FACTORY DIRECT PATIOS INC.

Insulated Patio Cover

Porch & Patio Shade Kit

Installation Guidelines

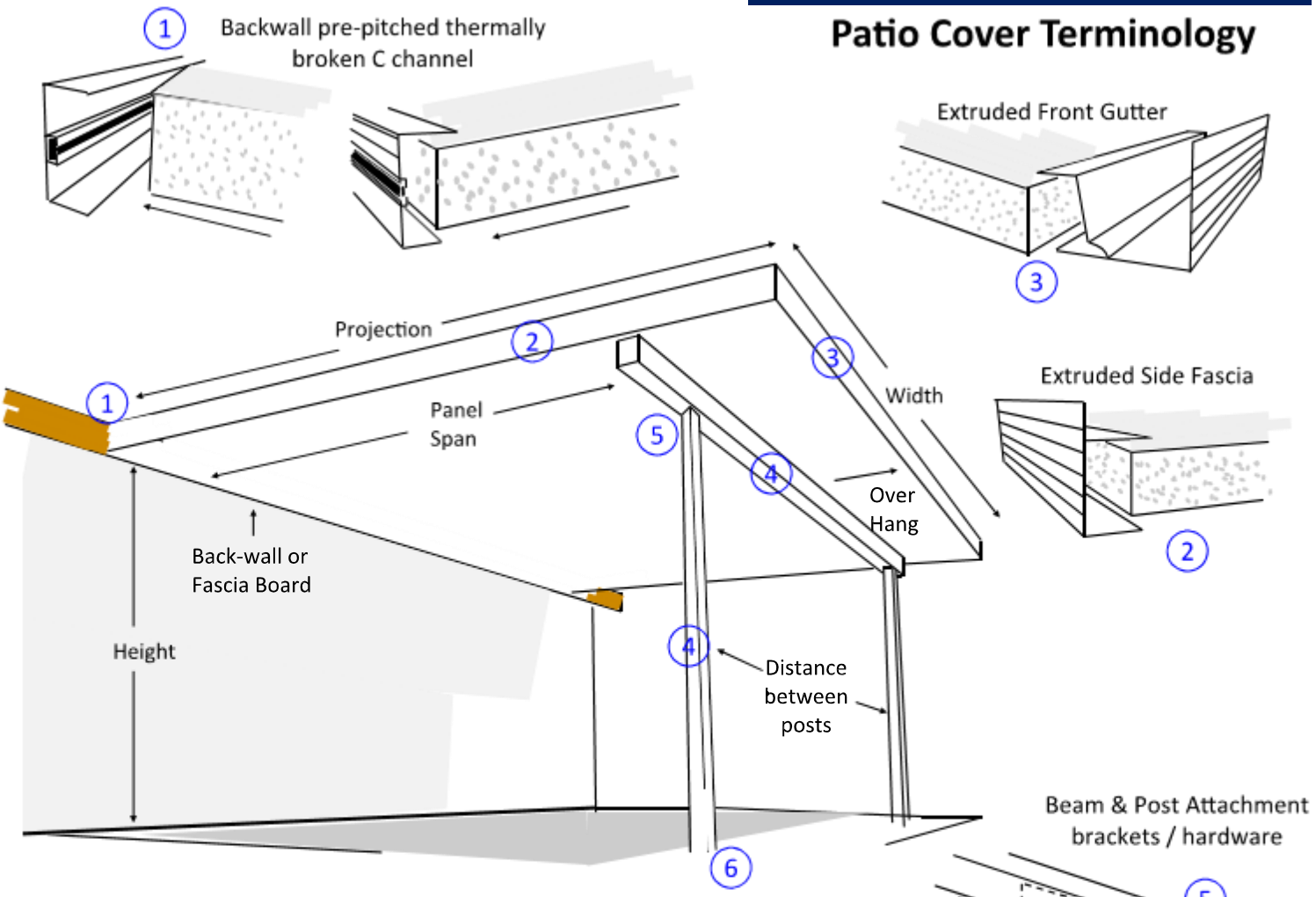
Your DIY Patio Cover Kit comes with all materials, including hardware and brackets, "internal" to the kit. You will need to supply the hardware to secure backwall attachment channels and post brackets to wood decking. You probably have all the tools you will need to accomplish the installation. A list (not to be considered comprehensive) is given below. Anything else that you might need is available at any big box store.

- 4 ft. Carpenter's level
- Chalk line (to mark level installations)
- Cordless drill/nut driver
- Caulking gun
- Chop saw with metal cutting blade (required to make accurate and precision cuts)
- Stud Finder
- Plumb Bob
- Masonry bits for drilling into concrete; masonry fasteners (if necessary)
- Safety eye-wear
- Ladder
- Metal file (to smooth cut edges)
- Hammer, Screwdrivers, Drill, tape measure
- Box knife
- Gloves

Disclaimer: *Not all parts you receive may be exactly as shown / drawn in these guidelines. However all parts that you do receive will accomplish the assembly according to your quotation. These are to be considered as general installation instructions only. You may need to make adjustments necessary to your particular circumstances.*

Installation Guidelines

Patio Cover Terminology



7 Different Sizes of Extruded Aluminum Beams

***Square 3"x 3" & 4"x 4" beams are also used as vertical posts**

Insulated Patio Covers

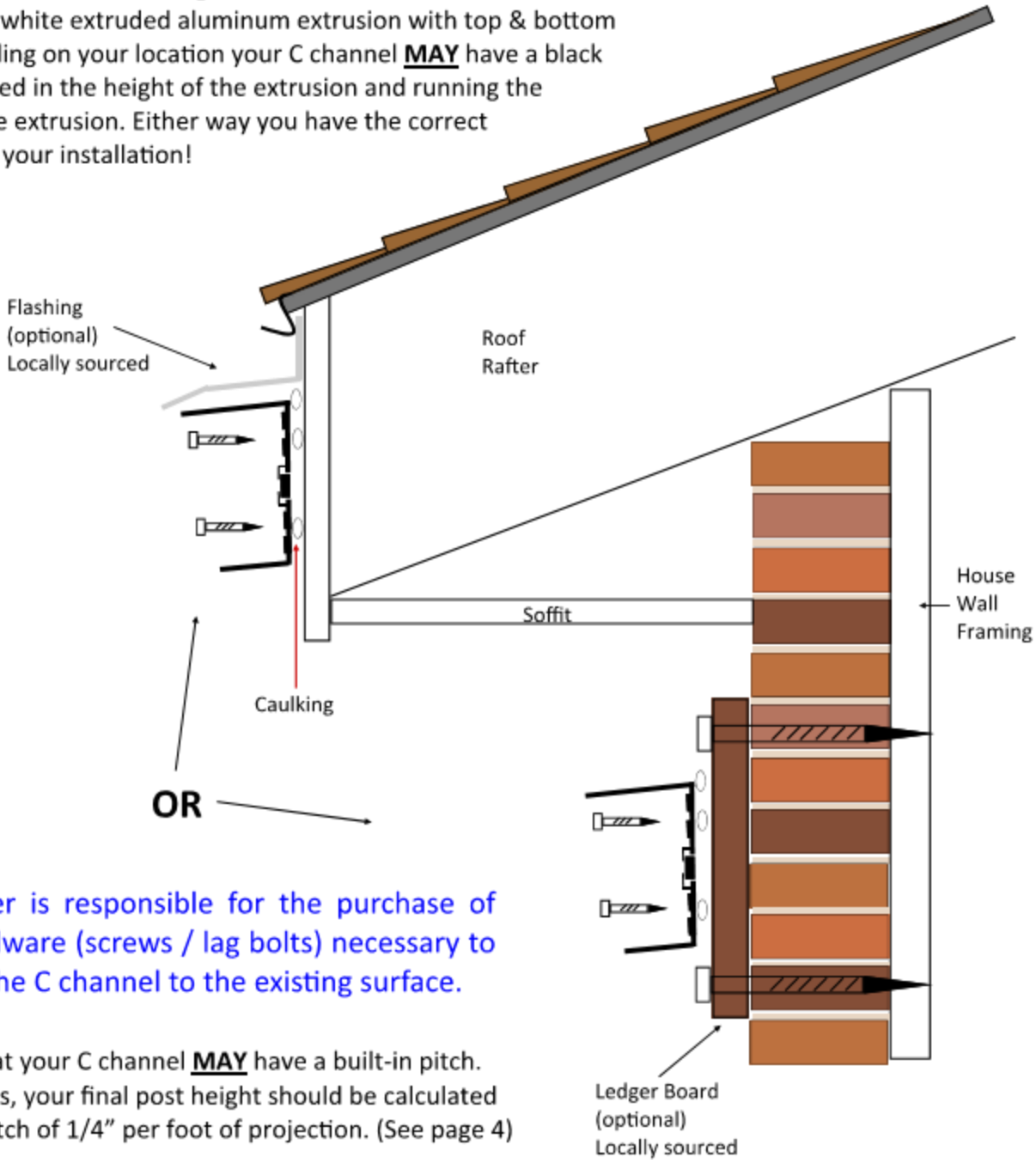
3", 4" or 6" thick "snap lock" Insulated panels

Insulated patio covers are quoted with all panels, beams, extruded fascia for both sides, thermally broken pre-pitched aluminum backwall C channel, front extruded gutter, screws & hardware, lags for panel to beams connection, posts, sealant, touch up paint, tar tape, top & bottom post brackets, and hardware.

**6" thick roof systems come with extruded aluminum drip edge fascia for all 3 exposed sides. Front gutter purchased locally.*

Install the Mounting Rail / C Channel

24' piece of white extruded aluminum extrusion with top & bottom lips. Depending on your location your C channel **MAY** have a black bead centered in the height of the extrusion and running the length of the extrusion. Either way you have the correct material for your installation!



Customer is responsible for the purchase of the hardware (screws / lag bolts) necessary to secure the C channel to the existing surface.

*Note that your C channel **MAY** have a built-in pitch. Regardless, your final post height should be calculated using a pitch of 1/4" per foot of projection. (See page 4)

Step 1

The backwall C channel is to be cut to the actual finished size of your roof. This will be the total of all of your panel widths not including the male lock on the last panel. The male lock on the last panel to be installed will be trimmed to match the length of the C channel and to allow for the side fascia installation. The side fascia installation (see page 8) will cap both ends of your back-wall C channel and both ends of the front gutter installation (see page 8).

Continued on the next page...

Installation Guidelines

Install the Mounting Rail / C Channel (cont'd)

Step 2

Once the C channel is cut to size hold it in place and snap a level chalk line at the bottom edge of the installation. At the same time, if tying into roof rafters, mark on the C channel rafter placement so you can drill starter holes in the extrusion. If installing a on ledger board you can still drill your starter holes but you are not limited to distances between rafters.

If your mounting rail / C channel has a built in pitch, it will have two flanges where one is slightly larger than the other. Place the channel on a table and look at it from the end. ***The smaller flange goes to the bottom of the installation!***

Either way, we suggest putting a screw, one on top of another, **at least** every 16" as your installation allows. Make sure the screws being used go into the mounting surface at least 1-1/2".

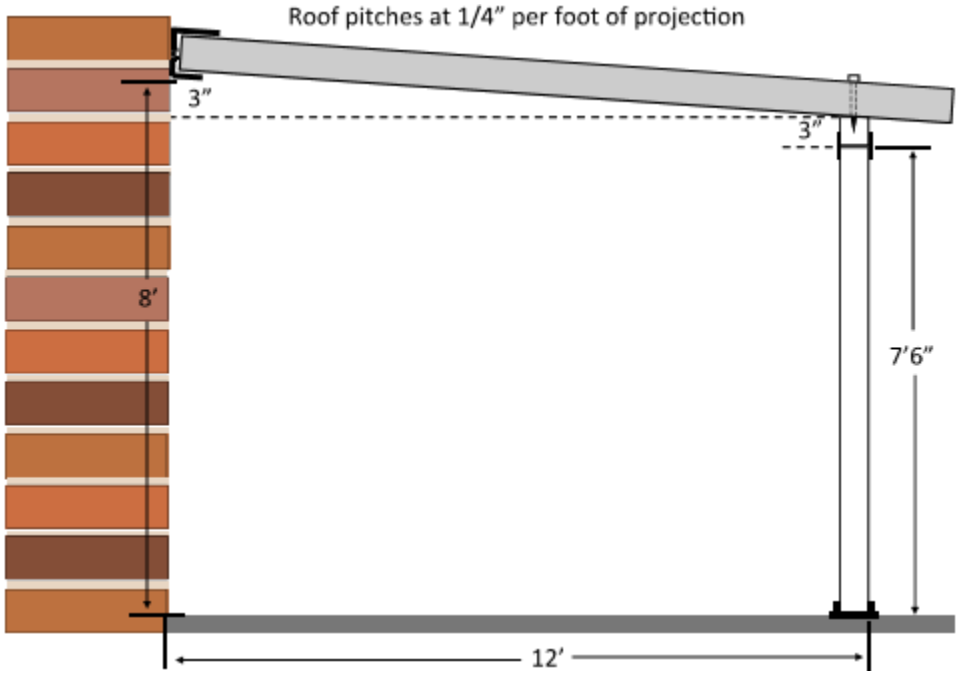
Prior to screwing the mounting rail into place, run an upper and lower bead of caulk running the full length of your material. If you have the room, after the channel is in place run a bead of caulk along the top to seal it to the mounting surface.

**When it comes time to install the roof panels you will be using the 1/2" TEK screw to go through the top and bottom lips of C channel into the skin of each roof panel. If possible (not imperative) make sure your installation allows for both top and bottom installation of the TEK screws.*

Determine Post Height

Step 3

You will need to do the math to determine the finished size of your post and beam assembly. The following example is for a 13' long panel mounted at 8' on the house wall. It is supported at the 12' mark by a 3" x 3" set back beam. Your numbers should be adjusted accordingly.



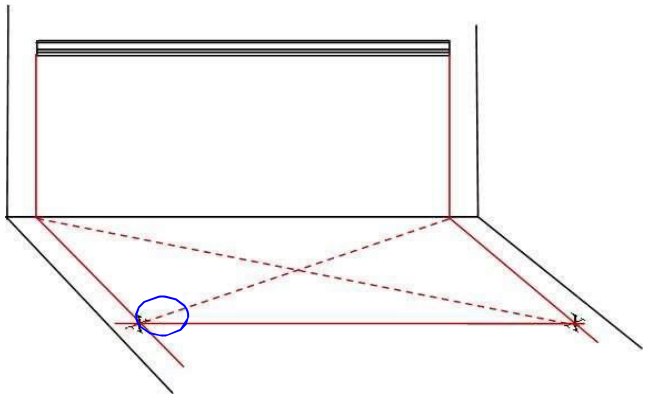
Take the measurement from the deck / patio to the bottom flange of the installed C Channel. For the purpose of this illustration, call it 8 feet. With a pitch of 1/4" per foot of projection, the total height of the post & beam assembly will be 8' minus 3" (12 x 1/4") = 7' 9". The beam in this illustration is 3" tall which means the 8' post supplied with the kit would need to be trimmed to a finished height of 7'6".

Installation Guidelines

Step 4

A Special Note:

Be confident that your post and beam installation will be square relative to the back-wall C channel installation. One way to achieve this would be to temporarily insert one of your insulated panels into the rear C channel assembly exactly at the left edge and support it with ladders or wooden braces at the height that you have determined as per the instructions in Step 3. **(Do not do this on a windy day!).** You can "square" up the awning perimeter by snapping chalk lines off the ends of the rear C channel installation, down the wall and plumb to the deck or patio surface. Run another chalk line perpendicular from that line on the wall out along the surface of the decking or patio.



Measure the exact distance of the 'on center' distance out to where your posts are to be installed on each of those perpendicular lines and then snap a chalk line connecting those two points. You should be able to drop a plumb line from the underside of the roof panel at the 'on center' point of where the beam will be installed and it should touch the line you have snapped on the deck or patio (blue circle in the drawing in this section. Make sure the measurement from corner to corner on the deck surface is exactly the same. This should give you a square installation.

Post & Beam Installation

Step 5

Once you have determined the finished height of your posts you can get ready to install them. Whether you are burying your posts in cement (See Page 6) or using our bottom brackets, posts need to be installed plumb. It is best to keep installations on cement surfaces away from the edge by 3"-4" and on deck surfaces, as close to the understructure as possible. Line up the holes in our bottom post brackets along your chalk line. **Post spacing is indicated in your quotation or in pricing on our WEB site.**

You will need to purchase the hardware to attach your bottom brackets (See Page 6). For those attaching to a wood deck we suggest using nuts and bolts secured to the underside of your deck boards. Alternatively we suggest going through the deck boards with a large lag screw into the support structure below. If you are cementing your posts into the ground, we suggest you ask for posts long enough where at least 2' of the total height of the post is in the ground (See Page 6).

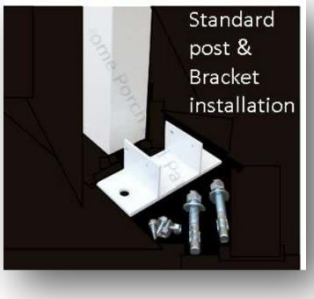
Once the bottom brackets and posts are installed, cut your beam size (if necessary). We suggest cutting the beam 1-1/2" short of each side of the **total** width of the roof panels. This will allow for easy installation of the side fascia and its bottom lip, which is a finishing step. You can go the full length, however you may need to cheat the flange between the top of the beam and the bottom of the roof. Either way will work.

Continued on next page...

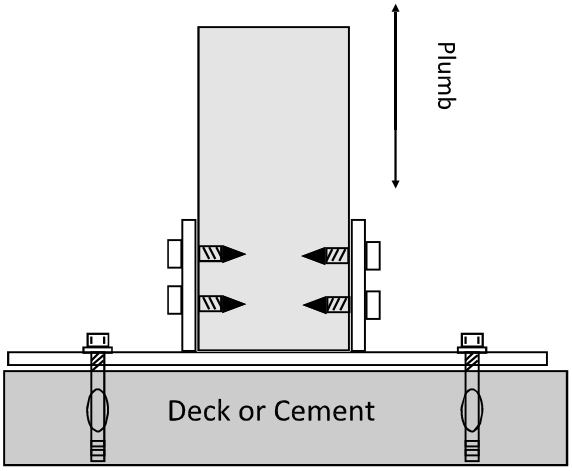
Post & Beam Installation (cont'd)

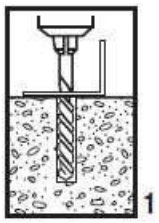
Step 6

Install the supplied beam. The beam size is indicated in your quotation. You have been supplied with a beam **and** all the "beam to post" connection hardware. The 3" (only) square beams will also come with finishing end caps. You can see illustrations on the beam to post connections below.

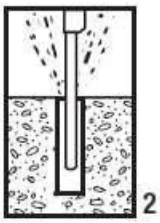


Methods of Post Installation





Drill hole with masonry bit at least as deep as the anchor is long.

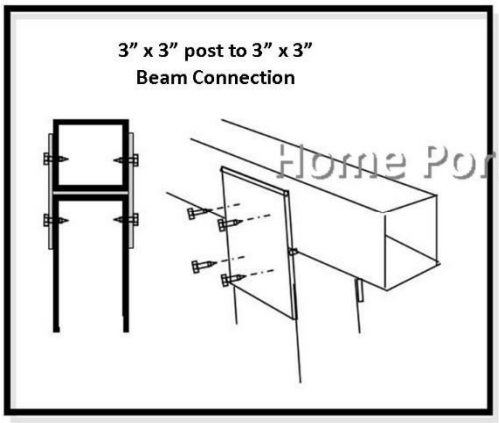


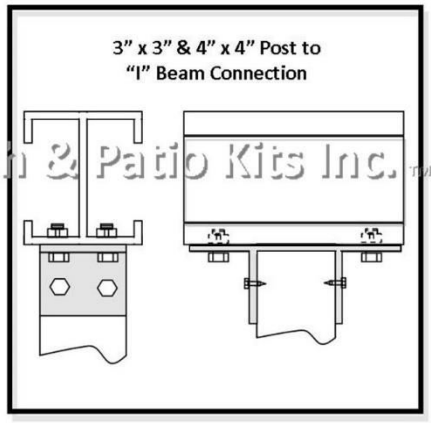
Clean out hole by blowing out dust and debris.

Drive anchor bolt into the hole without damaging the threads.

Tighten two or three turns from finger tight position to achieve a good anchor setting.

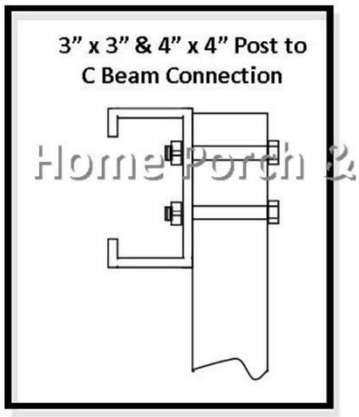
Methods of Post To Beam Connections

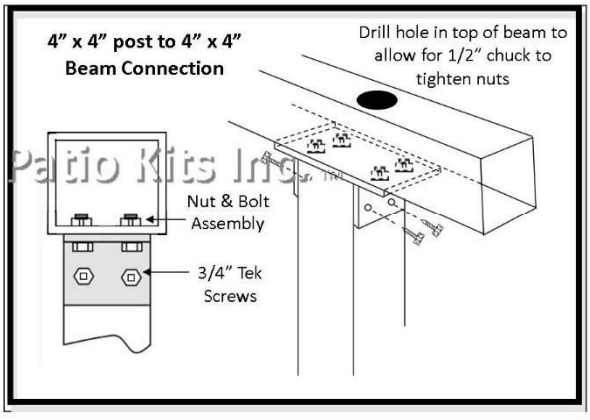


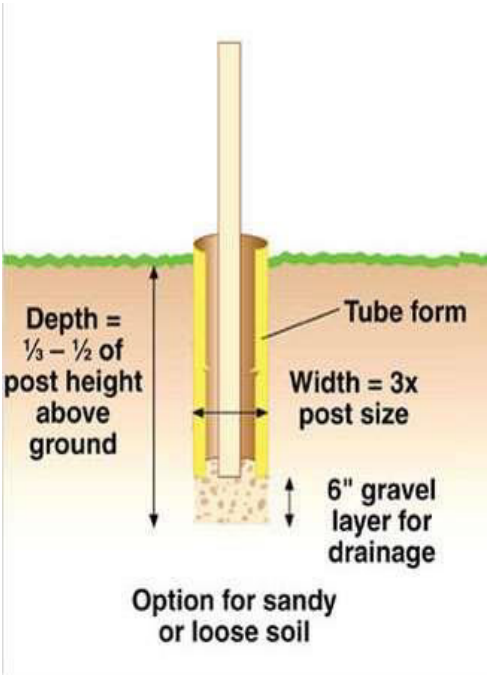


We suggest going to Quikrete.com if cementing posts in ground

(wrap the post to prevent the aluminum from coming in contact with the wet cement)



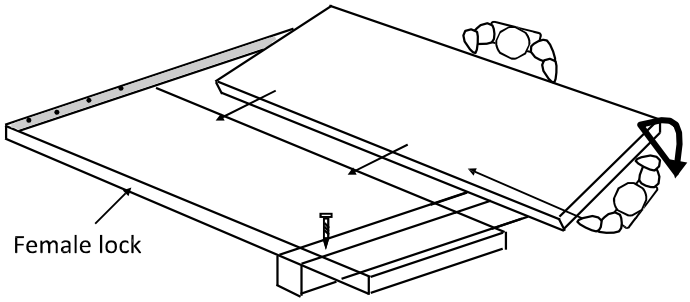


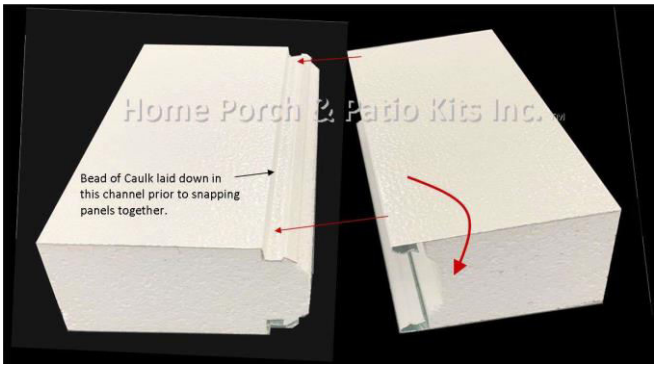


Installation Guidelines

Roof Panel Installation

Step 7



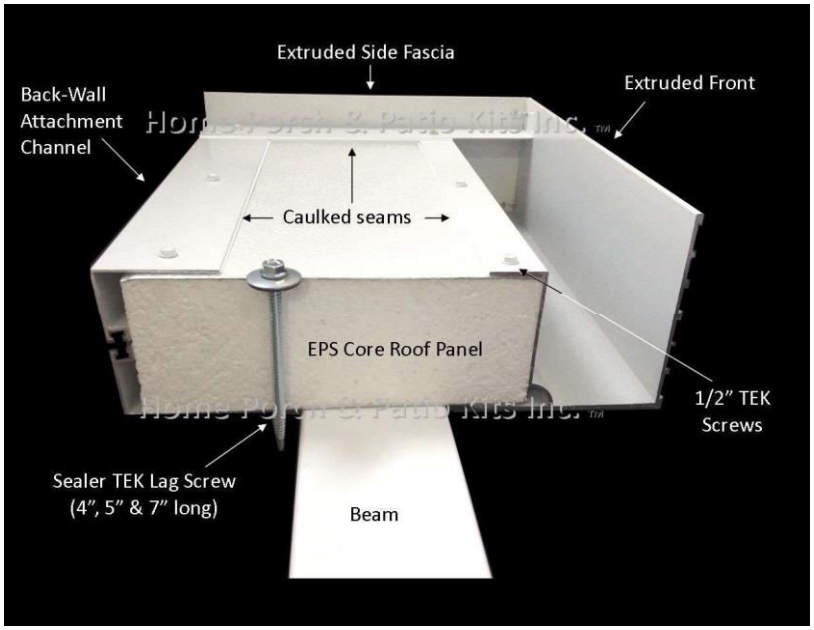


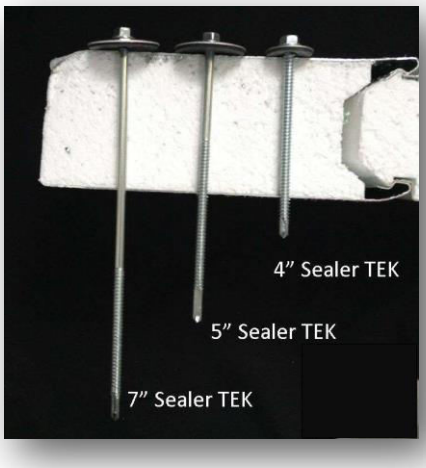
With your backwall channel, posts and beam installed you can put your first roof panel in place. From an "outside looking in" perspective, start on the left side. *During this process, to avoid scratches to the underside of the roof panel, put a thick towel, piece of carpet or cardboard on top of the beam and remove when the panel is in place and ready to be secured.

Keeping the female lock on your left align the left edge of the roof panel with the outside edge of the backwall C channel. Lay it on front beam assembly checking for square. Once you are satisfied, take the towels off the beam, and make sure the panel is securely in the backwall channel. Use the 1/2" self tapping hex head screws provided to screw the panel in place through both the top and bottom lips of the backwall C channel, roughly every 8" on center (5 top & 5 bottom).

Then using the 4", 5" or 7" sealer TEK with neoprene washers provided, secure the front of the panel to the beam, once again checking for square. We suggest using 3-4 TEKs per panel with the first and last TEK 4" away from each edge. DO NOT TIGHTEN THE SEALER TEK NEXT TO THE MALE LOCK ALL THE WAY. The male edge needs to be 'free' for the installation of the next panel.

Note: When doing the final tightening on your Sealer TEK's, tighten just enough to create a slight dimple in the aluminum skin.





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Roof Panel Installation (cont'd)

Step 7

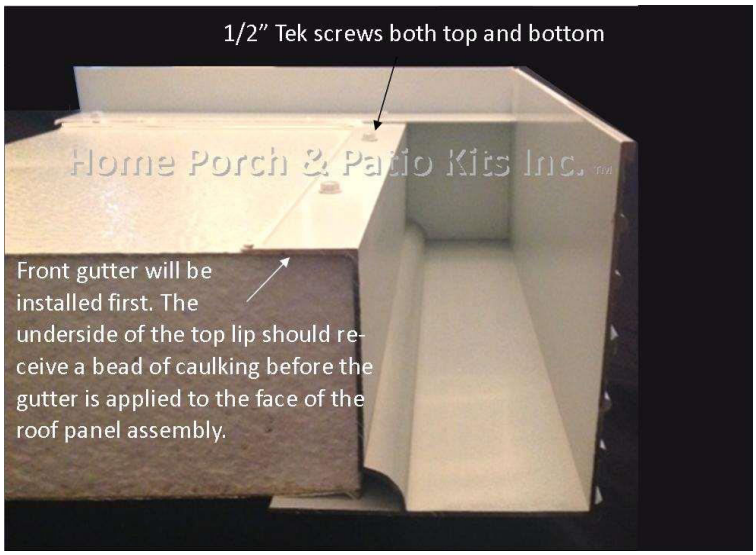
With the first panel in place, put a bead of caulking (supplied) in the top channel of the male lock making sure it is a consistent thickness with no air pockets. With 2 people, one on the outside 4' edge and one on the outside projection edge, (see page 7) take your second panel, position it just outside the C channel, angle it up slightly and gently but firmly, snap it down. Then push from the front of the cover to toward the house, guiding it into the backwall C channel. Be sure to do this before the caulking begins to set! Wipe off any excess caulking on the seam. Repeat securing the panel as you did with the first panel, always checking square along the way.

Continue until you are at the last panel. Prior to putting the last panel in place you will need to trim off the male lock at the seam edge (or more if your installation requires it) so you can install the side fascia. This should line up with the right outside edge of your backwall C-channel. Install the last panel. You may tighten all Sealer TEK's along the width of your installation.

Front Gutter Installation

Note: *The front gutter illustrated here may look slightly different than what you receive. However in all cases the connection to the roof panels is the same in all cases and the side fascia will cap the front gutter in all cases.*

Step 8



With all your roof panels in place and secured properly, measure the exact length of front gutter assembly you will need. This is the outside edge to outside edge measurement of your panel assembly. If you have more than 24' you will choose a place along the width that will have a butt-splice of the two pieces coming together. This seam will need to be caulked.

Put a bead of caulking on the underside of the top lip before you slide it in place on the front of your roof panels. Use the 1/2" self tapping Tek screws to attach the top and bottom lips of your extruded gutter to your roof panels. Wipe off any excess caulking. We have provided scuppers (see picture above) to drain your front gutter. If you purchase downspouts locally, follow their directions for installation.

*At this point you may be wondering if you can walk on your roof installation. The answer is "Yes... but." Since this is a brand new installation with caulking that is still setting, and the panels will flex when you walk on them, **we strongly suggest** building a temporary 2x4 support structure for the half way point prior to getting on the roof for the finishing stages.

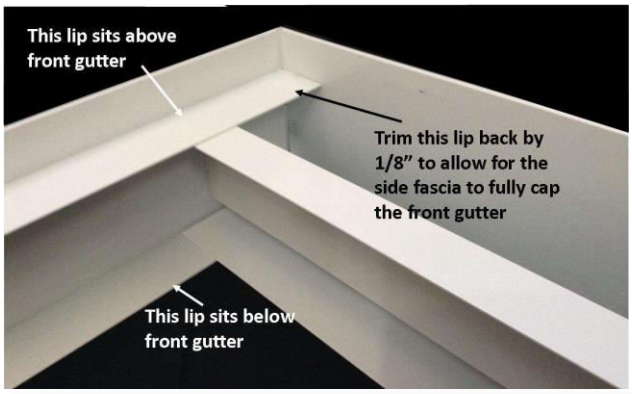
Side Fascia Installation

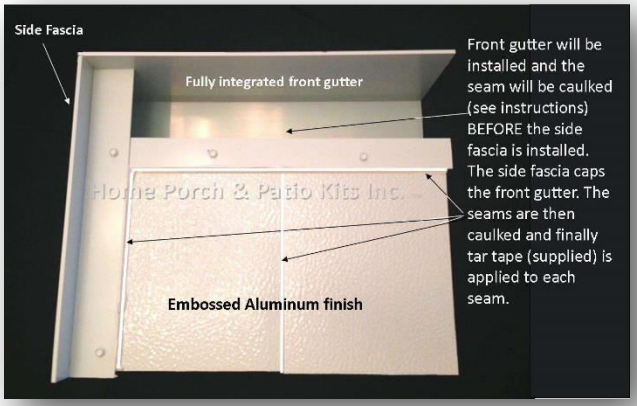
Step 9

Next cut the exact length of side fascia you need to run from the house wall to the front gutter, capping both the end of the C channel **and the end of the front gutter itself.**

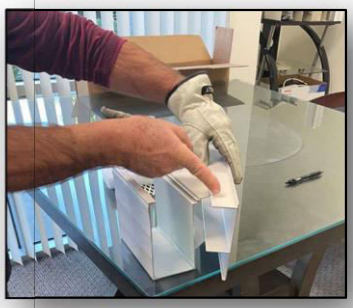
Keep in mind the cut that will go up against the house wall will be slightly angled. By taking about 1/8" off the top lip (only) out at the front gutter, you will ensure that the side fascia will go right to the front edge of the front gutter. When installing the side fascia at the front gutter note how the top lip will sit above the top front gutter lip and below the bottom gutter lip (*picture on the left*). It would be advisable to put a bead of caulk on the underside of the top lip prior to installing it on the roof panel.

As you did with the front gutter, use the 1/2" tek screws, both top and bottom to secure the side fascia to the roof panel. Wipe off any excess caulking. Do the same for the other side. Be sure to caulk the joint where the fascia caps the gutter.





It is possible you will get our premium side fascia / front gutter assembly. As you can see below this side fascia is assembled with the flange down so as to cap the premium front gutter. You will need to trim about 3 1/2" from each flange on the end that caps the gutter to make a nice snug fit.



Installation Guidelines

A Note About Caulking

Step 10

- You will be applying beads of caulking under the top lips of all extrusions that sit on top of the roof.
- You will be applying beads of caulking to all male lock channels prior to connecting with the next panel.
- We suggest caulking each panel seam along the way.
- We suggest caulking each seam created by an aluminum profile on top of the roof assembly.
- We suggest caulking all screw heads on top of the roof. The large sealer TEKS across the front of the unit should receive a generous dollop of caulking both as they are tightened down and on top!

We try to give you all the caulking you need. However caulking can be used at a variety of rates. Should you need more caulking beyond what we have supplied, any high quality exterior silicone sealant will do!

After all seams have been caulked, give the caulking time to set and dry completely. Then proceed to the last step.

Finishing Touches

Step 11

On top of the superior design of our SMP snap-lok technology plus the silicone sealant we supply an added measure against the weather. You will find several rolls of tar tape from MFM. This is to be applied over every seam on top of your insulated patio cover installation. In order to maximize the usefulness of the tape you should apply it on warm sunny days.

As you apply it, press firmly, taking out all bubbles along the way.

The sun will activate the tar like substance on the back side of the white tape sealing it to the surface and sealing the seam against the weather. The tape remains flexible, moving with the panels and extrusions as they naturally expand and contract.

Now… Sit back and ENJOY!

NOTE: We have sat in a room with a dozen professional installers of these types of products and we walked away with a dozen different ways of installing them. The point is, as simple as these structures are, there are many ways of accomplishing the same thing. These pages are a compilation of methods which are to be used as a guideline for your installation. Common sense and a little forethought will easily overcome the many variables that might arise in your particular situation. These kits are very adaptable! If you find yourself with questions… no problem! We will gladly work with you toward a solution. Please call us toll free. Home Porch & Patio Kits cannot be held responsible for errors in cuts made along the way. Should you find yourself in need of additional material, again, we are only a phone call away. We will always work to minimize the cost and expedite shipments!