

## IMPORTANT: READ ALL INSTRUCTIONS BEFORE PROCEEDING WITH INSTALLATION

### General

The following guidelines provide basic assembly and installation instructions for EFJ-937 and EFJ-937-MD extruded aluminum dual-module louvers mounting to grout-filled concrete masonry (CMU) building conditions. These models are designed to withstand severe weather effects typically associated with hurricanes, and have been tested for resistance to impacts, cyclic fatigue, and static pressures up to 130 psf.

1. For additional details, refer to the catalog submittal page posted at [www.alllite.com](http://www.alllite.com) as well as any job-specific submittal drawings when provided.
2. Carefully lift louver sections by the frames using multiple lifting points as necessary to avoid distortion, racking, or other damage. **Do not apply excessive force to a single blade, and NEVER LIFT UNITS BY LOUVER BLADES.** Take necessary precautions to prevent marring the louver finish.
3. While installation is underway and before louver sections are permanently fastened in place, All-Lite recommends that the installer employ temporary straps or bracing (by others) to prevent units from shifting unexpectedly.
4. All gaskets and caulk are supplied by others.

### Preparation

*Louvers and Hardware:*

1. Locate all crates, boxes, cartons, etc.
2. Remove louvers from packaging, inspect for damage, confirm quantities and sizes with packing list, and organize parts in order of installation. To verify installation hardware quantities, refer to Table 1. Installation hardware will typically be shipped in a separate box.
3. Notify your All-Lite representative immediately of any shortages or shipping damage.

*Openings:*

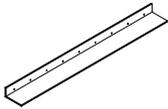
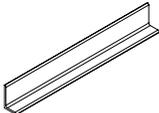
1. Inspect openings for damage, repair as needed, and remove any obstructions or debris.
2. Prior to installation, verify that openings are square and plumb and that the louvers will fit properly.

### Sill Flashing

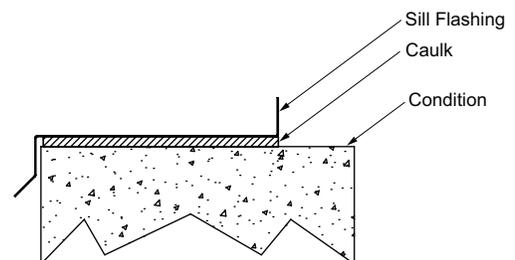
1. Locate the sill flashing (included). Closed-end sill flashing is recommended for all non-sleeved EFJ-937 and EFJ-937-MD installations.
2. Confirm that the sill of the opening and the underside of the flashing are clean and free of all debris.

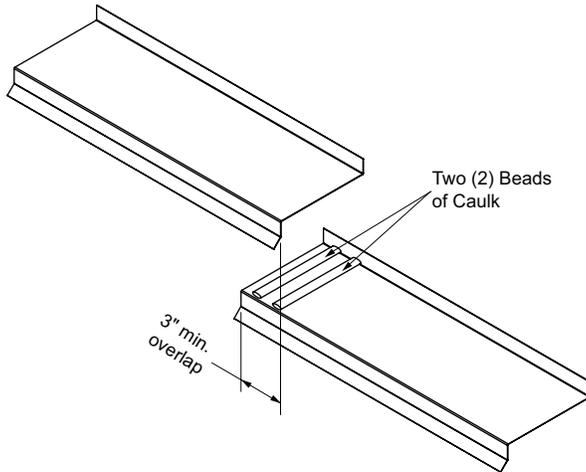
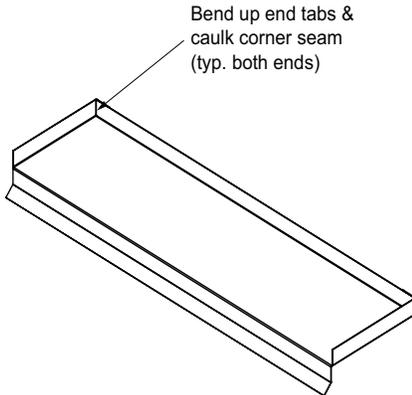
3. Apply caulk to the sill of the opening and firmly set the sill flashing in the caulk. See Figure 1.1.
  - a. For wider openings, multiple pieces of flashing may be necessary in order to cover the entire width. When this occurs caulk at all overlapping joints and firmly set. See Figure 1.2.
  - b. For closed-end flashing, All-Lite supplies flashing pieces with tabs on each end which should be manually bent into place to close off the flashing ends. Carefully bend up the end tabs and thoroughly caulk the corner seams. See Figure 1.3.

**Table 1: Installation Hardware, CMU Building Condition**

Part	Description		
A-1	Mounting Angle (2" x 4" x 1/4" x Varying Length)		Included
A-4	Secondary Angle (6" x 4" x 3/8" Varying Length)		Included
F-6	3/8" x 4" Hilti Kwik HUS-EZ Screw Anchor		Supplied by Others
F-9	#12-14 x 1" Hex-Head Self-Drilling Machine Screw		Included

**Figure 1.1: Sill Flashing Vertical Section**



**Figure 1.2: Sill Flashing Assembly**

**Figure 1.3: Closed End Sill Flashing**


### Single Section Louver Installation

1. Locate the 6" x 4" secondary angles (A-4) and drill a series of 7/16"-diameter clearance holes for anchors in each length of angle.
  - a. Place the holes in the 6" leg of the angle, along a line located 4" from the angle corner.
  - b. Drill one hole 3" from each end, and then locate the remaining holes no more than 6" apart.
2. Determine the placement of the secondary angles along the top and bottom of the opening, referring to Figure 2. The 6" surface of the angle will sit against the rear face of the wall, while the 4" angle surface should be flush with the top or bottom of the opening.
3. Using the hole pattern in the secondary angles as a guide, drill 3/8"-diameter holes into the rear face of the masonry above and below the wall opening. Holes should be drilled at least 3-7/8" deep. Be careful to maintain a 4" distance between the anchor locations and the edges of the opening.
4. After cleaning any dust or loose material from the holes, use 3/8" x 4" Hilti Kwik HUS-EZ screw anchors (F-6) to fasten the secondary clip angles to the wall. Anchors will run through the clearance holes in the angles into the anchor holes in the masonry. Tighten anchors to the correct installation torque specified by Hilti.

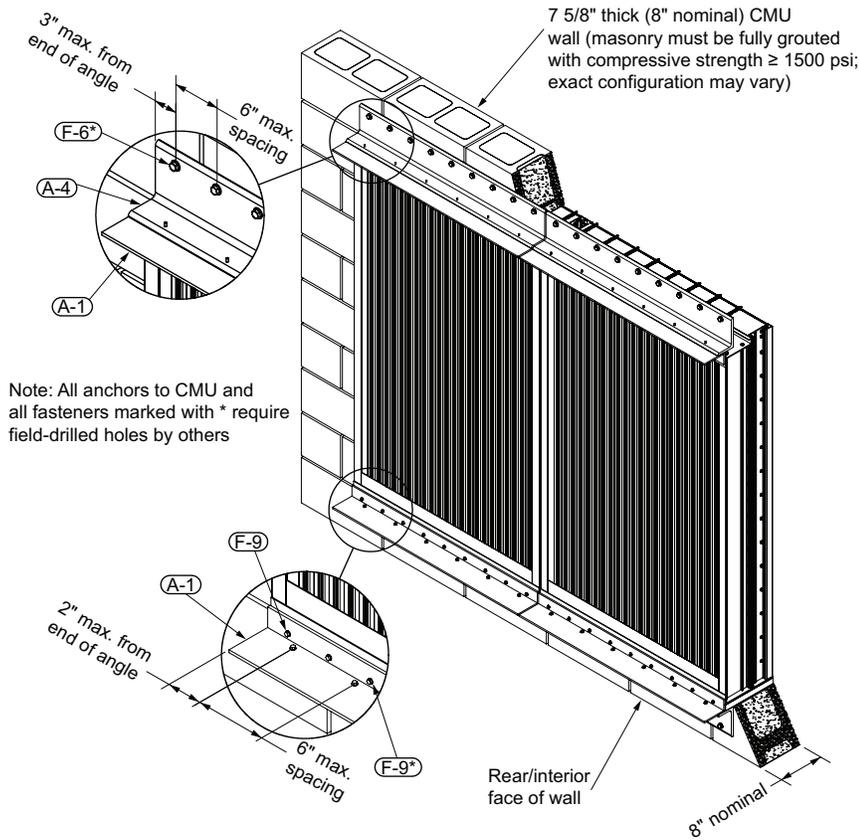
5. Lift the louver section up and place it into the opening as shown in Figure 2. The front of the louver should be flush with the exterior surface of the wall.
6. As necessary, shim around the perimeter to level the louver and to maintain an approximate 1/4" clearance between the louver frame and the edges of the opening (shims are by others).
7. Locate the 2" x 4" continuous angles (A-1) and fasten them to the back of the louver frame using #12-14 x 1" self-drilling screws (F-9) inserted through the existing clearance holes in the angles. The 4" leg of each angle should sit against the top or bottom surface of the opening.
8. Fasten the 2" x 4" continuous angles to the 6" x 4" secondary angles using #12-14 x 1" self-drilling screws spaced no more than 6" apart and 3" from each end.
  - a. Drill clearance holes in the 2" x 4" continuous angles.
  - b. As necessary, drill pilot holes through the 6" x 4" secondary angles. To ensure proper thread engagement, pilot hole diameters must not exceed 3/16".
9. Finish by installing backer rod and caulk around the perimeter of the opening. **To allow for drainage, do not caulk the front gap between louvers and sill flashing.**

### Multiple Section Louver Installation

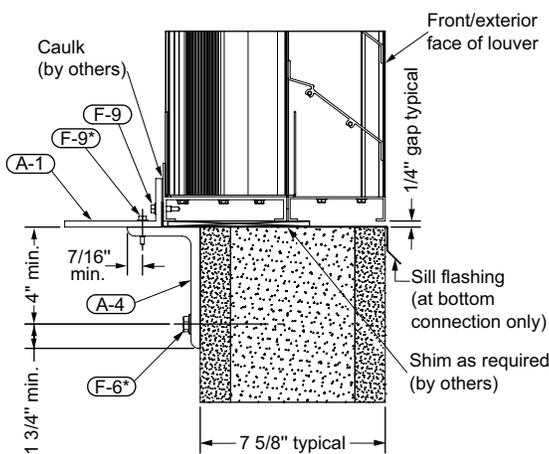
1. Moving from left to right, follow steps 1-8 from "Single Section Louver Installation" to install each louver section within the opening.
  - a. For louvers ordered with an optional 1-1/2" flange, different louver sections are of distinct construction and are not interchangeable. The Left End section will have flange on the left side and the top, the Right End section will have flange on the right side and top, and any Center sections (if present) will be flanged on the top only.
  - b. For non-flanged louvers, different sections within an opening are completely interchangeable and may be installed in any order desired.
  - c. Shim as necessary to maintain an approximate 1/4" clearance between the louver frames and the wall condition, and approximately 1/4" between sections (shims by others).
2. Finish by installing backer rod and caulk in the following locations:
  - a. All vertical joints between sections.
  - b. Around the perimeter of the opening.

**To allow for drainage, do not caulk the front gap between louvers and sill flashing.**

**Figure 2: Standard Installation to CMU**



**Section Detail for Bottom Connection (Top Connection Similar)**



EFJ-937 and EFJ-937-MD Installation Instructions, CMU Building Condition M-60122-2 (3/3) June 2018