HARTSELLE
UTILITIES

2-PIECE, SNAP-FIT
MOLDING INSTALLATION

2-Piece, Snap-Fit Molding

With Laminators' 2-Piece, Snap-Fit Extruded Molding System, all molding receptors are fastened prior to panel installation. Moldings are available either color-matched to the panels or in a contrasting color.

Panels with Metallic Paint Finishes:

The protective masking on the face of each panel should be left in place until work is complete on any given area of an installation. However, to help ensure good color uniformity, periodically remove the masking from half of a panel (peel masking upward from the bottom of the panel) to check for color, scratches, and dents.

On panels with metallic finishes, a good color match is much more difficult to achieve. In this case, two adjoining panels should be periodically checked by removing the masking from half of two panels as the installation progresses. The masking should then be taped back over the panel to protect it.

Should any defects be found, stop work immediately and call Laminators for assistance.

When installing panels with metallic finishes, it is very important that the directional arrows on the panel masking are oriented in the same direction.

Color variation is a characteristic of Aluminum composite panels with metallic paint finishes. Laminators Incorporated DOES NOT warrant a color match for these panels.

Substrate and Framing

Prior to installation, the installer MUST verify that the framing and substrate are in compliance with all architects' specifications.

Inspect BOTH primary and secondary wall framing to verify that all girts, angles, channels, studs and sheathing and other structural panel support members and anchorage have been installed within the following tolerances:

1/4" in any 20' length vertically or horizontally

1/2" in any building elevation

Inspect sheathing to verify that sheathing joints are supported by framing and that installation is within flatness tolerances. These surfaces must be even, smooth, sound, clean and dry. If the substrate or framing is not within architectural specifications, the installer must submit a written report to the General Contractor listing conditions that are detrimental to the installation of panels. Do NOT proceed with installation until unsatisfactory conditions have been corrected.

Summary of Installer Responsibility

The Panel Installer assumes total responsibility for all components of the panel installation including, but not limited to attachment to sub-construction, panel-to-panel joints, joints between panels and dissimilar material, and the joint seal associated with the panel system.

Installation Supplies & Accessories

See page 7 to be sure you are using materials that have been tested and approved by Laminators for use with Omega-Lite panels. Inventory all materials and accessories to ensure that all materials are available on-site. Call Tech Support if you need additional recommendations.

Receiving and Storage

Examination: Upon receipt of materials, perform a thorough examination to identify any damage that may have occurred during shipping. Any damage must be noted on the bill of lading at the time of receipt.

Storage: Panels are to be stored horizontally on pallets with a positive slope for drainage of water and should be covered with watertight and ventilated materials. *Standing water will damage panel finish.*

No more than 1500 pounds should be stacked on one pallet. Depending on panel size, this should be fewer than 50 panels at 30 pounds per panel and less than 2-1/2' high. Do not stack other materials on or in contact with panels to prevent staining, denting, or other damage. Storage temperature must not exceed 120°F (49°C).

Laminators' warranty does not cover water damage caused by improper storage or installation. Inspect panels on delivery, then store them on skids 8" above the ground. Place a breathable cover over them and store them in a ventilated space under roof.

If wet panels are discovered, uncrate them and dry them with towels to prevent wood rotting, paint attaining or aluminum corrosion.

Panel Handling

Use clean work gloves to avoid hand injury from any sharp edges and to prevent smudging of the prefinished surfaces. Although panels are shipped with protective masking on both sides, always lift one panel completely off the next to prevent scratches. Do not slide one panel across another.

Protect panels from construction hazards. Good construction practice provides for panel protection and cleaning in the contract documents. Normally these are the general contractor's responsibility. Temporary protection may be required if welding, cutting, sandblasting, or other potentially damaging construction activities are scheduled nearby.

Cutting the Panels

Omega-Lite panels are designed to be cut to size on the job site. Even if the panels have been received cut to size, it may be necessary to do some minor trimming to account for areas of an elevation that may be out of square. To cut Omega-Lite panels, use a circular saw with a sharp, carbide-tipped blade (40-tooth minimum). Do not remove the protective masking from the panel face. After cutting, use a screwdriver or deburring tool (see page 8) to remove burrs or sharp edges from the panels.
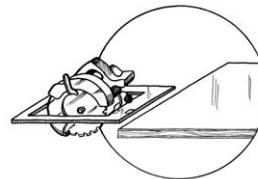
Carbide-tipped blade (40 tooth min.) recommended

Safety tip: Wear safety glasses when cutting! Wear gloves when handling cut edges!

Ventilation is Important

The wood or exterior gypsum board of the substrate must be protected and ventilated. Trapped moisture can cause major damage in a short time. When mounting over exterior gypsum or masonry, use steel strapping or hat channels to separate panels from the structure for good air circulation.
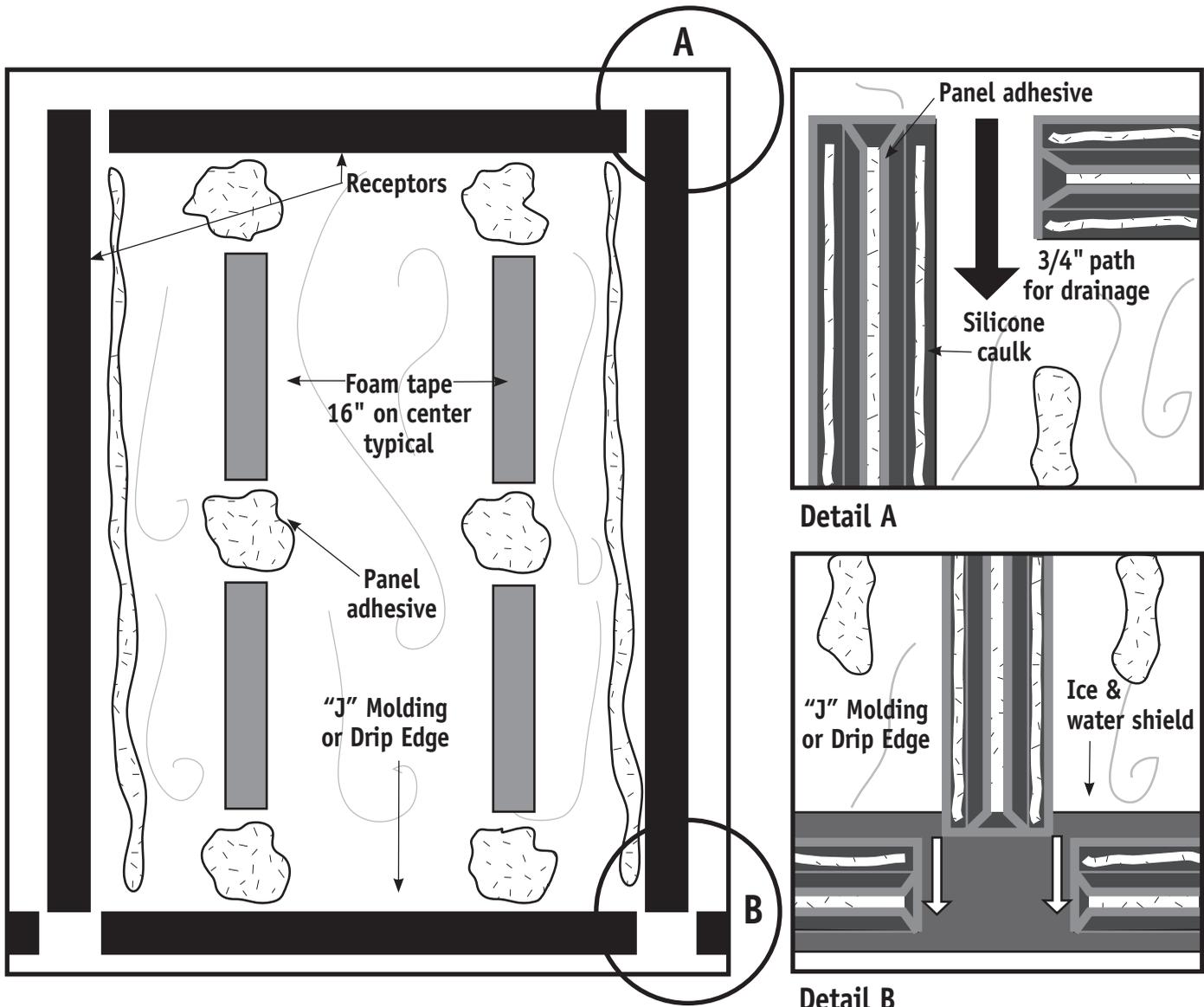
Flashing

Laminators can supply flashing materials made from aluminum sheet painted to match the adjacent panel system or surface.

Use proper flashing technique when installing flashing with panels.

Complete CAD details and product specifications can be downloaded from our website **LaminatorsInc.com**

Installation Over Plywood Sheathing

A

Panel adhesive

Receptors

3/4" path
for drainage

Silicone
caulk

Foam tape
16" on center
typical

Detail A

Panel
adhesive

Ice &
water shield

"J" Molding
or Drip Edge

"J" Molding
or Drip Edge

B

Detail B

This installation process is the basis for mounting panels over a variety of substrates. You should read and understand this entire process before attempting to mount panels using this installation system.

2-Piece Moldings are designed primarily for "picture framing" individual panels or small groups of panels where 1-Piece Moldings would be inconvenient to use. For example, installing individual panels into a window opening with "J" moldings around the perimeter would be almost impossible with 1-Piece Moldings, without fasteners (screws) being exposed. Additionally, 2-Piece Moldings should only be installed over sheathing, such as plywood, or gypsum. Open framing is not acceptable.

The main drawing *(upper left)* depicts the layout for one panel at ground level. "J" molding is shown: either "J" or drip edge moldings can be used here. The detail drawings **(Detail A & B)** show close-up details from the main drawing. The instructions on the opposing page explain this process and the purpose of each element shown in the above drawings.

Note: To guard against water penetration, Laminators recommends that all these installation systems include a vapor permeable, water-tight moisture barrier (appropriate for the climate and wall construction) installed on the substrate behind the metal wall panels.
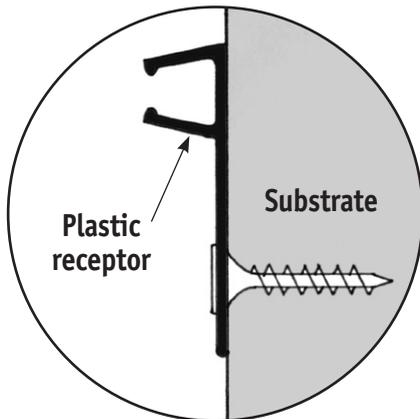
PREPARING THE WALL

Plastic receptor

Substrate

Step 1: Attach plastic receptors

Attach the black plastic receptors every 16" O.C. using galvanized or stainless steel bugle headed screws. Screws with high profile heads will interfere with panel installation.

See manufacturer's instructions for the proper use of ice and water shield.

"J" Faceplate molding
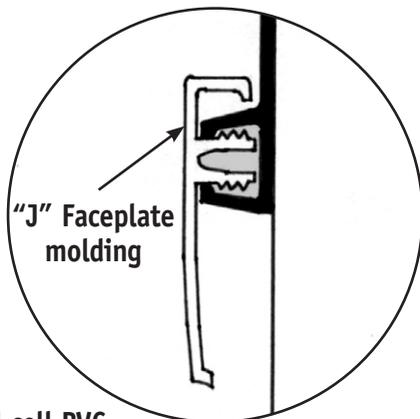
Tip: Temporarily install a "J" faceplate

Temporarily install a "J" faceplate backwards into the black plastic receptor. This will force the receptor to stay straight during installation. If the receptor is not installed straight, you will have difficulty snapping the faceplate into it during final assembly.

Closed cell PVC foam tape
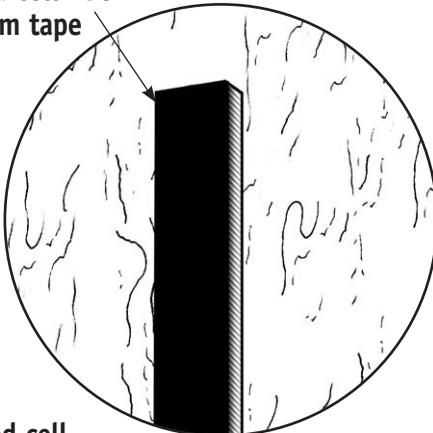
Step 2: Apply closed cell PVC foam tape

Apply foam tape every 16" O.C. as shown in the main drawing on the opposite page. These strips of foam tape act as a shim and help keep everything on the same plane.

Note: It is important to keep the backer on the foam tape as it is applied to avoid stretching or inaccurate placement.
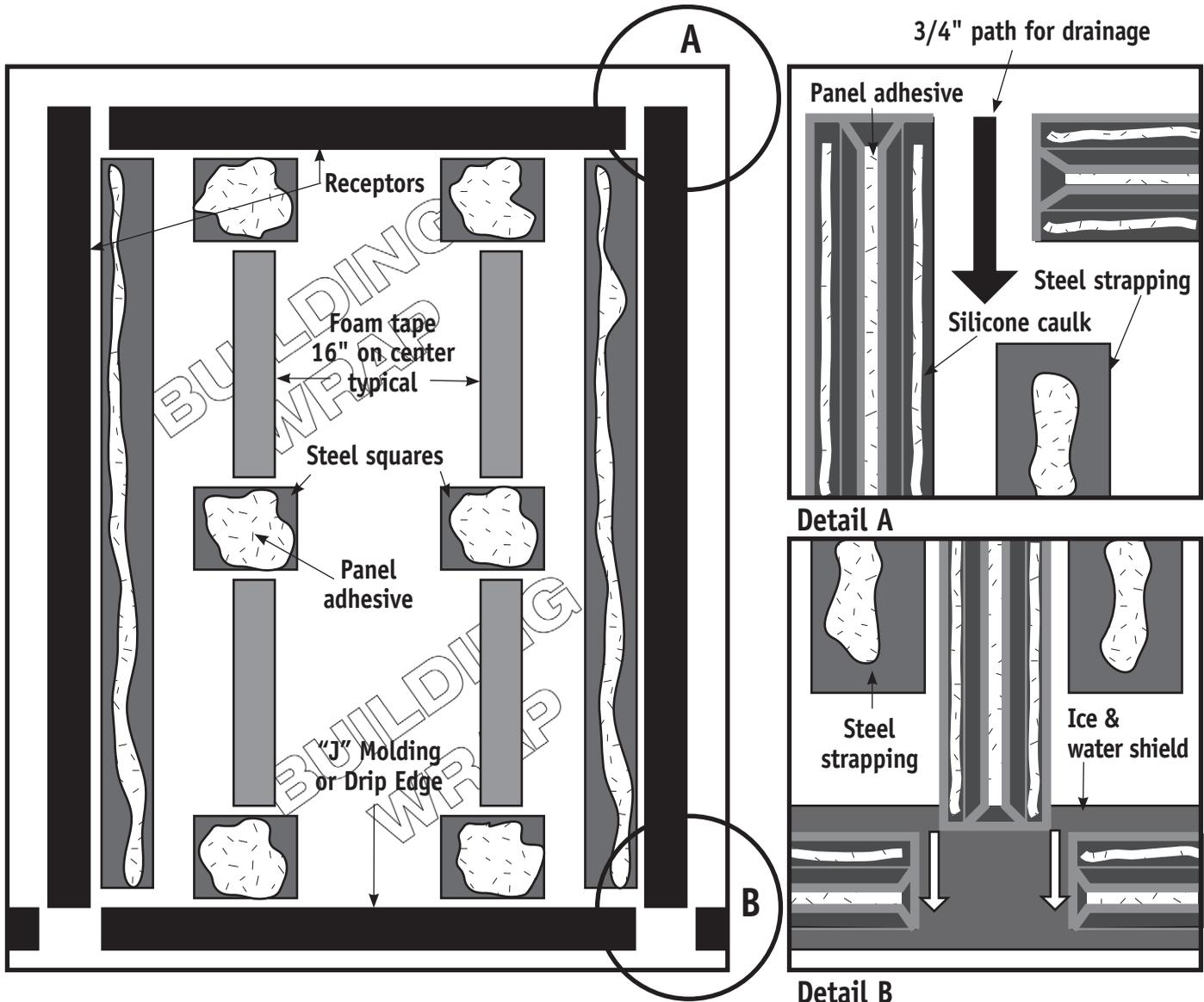
Closed cell PVC foam tape

Sheathing
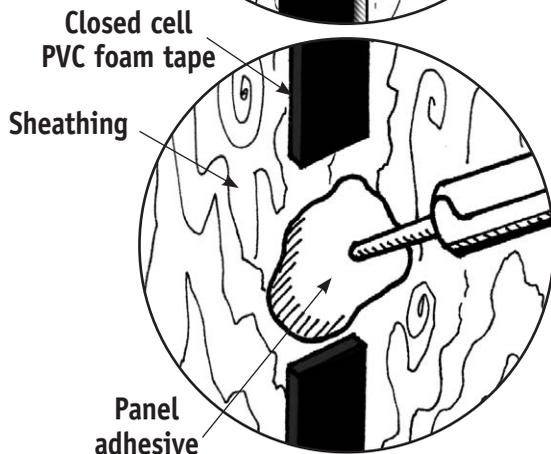
Panel adhesive

Step 3: Apply panel adhesive

Apply generous 3" dabs and 3/8" beads of panel adhesive as shown in the main drawing on page 2.

Many panel adhesives have a high solvent content that evaporates as it cures. This causes the adhesive to lose volume and shrink. Applying panel adhesive next to the foam tape will prevent the panels from being drawn in towards the plywood, ensuring that the panels will maintain a flat appearance.

Installation Over Gypsum (With or without building wrap)

A

3/4" path for drainage

Panel adhesive

Receptors

Foam tape 16" on center typical

Steel squares

Panel adhesive

"J" Molding or Drip Edge

BUILDING WRAP

BUILDING WRAP

BUILDING WRAP

Steel strapping

Silicone caulk

Detail A

Steel strapping

Ice & water shield

B

Detail B

When installing panels over exterior grade gypsum, with or without building wrap, remember that neither exterior grade gypsum nor building wrap are structural.

For proper installation, 18 or 20 gauge steel squares must be used to create a surface that will accept panel adhesive.

All steel squares must be attached with low-profile, pan head screws on all four corners. These screws must pass through the steel squares, the exterior grade gypsum, and attach to the stud wall. Moldings must be attached through the gypsum to the studs.

The main drawing *(upper left)* depicts the layout for one panel at ground level. "J" Molding is shown: either "J" or drip edge moldings can be used here. The detail drawings **(Detail A & B)** show close-up details from the main drawing. The instructions on the opposing page will explain this process and the purpose of each element shown in the above drawings.
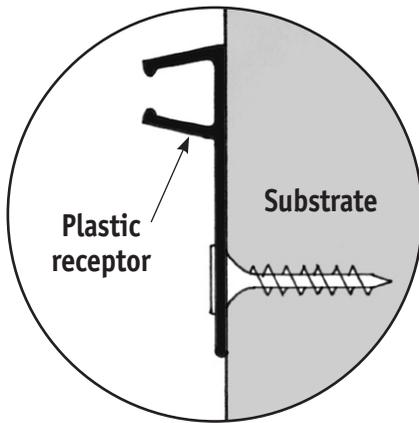
Plastic receptor

Substrate

Step 1: Attach plastic receptors

Attach the black plastic receptors every 16" O.C. using galvanized or stainless steel bugle headed screws. Screws with high profile heads will interfere with panel installation.

See manufacturer's instructions for the proper use of ice and water shield.

"J" Faceplate molding
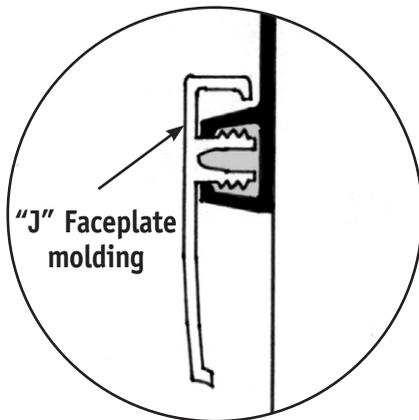
Installation tip: Alignment of receptors

Temporarily install a "J" faceplate molding backwards into the plastic receptor. This will force the receptor to stay straight during installation. If the receptor is not installed perfectly straight, you will have difficulty snapping the faceplate into it.

Closed cell PVC foam tape
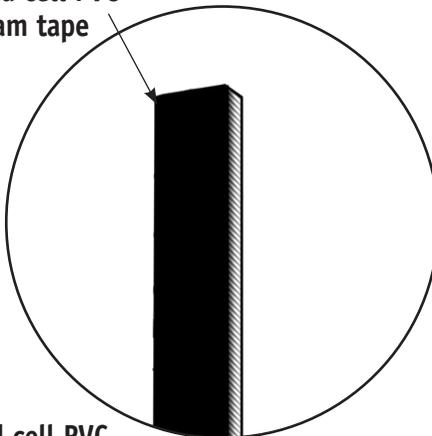
## Step 2: Apply closed cell PVC foam tape

Apply closed cell PVC foam tape every 16" O.C. as shown in the main drawing on page 4. These strips of foam tape act as a shim and help keep everything on the same plane.

Note: It is important to keep the backer on the foam tape as it is applied to avoid stretching or inaccurate placement.

Closed cell PVC foam tape

**Steel square**

Panel adhesive
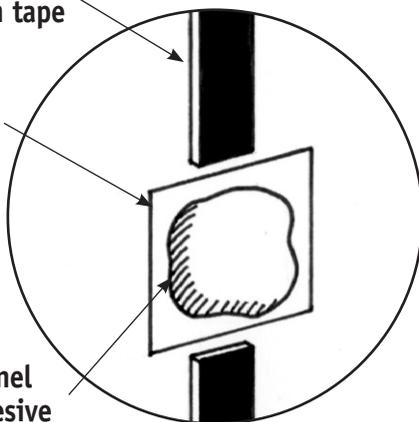
Step 3: Apply panel adhesive

Apply generous 3" dabs and 3/8" thick beads of panel adhesive to steel straps. Straps should be screwed down every 16"-24" O.C.

Many panel adhesives have a high solvent content that evaporates as it cures. This causes the adhesive to lose volume and shrink. Applying panel adhesive next to the foam tape will prevent the panels from being drawn in towards the gypsum, ensuring that the panels will maintain a flat appearance.

MOUNTING THE PANELS

The 2-Piece, Snap-Fit installation is not a progressive system. That is, you don't move from one end of the building to another, installing a molding then a panel, then another molding and panel. Rather, you should lay out a grid where the joints will fall, then fasten moldings over the entire wall. Snap a line to ensure that the bottom drip edge receptor is perfectly straight to facilitate installation of the aluminum faceplate.

When installing panels with metallic finishes, it is very important that the directional arrows on the panel masking are oriented in the same direction.
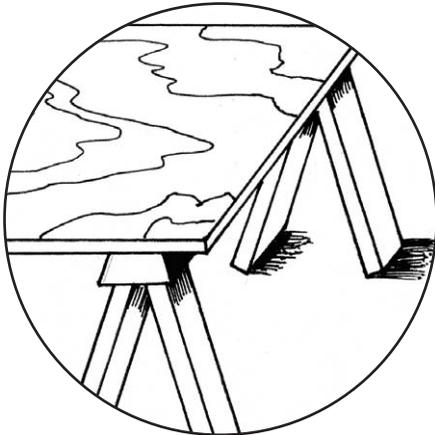

Set up a clean worktable

Using available materials (straight 2x4s, 3/4" flat sound plywood with smooth surface, or MDF plywood for precision work) construct a worktable at least 48" x 96" and at a comfortable working height.

Panel adhesive

Plastic receptor
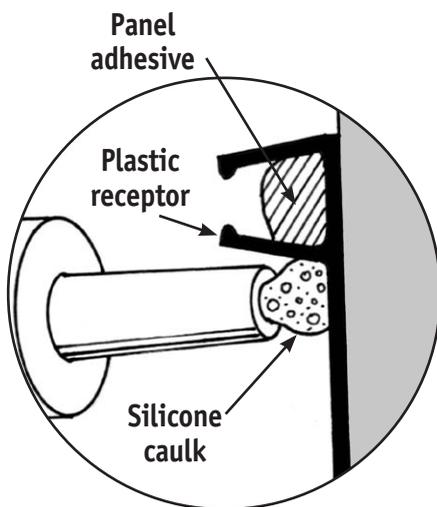
Silicone caulk

Step 1: Apply adhesives

Apply a 3/8" bead of Laminators' approved silicone caulk into the receptors and 3/8" bead of Laminators' approved panel adhesive inside the pocket that receives the faceplate. The silicone will prevent water from getting behind the panels and the panel adhesive will hold the faceplates in place permanently and minimize the expansion and contraction of the faceplates during the normal warming and cooling cycle that occurs each day.

Plastic receptor

Panel adhesive

Silicone caulk
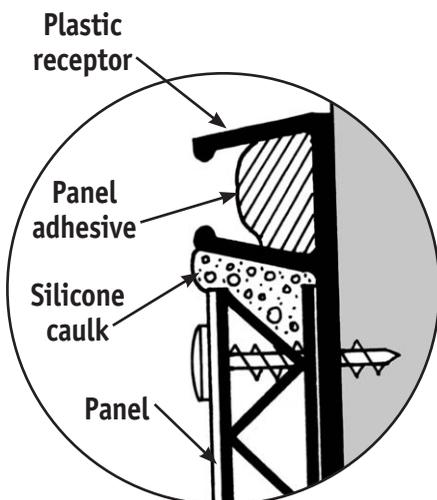
Panel

Step 2: Attach the panels

Drill a 1/8" pilot hole in the top and bottom edge of the panel 1/4" O.C. from the bottom edge of the panel. Screw panel in place. This will hold the panel until the panel adhesive cures on the wall and in the receptors. Take care not to overdrive the screw, as this may create a dimple that will be visible beyond the portion of the panel covered by the faceplate. Do not use bugle head type screws here, as they may also create dimples. You may find that turning the torque setting on your drill all the way down will help prevent dimpling.

> **Caulk Manufacturers' Recommendation:**
> Panel surfaces and edges should be clean, dry and free of all contaminants such as protective coatings, oils, grease, soap or detergent films, water and dust.

Faceplate
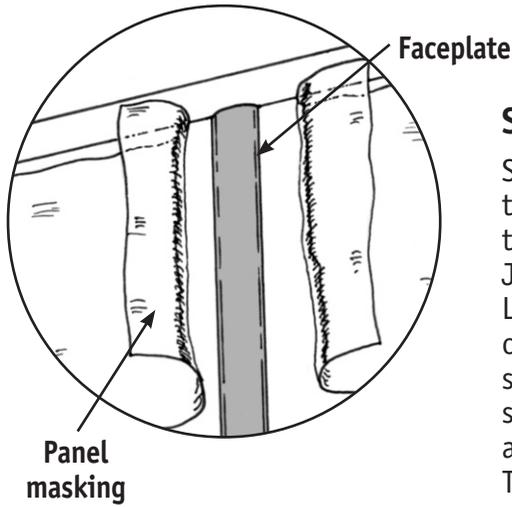
Panel masking

Step 3: Caulk receptors

Strip the masking back about 3" from the edges of the panel. Leave the rest of the masking on for now to protect the panel until work is complete in that area. Just prior to attaching the faceplates, apply a bead of Laminators' approved silicone caulk to all four corners of the panel. This will seal the gaps left in the receptors shown in the main drawings on page 2 and 4. Faceplates should be cut about 1/8" shorter than the distance you are spanning to allow for expansion and contraction. This gap can be top beaded with clear silicone caulk to seal the area.

Receptors

Top bead of caulk

ESSENTIAL EQUIPMENT
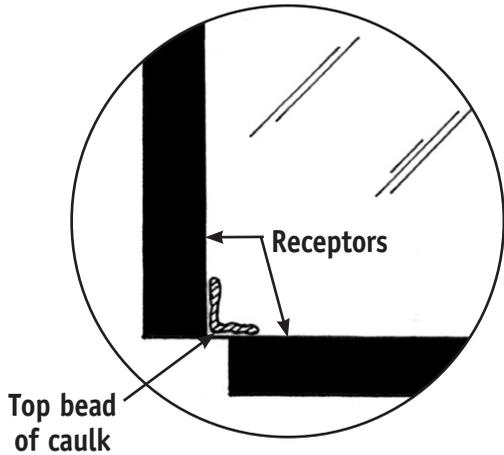
- Work table or saw horses and 3/4" particle board to create work table
- Aluminum brake capable of bending 0.032" aluminum
- Porter-Cable 3 HP router with guide or equivalent able to accept a 1/2" carbide shank
- Laminators' router bit (Part #RB 1/2)
    — Custom designed router bit only available from Laminators Inc. that forces bending into the middle of the groove and eliminates core show-through. Carbide with 1/2" shank.
- Miter saw or chop saw with 10" diameter blade
- Circular saw with 7-1/4", 40-tooth blade (min.)
- Jigsaw with 24-tooth, sheet metal cutting blade

- Caulking gun
- Screw gun
- Long 1/8" drill bit with drill bit plastic guard tubing
- Deburring tool (Part #DEBURRING TOOL)
- Aviation snips or heavy-duty scissors
- Plastic putty tool or scraper to remove excess caulk and adhesive from panels
- Metal single cut rectangular file with medium teeth
- Utility knife
- Tape measure
- Safety glasses
- Gloves to handle panels

ESSENTIAL SUPPLIES

- Panels
- Moldings/extrusions as needed
    — "J" extrusion for drip edge (required) and end of run option (optional)
    — "H" extrusion for end of run option (optional)
    — snap-in extrusions (required)
- Color-matched flat stock
- Strapping
    — 0.40" aluminum or 20 ga. galvanized exterior sheet metal strips 3" x 8', 10', or 12'
- Furring strips or studs as needed
- Insulation, 3/4" foam to go between furring strips
- Ice & water shield or flashing
- Gaska Tape® V710, 3/16" x 2" or equivalent closed cell 7 lb. density polyvinyl chloride foam tape (Laminators Part #12847)
- Silicone Caulk–The following caulks have been tested and meet requirements. Color-matched caulk available from Laminators Inc.
    — Tremco Spectrem® 1
    — Dow Corning® 790, 983, 795, 995, 756, 791
    — GE SilGlaze® II , SilPruf®
    — Pecora 860, 896, 895, 890NST

  Note: Minimum order quantities required for certain color-matched caulks.

- Caulking rope or backer rod; use 1/4" or 3/8" to suit job
- Masking tape (Scotch brand Safe Release Masking Tape™ is recommended) 1" wide

- Panel Adhesive–The following adhesives have been tested and meet requirements. Various adhesives available from Laminators Inc.
    — Titebond® Heavy-Duty Construction Adhesive or Premium Polyurethane Construction Adhesive
    — Liquid Nails® 602 Subfloor (LN-602), 950 Polyurethane (LN-950), 902 for Subfloor (LN-902), or 901 for Heavy Construction (LN-901)
    — DAP 4000 Subfloor Adhesive
    — OSI Sealants PL400
- Screws
    — #6 x 1-1/4" bugle-head drywall or #8 or #10 x 1" Phillips Pan Head for securing clips into sheathing
    — #8 or #10 x 3/4" or longer, TEKS/3 screws to secure clips into steel studs
    — #6 x 1/2" and #6 x 1" Phillips Pan Head, TEKS/2 screws for mounting moldings to plywood or metal
- Wood shims to assist with spacing between panels
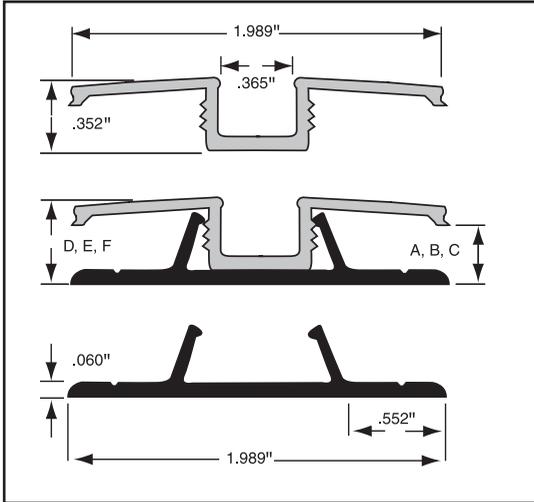- Mineral spirits and rags to clean caulk from panels if necessary
- Touch-up paint

Note: Trademarks are registered by the companies noted.

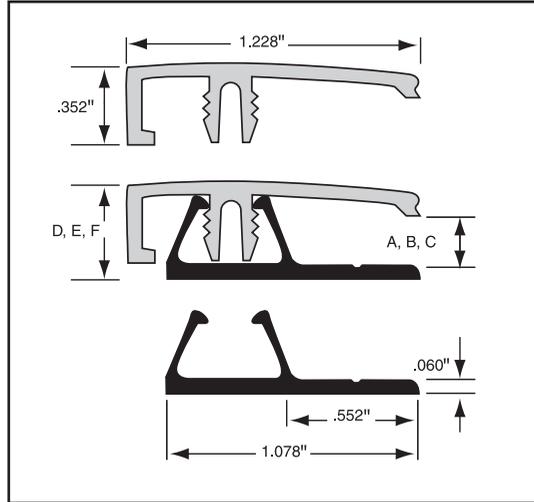---

How Much Will I Need?

For every 100 sq. ft. of Omega-Lite panels you will need:

- 3 tubes 11 oz. silicone caulk
- 1 tube 28 oz. panel adhesive
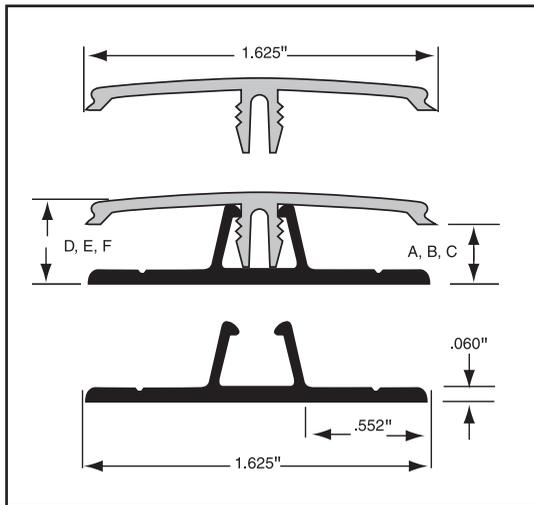- 1 roll 2" x 50' closed cell PVC foam tape

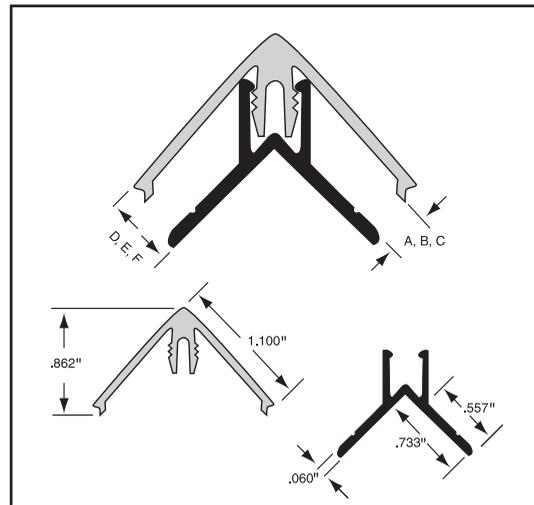## 2-Piece, Snap-Fit Molding...for use with Omega-Lite & Omega-Ply panels

Reveal "H" Molding
Item 4395X: Faceplate, **Item 43900:** Receptor

"J" Molding
Item 4315X: Faceplate, **Item 43100:** Receptor

"H" Molding
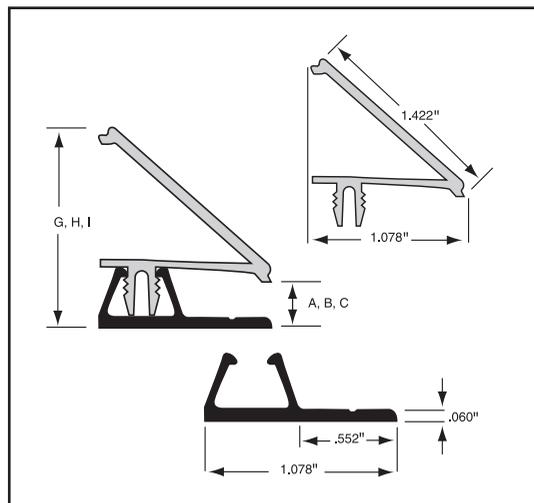**Item 4305X:** Faceplate, **Item 43000:** Receptor

Outside Corner
Item 4335X: Faceplate, **Item 43300:** Receptor

Snap-In Extrusions

The wall thickness for the top pieces is 0.050.

Gap A, B, C indicates the three snap positions to accommodate panel thickness.

Gap	Height	IC Height
A) 0.215	**D)** 0.412	**G)** 1.288
B) 0.265	**E)** 0.462	**H)** 1.338
C) 0.315	**F)** 0.512	**I)** 1.388

*Faceplates are shown in grey. Receptors are shown in black.
The letter X identifies the molding color.*
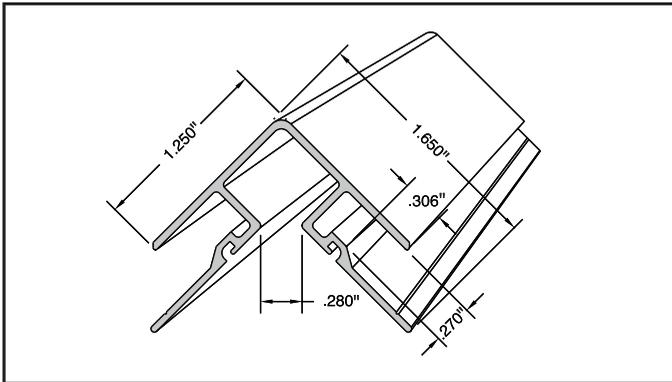

Inside Corner (Drip Cap)
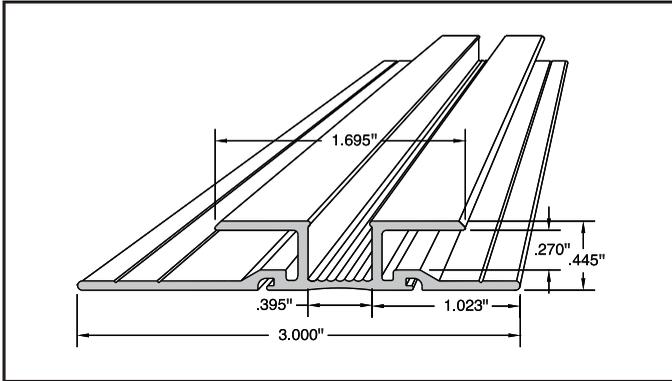**Item 4325X:** Faceplate, **Item 43100:** Receptor

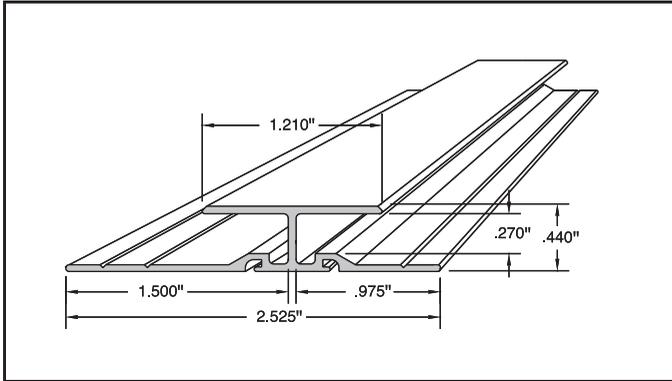## 1-Piece, Tight-Fit Molding...for use with Omega-Lite panels
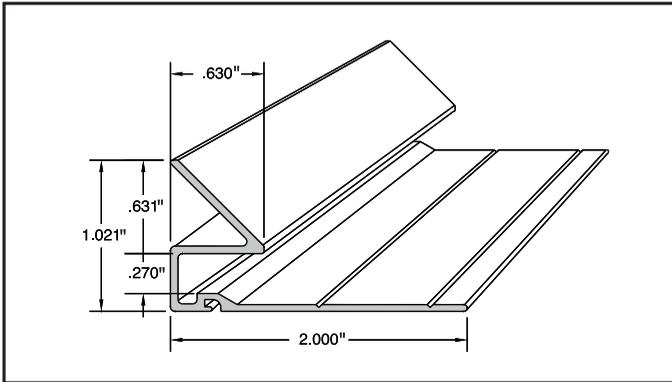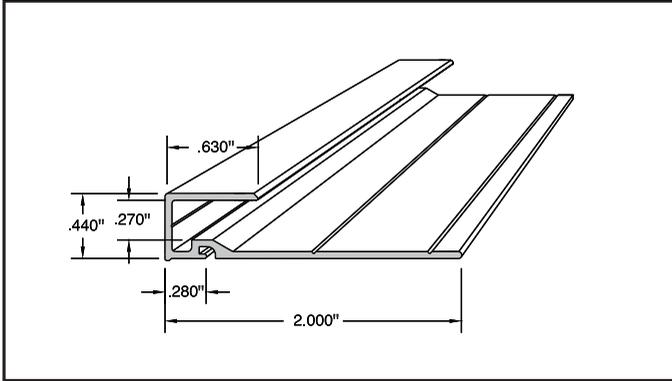
Item 4525X: Inside Corner (Drip Cap)

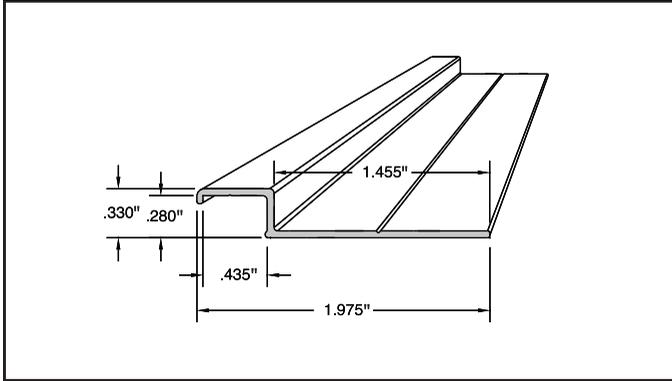**Item 4535X:** Adjustable (Bendable) Outside Corner

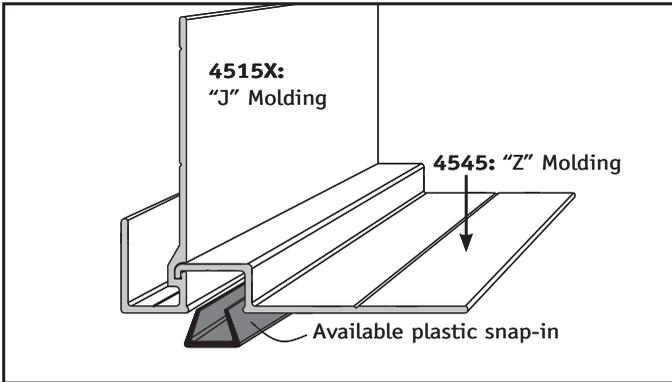**Item 4595X:** Reveal "H" Molding

Item 4505X: "H" Molding

Item 4515X: "J" Molding

Item 4545: "Z" Molding

The letter "X" identifies the molding color.

4515X: "J" Molding

4545: "Z" Molding

Available plastic snap-in

In addition to the standard clip and caulk details, these standard extrusions are used by installers to complete attractive installations.

Fascia Soffit or Outside Corner ("J" Molding & "Z" Molding combined with plastic snap-in molding)

Omega-Lite Panel Maintenance

Routine cleaning:

Omega-Lite panels should be washed periodically to keep them bright. Plain water and a clean cloth are all you need to remove ordinary dirt buildup. A mild, non-abrasive household detergent with a clean-water rinse can be used for more stubborn stains. Solvents such as alcohols, mineral spirits, naphtha, turpentine, and xylene can be applied with a soft cloth. Never soak panels in solvents.

For scratches and rub-marks:

Omega-Lite touch-up paint and re-paint instructions are available from Laminators. For larger paint repairs, call Laminators for standard paints designed for aluminum surfaces available at paint stores.

Keep harsh solvents away from finish:

Panel finishes are resistant to most but not all solvents and chemicals. You can safely use mineral spirits to remove uncured caulk and paints.

We suggest that the caulk build up enough strength in an overnight cure so that bubbles do not form.

Carefully review the caulk manufacturer's literature for skin formation, tack-free time, and cure times before using. Remember, your environmental condition is the biggest factor in deciding which caulk is appropriate for your project. Caulk only one joint at a time so that the caulk does not skin over before it can be tooled. Only caulk 4' to 6' at a time for a smooth finish.

It is important to only use caulk from our recommended list and to always test your caulk in the environmental conditions you are currently working in to find the one that works best. Consult with us if your caulk is not performing as expected.

Apply a generous amount of panel adhesive to the sheathing to prevent it from drawing the panel towards the building as it dries; closed cell PVC foam tape should be placed out in the field of the panel where it will shim the adhesive to the proper thickness away from the furring or sheathing.

OMEGA PANEL PRODUCTS Ω
LAMINATORS INC.

HARTSELLE UTILITIES