



Installation Guide for Circular Perimeter Angle

Overview:

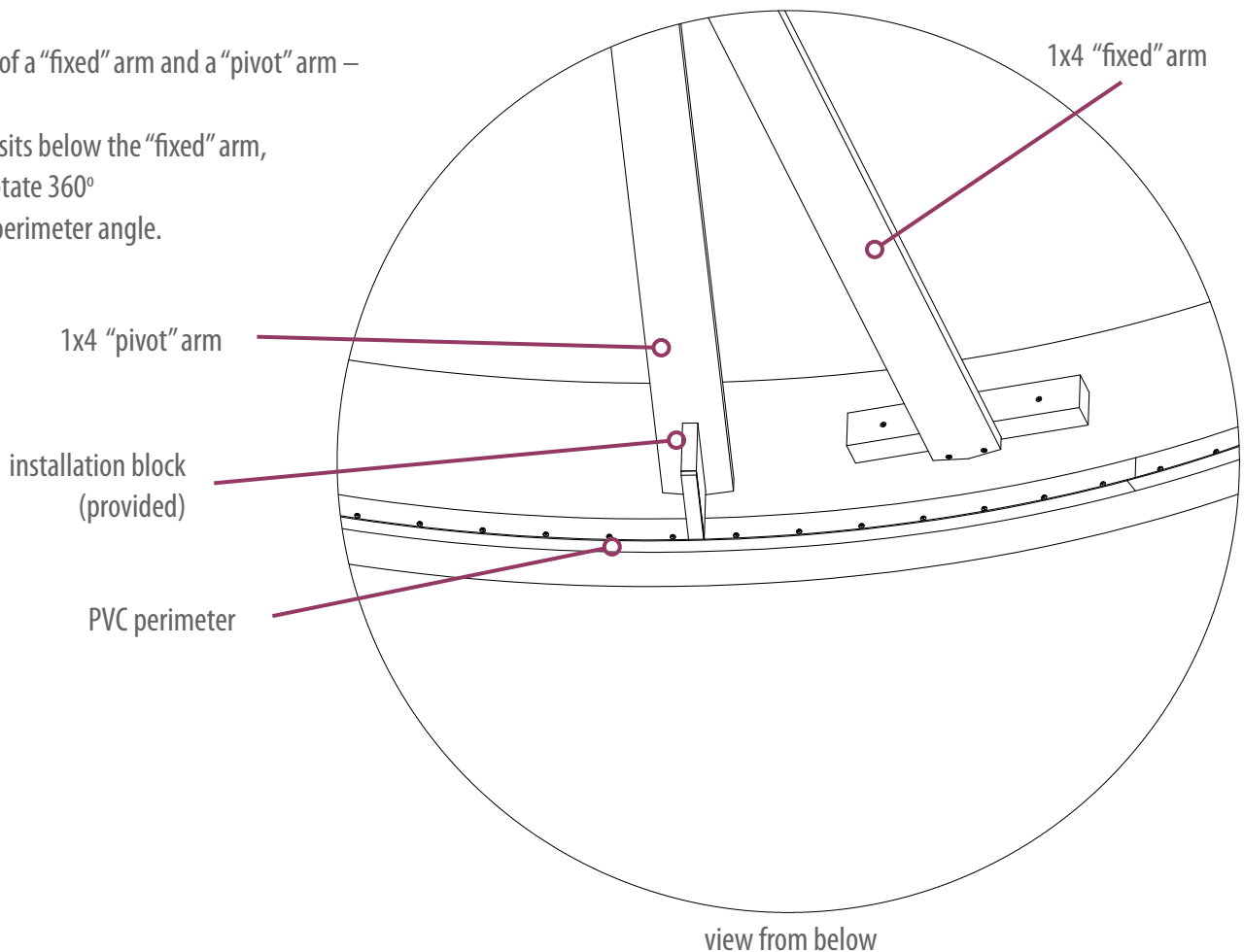
Perimeter angle provided is semi-flexible PVC pre-formed to the appropriate curve and needs to be installed with a high degree of accuracy.

The solution is to build a simple installation jig on site which will allow perimeter angle to be installed

- in its proper arc, and
- in its proper orientation to the finished opening.

The jig consists of a "fixed" arm and a "pivot" arm –

the "pivot" arm sits below the "fixed" arm, allowing it to rotate 360° and locate the 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.

Step 1: Building the jig

Materials needed:

Two straight and flat pine 1 x 4 boards (3/4" thick x 3 1/2" wide) at least the diameter of SkyCeiling long
1/4" x 2" - 3" hex or pan head machine screw with two flat washers and nut

Making the two arms of the jig:

Cut the pine boards 1/8" shorter than the SkyCeiling diameter

- See Grid Plan GR1 (Caution: do not use Finished Opening diameter)
- Note: jig registers inside edge of vertical leg of perimeter angle. Leg is 1/16" thick. Therefore, arms are 1/8" less than diameter.

Make points on both ends of both arms

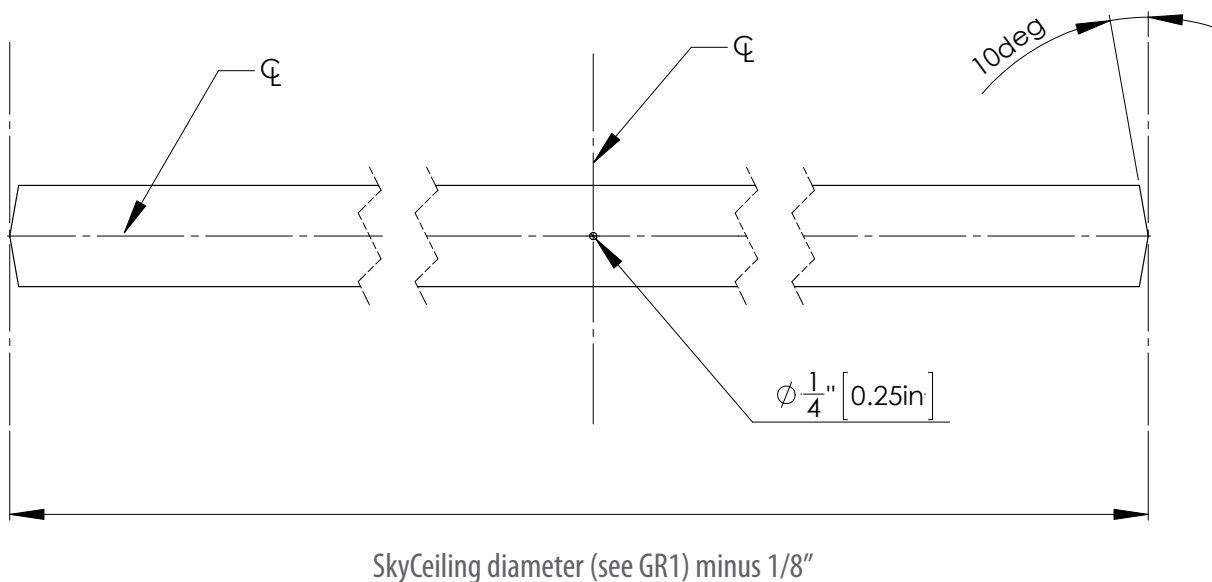
- Cut 10° angle both ways from center point of 3 1/2" width

Locate center of each arm

- Measure equidistant from two ends and from two sides

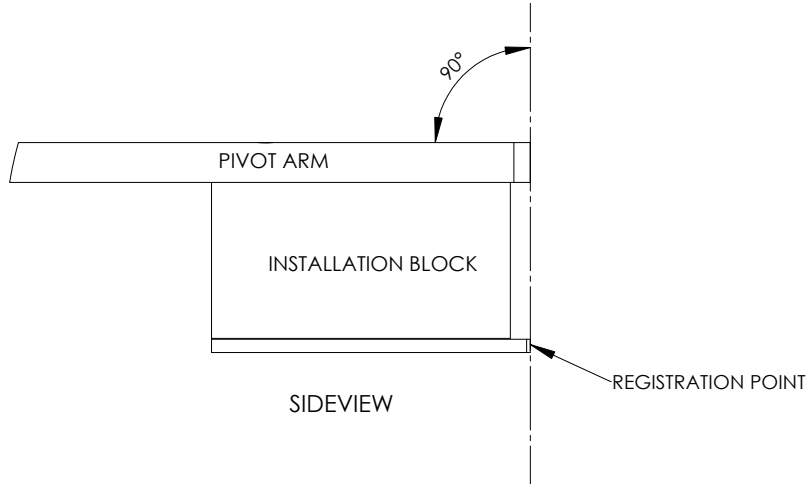
Drill a 1/4" pivot hole in center of each arm

- Arms will be joined together at center points once "fixed" arm is in position.



Attaching the installation block (provided):

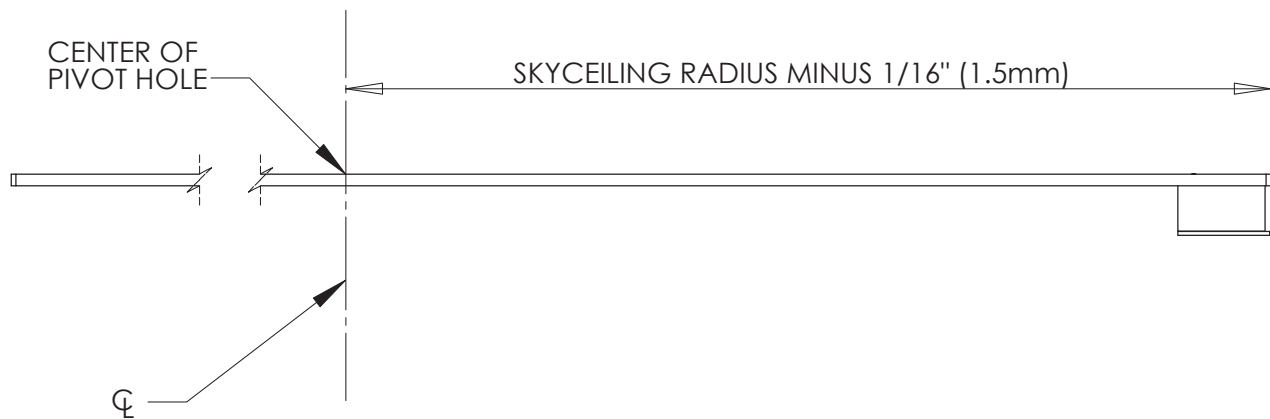
Installation block has 1/4" thick x 3/4" wide x 6" long pointer which provides a registration point to locate perimeter angle. The pointer extends out from block to provide clearance for perimeter attachment screws.



Mount the block:

- to one end of one jig arm, and
- centered on arm's width (so pointer on block lines up with point on end of arm).

Distance between tip of pointer and pivot point = radius of SkyCeiling minus 1/16"



Arm with block attached is "pivot" arm

Step 2: Installing the jig

Overview:

Fixed arm attaches to bottom of ledger blocks, and pivot arm rotates beneath fixed arm.

Materials needed:

Two wood ledger blocks, roughly 1 1/2" x 2" x 12" long

Ledgers may need to be longer or shorter to meet backing locations on plenum sidewall

Two clamps

Clamps will temporarily hold fixed arm during installation

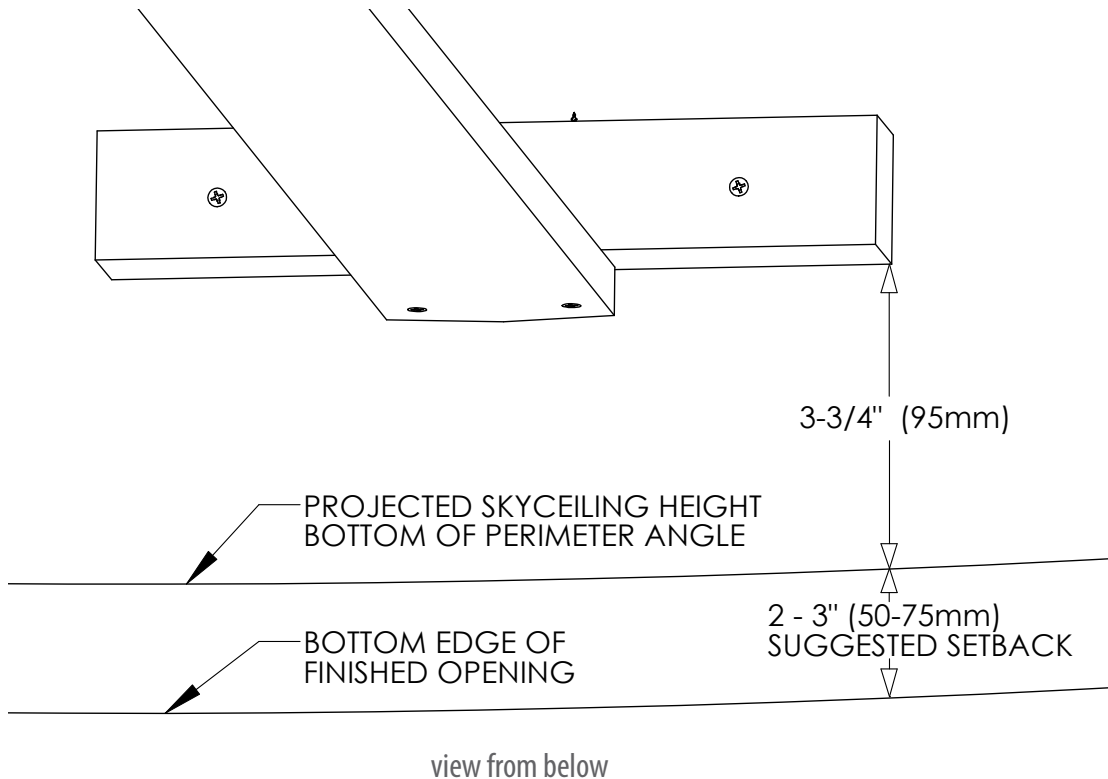
Fasteners to attach ledgers to sidewall and fixed arm to ledger

Install the ledgers:

Bottoms of ledgers sit 3 3/4" above projected bottom of SkyCeiling perimeter angle

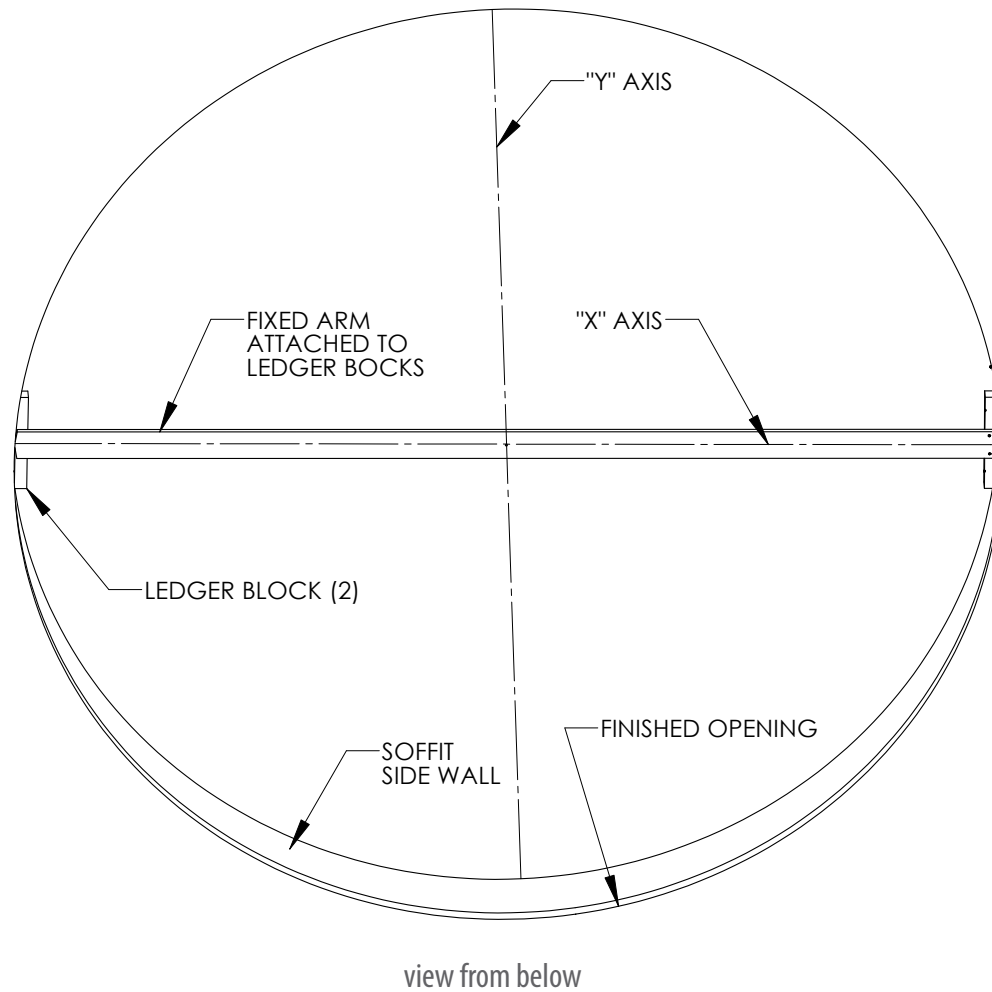
See also cross-section DE1 or DE2

Ledgers sit on opposite sides (180°) of plenum sidewall



Locate and install fixed arm:

IMPORTANT: Center point of fixed arm must line up with center point of plenum



Temporarily clamp fixed arm to ledgers so it is centered, end to end, between plenum walls

- Fixed arm will then be sitting on "x" axis

Measure from center point of fixed arm to plenum walls in "y" axis

- The two measurements should be equal
- Adjust fixed arm at ledger blocks so that:
 - two dimensions in "y" axis are equal
 - two dimension in "x" axis are equal

Do not screw fixed arm to ledgers until location has been tested with pivot arm. See next page.

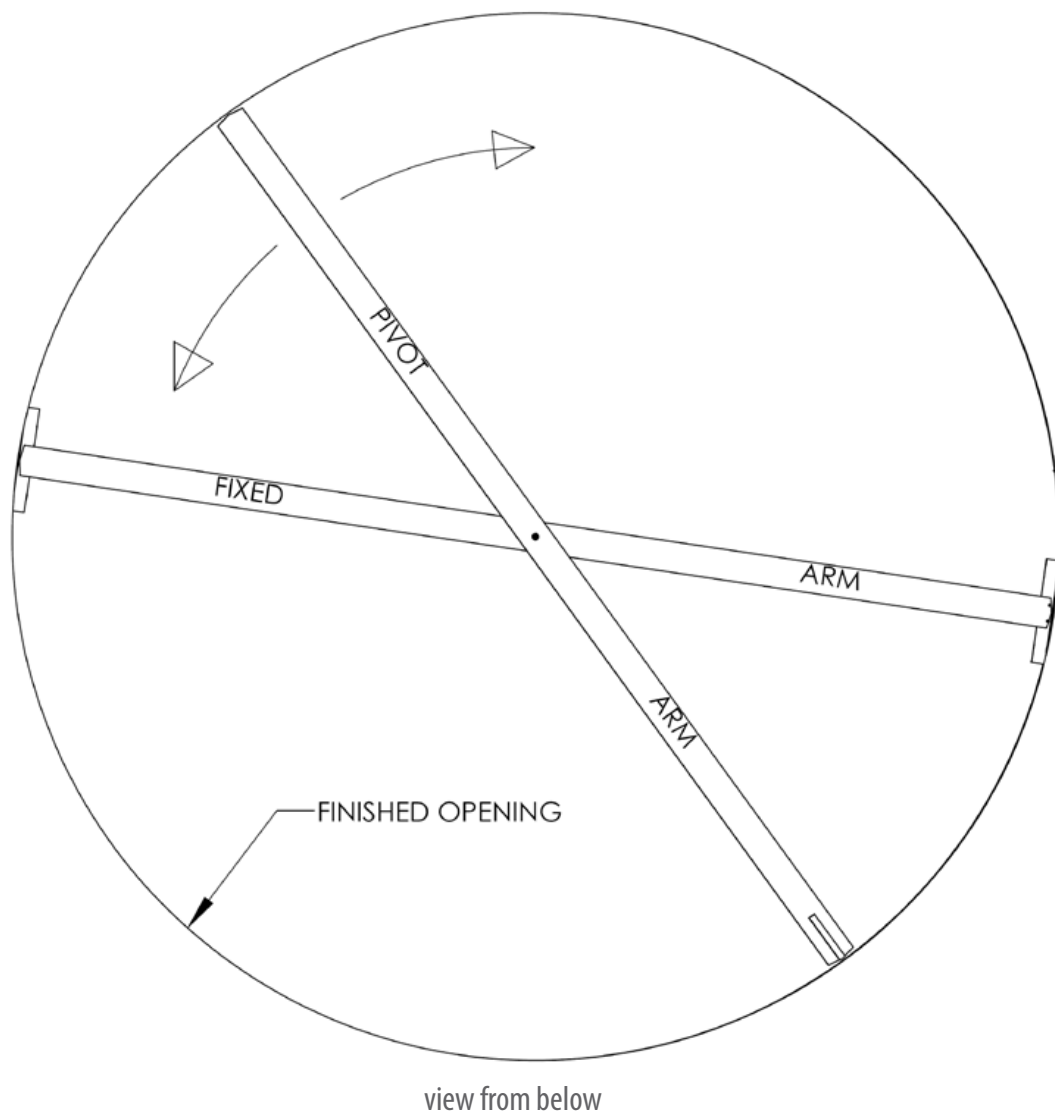
Attach pivot arm to fixed arm:

Join pivot arm to bottom of fixed arm using 1/4" bolt and nut

- Make sure installation block is on bottom of pivot arm
- Place flat washer on top and bottom to allow free movement

Rotate pivot arm to check installation jig location

- Check distance between installation block registration point and plenum sidewall in several places
- Distance should be same or close to same throughout
- Adjust fixed arm as necessary to meet above criteria



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

Step 3: Installing the perimeter angle

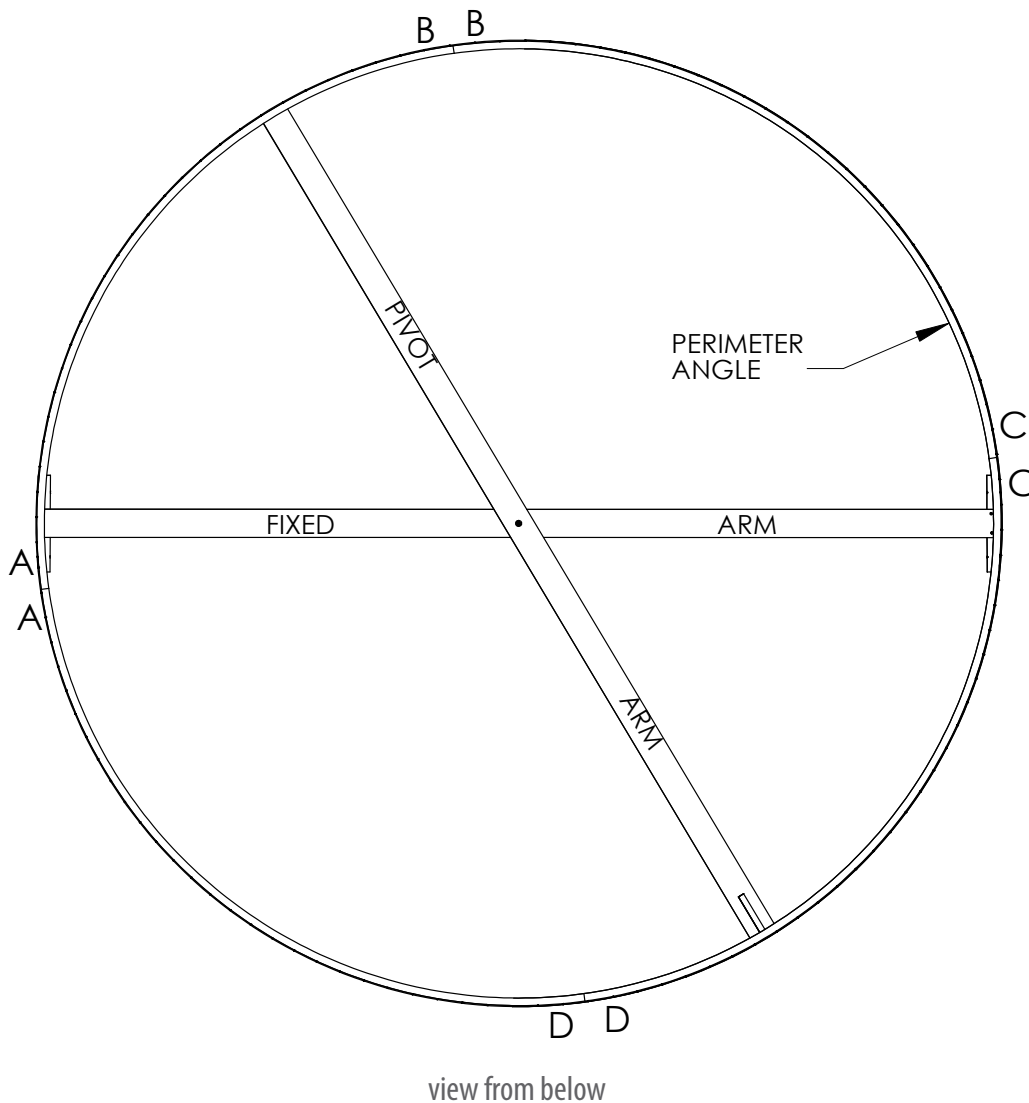
Perimeter angle is 1/16" thick PVC with 15/16" horizontal leg and 2" vertical leg. It is floppy and will require either a second installer or the use of temporary supports.

4" angle bracket as support option –

- One bracket leg attaches above the vertical leg of perimeter without damaging visible soffit
- A minimum 1/8" gap between finished sidewall and SkyCeiling is specified all the way around and bracket will fit in this gap
- Once perimeter is installed, bracket can be unscrewed and slipped down and out from behind vertical leg

Perimeter angle installs in sections, Joint A to Joint A, etc.:

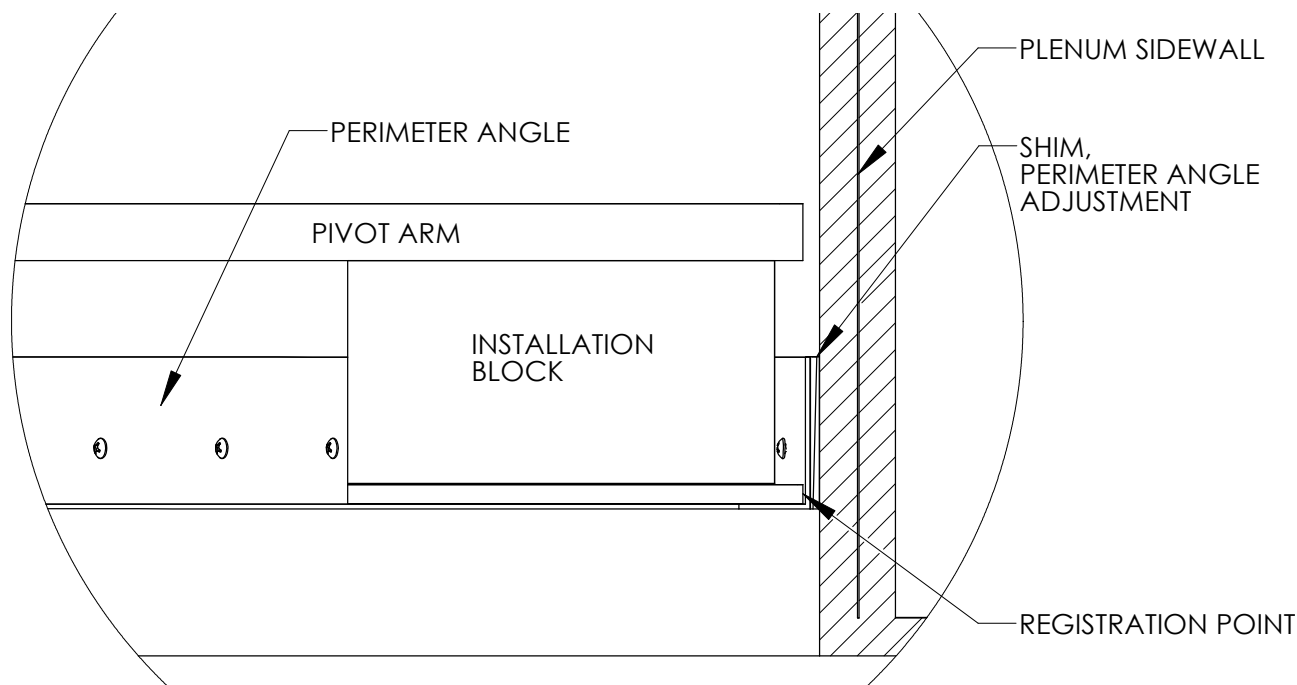
(NOTE: Number of sections varies with SkyCeiling diameter)



Install first section either from one end to other or from center out

- Attaching ends before locating middle may form a “bubble” in the arc

Install second, third, etc. at a joint butting a previously installed section



Secure sections to sidewall with screws every 3” horizontally and 3/4” above horizontal leg of angle

- #8 cap, washerhead, or pan head screws are recommended
Length to be determined by wall structure
- **DO NOT USE TAPERED HEADS. THEY MAY SPLIT PVC**

Shim perimeter at each screw so vertical leg of perimeter touches registration point of pivot arm.

**IF A GAP OR OVERLAP OCCURS AT FINAL JOINT, DO NOT CUT PERIMETER ANGLE!
IT WILL CHANGE DIAMETER OF CIRCLE! SEE STEP 4 BELOW**

Step 4: Installing the perimeter angle – final adjustments

For small gap or overlap (plus/minus 1/8”):

Ease screws off (or tighten as necessary) and re-shim, tapering adjustment back three to four feet on either side of joint.

For larger gap or overlap:

Taper adjustment back to within a few inches of preceding joint on either side.