Bil-Guard®
Hatch Railing System
Installation Instructions for all Models

Tools Required for Installation:
- Power drill with 3/8" drill bit and 5/16" nut driver bit
- (2) 1/2" Wrenches or sockets
- (2) 9/16" Wrenches or sockets
- 7/16" Wrench or socket
- Pliers
- (2) Locking pliers
- Tape measure
- Utility knife
- Pliers
- Safety Glasses
- Work Gloves

Parts Lists
- (2-3) Rail Panels (Depending on Model)
  Number of rail panels supplied is dependant upon roof hatch length. (2) rail panels are supplied for hatches under 5'-0" in length and (3) for hatches greater than 5'-0" in length.
- (1) Gate Panel
- (4) Corner Brackets
- (8-14) Pivot Brackets (Depending on Model)
  Number of pivot brackets supplied is dependant upon roof hatch length. (8) brackets are supplied for hatches under 4'-6" in length, (10) for hatches 4'-6" to 5'-0" in length, and (14) for hatches over 5'-0" in length.
- (0-1) Center Brackets (Depending on Model)
  Supplied only with models designed for roof hatches greater than 5'-0" in length, see Figure 6 on reverse side.
- (0-1) Gate mounting post (Depending on Model)
  Supplied only with models designed for roof hatches 4'-6" and longer in length
- (1) Hardware Package (contents listed at right)
- (1) Gate Latch Kit with Instruction Sheet

STEP 1: Attaching Corner Brackets
For each of the (4) corners of the hatch, drill the mounting holes by clamping a corner bracket with locking pliers on the face of the capflashing with the pivot sleeve projecting *upward as shown in Figure 1. (CAUTION: Do not penetrate the roofing material or inner wall of the curb when drilling). Fasten each corner bracket to the capflashing using 5/16-18 x 3/4" HHCS, 5/16 washers and 5/16-18 locknuts.

* Note: Hatches greater than 5'-0" in length require a center bracket (see Figure 6 on reverse side). Center brackets should be mounted with pivot sleeves projecting downward.

STEP 2: Attaching Pivot Brackets
Attach (2) pivot brackets to each corner bracket sleeve using *3/8-16 x 4-3/4" HHCS, 3/8 washers and 3/8-16 hex lock nuts as shown in Figure 2A. Hand-tighten so that pivot brackets are allowed to rotate.

* Note: For hatches 4'-6" and over in length, use (4) pivot brackets and attach using 3/8-16 x 5-3/4" HHCS as shown in Figure 2B at the locations indicated in Figure 6 on reverse side.
STEP 3: Installing Rail Panels
Slide rail panels into pivot brackets. Using power drill and 5/16” nut driver bit, secure posts using #10 x 1” self-drilling drive screws on both sides of post as shown in Figure 3. (IMPORTANT: Top rail must be 42” above the roof level to meet OSHA requirements. To simplify installation, measure and cut 2x4 block spacers and position them under the pivot brackets until rail panels are secured.) Once all rail panels are in place, securely tighten all pivot bracket connections by wrench. Note: one of the rail panels (or gate post) is supplied with the gate hinge brackets attached. Locate rail panel or post with hinge brackets as shown in Figure 6 at bottom of page.

STEP 4: Attaching Gate
Attach gate by aligning hinge brackets with gate hinge brackets on top and secure with hinge pins, nylon washers, and cotter pins as shown in Figure 4. Adjust hinges to align gate with rail and install #10 x 1” drive screws. (Note: Gate is hinged on the left side as shown in Figure 6. To hinge the gate on the right side, remove the hinge assemblies from the gate and side piece. Reverse top and bottom hinges and remount to the gate and side piece. The loop end of the torsion rod will now be at the bottom hinge connection).

STEP 5: Installing Torsion Rod
Insert bent end of torsion rod into the hole in the bottom hinge bracket as shown in Figure 5A. Insert hooked end in center notch of upper hinge bracket by pressing rod into recess as shown in Figure 5B (use pliers if necessary). Gate tension may be adjusted by repositioning rod into other notches in the bracket. Apply neoprene pads to gate where gate contacts post as shown in Figure 5C.

STEP 6: Installing Gate Latch
Install gate latch per the instructions supplied in the gate latch kit.

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**Figure 3**

Screws Both Sides

**Figure 4**

Drive Screw

Hinge Pin

Nylon Washer

Nylon Washer

Nylon Washer

Cotter Pin

**Figure 5A**

Gate

Torsion Rod

Bottom Hinge Connection

**Figure 5B**

Gate

Torsion Rod (Loop End)

Gate

Top Hinge Connection

**Figure 5C**

Gate

Neoprene Pads

**Figure 6**

Locations Requiring (4) Pivot Brackets are circled

Model RL-S on 3'-0" x 2'-6" Roof Hatch

Model RL-NB on 2'-6" - 4'-6" Roof Hatch

Model RL-L or RL-SS on Roof Hatch greater than 5'-0" in length