

#### IMPORTANT: READ ALL INSTRUCTIONS BEFORE PROCEEDING WITH INSTALLATION

#### General

The following guidelines provide basic assembly and installation instructions for EXA-645-MD extruded aluminum combination louvers mounting to wood building conditions. The EXA-645-MD is designed to withstand severe weather effects typically associated with hurricanes, and is certified by Miami-Dade County for resistance to impacts, cyclic fatigue, and static pressures up to 120 psf. The design features stationary drainable louver blades to protect against water penetration and an integral airfoil-blade control damper to allow positive shut-off of air intake and exhaust openings.

1. For additional details, refer to the product drawing package 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 point, 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, caulk, and anchors to the building condition 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 all sill flashing (by others or optional by All-Lite). Sill flashing is recommended for all louver installations, especially for multiple-section wide louvers.
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. Closed end flashing pieces (if supplied by All-Lite) will include extra length on each end which must be cut, and manually bent into place to close off the sill flashing ends. Carefully bend up the end tabs and thoroughly caulk the corner seams. See Figure 1.3.

Figure 1.1 Sill Flashing Vertical Section

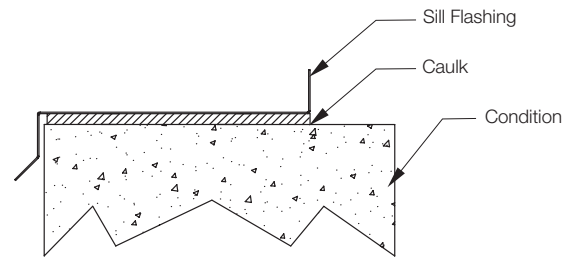


Figure 1.2 Sill Flashing Assembly

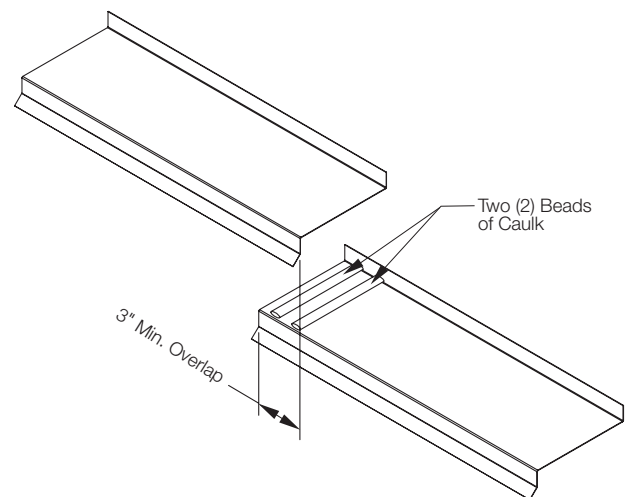
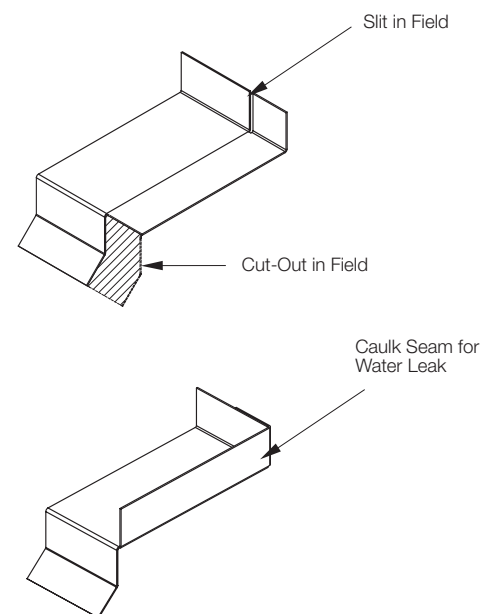


Figure 1.3 Closed End Sill Flashing


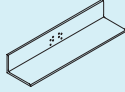
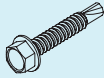
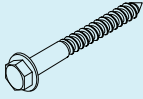


# Installation Details

## EXA-645-MD

Installation Instructions - Wood Building Condition

**Table 1: Installation Hardware**

Part	Description		
A-1	Jamb Clip Angle (5" x 3" x 3/16" x 4"-Long)		Included
A-3	Mullion Clip Angle (6" x 4" x 3/8" x 12"-Long)		Included for multi-wide assemblies only
F-4	1/4-14 x 1-1/2" Hex-Head Self-Drilling Machine Screw		Included
F-8	3/8" x 3-1/2" Lag Bolt with Flat Washer		Supplied by others

### Single Section Louver Installation

1. Locate the jamb clip angles (A-1) and drill two 7/16"-diameter clearance holes in the 5" leg of each angle. The holes should be located 1-3/8" away from the angle corner and spaced approximately 2-1/2" apart.
2. Using Figure 2 as a guide, attach the jamb clip angles to wood blocking along the sides of the opening using 3/8" x 3-1/2" lag bolts and flat washers (F-7).
  - a. Clip angle centers should be no more than 24" apart and a maximum of 12" from the top or bottom of the opening.
  - b. Be careful to maintain a minimum 1-1/2" distance between bolt locations and any edge of the wood blocking.
  - c. Follow the bolt manufacturer's recommendations for diameter of pilot holes (if needed) and installation torque.
  - d. NOTE: On the right-hand side, clip angles may need to be shifted several inches up or down in order to avoid interference with the actuator or locking quadrant. Be sure to determine the required clearance before anchoring the jamb clip angles.
3. Lift the louver section up and place it into the opening as shown in Figure 2. With the jamb clip angles located correctly, the front of the louver will be approximately flush with the outside face of the wall while the back of the louver sits directly against the clip angles.
4. 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).
5. Fasten the louver section to the jamb clip angles using 1/4-14 x 1-1/2" self-drilling screws (F-4) running through the existing 5/16" holes in the clips into the louver frame.
  - a. Three (3) fasteners will be used per jamb clip angle.
  - b. As necessary, drill pilot holes into the frame. To ensure proper thread engagement, pilot hole diameters must not exceed 3/16".

6. Install backer rod and caulk around the entire perimeter of the louver, as required. If flashing is used, do not caulk between louver and sill flashing to allow for drainage.

### Multiple Section Louver Installation

1. Follow steps 1-3 from "Single Section Louver Installation" to locate and install jamb clip angles (A-1) along both sides of the opening.
2. Identify the left-most louver section and install it following steps 4-6 from "Single Section Louver Installation." [NOTE: Left, right, and center sections are of distinct construction and ARE NOT INTERCHANGEABLE. Refer to Figure 3 for correct identification of sections.]
3. Moving to the right, lift the next section into place. Shim as necessary to maintain an approximate 1/4" clearance between the louver frame and the wall condition, and approximately 1/4" between sections (shims by others).
4. Attach mullion clip angles (A-3) to wood blocking along the top and bottom of the opening using eight (8) 3/8" x 3-1/2" lag bolts and flat washers (F-7).
  - a. For each mullion clip angle, the 6" leg will sit against the top or bottom of the opening, with the 4" leg against the back of the louver. Mullion clip angles will be centered on the joint between sections. Refer to Figure 2.
  - b. For the lag bolts, drill 7/16" clearance holes in the 6" leg of each mullion clip angle. Anchors should be spaced 1-1/2" apart, located at least 1-3/8" behind the rear face of the louver, and placed no closer than 1-1/2" to any edge of the wood blocking.
5. Fasten each mullion clip angle to the back of the louver frame using eight (8) 1/4-14 x 1-1/2" self-drilling screws (F-4) running through the existing 5/16" holes in the 4" angle leg. As necessary, drill pilot holes into the louver frame, but do not exceed 3/16" for pilot hole diameters.
6. Install any remaining louver sections using the procedure described above. Finish by installing backer rod and caulk in the following locations:
  - a. All vertical joints between sections.
  - b. Around the entire perimeter of the opening.

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

### Actuator Connection

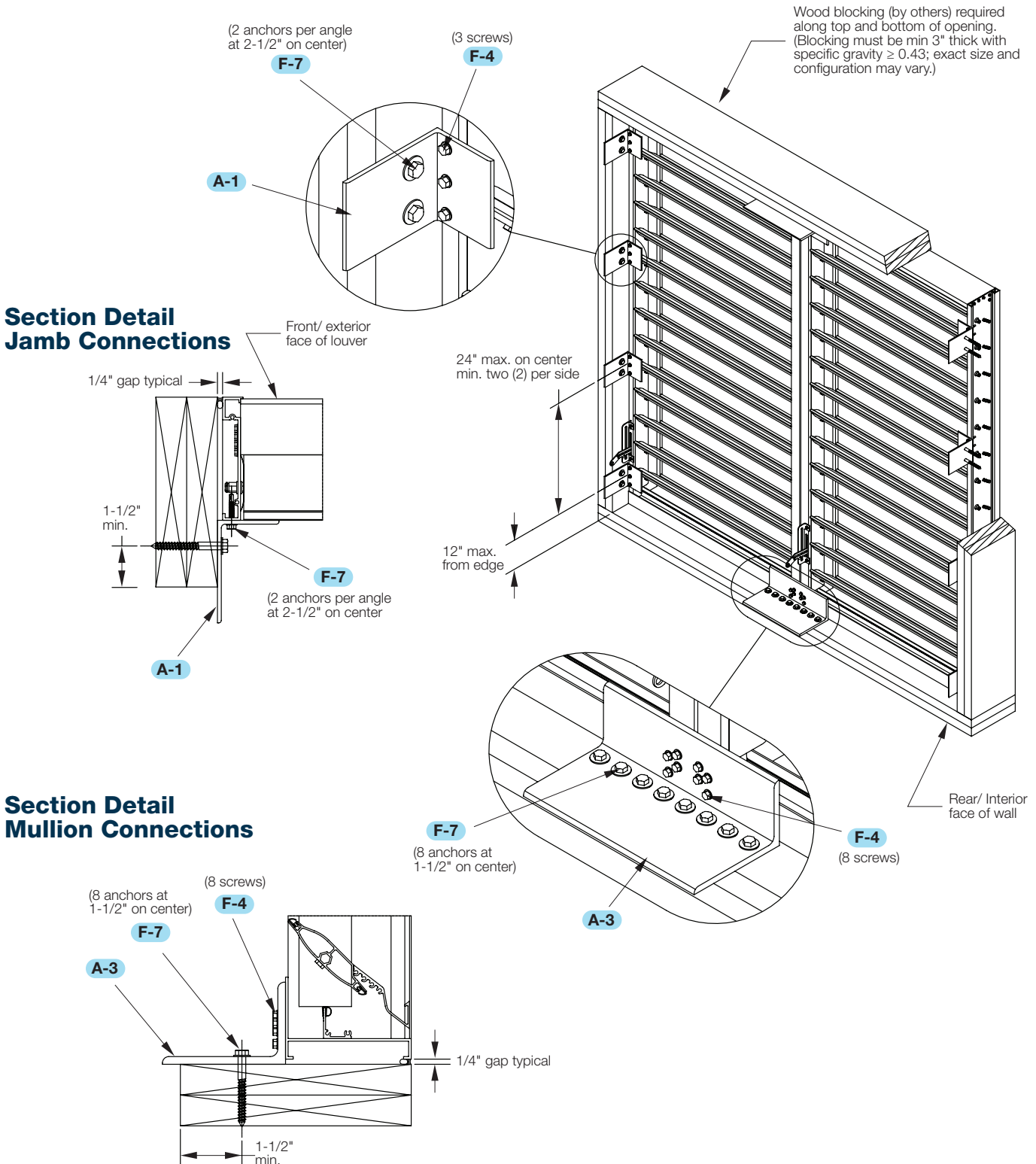
All electrical and pneumatic connections should be done in accordance with local code requirements and actuator installation documentation. Before applying power to an actuator, verify power requirements. After appropriate power has been connected to the actuator, cycle the louver to ensure proper operation.

# Installation Details

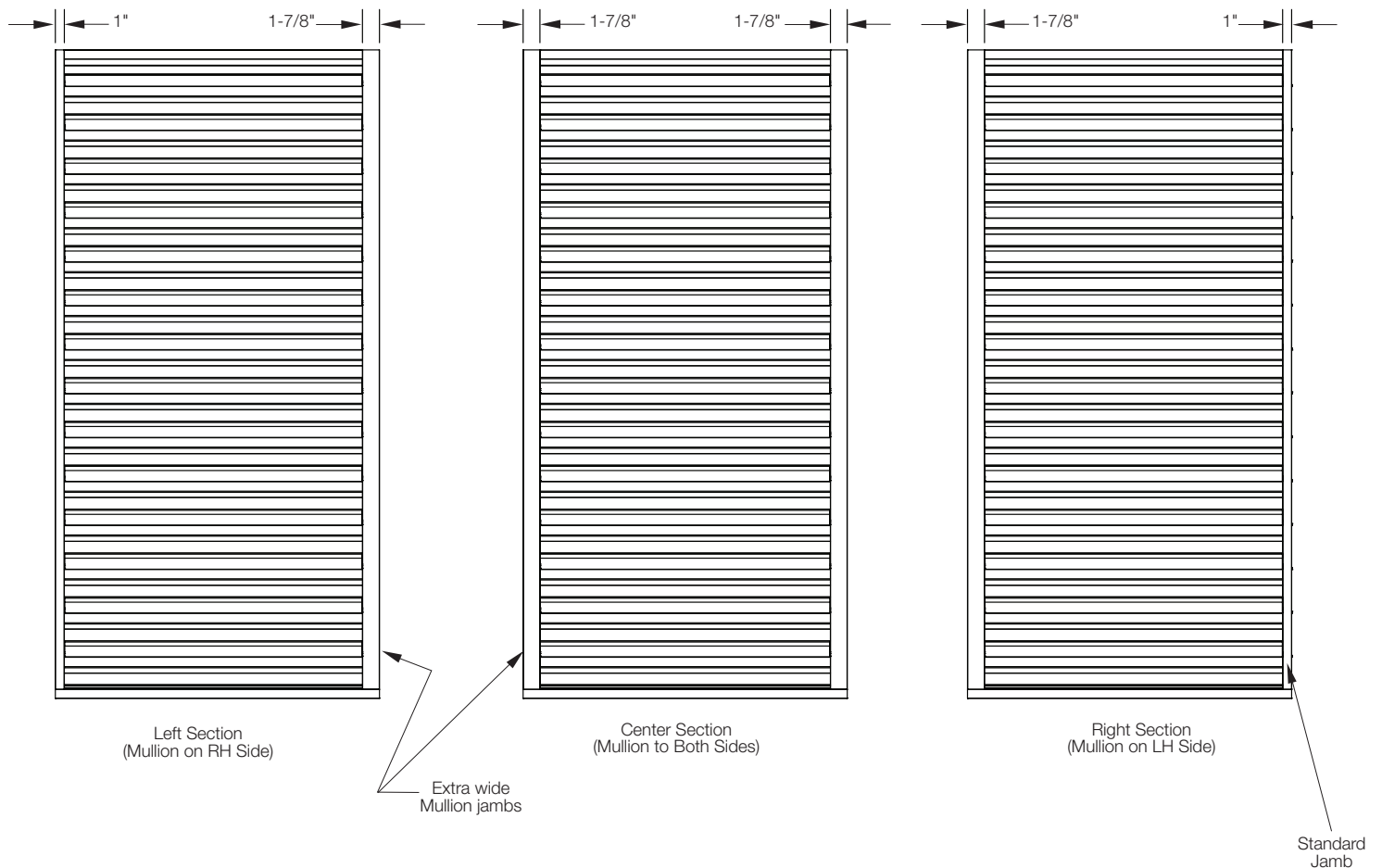
## EXA-645-MD

Installation Instructions - Wood Building Condition

Figure 2: Installation to Wood Building Condition



**Figure 3: Identifying Sections in a Multi-Wide Assembly**



**Note: Refer to this diagram before installing louvers. Left, right and center sections are of distinct construction and not interchangeable.**