

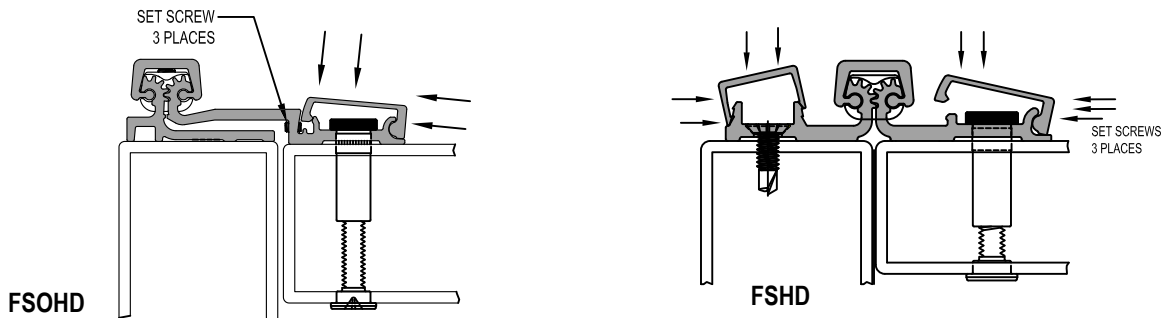
### III. INSTALLATION:

**NOTE:** All standard length hinges are supplied slightly shorter than nominal door height to avoid threshold or carpeting clearance problems. The FSOHD and FSHD are non-handed and templated.

Use the same model for both right and left hand openings. The FSOHD and FSHD remain unhandled after cutting.

**Cutting:** If the hinge must be cut shorter, cut only one end, using a hacksaw. The hinge should be in a closed position, either on its side with cap closest to you or with cap standing up, so the saw cuts through the cap first. If you cut off one of the set screw bearings, reinstall it on the hinge. The hinge must be installed with the cut end on the bottom. This allows any chips to work out after installation.

1. **Attaching the Hinge to the Frame:** With the hinge in the open position, use a shim to position the top end of the hinge 1/8" below the header to allow for door clearance. Line up the hinge with the door side edge of the frame or your alignment line, being sure that no part of the base of the hinge protrudes beyond the frame. Fasten the frame leaf at one top and one bottom hole, using the #12-24 flathead screws provided. For wood, use the #12 x 1-1/2" wood screws and a 5/32" (.156") drill.
2. **Preparing the Door:** Attach the door leaf to the door through two locator holes using the panhead tek screws. (Option: Use all four locator holes.) A #3 Phillips drive is required. Remove shims and check door clearances. Occasionally, the door will sag slightly when shims are removed; note amount of adjustment required to bring door back into alignment. Then, locate and drill holes for the top and bottom thru bolts in the door, marking the location of the thru bolt holes. Remove the door and drill the holes with a 3/8" drill.
3. **Attaching the Door:** Attach the door with the top and bottom thru bolts, then make any further adjustments on the frame leaf. Once the door is correctly aligned, completely secure the frame leaf using the flathead screws. Mark and drill the remaining thru bolt holes in the door, and secure the door leaf with the sexnuts and 1/4-20 shoulder screws.
4. **Installing Covers:** Back out setscrews installed in the side of the door cover. Line up the door or frame cover even with the top end of the hinge. Starting at the top, apply pressure along the length of the cover, snapping it into place as you go down the hinge. If using a hammer to tap cover into place, protect cover surfaces. Once cover is in place, tighten the setscrews securely with 3/64" Allen wrench. For added security if desired, apply a bead of construction or panel adhesive inside the door cover or over the thru bolt heads. See illustration below for cover installation.



**REINFORCING AND RIVNUTS:** No reinforcing is necessary except on extremely high frequency, extremely heavy or extra-wide doors. Rivnuts are recommended in the frame when door weight exceeds 450 pounds (up to 650pounds).

**PAIRS OF DOORS WITH MULLIONS:** If the mullion is between the doors, treat as a single door installation. If the mullion is behind the doors, treat as a double door installation.

**GROUTED/SLUSHED-IN FRAMES:** For ease of installation, it is recommended that some sort of mudguard be installed behind the frame. Do not use self-drilling, thread-forming screws with grouted steel frames having no mudguard. If mudguards have not been used, carefully drill pilot holes through frame and remove grout for screw clearance. Do not oversize holes in frame.