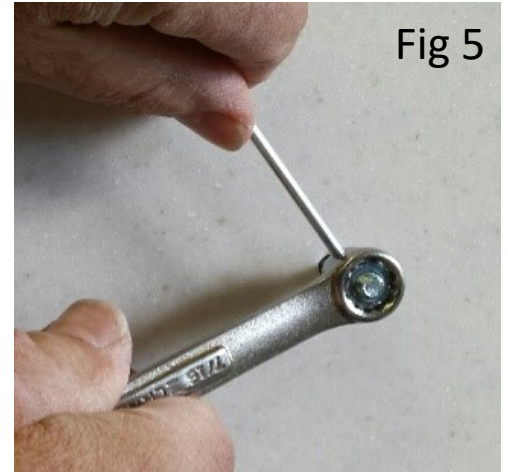


Fig 5

5. Place the bar up to the wall fastener and adjust the ball nut as close as possible to place the grab bar over the ball nut freely. (Fig.6) Follow the same procedure on both ends of the bar. Place the bar over the fasteners on both ends (Fig.7) **with the cavity facing down**. Using the ball nut wrench tighten the ball nuts until snug. (Fig.8) Verify the bar is correctly positioned and tighten the ball nuts until firmly secure. (Fig.9) Firmly rock the bar up and down and/or right to left to verify the bar is secured and there is not any movement off the wall. If so retighten using the ball wrench.



Fig 6



Fig 7

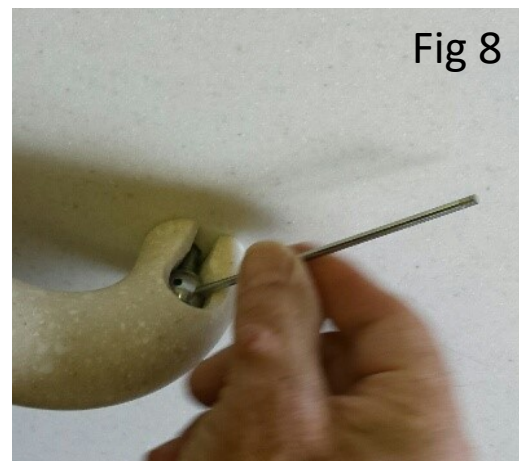


Fig 8



Fig 9

6. Clean the attachment cavity and the cover plate with denatured alcohol. (Fig.10)



Fig 10

7. Important Note: The bar cannot be retightened once sealed with silicone.

Apply silicone into the cavity to completely fill around the fasteners. Apply a small amount of the silicone around the edge of the cover and firmly place it into the opening. (*Note: these parts are directional being Right and Left covers.*) (Fig.11) Use tape to hold the cover into place until dried. (Fig.12) Clean up can be done using the denatured alcohol while still soft. If small amounts of silicone are left around the tape it can be removed with the tape after drying by rubbing with the fingers.



Fig 11

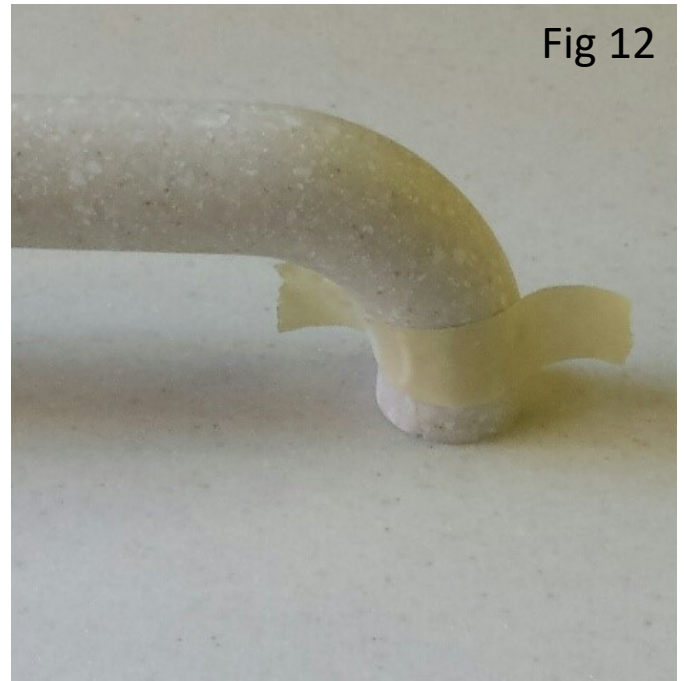


Fig 12

8. Allow the silicone to dry over night before applying any water or handling. Once dried the bar should be firm and the holes water tight. Remember the bar cannot be retightened once sealed.

9. Clean up excess silicone and your grab bar installation is complete. (Fig. 13)



Fig 13

Hollow Wall Suggested Installation

1. At the point when the pilot holes are placed and secure backing is not obtained a hollow wall fastener might be considered. *(Hollow wall fasteners are not recommended for Grab Bar application.)*



Fig 1

2. Ream the hole to 7/16" into the cavity. The wall material thickness can now be measured and the correct fastener length determined. Two different lengths are provided. (Fig.1) Proper length is important for the fastener to operate correctly. The shank of the wall end of the bolt, toward the outside of the wall, should not extend into the cavity or the expansion will not deploy tightly against the inside of the wall as shown in (Fig.2).



Fig 2

3. Remove the original bolt from the expansion portion of the anchor and thread the special square headed bolt into the anchor body. Insert the special bolt into the slot in the head of the installation tool and screw the fastener body snug against the tool and pull the trigger until resistance is felt. (Fig.3)

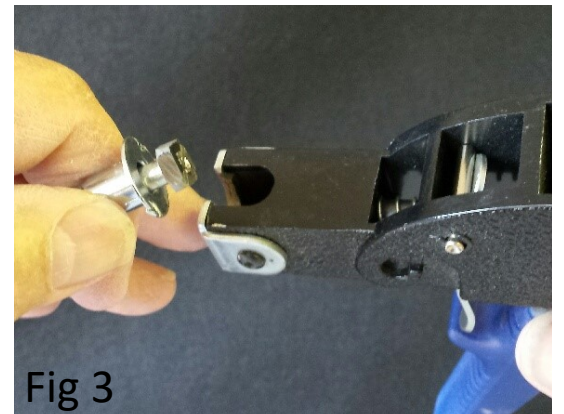


Fig 3

4. The fastener is now prepared to be installed. Insert the fastener into the 7/16" hole and push the tool flush to the wall. (Fig.4) Pulling the trigger will extract the bolt and compress the fastener body in the wall cavity. (Fig.5)

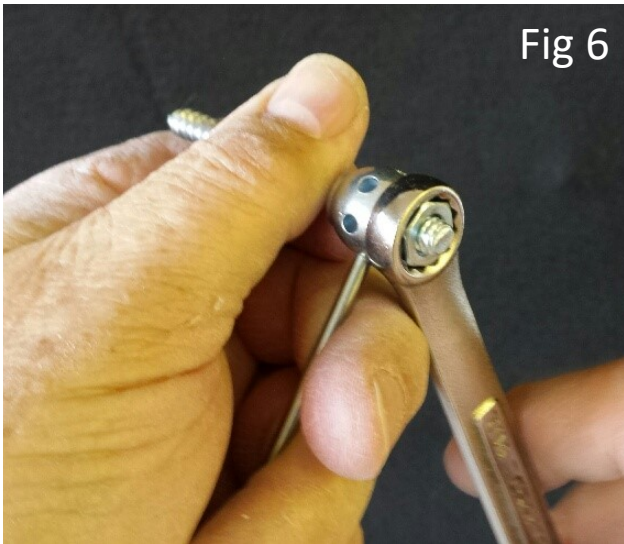


Fig 4



Fig 5

5. The ball nut will need to be changed from the wall hanger lag screw to the regular bolt from the expansion fastener. Do this by removing the nut from the lag screw and unscrewing the ball nut. (Fig.6) Place the ball nut onto the bolt and tighten the bolt head against the face of the nut. The ball nut has two different ends. Place the threaded end away from the bolt head and tighten securely with a wrench and screw driver. (Fig.7)



6. Install the bolt with the ball nut into the anchor in the wall and screw it down until reaching the correct depth and apply the bar as before. (Fig.8)
7. Complete the installation as outlined above with the standard wall hanger bolts.

