

4-Bar Hinge Limit Device Installation Instructions

I. Applications:

For Awnings, Hoppers, and 4-Bar Casements when a limit device is requested.

II. Tools Required:

Measuring tape or ruler, drill, 1/4" drill bit, #29 drill bit, Phillips screwdriver / drill, and pencil / marker.

III. Installation Instructions:

Limit Device Awnings and Hoppers (vent height > 13")

1. Open the window to desired opening size (Figure 1).
2. Move the adjustable opening stop up against the slider and mark the hole location with a pencil (Figure 2).
3. With the adjustable opening stop at the desired location drill using a 1/4" drill bit until the drill is through THE 4-BAR HINGE ONLY (Figure 3). Clean out any shavings that may have occurred during the drilling process.
4. Using a #29 drill bit, drill through the outer wall of the Awning / Hopper window frame (Figure 3). Ensure that only the outer wall is penetrated.
5. With a Phillips screwdriver / drill use a #10 PHP-B 0.5 inch screw and tighten into previously drilled hole.

When Roto Operator hardware is present

6. Open the window to desired opening size.
7. On the vent side of the window use a pencil / marker mark the inside location of the sliding hinges (Figure 4).
8. With the sliders at the desired location drill using a 1/4" drill bit until the drill is through the sliding track. Clean out any shavings that may have occurred during the drilling process.
9. Using a #29 drill bit, drill through the outer wall of the Awning / Hopper window frame. Ensure that only the outer wall is penetrated.
10. With a Phillips screwdriver / drill use a #10 PHP-B 0.5 inch screw and tighten into previously drilled hole.

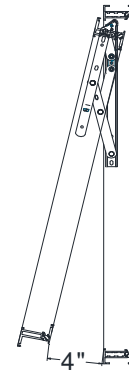


Figure 1:
Awning Set to 4" Opening
(350-T Shown)

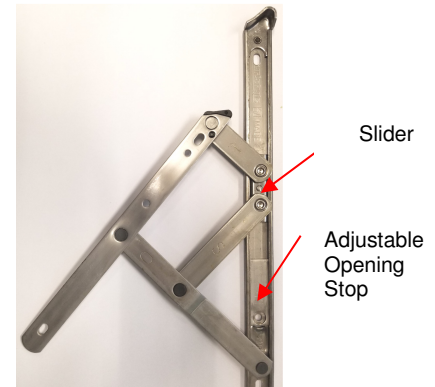


Figure 2:
Component Locations, 4-bar Hinge

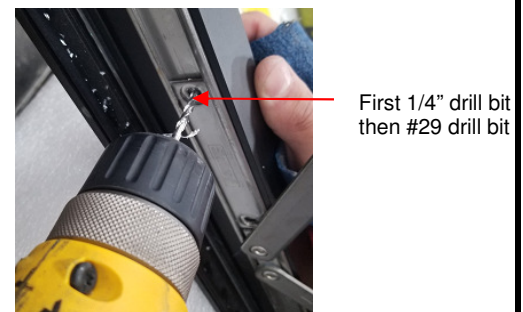


Figure 3:
Example Drill Hole Location
(Hopper Shown)



Figure 4:
Roto Operator Drill Hole Location
(Awning Shown)

Butt Hinge Limit Device Installation Instructions

I. Applications:

For Butt Hinge Casements when a limit device is requested.

II. Tools / Parts Required:

Measuring tape or ruler, drill, limit device, 5/32" dia. drill bit, phillips screwdriver bit, 0.75" x 2.50" x 0.125" shim, #10 PHP-B 0.5" screw , #10 PHP-B 0.375" screw and pencil / marker.

Note: Add .250" to screw length if substituted with a sharp point screw.

IV. Installation Instructions:

1. Open the vent to the desired opening (Figure 1).
2. Orientate the limit device on window.
3. Mark location of four (4) holes (Figure 1 & 2).
4. Drill .250" deep holes with 5/32" dia. drill bit.
5. Install the bracket & shim to frame with two (2) #10 PHP-B 0.5" screw.
6. Install the track to vent with two (2) #10 PHP-B 0.375" screw.

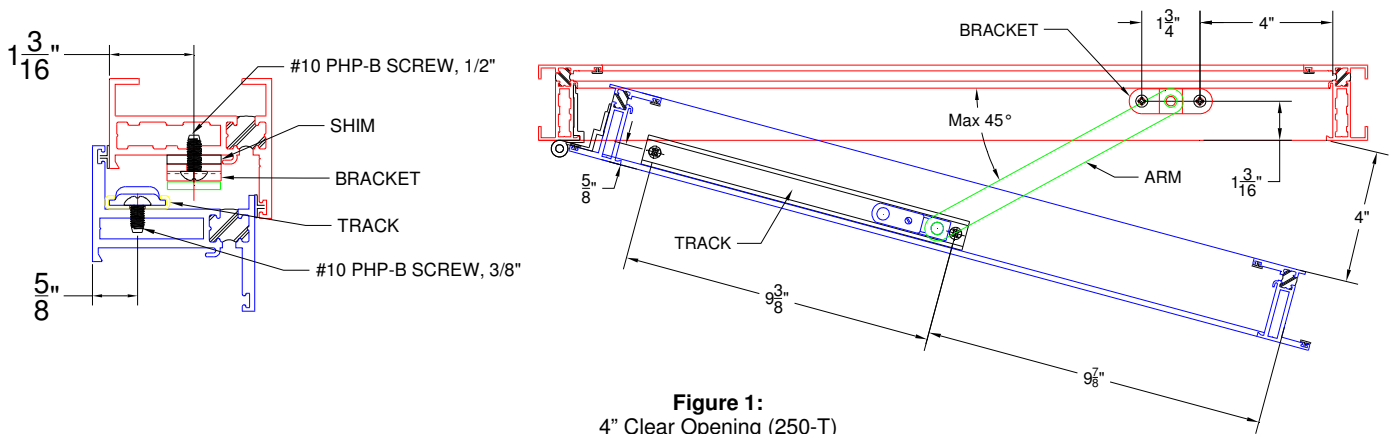


Figure 1:
4" Clear Opening (250-T)

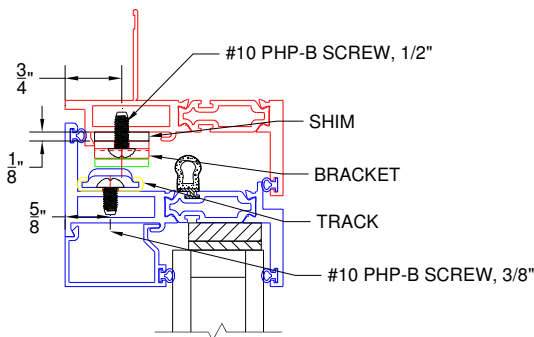


Figure 2:
Screw Placement (450-T)