

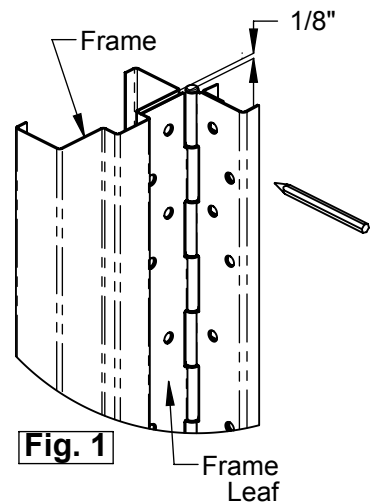


Fig. 1

STEP 1. Frame Preparation

1. Place the hinge frame leaf on the frame. Position the top of the hinge 1/8" maximum below the header as shown (**Fig.1**) Place the hinge firmly against the face of the frame.
2. Mark and center punch each hole on the frame with the hinge held firmly in place. For ease of installation, center punch can help center the hole so that the fasteners will enter straight. Remove the hinge from the frame and prepare to drill the frame.
3. Drilling Frames:

Wood Frame: drill all holes using a #25 (.149"/3.79mm) bit.

Hollow Metal frames: drill all holes using a #25 (.149"/3.79mm) bit

If hollow metal frame is reinforced, thread all holes with 10-24 tap

Do not install the hinge to the frame at this time

STEP 2. Door Preparation

1. Place the hinge door leaf on the edge of the door. Position the top of the hinge flush with the top of the door. (**Fig. 2**)
2. Mark and center punch each hole on the door with the hinge held firmly in place. Remove the hinge from the door and prepare to drill the door.
3. Drilling Doors:

Non Adjustable Hinge

Wood Doors: drill all holes using a #25 (.149"/3.79mm) bit

Hollow Metal Doors: drill all holes using a #25 (.149"/3.79mm) bit

- If the hollow metal door is reinforced, tap all holes with 10-32 thread

Adjustable Hinge

Wood Doors: drill all holes using a #25 (.149"/3.79mm) bit, then enlarge hole to 5/16" with a minimum depth of 1-3/8"

- Insert Adjusta-Screws (MP-025) into every hole. Place a 7/32" Allen wrench in the opening of the Adjusta-Screw and turn the Adjusta-Screw into the hole while keeping the screw properly aligned as shown (**Fig. 3**) Drive all the Adjusta-Screws in until it is approximately 1/8" from edge of door.

(Adjusta Screw will self tap)

Hollow Metal Doors: drill all holes using a #25 (.149"/3.79mm) bit and then enlarge hole with 5/16" bit

- tap all holes with 3/8-16 thread
- Insert Adjusta-Screws into every hole. Place a 7/32" Allen wrench in the opening of the Adjusta-Screw and turn the Adjusta-Screw into the hole while keeping the screw properly aligned. Drive all the Adjusta-Screws in until it is approximately 1/8" from edge of door.

Note: It's not necessary to tap the holes in wood doors since Adjusta-Screws cut their own threads. 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 Adjusta-Screws turn too freely, apply Loctite™ for threaded joints to the screw threads during installation.

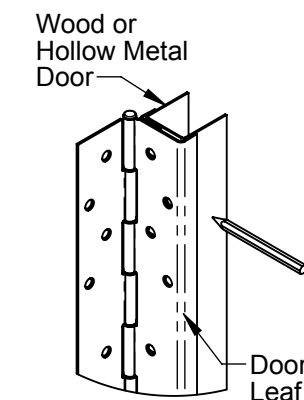


Fig. 2

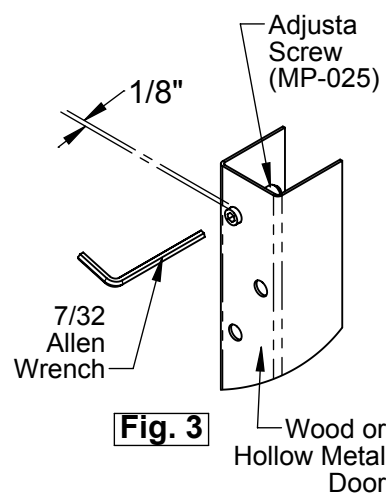


Fig. 3

STEP 3. Hinge installation

1. Attaching hinge to door:

Non Adjustable Hinge (Fig. 4)

Wood: attach hinge using #10 x 1-1/4" Flat Head Undercut Sheet Metal Screws (MP-032) .

Hollow Metal: attach hinge using #10-32 x 3/4" Flat Head Undercut Machine Screws (MP-07).

Adjustable Hinge: (Fig. 5) Install the top & bottom four screws first, then close door to check alignment. See special note below

Wood & Hollow Metal: attach hinge using #10-32 x 3/4" Flat Head Undercut Machine Screws (MP-07).

Special Note: If the door is properly aligned, install and tighten the remaining screws. If the door requires alignment for proper fit, make this adjustment with the four screws installed without removing the door. Remove one screw and insert the allen wrench through the hole into the Adjusta-Screw. Turn the Adjusta-Screw in the direction desired for adjustment. One full turn of the allen wrench is equal to 1/16". Adjust the remaining screws in the same manner. Close the door to verify if door is aligned properly in the opening. The balance of the Adjusta-Screw should be adjusted in the same manner until all are resting firmly against the inside face of the hinge. Then install and tighten the remaining machining screws. Be sure the adjustable angle is pressed firmly against the face of the door as the screws are tightened.

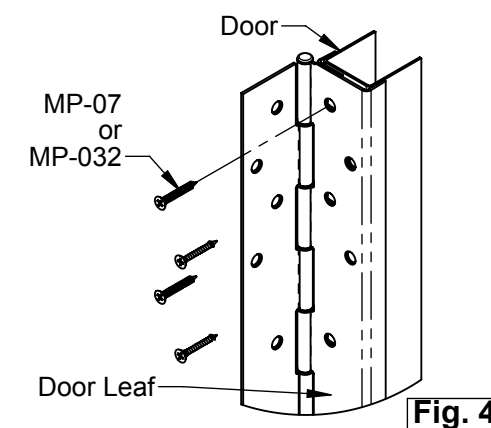


Fig. 4

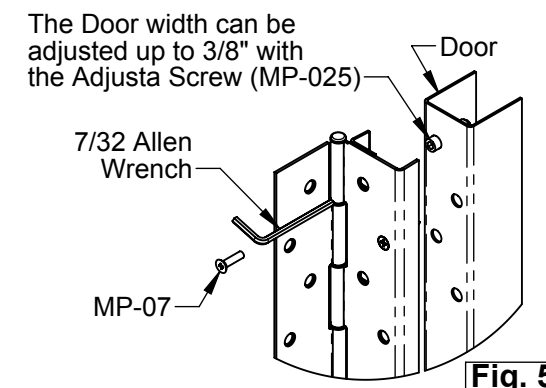


Fig. 5

2. Attaching hinge to frame: (**Fig. 6**)

Wood: attach hinge using #10 x 1-1/4" Flat Head Undercut Sheet Metal Screws (MP-032).

Hollow Metal: attach hinge using #10-24 x 7/8" Flat Head Undercut Self Drilling Machine Screws (MP-010).

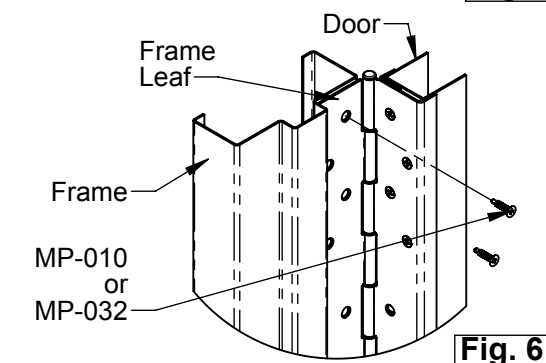


Fig. 6

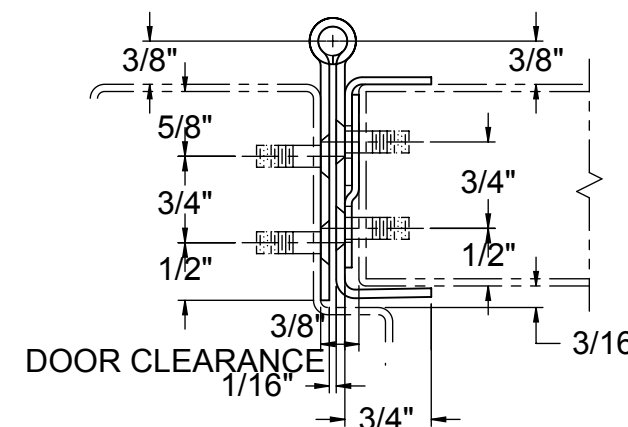
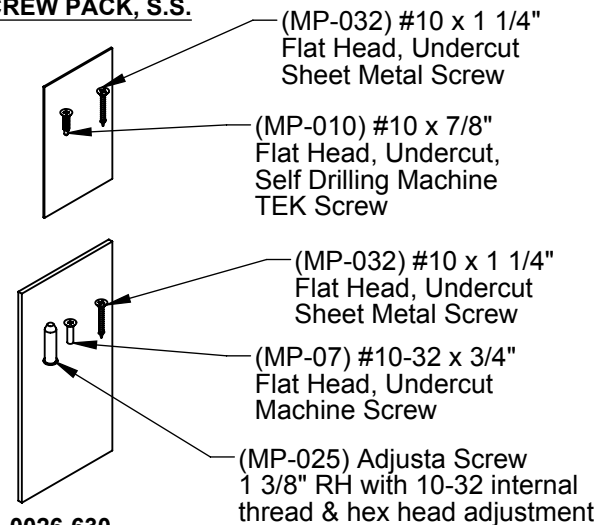


FIGURE 1: HINGE PLACEMENT & CLEARANCE TEMPLATE

**M91-0002-630
GUARD SCREW PACK, S.S.**



**M91-0026-630
MORTISE SCREW PACK, S.S.**

All holes in the door and frame 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.