

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.

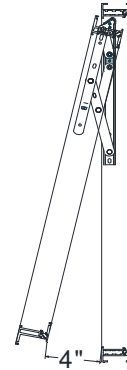


Figure 1:
Awning Set to 4" Opening

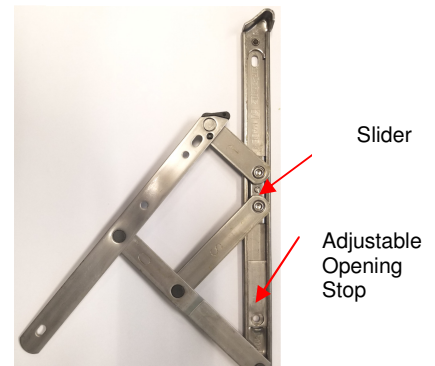


Figure 2:
Component Locations, 4-bar Hinge

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.

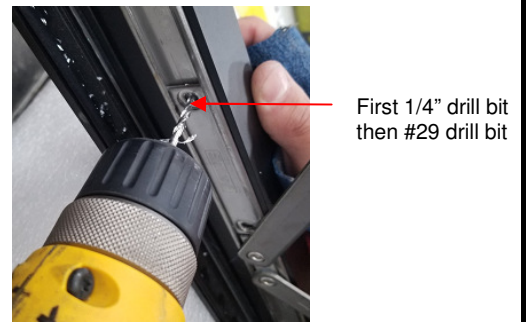


Figure 3:
Example Drill Hole Location
(Hopper Shown)



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

Butt Hinge

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.
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.

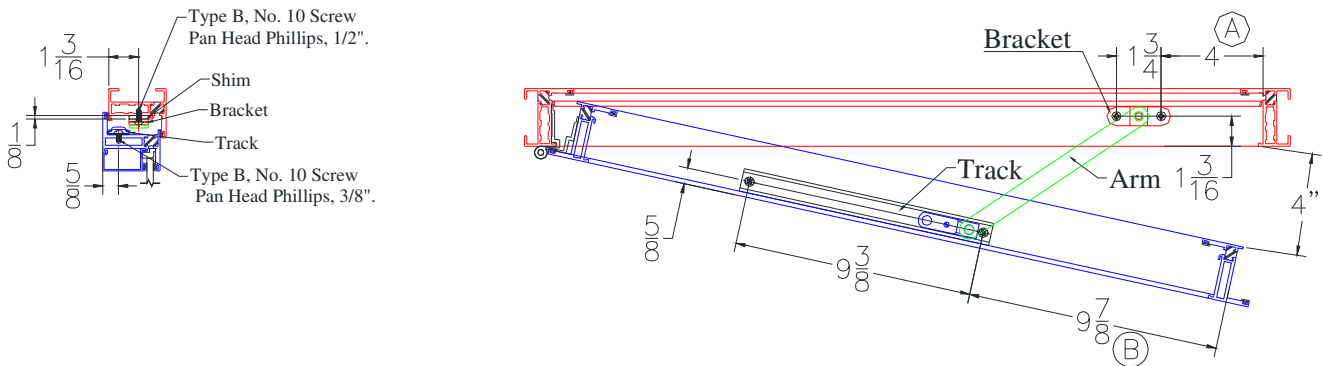


Figure 1:
4" Clear Opening