

## Materials and Tools

The following materials needed for a standard installation are included with each order:

- Shutter panels and frame, if a framed system
- Magnets with striker plates and necessary screws
- Hoffmann keys and glue
- Frame Installation screws - 3" long

Tools needed for installation include:

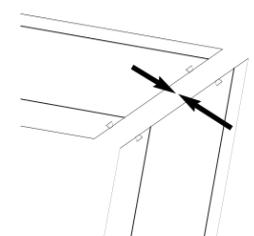
- Caulk
- Steel measuring tape
- Variable speed power drill with driver bits
- 3/32" drill bit
- Pencil

**Caution:** All screws holes should be pre-drilled to prevent cracking of the material finish. Damage to the materials made during shutter installations can also happen when screws are over tightened. We recommend that you do not make the final turn of a screw with a power driver. Instead, use a power driver to tighten a screw most of the way and then snug the screw by hand. Once a screw is over-tightened, damage cannot be repaired.

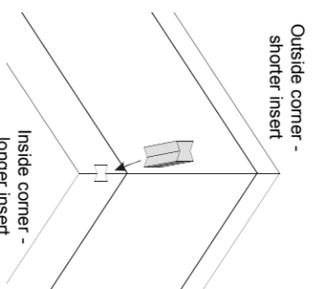
## Frame Assembly

Shutter frames are shipped knocked-down (disassembled). Using the supplied Hoffmann keys and glue, reassembly of the frame is quick and easy. All slots have been pre-routed.

Apply a thin coating of glue to two of the base pieces of one corner. Hold the corner together face down on a clean hard surface, lining up the router channels. (Face mount frame is pictured at right.)



While holding the corner together place an insert into the groove. If there are two grooves (for Face Mount frames), use a 1" long W2 hoffmann key (Part #WSD122) for the inside corner, and a 1/2" W2 key (part #WSD120) for the outside corner. Standard Z frames use a 1.1/4" W1 key (Part #WSD119) and deluxe Z-frames and all L-frames use a 1.1/4" W2 key (Part #WSD121). Tap the insert down into the frame with a small hammer or mallet. Check the face of the frame. At this point you can slightly twist the corner if necessary, in order to achieve a flush fit. Repeat for other corners.



## T-Post Attachment

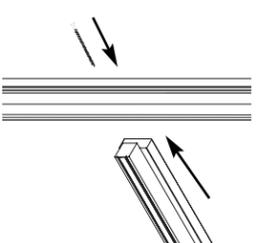
If one or more T-posts are used, mount them to the frame. All screws holes must be pre-drilled. Align the T-posts into the proper position in the frame. This can be determined by placing the panels in the frame to verify fit. Screw the T-post from the top and bottom, through the frame into the ends of the Tposts. (cont.)

Additional screws may be necessary to secure the T-post in the window. If the frame has no top or bottom, the T-post can be mounted only into the window, after the frame is installed.

## Frame Installation

### "Z" & "L" Frames Installation

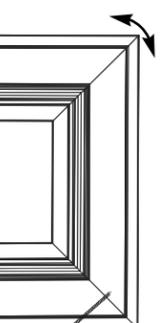
- Center the frame inside or outside the window opening.
- Screws should ideally be inserted through the light stop on the frame. Remember to pre-drill all screw holes.
- Mount the first screw in the upper left side of the frame, near the top hinge.
- Move the bottom of the frame left or right to square the frame.
- Shim the frame to keep it in the squared position.
- After assuring the frame is level, install the panels. Align hinges and insert hinge pins. If the pins are difficult to insert, slightly loosen the hinge screws on the frame and move the panels back and forth until the hinge pin slides into position. Then re-tighten the hinge screws.
- Make adjustments to the frame to make the panels square and level in the frame. Place additional screws at each hinge location. If necessary to align the panels, adjust the screws and shims at the hinges. Assure the the frame is square, and the panels are straight.
- Once the frame is square, attach the top of the frame. Mount the first screw in the middle of the frame, and then attach the two corners. On larger units, space additional screws evenly, no more than 30" apart and near the top of each T-post.



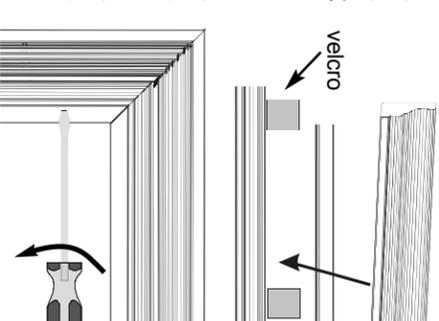
- Attach the bottom of the frame. Mount the first screw in the middle of the frame, and then attach the two corners. Space any additional screws as you did at the top of the frame.

### Face Mount Frame and Insert-L frame Installation

- Center assembled frame over window opening. FaceMount frames are designed to overlap the window by 1/4" on all sides. Lineup the top right corner of the frame to the desired position, and mount a screw on the top right of the frame. Rotate the frame as necessary into position over the window, assuring the frame is both square and level. Mount another screw on the top left.



- After assuring the frame is level, install the panels. Align hinges and insert hinge pins. If the pins are difficult to insert, slightly loosen the hinge screws on the frame and move the panels back and forth until the hinge pin slides into position. Then re-tighten the hinge screws.
- Make adjustments to the frame to insure the panels will be square and level in the frame. Place additional screws at each hinge location on the sides. Space additional screws along the top and bottom approximately 30" apart and near the top of each T-post.
- Apply the frame inserts utilizing the pre-attached Velcro.
- If the inserts need to be removed from the Face-mount frames, first remove the hole plug in the upper left side of the frame. Slide a flat head screwdriver in the hole and twist it in either direction. The frame insert will pop up slightly for removal.



## Caulking

Caulking may be required to fill in minor gaps between the frame and wall, between mitered corners of the frame, or over the screw heads for the frame installation screws.

## Direct Mount Installation

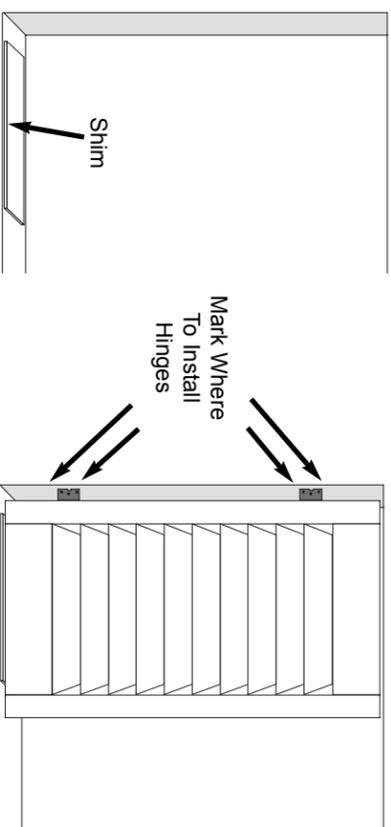
To install unframed shutters, the hinges attached to the shutter panel(s) are screwed either to the inside of the window frame or back against hanging strips. The shutter panel(s) should be flush with the front of the frame, with the barrel of the hinges just outside the frame.

### To install hanging strip in inside or outside mount applications:

- Drill and countersink holes through the hanging strip near the hinges for use with your mounting screws. (CAUTION: Do not drill or screw through the rout holes on the back of adjustable hanging strips.)
- Use a pencil to mark the wall or trim surface where you want to mount the hanging strips.
- Hold the hanging strips on the marks, and fasten the hanging strip to the mounting surface through the middle hole first.
- Hold a level vertically against the hanging strip. Make sure the strip is straight vertically.
- Fasten the hanging strip in this position with the remaining screws and holes.
- Adjustable Hanging Strips will have a 4" x 1/2" slot in the back, with a smaller 2 1/2" x 1/8" slot going completely through. The narrow slot allows the screws to be inserted into the backer plate. The "L" part of the wrap hinge should be already installed to the Hanging Strip.

### Installing Shutter Panels - Direct Mount or Hang Strip

- For Direct Mount in a window, place a 1/8" shim in the bottom of the frame on the side where the shutter hinges will be located.
- With the top and bottom hinges open, position the shutter panel in the window on top of the shim. For Hanging strip, center the panels vertically against the Hang Strip. Mark where to attach those hinges

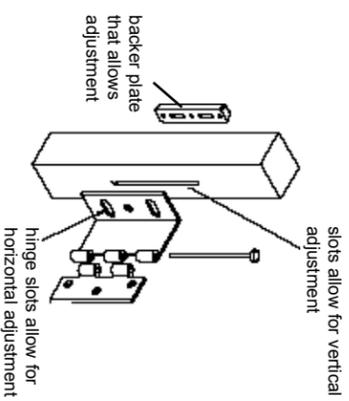


- Hinge pins are removable. Remove the top and bottom hinge pins ONLY, and attach the loose half of the hinges to the inside of the frame. The barrel of the hinges must be outside the frame to allow the shutter panel to open and close properly. If the panel has more than two hinges, do not attach them until after aligning the panel(s).
- Align hinges and insert hinge pins. If the pins are difficult to insert, slightly loosen the hinge screws on the frame and move the panels back and forth until the hinge pin slides into position. Then re-tighten the hinge screws.
- If the window has more than one panel, repeat the procedure to attach its top and bottom hinges to the other side of the window frame.
- Close the panels and check their alignment. To adjust the panels, loosen the screws in the slotted holes, or shim the hinges when Direct Mounting with standard hinges.
- After aligning the panels, attach any remaining hinges to the window frame. Remember to pre-drill all holes.

### Adjustments for Adjustable Hanging Strip

To adjust the overlap in the middle:

- Do not loosen the screws
- Tap the foot/base of the hinges on both panels evenly with a hammer to slide the panels away from each other, checking frequently, until you achieve the gap desired.
- Snug screws again if they have come loose.



To raise or lower the panel:

- Slightly loosen the screws that fasten the hinge to the strip
- Move the hinge and panel up or down as needed.
- Snug the screws

### Magnet Attachment (Box magnets - Direct Mount or No frame)

Magnets ensure closure of all shutter panels. They are attached to the top or bottom of the unit. The magnets are positioned to contact striker plates screwed to the rear of the shutter panels near the top or bottom.

Determine the proper location of the magnet by holding either the top or the bottom of the stile against the light stop. If the opposite end of the stile does not rest against the light stop, a magnet is needed at that end of the panel. If it is resting against the light stop, switch ends and repeat the procedure.

Fasten the magnets to the light stop only where the panels do not touch the light stops when closed. (Striker plate should be fastened to the rail, not the stile.)

Attach striker plates where the top or bottom rails meet the stiles, as illustrated.

- With frames or light stops, the edge of the plate should be 5/8" from the edge of the rail.

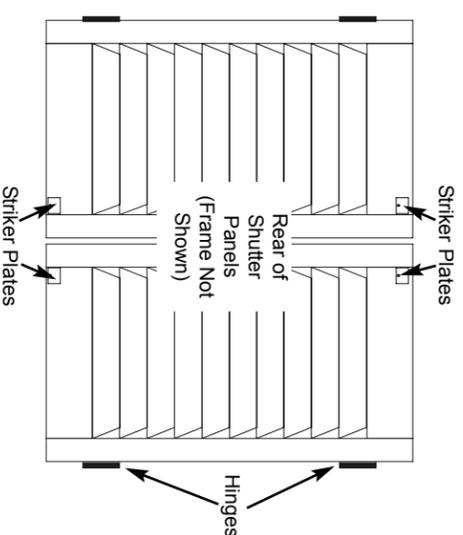
- With no light stops, the edge of the plate should be within 1/8" from the edge of the rail.

- The hole for the striker plate screw should be away from the top or bottom edge of the rail so that the flat part of the plate contacts the magnet.

- Note that the striker plates are attached to the side of the panel furthest from the hinge attachment to the frame.

- With the panel(s) closed, mark the frame for magnet placement so that the magnets will contact the striker plates and secure the panels in the proper position.

- Attach the magnets to the frame, or to the sill or upper jamb when no light stop is used. Test their placement by opening and closing the shutter panel(s). Adjust if necessary.



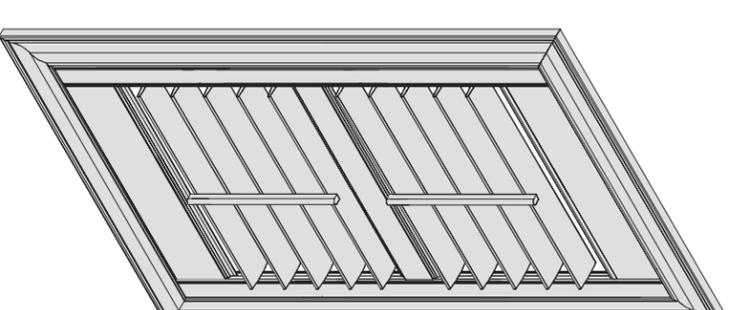
### Install Pulls

- Mark location for decorative knobs or handles with a pencil
- Pre-drill holes and install.

### Cleaning and Care

Periodic dusting with a feather duster or vacuum cleaner is all Woodwind Plantation Shutters should ever require. The exterior finish resists chipping, cracking, and fading. If necessary, the surface can be cleaned with mild soap and a damp sponge to remove stains.

## WOODWIND PLANTATION SHUTTERS



## CUSTOM WOOD ALLOY SHUTTERS

## INSTALLATION QUICK REFERENCE