



## INSTALLATION

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## Installation Tools Required

- Rechargeable, variable speed 3/8" drill
- 3/8" diameter drill bit
- 3/32" drill bit
- 3" Robertson bits of #6 (green handle #1) and #8 (red handle #2) screwdrivers
- Pan-head full thread screws are provided
- Hinge shims (available if requested for no-frame applications only)
- Slot screwdriver
- Non-marring hammer with 1" head for tapping frames into position
- Jig saw, hack saw, Dremmel tool or X-acto knife if cut-outs are required
- Loctite Super Bonder® 414 Instant Adhesive or contact cement required for an outside mount L Frame
- Dap for mitered corners and gaps between the frames and window jambs

## Inside Mount with No Frame

### 1. INSTALL TOP HINGE

- Starting with the left panel(s), place panel into opening.
- Position the panel so it has equal clearance at the top and bottom. Make a pencil mark under the top hinge.
- Install one screw into the window jamb hinge that goes below the top hinge.
- Check to see if the position is accurate by placing the panel into the opening. Insert the top hinge pin into the panel and jamb. If accurate, remove the panel and insert the second screw into the top hinge on the jamb.

### 2. INSTALL BOTTOM HINGE

- Place the panel into position by inserting the top hinge pin into the panel and jamb hinge.
- Mark the jamb where the bottom of the lowest hinge is on the panel.
- Install one screw into the window jamb hinge that goes below the bottom hinge.
- Check if position is accurate by installing the panel from the top and bottom hinges.
- Shim using available hinge shims if necessary.

### 3. LEVEL PANELS

- If more panels are to be installed, repeat the first two processes by lining up the panel as the main concern.
- If minor support or leveling is required, turn adjustable jamb cap at the bottom of the vertical jamb to the required spot (if used).

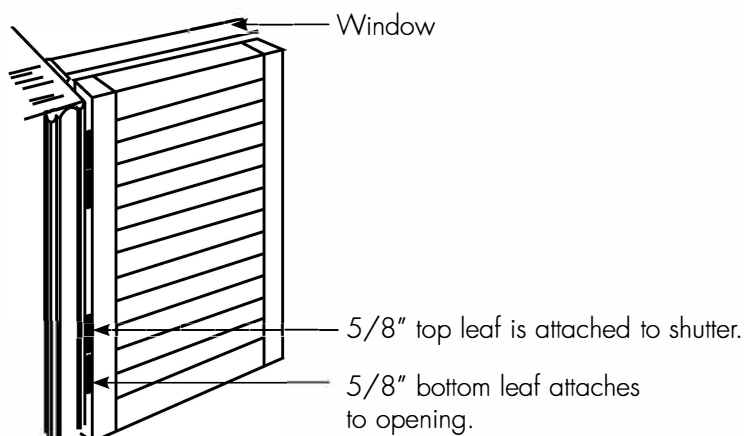
### 4. INSTALL REMAINING HINGES

- Once panels are level, install the remaining panel hinges while the panels are hanging. Simply open the panels, insert the hinge pin into the hinges and screw the hinges into the window jambs.
- Shim using available hinge shims if necessary.

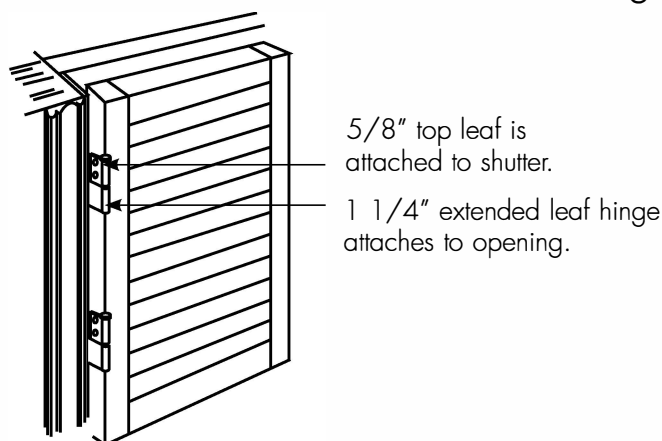
### 5. INSTALL MAGNETS, PLATES OR RAMPS

- See pages M3-M4.

Inside Mount (no frame flush with opening)



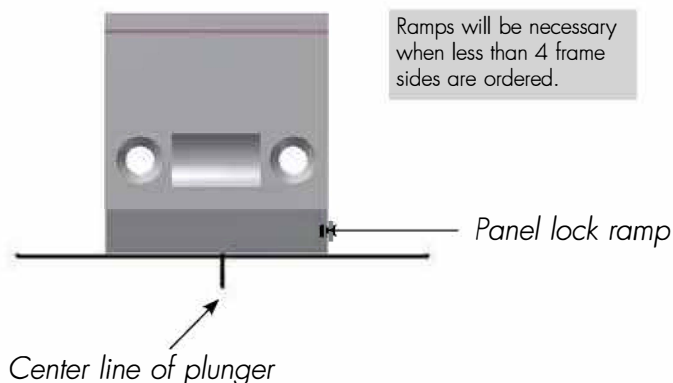
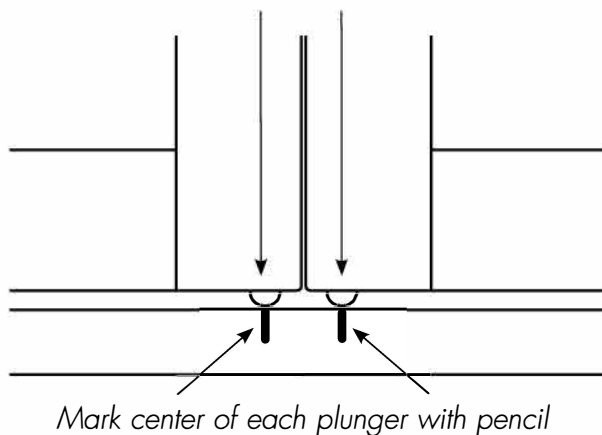
Inside Mount with Extended Leaf Hinge



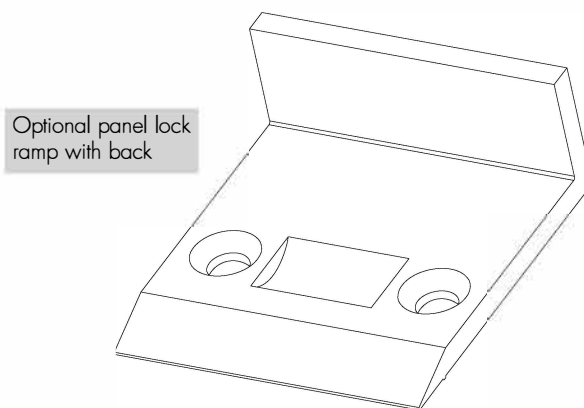
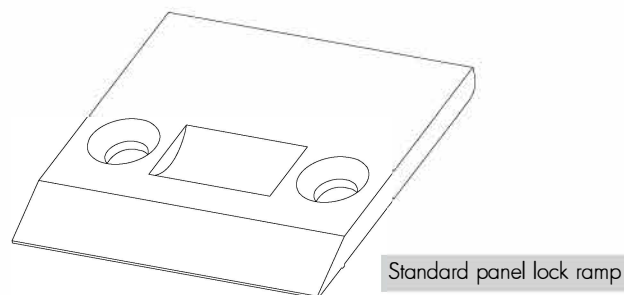
**Note:** The extra length allows for 5/8" maximum adjustment, thus minimizing required clearance.

### Panel Lock Ramp Installation - Less Than 4-sided Frame Applications

#### Panel Lock Spring Loaded Plunger



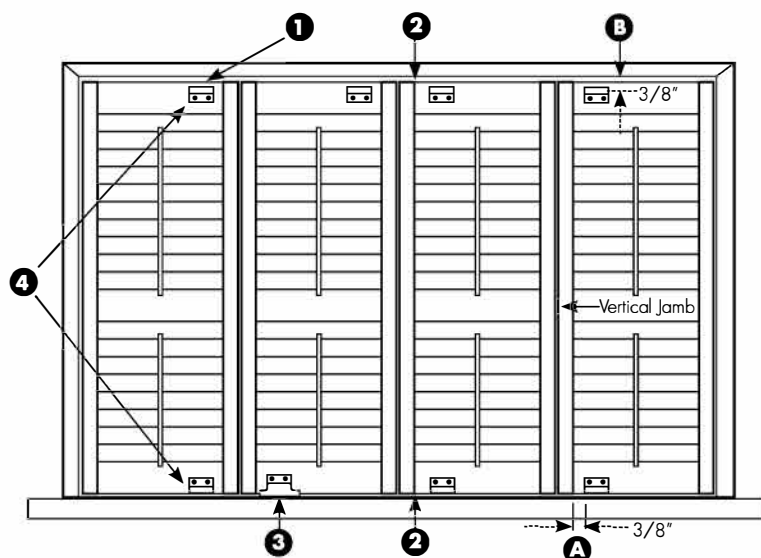
#### Panel Lock Ramps



#### PROCEDURE

1. The Panel Lock Cap Assembly will be installed during fabrication.
2. Once the shutter and panels have been installed, make a mark on the window sill with a pencil to show where the center of the Panel Lock Plunger is located, as well as the front of the ramp.
3. Open the panel(s).
4. Place the Panel Lock Ramp on the sill so that it aligns with the indicator lines.
5. Mark the center of each screw hole of each Ramp.
6. Remove the Ramps and drill a pilot hole for each screw using a 3/32" drill bit.
7. Place the Ramp back on the sill and set the screws. (Repeat as necessary)
8. Operate the panel(s) to ensure proper function and closure.
9. The Panel Lock Plunger can be adjusted by using a flat head screwdriver. Push in on the plunger and rotate clockwise to thread the plunger into the panel or rotate the plunger counterclockwise to extend the plunger.

## Magnetic Catch Placement



On framed applications, mount plate  $3/8$ " from vertical jamb **A**, and  $3/8$ " from end of panel on top rail **B**.

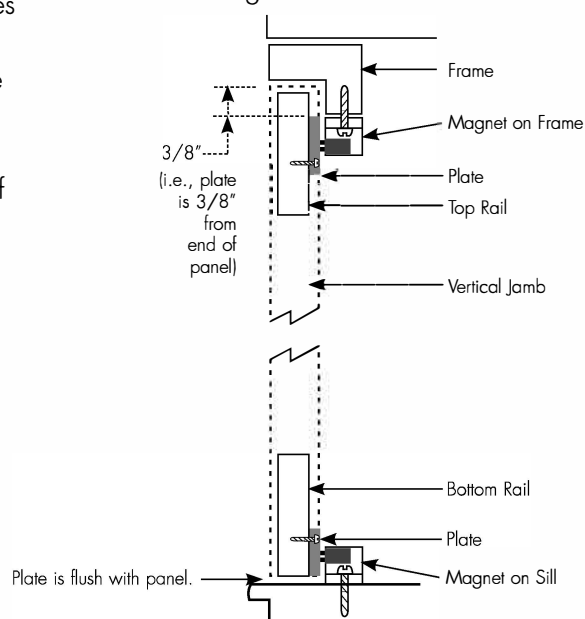
On sill mount installations, mount plates flush with bottom of panel, and  $3/8$ " from vertical jamb on bottom rail.

*Note: All magnets and catches must be installed. Mount magnets on frames. When there is no frame, mount magnets on window sill or jamb. Receiver plate mounts on bottom and top cross rails. Magnets & Catches will not be used if the panel lock has been installed.*

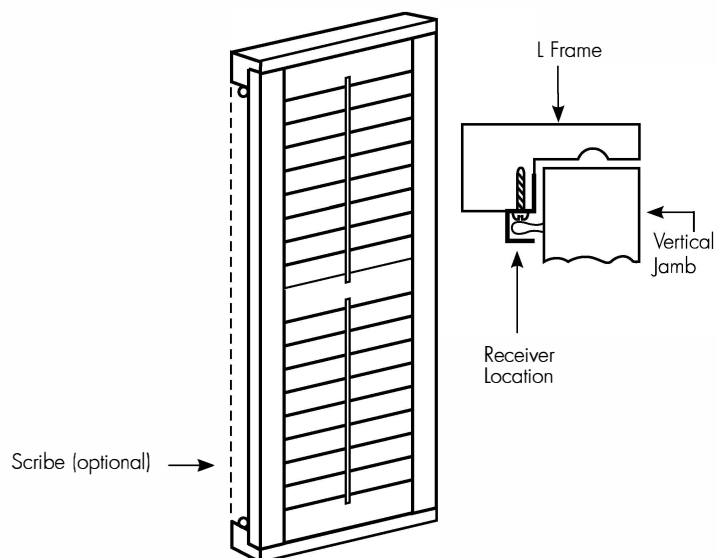
### PROCEDURE

1. Install plate, as shown on drawing, with the holes towards the center of panel.
2. With panels closed, pencil mark the sill or frame where the vertical jamb meets the top or bottom rail.
3. Install magnet from the mark toward the inside of the panel.
4. Install two magnets and plates per panel.

### Side View of Magnetic Catch Position



### Catch Receiver Installation



*Optional Scribe may be glued on the side or Mounting Strip may be screwed on the back of the panel to minimize or eliminate any side gap that is created when using catch receivers.*

#### PROCEDURE

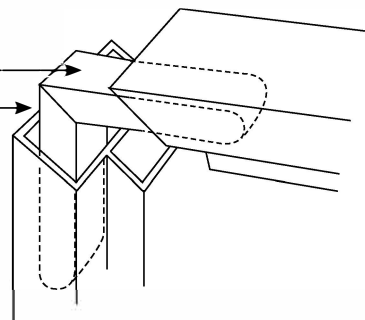
1. Install bottom frame
2. Place panel on bottom frame
3. Mark location of top frame
4. Remove panel
5. Install top frame
6. Install each receiver 7/8" from the edge of each frame
7. Insert catch into the receiver so the screw is sticking out into the room
8. Carefully place the panel into position
9. Press the panel against the screws to indent the panel
10. Remove the panel
11. Remove catches from the receivers
12. Screw the catches into the indent on the panel
13. Place the panel into position, lining up catch and receiver
14. Tap panel front until catch goes into receiver at each corner

## Frame Assembly for 3 or 4 sided Frames

### **BONDING** (for L Frame outside mount only)

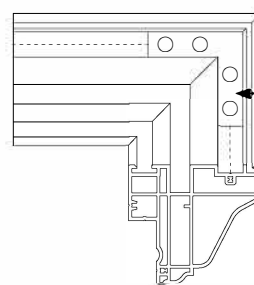
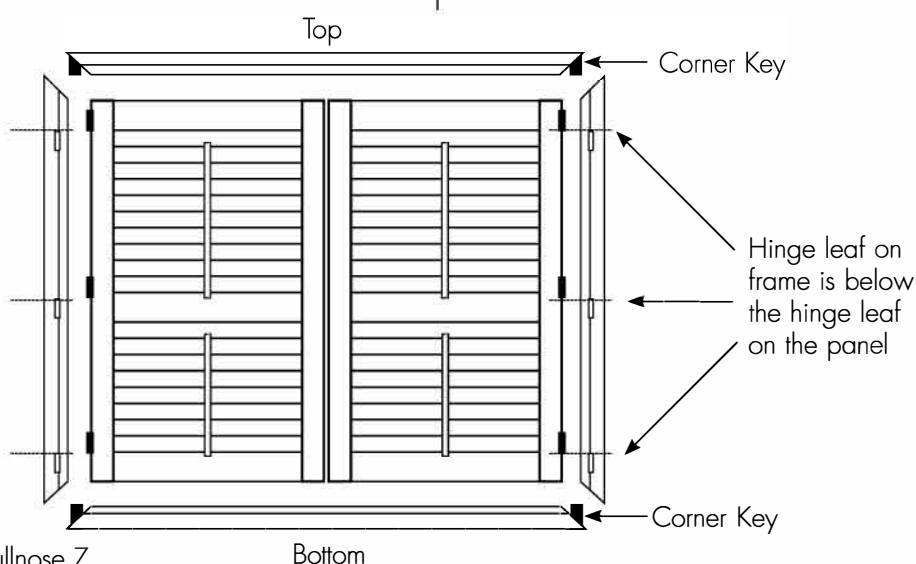
- Apply Super Bonder® 414 (or Contact Cement) to outside surface of corner key.
- Slide frame over corner key. Hold firmly until it is set (10 to 20 seconds).

- Apply Super Bonder® 414 to outside surface of corner key.



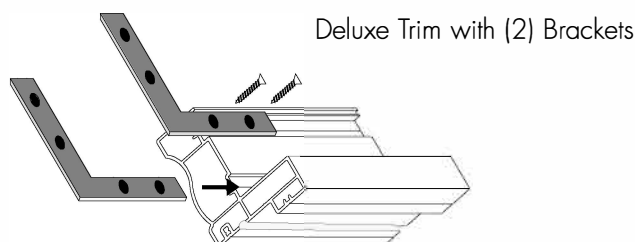
### **ASSEMBLY**

- Lay side frames flat beside the panels, so that the panel hinges are above the frame hinges.
- Insert the plastic corner keys on the top and bottom frames first.
- Slide the top and bottom frames into the side frames (Use a small amount of Loctite only after it is determined that the frames match. It will be impossible to detach the corners after they have set.)
- If minor gaps appear, use Dap to seal the corners.
- For Casing Frames, S Frames, Trim Frames, Bullnose Z Frame and Deluxe Trim Frames, install a 90-degree metal bracket at the back of the frames for a tight, and more secure assembly. See diagrams below.
- If extensions are used:
  - a) L Frame and S Frame Extension slides onto the back of the frame.
  - b) Casing Frame Extension is screwed to the frame before installation.



Metal Bracket installed on back side of Trim Frame, Deluxe Trim Frame, Bullnose Z, S Frame and Casing Frame

**Note:** For Casing, S Frame, Bullnose Z, Deluxe Trim, and Trim frames, in addition to the corner key, install a 2 1/2" x 2 1/2" x 1/2" (90°) metal bracket for a more secure corner



## T-Posts

### 1. T-POSTS

- T-Posts are used as a divider to hinge single or bi-fold panels when openings are too wide to hinge panels from the side. T-Posts can be placed directly in front of any existing window divider.

### 2. IF MOUNTING DIRECTLY TO THE WINDOW MULLIONS

- Drill 3/8" holes through the first layer of Polyresin3® at the front face of the T-Post. Start approximately 2" from the top and drill hole approximately every 10-15 inches.
- Secure the T-Post by screwing in the top and bottom holes.
- Hang panels to the T-Post or hang panels side-by-side against T-Post to ensure even sight lines and all is level.
- Screw in the remainder of the holes.
- Cap with button plugs.

### 3. IF MOUNTING USING L-BRACKETS

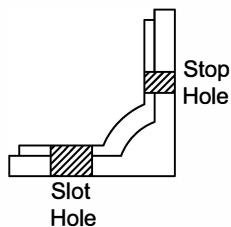
- Attach L-Brackets to the T-Posts. Ensure that brackets are placed at the back side of the T-Post so that the bracket screw goes through the screw post in the T-Post. The stop hole is positioned at the top left and bottom right side.

- Screw brackets into position on top right and bottom left side, centering the screw into the L-Bracket. This will allow some play for leveling purposes.
- Hang panels and adjust T-Post positioning until sight lines and leveling is achieved.
- Lock T-Post into position by setting screws through the stop holes in the L-Bracket.

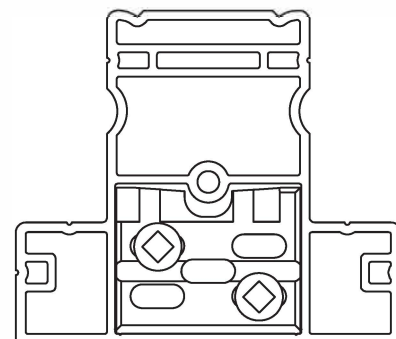
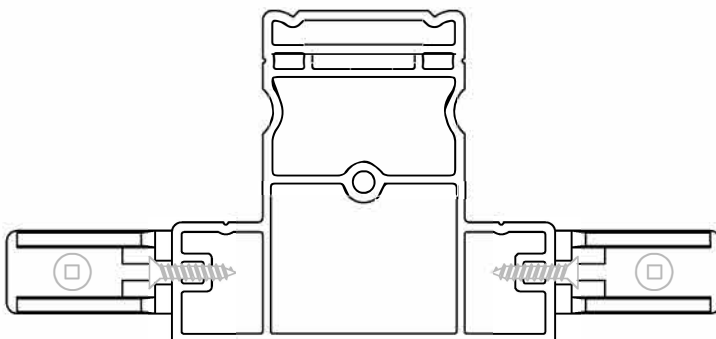
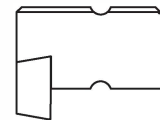
### 4. IF MOUNTING USING ALIGNMENT BLOCKS

- Stack two T-Post Alignment Blocks.
- Position on the frame so that the holes in the blocks are lined up with the pre-drilled holes in the bottom frame.
- Using #6 x 1 3/4" screws, attach the blocks to the frame.
- Repeat for the top frame.
- Assemble frame.
- After the frame is installed and the position of the T-Post is determined, set a #8 x 1 1/2" installation screw horizontally through the pre-drilled hole in the side of the T-Post at the bottom.
- Repeat the above step and cover holes with button plugs.
- See pages M8-M9 for additional details.

T - Post Bracket



T - Post Alignment Block





# **T-Post Installation - T-Post Alignment Block with 3-sided Frame Mounting on Window Sill**

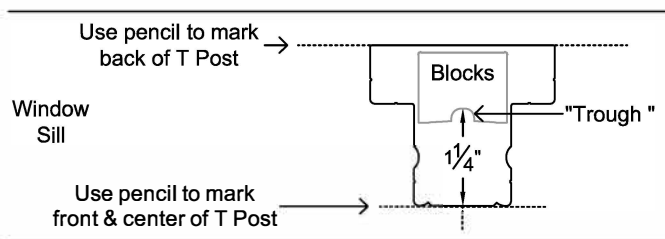
## **1. ATTACH T-POST BLOCKS TO FRAME**

- Stack two TPost Alignment Blocks, both with the tabs facing down. (See page M9)
- Lay out the top frame so that the light block is facing up.
- Two holes have been pre-drilled diagonally in the face of the top frame at each TPost location.
- Position the stacked blocks on the light block portion of the frame so that the holes in the block align with the pre-drilled holes in the frame. (The tabs will hang off the edge of the light block.)
- Using (2) #6 x 1 3/4" TPost block screws, attach the blocks to the frame. Do not completely tighten the screws down, only make them snug. This will allow some side to side adjustment of the TPost.

## **2. ASSEMBLE FRAME AND T-POST**

- Insert the corner keys into the top frame.
- Attach the left side frame to the top frame.
- Attach the right side frame to the top frame.
- Attach TPost to the top frame by sliding the TPost over the blocks on the top frame.
- If aluminum reinforcement was requested for the TPost, make sure it is positioned properly within the TPost.

### **Mark T Post & Block location on window sill**



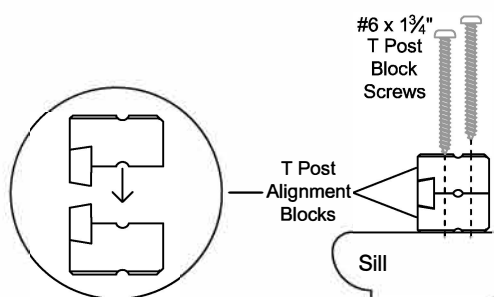
## **3. BEGIN INSTALLING THE SHUTTER**

- Begin by installing the shutter as a standard 3-sided frame but install only the top screw on each side frame and one bottom screw if necessary.
- Test the fit and position of the panels to determine the location of the TPost.
- Mark the front and center of the TPost with a pencil on the sill.
- Mark the back of the TPost with a pencil on the sill.
- Remove the panels and the frame.
- Stack two TPost Alignment Blocks, one with the tab facing up and one with the tab facing down. (as pictured below)
- Attach two stacked TPost blocks to the sill so that the back of the "trough" of the block is 1 1/4" from the front center mark of the TPost.
- Use (2) #6 x 1 3/4" TPost Block Screws to attach the blocks to the sill. Do not fully tighten the screws - they should only be snug.
- Set the assembled frame back in the opening making sure the bottom of the TPost slides over the blocks on the sill.
- Finish installing the frame and then hang the panels.

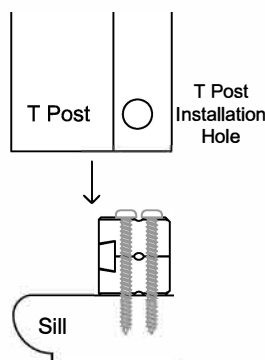
## **4. ALIGN T-POST AND SECURE**

- Determine the side to side position of the TPost, then drive a #8 x 1 1/2" installation screw horizontally through the hole in the end of the TPost.
- The screw will then pass between the (2) TPost Blocks, thus locking the TPost into position.
- Repeat for the top of the TPost and cap installation holes with button covers.

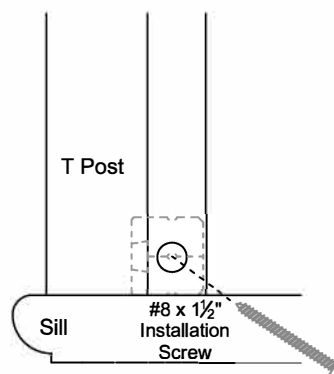
### **Attach T Post Blocks to Sill**



### **Position T Post**



### **Align T Post and Secure**



## T-Post Installation - T-Post Alignment Block with 4-sided Frame

### 1. ATTACH T-POST BLOCKS TO FRAME

- Stack two TPost Alignment Blocks, both with the tabs facing down.
- Lay out the bottom frame so the light block is facing up.
- Two holes have been pre-drilled diagonally in the face of the bottom frame at each TPost location.
- Position the stacked blocks on the light block portion of the frame so that the holes in the block align with the pre-drilled holes in the frame. (The tabs will hang off the edge of the light block.)
- Using (2) #6 x 1 3/4" TPost block screws, attach the blocks to the frame. Do not completely tighten the screws down, only make them snug. This will allow some side to side adjustment of the TPost.
- Repeat the above steps for the top frame.

### 2. ASSEMBLE FRAME AND T-POST

- Insert the corner keys into the bottom frame.
- Attach the left side frame to the bottom frame.
- Attach the right side frame to the bottom frame.
- Attach TPost to the bottom frame by sliding the TPost over the blocks on the bottom frame.
- If aluminum reinforcement was requested for the TPost, make sure it is positioned properly within the TPost.
- Attach the top frame. Make sure the corner keys in each end of the top frame align with the corner key cavities in the side frames. At the same time make sure the TPost is positioned on the blocks attached to the top frame.

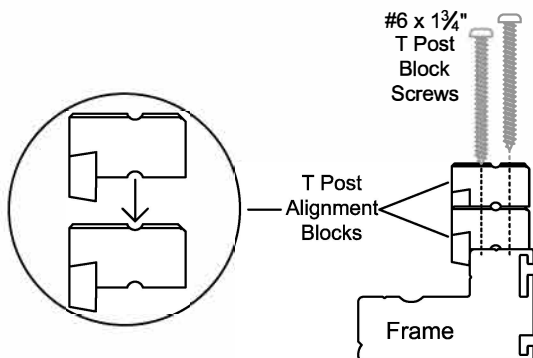
### 3. INSTALL THE SHUTTER

- Follow standard instructions for installing the frame.
- Test the fit and position of the panels to determine the location of the TPost.
- Mark the position of the TPost on the frame with a pencil.
- Remove the panels.

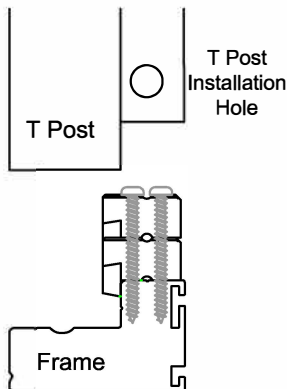
### 4. ALIGN T-POST AND SECURE

- With the bottom of the TPost in the desired position, drive a #8 x 1 1/2" installation screw horizontally through the hole in the end of the TPost.
- The screw will then pass between the (2) TPost Blocks, thus locking the TPost into position.
- Repeat for the top of the TPost and cap installation holes with button covers.

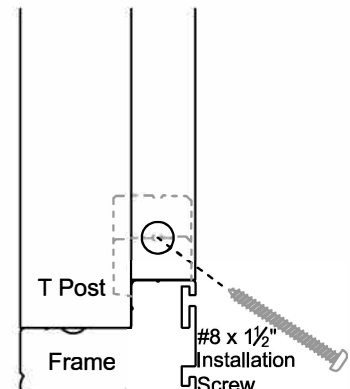
Attach T Post Blocks to Frame



Position T Post



Align T Post and Secure



## Inside Mount with L Frame

### 1. ASSEMBLE FRAMES

- See page M6.

### 2. PLACE FRAME IN OPENING

- The top part of the frame is indicated by a greater amount of distance from the top of the top hinge to the edge of the frame. The label will indicate left and right side.

### 3. FASTEN FRAME

- Most frames have pre-drilled holes placed for ease of installation.
- Insert a screw in both the left and right top side frame holes. Center the frame in the opening, then drill the screws into the jambs. If the screw is not in enough, the opening will be smaller than ordered. If the screw is in too far, the opening will be larger than ordered.

### 4. HANG PANELS

- With upper and lower hinge pins only.

### 5. SQUARE/LEVEL PANELS TO THE OPENING

- Move bottom frame left or right until the panels are level. If this does not work, then:
- Move left frame up or down until the panels are level. If this does not work, then:

- Move right frame up or down until the panels are level.
- When the panels are level within the frame, hold bottom frame in position and place a screw in the middle bottom frame hole.

### 6. FASTEN REMAINING SCREWS

- Insert screws in the remaining holes and check to ensure panels are level after every screw has been drilled into position.

### 7. INSTALL MAGNETS AND PLATES OR RAMPS (if applicable)

- See pages M3-M4 for instructions.

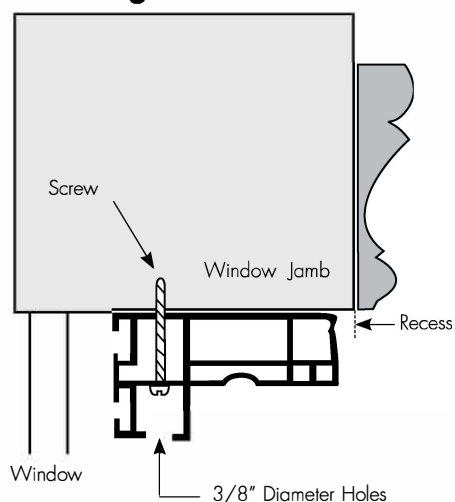
### 8. CAP INSTALLATION HOLES

- Once all screws have been installed and panels checked for levelness, cap all holes with the provided button plugs.

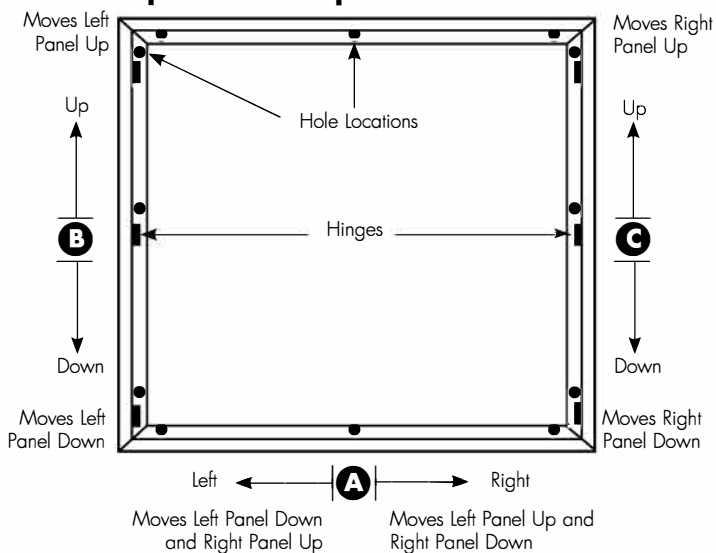
### 9. CLOSE ANY GAPS

- With either L Frame Cover Strip, which is glued to the front face of the frame, or with Dap.

#### Fastening



#### Squareness Adjustments



## Inside Mount with Z, Bullnose Z, Trim, or Deluxe Trim Frames

### 1. ASSEMBLE FRAMES

- See page M6.

### 2. PLACE FRAME IN OPENING

- The top part of the frame is indicated by a greater amount of distance from the top of the top hinge to the edge of the frame. The label will indicate left and right side.

### 3. FASTEN FRAME

- Most frames have pre-drilled holes placed for ease of installation.
- Insert a screw in both the left and right top side frame holes. Center the frame in the opening, then drill the screws into the jambs. If the screw is not in enough, the opening will be smaller than ordered. If the screw is in too far, the opening will be larger than ordered.

### 4. HANG PANELS

- With upper and lower hinge pins only.

### 5. SQUARE/LEVEL PANELS TO THE OPENING

- Move bottom frame left or right until the panels are level (**A**). If this does not work, then:
- Move left frame up or down until the panels are level (**B**). If this does not work, then:

- Move right frame up or down until the panels are level (**C**).
- When the panels are level within the frame, hold bottom frame in position and place a screw in the middle bottom frame hole.

### 6. FASTEN REMAINING SCREWS

- Insert screws in the remaining holes and check to ensure panels are level after every screw has been drilled into position.

### 7. INSTALL MAGNETS AND PLATES OR RAMPS

(if applicable)

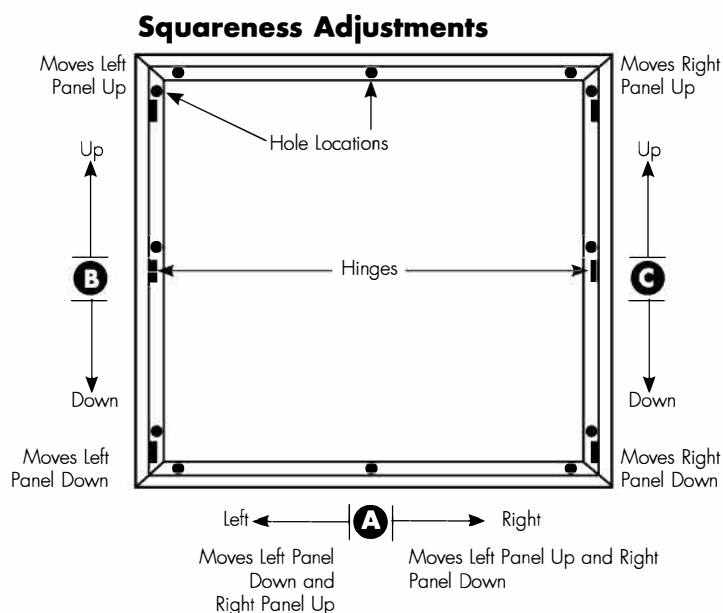
- See pages M3-M4 for instructions..

### 8. CAP INSTALLATION HOLES

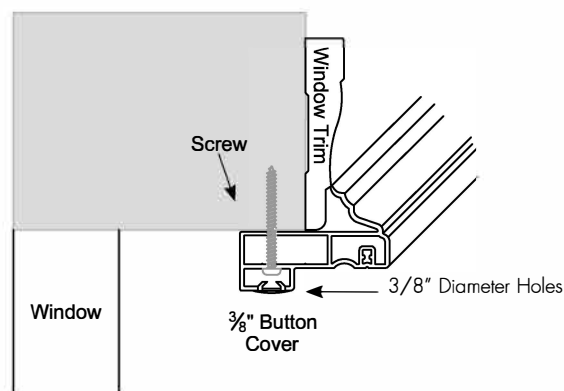
- Once all screws have been installed and panels checked for levelness, cap all holes with the provided button plugs.

### 9. CLOSE ANY GAPS

- For gaps that may occur at frame corners or around frame, apply Dap as needed.



### Fastening



## Inside Mount and Outside Mount with Mounting Strip

### 1. DRILL INSTALLATION HOLES

- 3/8" diameter holes must be drilled at each hinge.

### 2. PLACE SIDE FRAME IN OPENING

- The top part of the frame is indicated by a greater amount of distance from the top of the top hinge to the edge of the frame. The label will indicate left and right side.

### 3. FASTEN SIDE FRAME

- Insert a screw inside the top holes first, followed by the bottom ones, keeping the panels plumb.

### 4. HANG PANELS

- With upper and lower hinge pins only.

### 5. SQUARE/LEVEL PANELS TO THE OPENING

- Adjust the bentleaf hinges, if necessary, by loosening the hinge screws and moving the hinge left or right.
- Re-tighten hinge screws once level.

### 6. FASTEN REMAINING SCREWS

- Insert screws in the remaining holes and check to ensure panels are level after every screw has been screwed into position.

### 7. FASTEN TOP AND BOTTOM FRAME

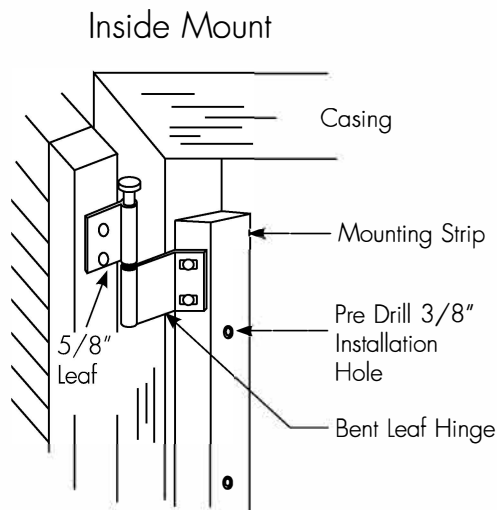
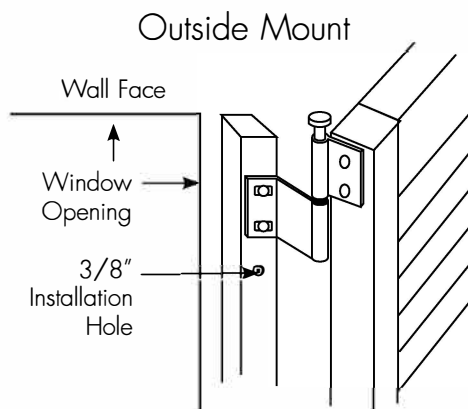
- Drill 3/8" hole.
- Center and insert screws.

### 8. CAP INSTALLATION HOLES

- Once all screws have been installed and panels checked for levelness, cap all holes with the provided button plugs.

### 9. INSTALL MAGNETS AND PLATES

- See page M4 for instructions.



## Outside Mount with Casing Frame or S Frame

### 1. ASSEMBLE FRAMES

- See page M6.

### 2. HOLD FRAME ON OPENING

- The top part of the frame is indicated by a greater amount of distance from the top of the top hinge to the edge of the frame. The label will indicate left and right side.

### 3. FASTEN FRAME

- Most frames have pre-drilled holes placed for ease of installation.
- Insert a screw in both the left and right top side frame holes as level as possible.

### 4. HANG PANELS

- With upper and lower hinge pins only.

### 5. SQUARE/LEVEL PANELS TO THE OPENING

- Move bottom frame left or right until the panels are level (**A**). If this does not work, then:
- Move left frame up or down until the panels are level (**B**). If this does not work, then:
- Move right frame up or down until the panels are level (**C**).
- When the panels are level within the frame, hold bottom frame in position and place a screw in the middle bottom frame hole.

### 6. FASTEN REMAINING SCREWS

- Insert screws in the remaining holes and check to ensure panels are level after every screw has been screwed into position.

### 7. INSTALL MAGNETS AND PLATES OR RAMPS (if applicable)

- See pages M3-M4 for instructions.

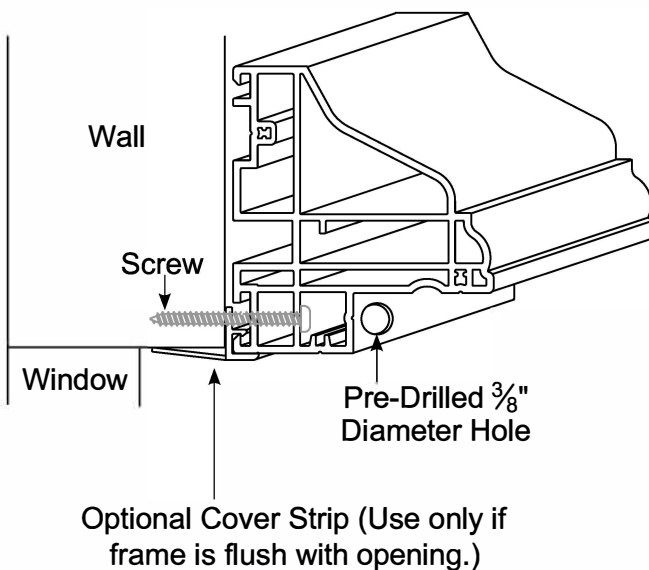
### 8. CAP INSTALLATION HOLES

- Once all screws have been installed and panels checked for levelness, cap all holes with the provided button plugs.

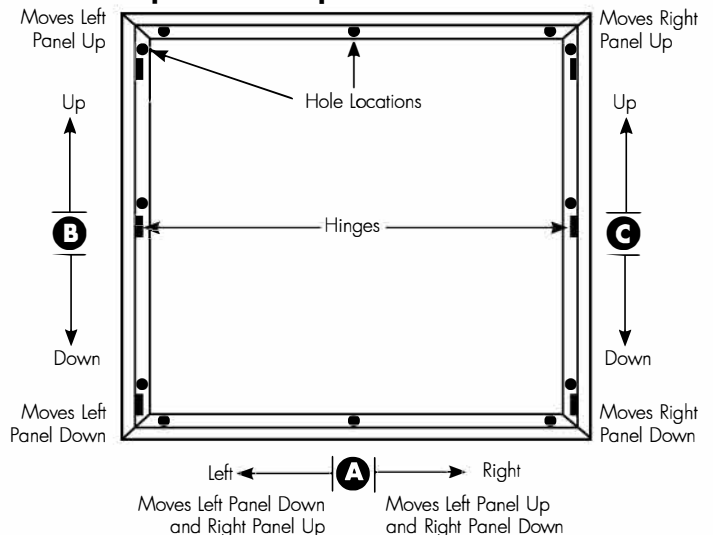
### 9. CLOSE ANY GAPS

- For gaps that may occur at frame corners or around frame, apply Dap as needed.

#### Fastening



#### Squareness Adjustments



## Outside Mount with L Frame

### 1. ASSEMBLE FRAMES

- See page m6.
- Corner key for outside mount L Frames must be glued in place.

### 2. HOLD FRAME ON OPENING

- The top part of the frame is indicated by a greater amount of distance from the top of the top hinge to the edge of the frame. The label will indicate left and right side.

### 3. FASTEN FRAME

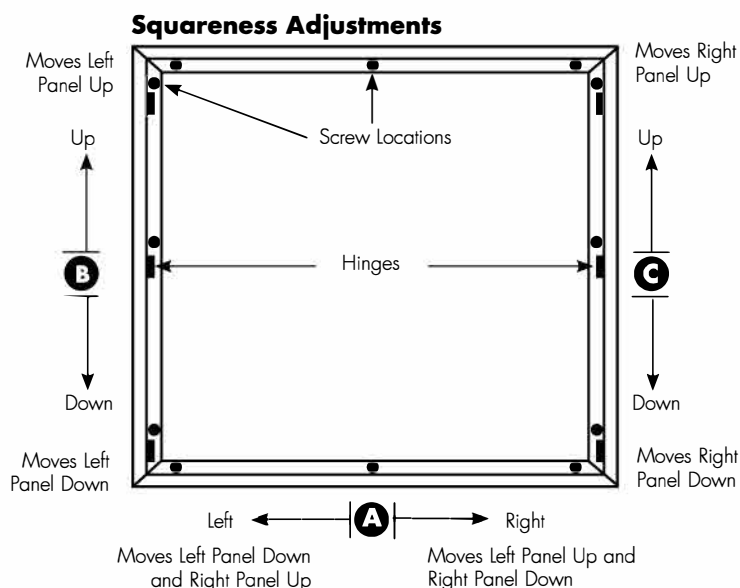
- Most frames have pre-drilled holes placed for ease of installation.
- Insert a screw in both the left and right top side frame holes as level as possible.

### 4. HANG PANELS

- With upper and lower hinge pins only.

### 5. SQUARE/LEVEL PANELS TO THE OPENING

- Move bottom frame left or right until the panels are level **(A)**. If this does not work, then:
- Move left frame up or down until the panels are level **(B)**. If this does not work, then:
- Move right frame up or down until the panels are level **(C)**.
- When the panels are level within the frame, hold bottom frame in position and place a screw in the middle bottom frame hole.



### 6. FASTEN REMAINING SCREWS

- Insert screws in the remaining holes and check to ensure panels are level after every screw has been screwed into position.

### 7. INSTALL MAGNETS AND PLATES OR RAMPS (if applicable)

- See pages M3-M4 for instructions.

### 8. CAP INSTALLATION HOLES

- Once all screws have been installed and panels checked for levelness, cap all holes with the provided button plugs.

### 9. CLOSE ANY GAPS

- For gaps that may occur at frame corners or around frame, apply Dap as needed.

### Fastening

