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HARDWARE**

MARKAR FS321 HINGE INSTALLATION

All holes in the hinge must be drilled correctly and fasteners properly installed. Failure to use the fasteners supplied by Markar Architectural Products, Inc. will void the UL or WHI fire rated listing. This model hinge is designed for use with existing floor closers.

Do not install Snap-On cover until installation is 100% complete, and all aspects of the assembly are correctly fastened and properly fitted.

The Universal Screw Pack contains self-drilling Tek screws. These screws are also recommended for grout-filled frames.

- Perform each step of these instructions.
- (1) Place hinge on frame as shown in Figure 1 on the other side of these instructions.
 - Allow 1/8" between top of hinge and underside of header.

Note that the hinge may require cutting to fit between the top of the door and the floor closer spindle.

Note that at least 1 7/8" of frame face is required for mounting this hinge.

 - The hinge's pivot point must line up with the pivot point of the existing floor closer.
 - (2) Mark the position of the top and bottom holes with a center punch, then drill and fasten. The use of the Markar MT-806 center punch can help center the hole so that the fasteners will enter straight.
 - (3) After the top and bottom screws are installed, drill and fasten the balance of the holes. Install at least five cover clips by passing a screw through the clip, hinge leaf and frame. (See Figure 2.)

- Markar recommends that clips be positioned in the top, center and bottom holes, with the remaining clips spaced equally along the length of the hinge.

- (4) Fold the door leaf back over the frame leaf and place the door in the door frame.
 - Place shims under the door to provide 1/8" clearance between the header and the top of the door.
 - Add shims at both the hinge and latch side of the door so that 1/8" clearance will be maintained equally on the lock side of the door.
- (5) With the door held firmly in place, return the door leaf to the face of the door and repeat the drilling procedure described in steps (2) and (3).
 - Molly Jacknuts and aluminum sleeve bolts (Markar part numbers MP-20 and MP-23) are available from your hardware supplier as an optional means of attaching the door.
 - Steel sleeve bolts (part # MP-23) must be used on mineral core wood fire doors.
- (6) Install the Snap-On covers by engaging the side of the cover next to the hinge pin first.
- (7) Insert a large screwdriver between the hinge knuckle and the cover. Using the screwdriver as a lever, twist it and snap the opposite side of the cover onto the clip.
- (8) Start at the top and work downward until the entire length of each cover is firmly engaged.

With the covers firmly in place, secure them at both ends through the hinge and into the door or frame with #8 x 3/4" self-drilling flat head Tek screws.

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