

## Installing Invisirail Posts

### 1) Taking Measurements for Invisirail Panels

- Always install posts first, make them as plumb as possible
- When measuring opening between posts, always measure at the deck surface, as this distance cannot be altered.
- Distance must be accurate to within +/- 1/16 inches
- When ordering glass, confirm how many corner posts there will be on the deck
- Engineering sheets will specify, and glass will be marked, for special tempering required for Invisirail
- Only glass supplied through *LIV Outdoor* can be used for Invisirail.

### 2) Top Brackets Installation

- Disassemble the rail brackets, and discard the pin and nylon bushing (They are not required for top brackets only!)
- For top brackets, use #14 x 2.5 stainless lag screws (if material is very hard [i.e. Kayu] , predril a pilot)
- Top bracket to be installed 39.5 inches O/C above deck surface for 42 inch rail height (33.5 inches for 36 inch rail height)
- Do not over tighten the lags, causing stripping
- Only snug up bracket against post so bracket can be still turned by hand force
- Make bracket as close to plumb as possible



Taking apart the brackets

Drilling bracket into post



Finished Top Bracket

### 3) Bottom Brackets Installation

- Disassemble 2 sets of rail bracket halves, and keep the pin and nylon bushing aside.
- Drill a 3/8 inch diameter hole through the post, 6.125 O/C inches above the deck surface. Make this hole parallel to the deck (for better accuracy, drill halfway through each side, then drill through hole in one pass)
- Use a bolt and nut and insert bolt through connector half, push through hole in post, and put the other bracket onto the bolt
- Put the nut onto the bolt, and spin nut until snug. Use a 1/4 inch drive to snug up the bolt and brackets
- When using bracket on corner, there will only be a bracket on one side. Drilled hole will have to be slightly offset, or angled up/down so that the corner bolt's clear each other.
- The other side (without the bracket) will have a washer and acorn nut, or support plate, depending on application and engineering sheets
- The brackets are now ready to install glass, and back half brackets



Drilling hole through post to prep for bottom brackets install



Setting Up Bottom Brackets with bolt, nut, and brackets



Bracket setup before install



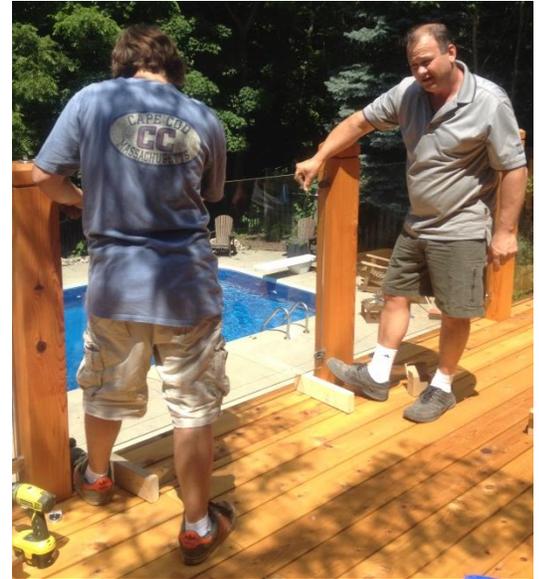
Finished bottom brackets (both sides)



Acorn nut to replace bracket for corner posts

#### 4) Installing the Glass

- It is recommended that you have 2 short pieces of 2x4's (or 4x4's) sitting on the deck (on edge), in between posts to help support the glass sheets while installing
- Locate correct glass sheet for section to be installed. The glass panels are exactly 1 3/4 inches shorts than opening size
- Carefully pick up glass sheets, set into position with notches in glass at bottom of rail
- Fasten the top brackets first so that it will hold the panel in position
- Take the other half of the brackets, slide onto installed halves, and tighten screws without stripping
- If the bracket does not slide easily onto installed sections, confirm that the bracket has not been over tightened (this would cause misalignment of the two halves. Back off the screw or bolt slightly until other half slides in snugly)



Positioning the glass sheets (notice the 2x4's on the deck, helping support the sheet)

- Install a pin and nylon bushing into bottom bracket half already installed in post
- Again, if back half of bracket does not slide completely into mate the pin and bracket already installed, confirm that the bracket bolts have not been over tightened
- When complete, all bracket plates should be parallel to each other and the screws should be completely tightened



Setting up pin in bracket



Pushing the 2nd half of bracket onto installed half of bracket.

Finished post. Both halves of brackets are fastened with provided bolts.

