



**Trademark
HARDWARE**

MARKAR HG310 HINGE

INSTALLATION

Failure to use the fasteners supplied by Markar Architectural Products, Inc. will void the UL fire rated listing.

The Universal Screw Pack contains sheet metal, machine, and self-drilling Tek screws. This allows three different installing options. If mounting a wooden or unreinforced door, follow option (A) in the instructions. Follow option (B) if the door is reinforced or at least 1/8" thick. Follow option (C) if using self-drilling Tek screws which are recommended for grout-filled frames.

Perform each step of these instructions unless specifically labeled (A), (B), or (C).

(1) Place hinge on frame as shown in Figure 1 on the other side of these instructions.

- Allow 1/8" between the top of hinge and the underside of the header.
- Place the hinge edge in line with the frame face.

(2) Mark all the hole locations on the door jamb with the hinge held firmly in place.

(3) Center punch each hole. The use of the Markar MT-806 center punch can help center the hole so that the fasteners will enter straight. The taper on the tool sits in the countersunk hole on the hinge.

(4) (A)&(B) Drill all the holes using a #25 bit.

(5) (B) Tap the holes for a 10-24 thread.
Do not install the hinge to the frame at this time.

(6) Place the hinge on the edge of the door. Carefully line up the hinge with the top of the door.

(7) Mark all the hole locations on the door with the hinge held firmly in place. Check hanging.

(8) Center punch each hole.

(9) Remove the hinge and
(A) Drill each hole with a 5/16" bit to a minimum depth of 1 3/8".

Note: it is not necessary to tap the holes in a wood door since AdjustaScrews will cut their own threads.

(10)(B) Tap the holes for a 3/8-16 thread. Make sure the door is properly reinforced.

(11) Insert AdjustaScrews into every hole.

Place a 3/16" Allen wrench in the opening of the AdjustaScrew and simply turn into the hole while keeping the AdjustaScrew properly aligned. Drive each AdjustaScrew in until it is approximately flush with the edge of the door.

(A) A screw gun or variable speed electric drill with an Allen bit provides a faster means of installing the AdjustaScrews.

(B) Do not be concerned with the tight fit. AdjustaScrews are designed for a tight friction fit in the tapped holes so they will not turn when the attachment screw is being tightened. If the AdjustaScrews turn too freely, apply Loctite™ for threaded joints to the screw threads during installation.

(12) Place the hinge on the door lining up the hole pattern with the AdjustaScrews. A screw gun or variable speed electric drill with a Markar MT-AD hex driver bit provides a faster means of installing the AdjustaScrew.

(13) Install **only** the top two and bottom two 10-32 x 3/4" machine screws. Fully tighten the screws.

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(14) Attach the door and hinge to the frame
(A) using sheet metal screws OR
(B) using 10-24 x 3/4" flat head undercut machine screws. OR
(C) using self-drilling Tek screws. If the grout is hard, drilling a pilot hole can help.

(15) Close the door and check for proper alignment.

- If the door requires alignment for proper fit, make this adjustment with the four screws already installed without removing the door.
- Remove the screws and insert the Allen wrench through the hole into the AdjustaScrew.
- Loosen the other machine screw at the same end and turn the AdjustaScrew in the direction of the desired adjustment. Adjust the remaining AdjustaScrews in the same manner until a perfect fit is achieved, then tighten all four machine screws.
- The balance of the AdjustaScrews should be adjusted in the same manner until all are resting firmly against the inside face of the hinge/guard.
- Install and tighten the remaining machine screws. Be sure the adjustable angle is pressed firmly against the face of the door as the screws are tightened.