Whatever the weather, you can enjoy the solid roof construction of the Snap-N-Lock™ Insulated Panel. For maximum protection from the elements, run the panels the entire length of the roof. To provide shade and allow refreshing breezes to pass through, extend the solid roof to your desire.
1 Existing Fascia or Structure
2 3" Wall Header
3 Valance Fascia
4 3" Snap-N-Lock™ Insulated Panel
5 3" Extruded Gutter
6 Self-Mating Beam or Edge Beam
7 3x3 Post - Notched for Beam Size
8 Bottom Post Bracket
1. Install Wall Header

A. Select mounting area on wall. Snap a level chalkline along the wall to locate the bottom of the wall header. Remember, for proper drainage, the panels must be installed at a minimum 1/2” slope per foot of projection.

B. Cut wall header to length. Level extrusion and mark position.

C. Run two beads of caulking along the back surface of the box header where it will meet the existing building or fascia board. Extruded header is recommended for maximum strength.

D. Position the header against the existing building and secure into place using two #10 x 2” hex head screws every 12” on center. If attached to 1” fascia board, use two #10 x 2” hex head screws. If attached to a masonry wall, the header should be fastened with one 1/4” diameter masonry anchor every 16” on center. If enough room, apply a heavy bead of caulking along the top of the header to insure a water tight seal.
2. Post Bracket Installation and Post Attachment

A. Posts should be plumb and bottom cut off if necessary to adjust the pitch of the panels for proper drainage and, at the same time, to adjust the header so that it is level from end to end. *(Recommended roof pitch is 1/2” for each 1 foot of panel length.)*

B. With the posts cut to length, plumb them again and mark the slab attachment. The anchors should be at least 4” away from the edge of the slab or expansion joint and 30” away from any crack. Two 3/8” holes should be drilled through the post brackets and corresponding holes 2-1/2” deep into the slab. Attach the brackets to the slab using the concrete anchors and hammering them into the concrete making sure not to damage the threads.

C. Next, fit each post onto its bracket and fasten with two 1/4” diameter bolts with washers and nuts.

- a. Drill 3/8” hole with the masonry bit at least 3” deep.
- b. Clean hole by blowing out debris.
- c. Drive the concrete anchor bolt far enough into hole so that at least six threads are below the surface. Do not damage threads.
- d. Tighten to 7 foot lbs. with a torque wrench or 2 to 3 turns from finger tight position to achieve the proper anchor setting.
3. Beam Selection and Stitching

A. Choose the proper beam for your project according to local codes.

B. Self-mating beams are to be stitched at a maximum of 18” apart on top and bottom or per local code. #10 x 3/4” or #12 x 3/4” self-drilling screws to be used to fasten the bottom side of the self-mating beam. We recommend pop rivets for stitching the top side of the self-mating beam.

C. If local codes allow, you may choose to use an extruded hollow edge beam or tilt beam rather than a self-mating beam.

D. Let beam extend past the end post twelve inches. Apply beam caps to cover end of beam using #8 x 9/16” self-drilling screws.

4. Install Beam

A. Set the stitched self-mating beam or extruded hollow edge or tilt beam into notched posts.

B. Level the beam.

C. Attach the post to the beam using two or three 1/4” diameter bolts with washers and nuts.
5. Install Snap-N-Lock™ Panels

A. Place the first panel into position with the female side facing the outward perimeter of the structure. To avoid scratches on the interior side you have two options:
   1. Roof panels can be lifted over the beam(s) top side down, and then turned over when in position.
   2. Cardboard end caps or carpet pieces can be draped over the beams(s), so that the panels don’t brush against the metal surface. Check the panel for proper depth in the header and square up to support beams(s).

B. Fasten panel to the top and bottom of the box header with #8 x 9/16” Tek screws 8” on center.

C. Fasten panel to beam(s) with #10 hex washer head screws long enough to penetrate 1” into the beam. The sheetmetal screws should be used in conjunction with a 1/4” x 1-1/2” aluminum washer with neoprene backer. When going into wood framing a 1/4” x 6” lag can be substituted. Fasten the starter panel on the side and the outside corner only. 
Note: The panel must be free on male edge to snap properly, and screws should not be placed within 4” of panel seam.

D. Run a bead of sealant/adhesive down the top channel of the male side in the sealant reservoir, making sure there are no air bubbles/pockets. We recommend using Pro Seal 7500.

E. Insert the second panel into the header in a level position with the starter panel, using proper handling techniques to avoid scratches.

F. Position panel. Bump panel together until it snaps, bumping from header to overhang. Panels should be snapped together fairly soon after caulking is applied to reservoir. Wipe down top seam of panel to smooth caulk.

G. Repeat with each new panel until finished. The last panel should be squared off on the male side prior to installing to accept valance. Then fasten remaining #10 screws or 1/4” bolts to beam(s). (If panels need cleaned, use soap and water.)

H. After all roof panels are installed, run a bead of sealant where the top edge of the wall header meets the panel.
6. Install Fascia Trim with Drip Edge/Receiver Gutter

You can trim the roof two ways:
1) Fascia Trim on all three sides, or
2) Receiver/Gutter in front and Valance on sides.

A. Cut front extrusion to exact width of roof plus 1/8”.
   Run a heavy bead of caulking along upper inside edge of extrusion.

B. Slip the extrusion over the end of the panels starting at one end and working the extrusion down the width of the roof. Application can be done from the roof or a ladder. A thin putty knife will facilitate application if the fit is tight.

C. Using #8 x 9/16” tek screws at 12” intervals, secure extrusion to the roof front.

D. Seal at all connections with Pro Seal 7500 caulking.

E. Drill a weep hole on each end and at each roof panel seam (every 2 or 4 ft.) on the underside of drip edge.

7. Install Matching Valance [use w/receiving gutter] or Fascia Trim with Drip Edge

A. Both the valance and fascia trim fit to the outside of the front extrusion. At the end closest to existing structure, cut valance/fascia at appropriate angle to allow for roof slope. At the opposite end, to allow for gutter or fascia trim, cut out the flanges 4-3/4”.

8. Install Downspouts

A. Cut two 1” diameter holes in the bottom of the Gutter. This should align with each post.

B. Place the downspout flange over the hole and fasten with #8 x 1/2” sheetmetal screws.

C. Insert the downspout elbow into one end of the downspout tube and fasten from the sides with #8 x 1/2” sheetmetal screws.

D. Hold the downspout assembly in place to check for proper length and cut as required.

E. Slip the upper end of the downspout flange and fasten from the two sides with #8 x 1/2” sheetmetal screws.

F. Attach the downspout tube to the post with the strap. Fasten on two sides with #8 x 1/2” sheetmetal screws.
9. Final Sealing Procedures

A. Due to the advanced design of the Snap-N-Lock™ panel, it is almost impossible for the panel seams to leak. As in any aluminum roof structure, the most critical point is where the header meets the support wall. For best results counterflashing should be used. If structure has no drip edge, use a flexible flashing such as Flex-Seal.

B. To insure a water tight seam, caulk under edge of counterflashing that rests on roof and secure with a #8 x 1/2” screw at 6” intervals.

C. Use Pro Seal 7500 to seal exposed screws and bolt heads. Make sure to completely cover the washers, because of the depression formed when tightening the panels down. Water can sit around the washers and create a problem. Apply caulking along all roof panel connections to existing structure.

Optional Upgrade: Provide the homeowner a more long-term, low-maintenance solution to leaks, by also covering panel connections at header, fascia and gutter; and panel seams with Flex-Seal. The tape remains flexible, while moving with the varying metals of the panel and extrusion as they expand and contract. No fishmouths will form and the bond will remain unaffected. The aluminum backing provides superior UV protection. It also enables the tape to conform to irregular surfaces for a weather-tight seal.