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Installation Guide

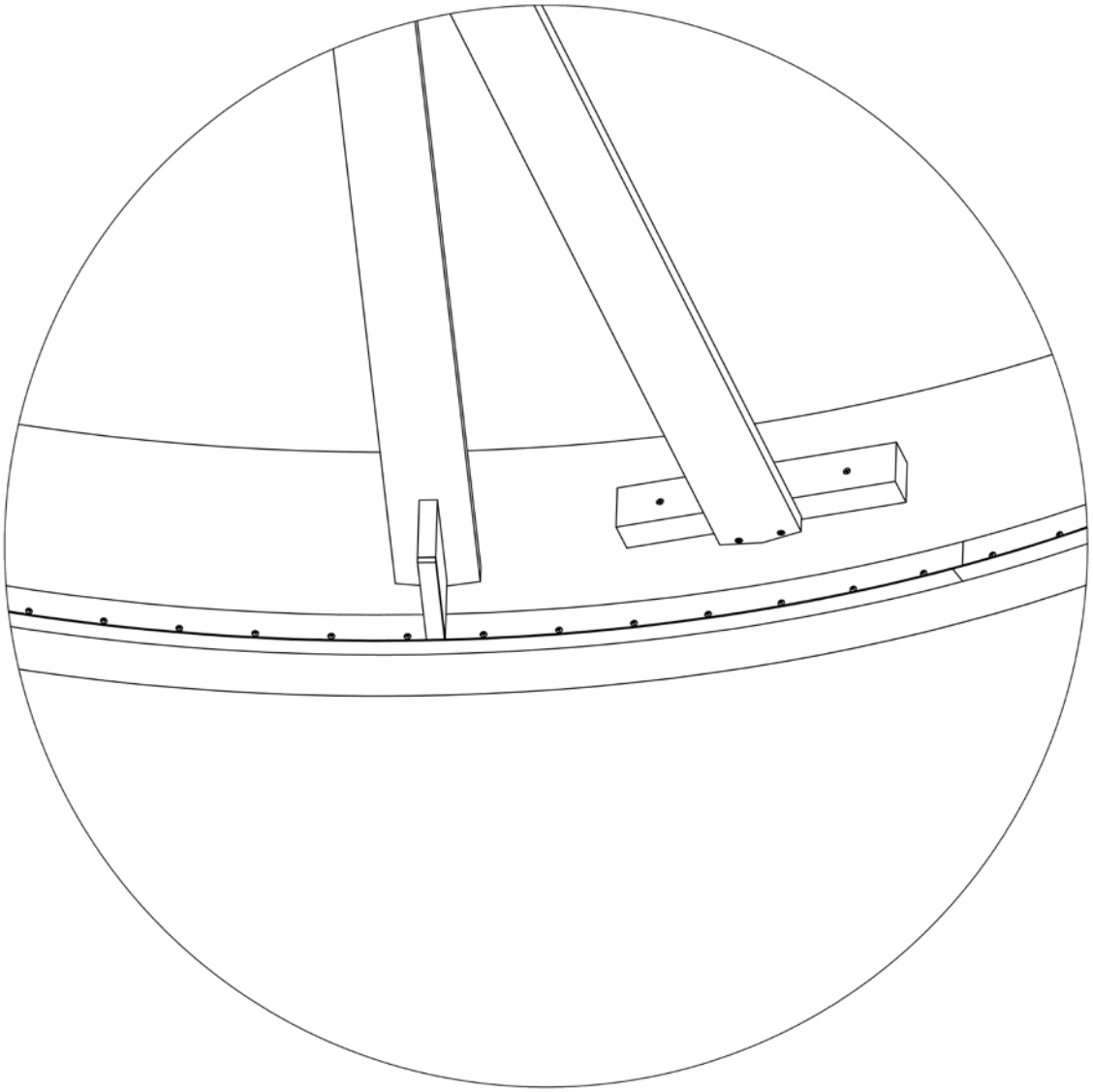
for the Circular

Perimeter Angle

For technical support at any time during the installation, please call us toll free at 866-759-3228. We want your installation to go as smoothly as possible. Thank you for choosing The Sky Factory.

Procedure: A simple installation jig is constructed on site and used to position the perimeter angle a) **in its proper arc** and b) **in its proper orientation** to the existing finished opening.

The jig consists of a "**fixed**" arm and a "**pivot**" arm. The "**pivot**" arm of the jig sits below the "**fixed**" arm, allowing it to rotate 360 degrees and thereby locate the perimeter angle.



Read all instructions in the installation packet before attempting installation.

Note: If the plenum walls do not provide room to attach the two ledger blocks in Step 2 of these instructions, then call The Sky Factory for "Installation Guide for the Circular Perimeter Angle Option: Multiple Ledger Application".

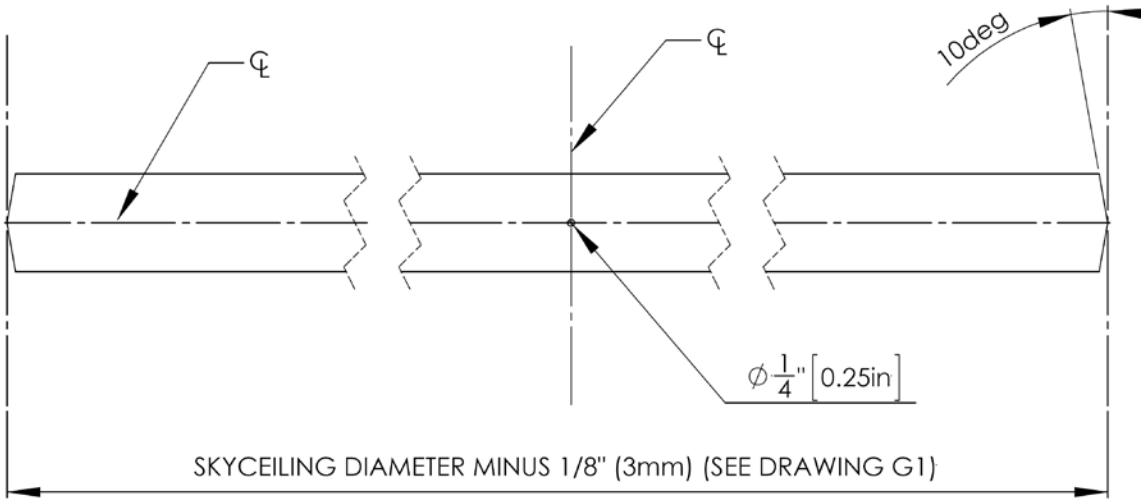
Step 1: Build the Jig

Materials needed:

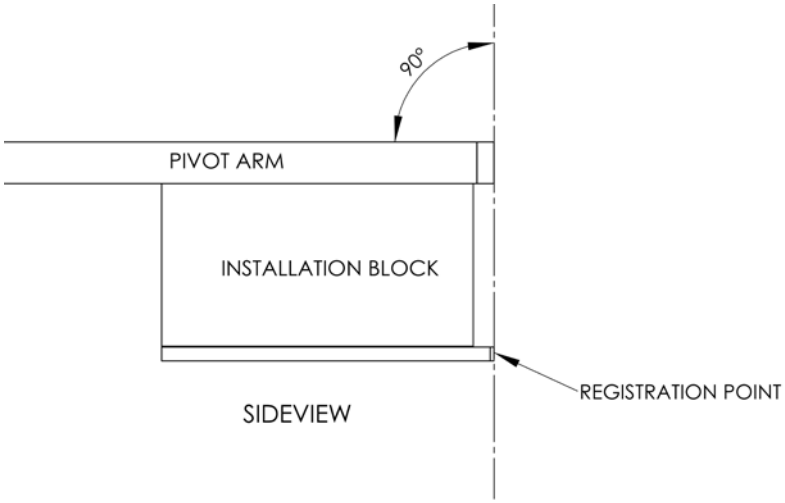
1. Two straight and flat pine boards, approximately 3/4" thick x 3 1/2" wide x at least the diameter of the SkyCeiling in length
2. 1/4" x 2" – 3" bolt with two flat washers and a nut

Make the two arms of the jig:

1. Cut the pine boards **1/8" shorter than the SkyCeiling diameter length:**
    a. See Grid Plan GR1 for the SkyCeiling diameter. (Caution: Do **not** use the Finished Opening diameter.)
    b. The jig registers the inside edge of the vertical leg of the perimeter angle. The vertical leg of the perimeter angle is 1/16" thick. Therefore, the jig needs to be 1/8" less than the diameter.
2. Make points on the ends of both arms by cutting 10 degree angles from the center point of the 3 1/2" width.
3. Locate the **exact center** of each arm by measuring in equidistant from the two ends and from the two sides.
4. Drill a ¼" hole in the center of each arm. The two arms will be joined together using the 1/4" bolt once the "fixed" arm is in position in the finished opening.

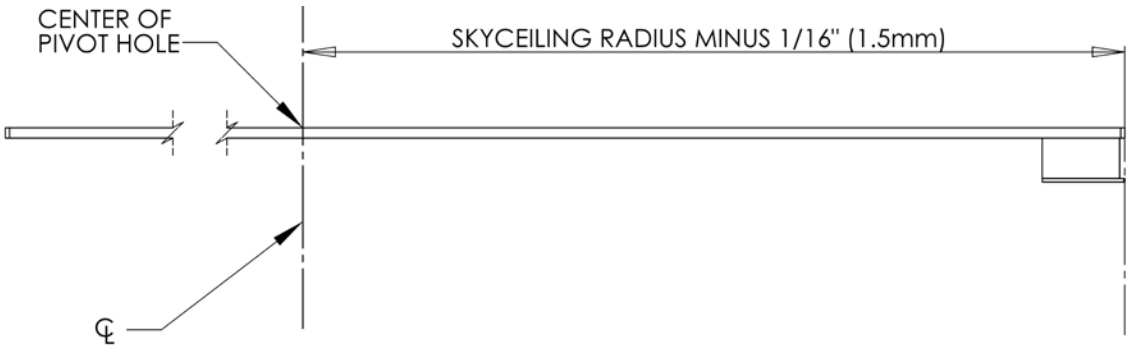


Attach the 3/4" by 2 3/16" installation block, provided by The Sky Factory:



1. The installation block has a 1/4" by 3/4" pointer which provides a **registration point** to locate the position of the perimeter angle. The pointer extends out from the block to provide clearance for perimeter angle attachment screws.
2. Mount the block:
    a. to the end of one of the jig arms, and
    b. centered on the arm's width
    c. so the pointer on the block lines up with the point on the end of the arm.

IMPORTANT: the distance between the tip of the pointer on the block and the pivot point of the arm (where the bolt sits) MUST BE the radius of the SkyCeiling minus 1/16".



3. The arm with the block attached is the "**pivot**" arm. The arm without a block is the "**fixed**" arm.

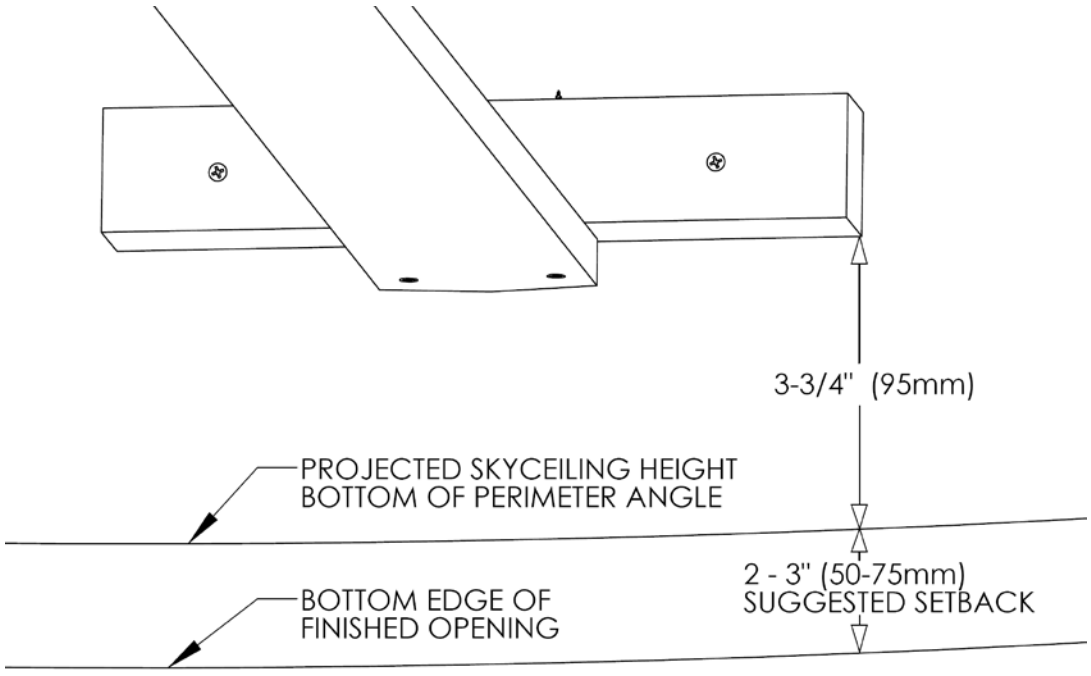
Step 2: Install the Jig

Materials needed:

1. Two wood blocks, approximately 1 1/2″ x 2″ x 12″ long.
2. The ledger blocks may need to be longer or shorter, etc. to meet the backing locations behind the plenum sidewall.
3. Two clamps. (Clamps are used to temporarily hold the fixed arm during installation.)

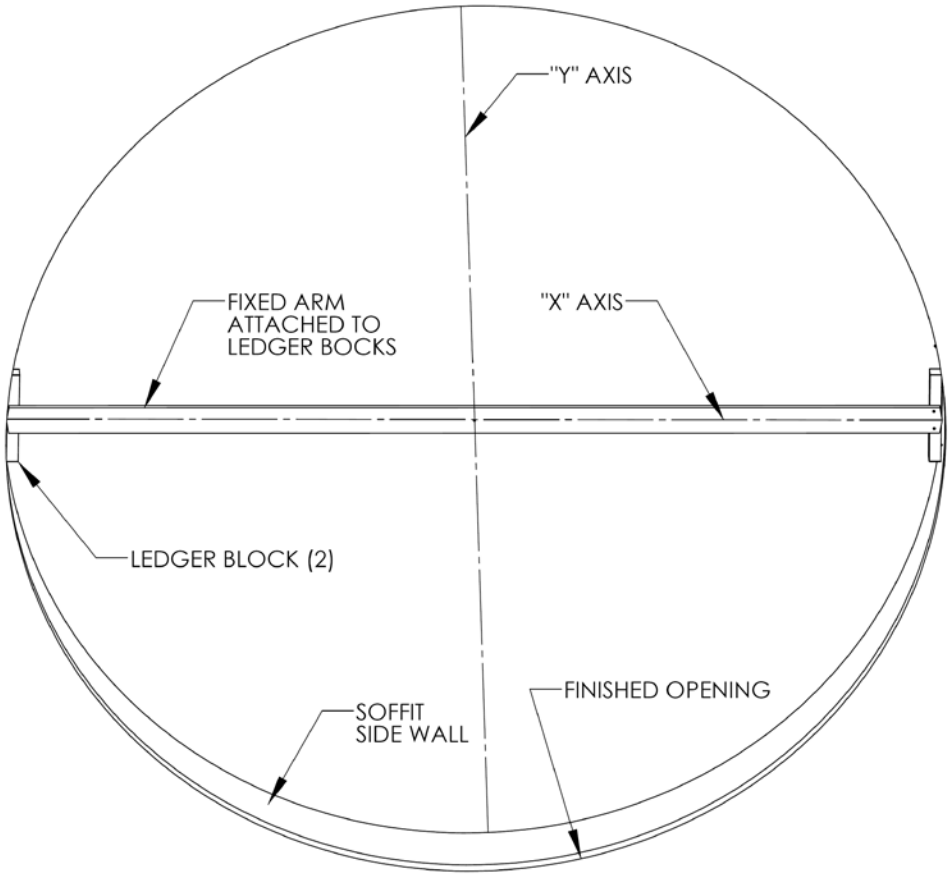
Install two ledger blocks:

1. Two ledger blocks are required to attach the fixed arm to the plenum walls.
2. The fixed arm will attach to the bottom of the ledger block, and the pivot arm will rotate beneath the fixed arm.
3. Set the bottom of each ledger 3 3/4″ above the projected bottom of the SkyCeiling perimeter angle. See drawing below.
4. Attach the blocks on opposite sides (180°) of the plenum sidewall.



Locate and install the fixed arm of the installation jig:

Important: The center point of the fixed arm must line up with the center point of the plenum.

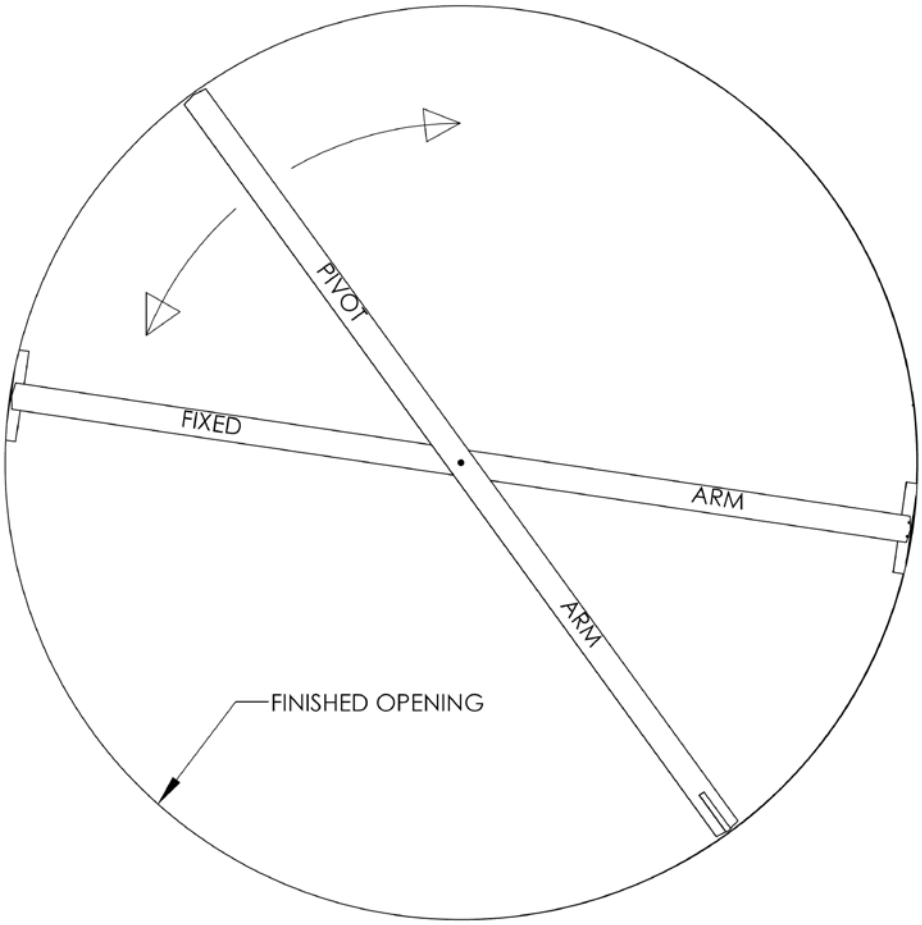


Picture the plenum opening with an "x" and "y" axis, with the "x" axis passing through the two ledger blocks.

1. Temporarily clamp the fixed arm of the jig to the two ledgers so that it is centered between the plenum walls.
2. The fixed arm will then be sitting on the "x" axis.
3. Measure from the center point of the fixed arm to the plenum walls in the "y" axis. The two measurements need to be equal.
    a. Adjust the fixed arm at one or both of the ledger blocks until the center hole of the fixed arm is centered between the plenum walls **in the both the "x" and "y" axis.**

Attach the pivot arm to the fixed arm:

Before permanently attaching the fixed arm, attach the pivot arm to double check the location of the center point:



1. Join the two arms together using the 1/4" bolt and nut, placing a flat washer on each side. The washers will allow the arms to move freely in relation to one another.
2. Make sure the installation block is on the bottom of the pivot arm so it can pass under the fixed arm.
3. Rotate the pivot arm and check the distance between the register point on the installation block and the plenum wall in several places. It should be the same or close to the same throughout.

Once the center point of the jig is properly oriented in the opening, screw the fixed arm to the ledger block and remove the clamps.

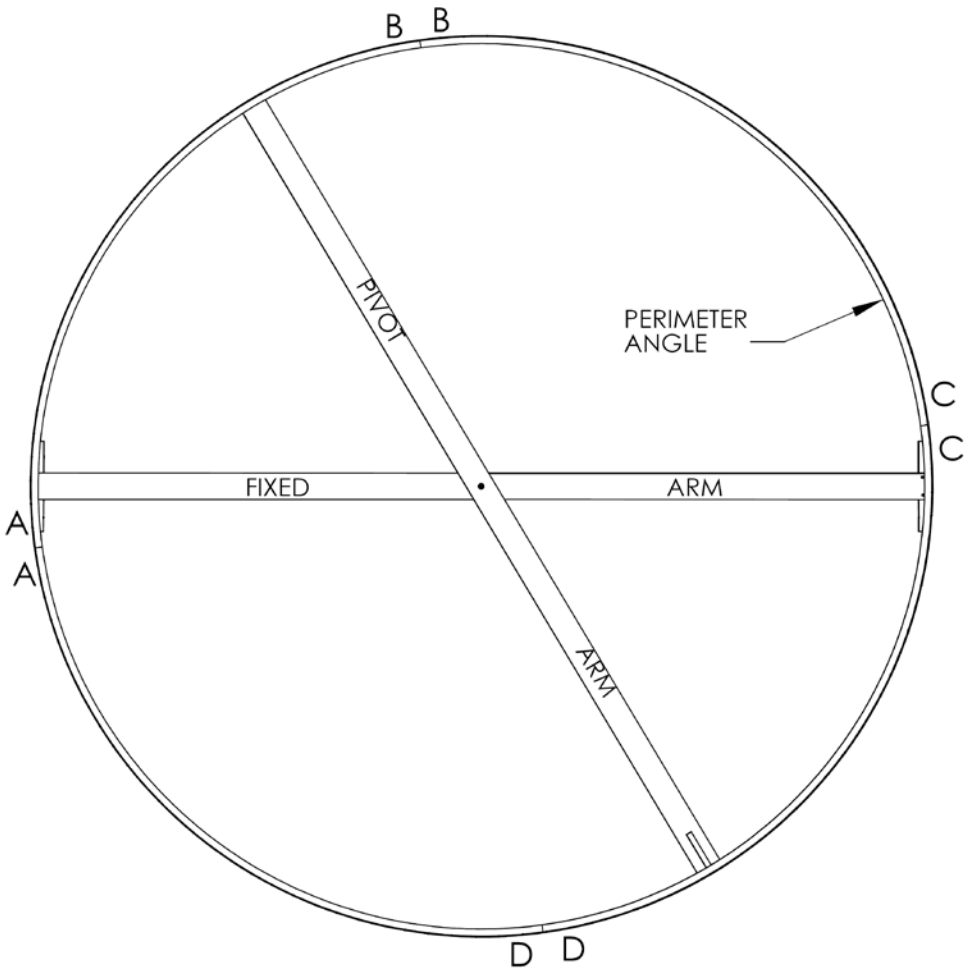
Step 3: Install the Perimeter Angle

The perimeter angle is a 1/16" thick PVC with a 15/16" horizontal leg and a 2" vertical leg. It is floppy and will require either a second installer to hold it while it is being installed or by using temporary supports.

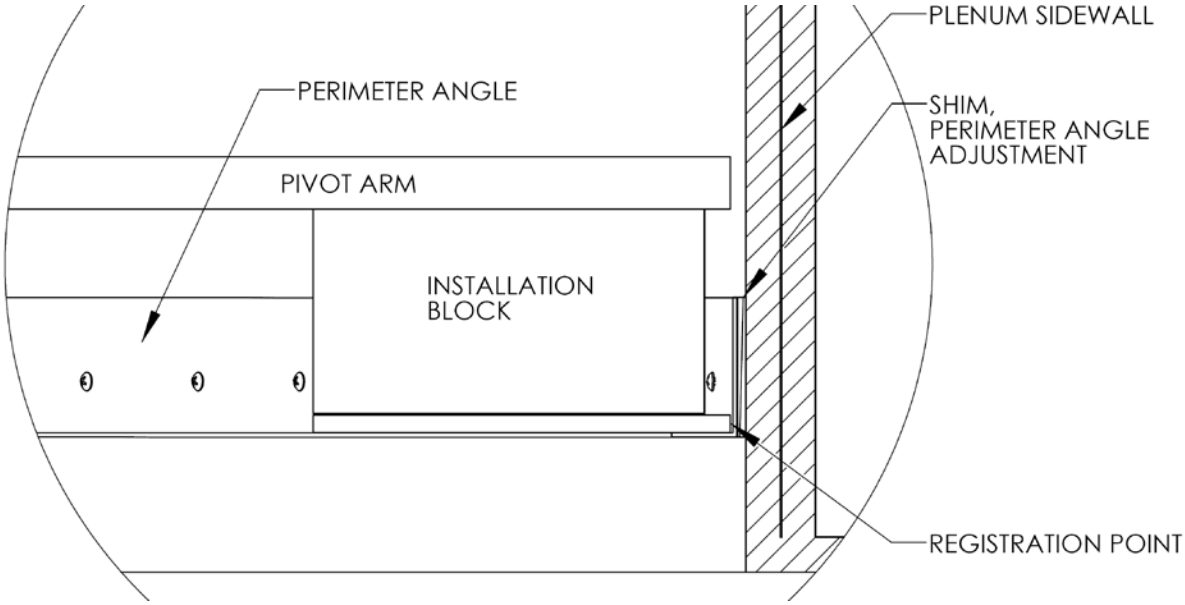
(A 4" angle bracket works well for a temporary support. One leg of the bracket can be attached above the vertical leg of the perimeter angle without damaging a pre-finished soffit. Once the perimeter angle is installed, the angle bracket can then be unfastened and slid down and out from behind the perimeter.

The perimeter angle installs in sections, Joint A to Joint A, etc:

(Note: Number of sections varies with the diameter of SkyCeilings)



1. **When installing the first section** of perimeter angle, always work either from one end to the other or from the center out to both ends. Attaching both ends before locating the middle will form a "bubble" in the arc.
2. **When attaching the second, third, etc.,** begin with a joint butting a previously installed section, and proceed incrementally from there



3. **Screws should be placed** every 3" horizontally and 3/4" above the horizontal leg of the perimeter angle, and the perimeter angle should be **pre-drilled** as it may crack otherwise.
    a. Cap, washer head or pan head screws are recommended. Tapered heads may split the PVC if the head is buried.
    b. Use #8 screws. The length of the screw will be determined by the wall structure.
4. **The perimeter angle should be shimmed** at each screw so that the perimeter angle touches the registration point of the installation block on the pivot arm.

Step 4: Install the Perimeter Angle – Final Adjustments

IF A GAP OR OVERLAP OCCURS AT THE FINAL JOINT, DO NOT CUT THE PERIMETER ANGLE! IT WILL CHANGE THE DIAMETER OF THE CIRCLE!

If a small gap or overlap occurs (plus or minus 1/8") at the final junction of the perimeter angles, ease the screws off (or tighten as necessary) and re-shim, tapering the adjustment back approximately three to four feet on either side of the joint.

If a larger gap or overlap occurs, taper the adjustment back to within a few inches of the preceding joint on either side.