

LEGEN



LEGEN INSTALLATION MANUAL

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General & Safety Information

- Wear proper personal protective equipment (PPE) and follow manufacturer guidelines for product use, including ventilation recommendations.
- For best results, finish and allow to dry prior to installation.

Tools / Materials

- Water and mild detergent
- Lint-free rags
- Sandpaper (220-grit recommended)
- Brushes and / or rollers
- Exterior-grade polyurethane filler (depending on substrate material)
- High-quality acrylic latex paint or water-based stain (use exterior paint or apply topcoat to stain for heavy traffic or exterior applications)

Finishing Instructions

1) Prepare surface.

If there are light scratches, lightly buff them. For deep scratches, fill with a compatible filler, allow to dry and lightly sand to match the surrounding area, but be careful not to remove the primer. If finishing a woodgrained product, etch in grain to match if desired but DO NOT sand.

Clean surfaces to be finished,if necessary, using a clean rag dampened with water and a mild detergent. Allow to dry completely. Compressed air can also be used to blow dust out of deep grooves. Prime to match surrounding color. Sherwin-Williams® formulas to match Legen primers can be found on the right (Figure 1).

Figure 1

Primer Color	White	Oatmeal	Black Primer
Sherwin-Williams Product Type	Resilience Exterior Latex	Resilience Exterior Latex	SHER-WOOD Primer - Black
Sherwin-Williams Product Number	K42W51	K43W00053	E60BP0501
Sheen	Flat	Satin	Flat
Base	Extra White	Deep Base	N/A
Quart Formula	No colorant needed.	WI- White 4/32,1/64 BI - Black 7/32,1/64,1/128 R2 - Maroon 4/32 Y3 - Deep Gold 15/32,1/64,1/128	N/A
Gallon Formula	No colorant needed.	WI- White 18/32 BI-Black 31/32,1/128 R2 - Maroon 15/32,1/64 Y3 - Deep Gold 63/32	N/A

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2) Apply finish.

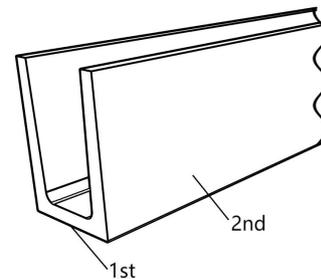
Follow finish manufacturer guidelines.

If desired, finish should be applied to a sample piece or less visible area to confirm desired appearance. Paint can be sprayed, brushed, rolled or applied to create the desired appearance or texture.

Typically, multiple thin coats are recommended. Stain should be brushed into the grain, cracks and crevices, then in the direction of the grain and blended for a uniform appearance. If a darker shade of the stain is desired, a second coat can be applied after the first coat is dry. Periodically remove excess stain from the brush onto a clean dry rag or shop towel, and tug on the brush to remove any loose bristles.

If finishing a large piece, work in smaller sections, finishing edges first and main visible surfaces last (Figure 2)

Figure 2



3) Test for dryness.

Check for dryness per manufacturer guidelines. Do not proceed to next step until dry.

4) Apply topcoat (if applicable).

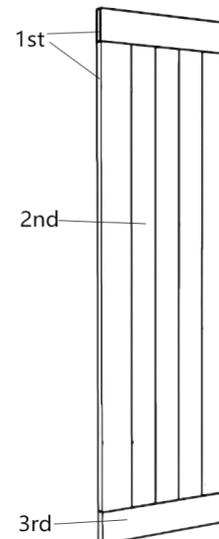
Follow finish manufacturer guidelines. Legen requires topcoat for stained high-traffic, exterior and high UV-exposure applications. Apply in a thin, uniform layer, per manufacturer guidelines. If applying by brush, use the tips of the bristles and use light brush strokes, to prevent bubbling or removing stain.

5) Install product.

Allow finish to dry completely prior to installation and refer to product installation instructions.

6) Maintain finish.

Reapply topcoat or refinish as necessary, if existing finish is beginning to fade or feels rough to the touch. Frequency will depend on the finish product, exposure and conditions.



General & Safety Information

- Wear proper personal protective equipment (PPE).
- Operate all tools per manufacturer guidelines.
- Standard woodworking saws and blades can be used for cutting Legen polyurethane (PUR)
- Legen PUR parts are NOT load bearing.
- These instructions are intended as a supplement to standard installation instructions if product is installed in a remodeling application or over one of the alternative facades listed.

Siding Applications

1) Identify support behind siding.

For all siding applications, best results are achieved by cutting away the siding so the part can seal against a flat surface and proper sealant or trim can be installed around the part. If that cannot be done and the part must be applied over the top of the siding, the following instructions apply.

Confirm that fasteners will anchor into solid sheathing. If installing over siding, proceed to the steps below.

If not, follow standard installation instructions.

2) Apply drainage strips (hardboard and wood siding only).

For irregular parts that cannot be flashed along the top edge, apply thin vertical strips of moisture-resistant material (vinyl undersill trim works well) to the back of the part with adhesive and galvanized roofing nails, spaced no more than 16" apart, to prevent moisture from getting trapped behind the millwork (Figure 2).

3) Drill pilot holes.

Position the part and drill multiple pilot holes through the part and the siding at a high point on the siding if possible (Figure 3). When possible, drill through the thick sections of the part. Pilot holes should be no more than 16" apart.

Figure 2

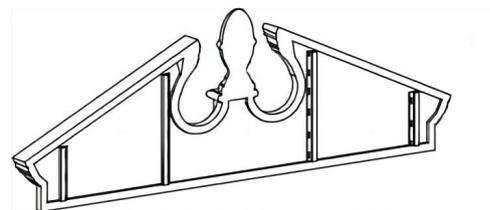
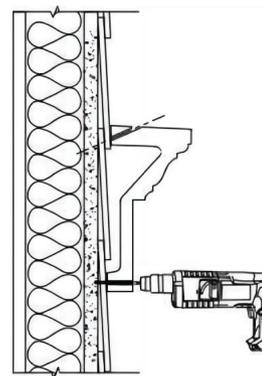


Figure 3



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4) Enlarge pilot holes (vinyl siding only).

Enlarge the pilot holes in the vinyl siding to approximately three times the diameter of the pilot hole (Figure 4).

This allows room for the siding to expand and contract.

5) Seal holes in siding (vinyl siding only).

Fill the holes in the vinyl siding with flexible moisture-resistant sealant to prevent moisture penetration.

6) Apply adhesive to mounting surfaces.

If part will seat flush against siding, apply a 1/4" bead of adhesive to the mounting surfaces of the part, leaving gaps at the bottom for water to escape (Figure 6A). If using drainage strips, also apply adhesive to the strips (Figure 6B). If siding is lapped and will not allow the part to sit flush against it, a flexible construction adhesive is optional if fasteners are used.

7) Position and fasten.

Position the part to align the pilot holes, press firmly into place and fasten with exterior-grade fasteners.

Stucco, Brick & Masonry Applications

1) Apply adhesive to mounting surfaces.

Apply a 1/4" bead of adhesive to the mounting surfaces of the part, leaving gaps at the bottom for water to escape (Figure 6A).

2) Fasten.

Press part firmly into place and fasten with exterior-grade fasteners, ensuring they are inside the bead of sealant (Figure 7) and anchor into solid reinforcement. For brick and masonry applications, use masonry fasteners. Remove any excess adhesive.

3) Apply sealant (stucco only).

Apply sealant along the top edge to prevent water from running down behind the part.

Figure 4

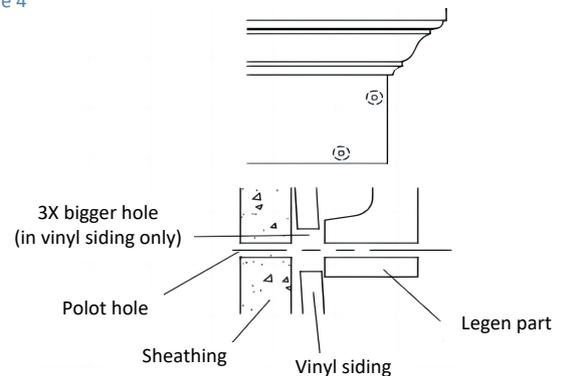


Figure 6A

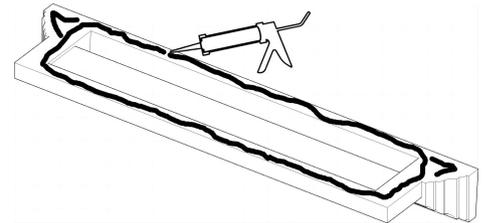


Figure 6B

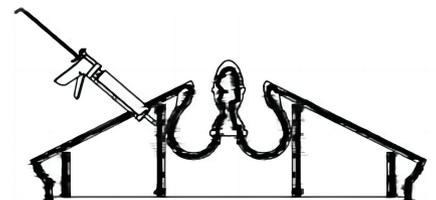
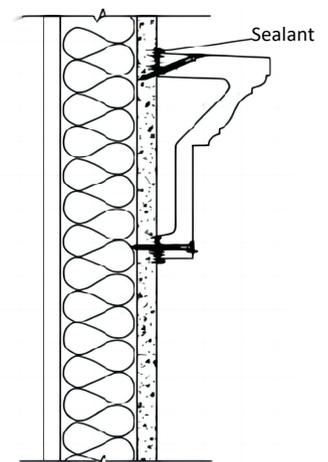


Figure 7





Polyurethane Millwork General Information

Installation Instructions

Urethane Products - An Overview

Legen millwork products are used on both the interior and exterior of residential and exterior of commercial projects. Legen polyurethane products provide long-lasting low maintenance and deliver performance for long-term value. Polyurethane is a closed-cell product, making it resistant to moisture and insects. It resists rotting, warping, cracking and peeling, as well as crumbling and deterioration.

Product Categories

- Window and Door Trim
- Mouldings
- Decorative Millwork
- Louvers and Gable Vents
- Balustrades, Porch Posts and Columns

Features

- Precision molded from high-density polyurethane.
- Lightweight and easy to install.
- Closed-cell structure, making it resistant to moisture and insects.
- Products come primed and ready to stain or paint.
- Deliver the beautiful, authentic details and rich textures of finely finished wood, rugged timbers and classic stone accents.
- Has the look and feel of traditional building materials without the maintenance.

Ordering

Learn more about our products, please visit our website: www.legenpu.com, or www.alibaba.com. If you would like to order our products, please email us at sales@legenpu.com. Or call +86 535 6809424.

- Each piece has a consistent quality and finish, requiring no sanding, priming or sealing.
- Pieces can be sawed, drilled, nailed and glued like wood.
- Significantly lighter in weight than wood or plaster products, saving time and labor on the jobsite.
- Use standard woodworking tools for installation.

Painting

Legen products come primed with an exterior-grade coating. The primed surface is ready to stain or paint - no sanding or additional priming needed. The product should be painted with a high quality latex paint. Pieces can be painted any color the homeowner desires, and can also be faux painted and marbled for more decorative looks. Please contact your local paint supplier for more details on painting specifications for urethane surfaces. Use acrylic-latex exterior paint only, otherwise the warranty may become void.

Additional Services - Project Quoting

Legen offers superior service - from completing quotes for standard or custom architectural millwork, to using a specialized construction software to provide digitized takeoffs from your construction prints.

- Legen offers architects and builders a free takeoff service for projects of at least \$10,000, including historical restorations, replicas and other applications.
- We know and understand home styles and the elements that make a home true to its roots.
- Our takeoff service will provide Legen parts that you designate or we will recommend parts that help create the look you and your customer desire.

Additional Services - Decorative Custom Products

If your project requires a shape, size or profile that you don't see in our catalog, Legen can bring your construction dreams to reality. Whether you need an authentic replica for a historical restoration or you're faced with a unique or unusual architectural situation, we have the design and production capabilities to turn your sketch and dimensions into almost any millwork or trim product imaginable.

We will review your custom project to arrive at the best solution, working with your plan to create a CAD drawing and produce a new custom part for your project.

General & Safety Information

- Wear proper personal protective equipment (PPE).
- Use all products and tools per manufacturer guidelines, including ventilation requirements.

Tools / Materials

- Brush
- Lint-free rags
- Tack cloth
- Mineral Spirits
- Stripping solution (Klean Strip Premium Stripper recommended)
- High-quality water-based exterior primer

Stripping Instructions

1) Apply stripping solution.

Apply generously to all areas that are going to be stripped. Use a brush to make sure the stripper is applied to all areas (Figure 1). Let it sit for the recommended time, per the manufacturer instructions.

2) Remove the finish.

Use a brush with short, stiff bristles to remove the finish (Figure 2). For smooth surfaces, a putty knife can be used if necessary, but be careful not to scratch or gouge the surface.

It may be necessary to apply more stripping solution and repeat this step if not all finish is removed.

3) Apply mineral spirits.

Apply generously and wipe entire surface with lint-free rags (Figure 3). Allow to dry completely.

A tack cloth can be used to remove remaining debris after the surface is completely dry.

4) Apply primer.

Apply a high-quality water-based primer to the area to be finished (Figure 4).

5) Finish

Refer to Legen General Finishing Instructions.

Figure 1

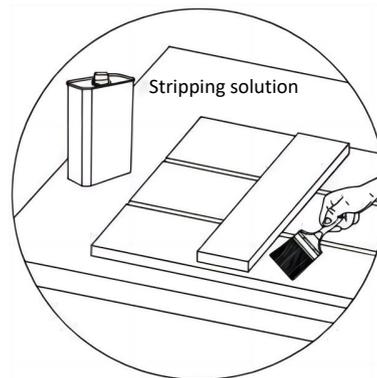


Figure 2

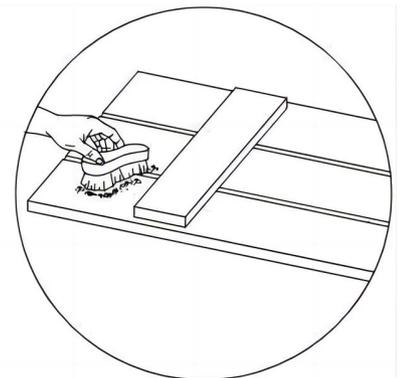
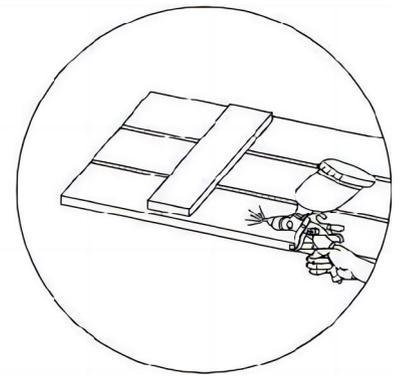


Figure 3



Figure 4



General & Safety Information

- Wear proper personal protective equipment (PPE).
- Use all products and tools per manufacturer guidelines, including ventilation requirements.

Tools / Materials

- Sandpaper (220-grit or finer recommended) and / or sanding block
- Orbital sander (for larger repairs)
- Lint-free rags or tack cloth
- Spatula or putty knife
- Automotive body filler and hardener
- High-quality water-based exterior primer

For repairs that do not require filler:

1) Remove any loose material.

2) Sand area to be repaired.

Lightly sand (by hand) the area to be repaired and the surrounding area, using 220-grit or finer sandpaper (Figure 2A). Refrain from excessive sanding that will change the texture, grain, or moulding profile.

3) Wipe down area.

Wipe entire surface with lint-free rags or tack cloth (Figure 3A).

4) Apply primer.

Apply a high-quality water-based primer to the area to be repaired (Figure 4A). Allow to dry completely.

5) Finish

Refer to Legen General Finishing Instructions.

Figure 2A

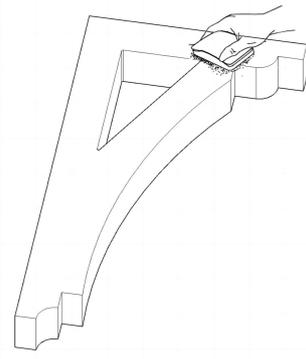


Figure 3A

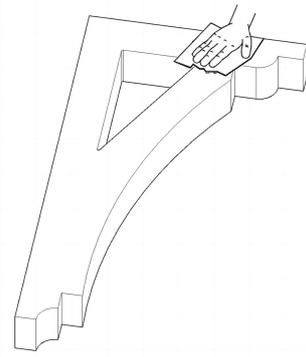
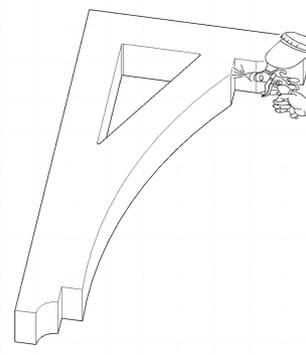


Figure 4A



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Continued

For repairs that require filler:

1) Remove any loose material.

2) Sand area to be repaired.

Lightly sand (by hand) the area to be repaired and the surrounding area, using 220-grit or finer sandpaper (Figure 2B). Refrain from excessive sanding that will change the texture, grain, or moulding profile.

3) Wipe down area.

Wipe entire surface with lint-free rags or tack cloth (Figure 3B).

4) Apply filler (if the damage can be felt).

Mix and apply a hardening automotive body filler to the area to be repaired (Figure 4B). Follow the filler manufacturer guidelines. Apply it so the filler sits slightly higher in the center and blend to the surrounding area. Allow to harden.

5) Sand filler.

Use 220-grit or finer sandpaper to sand the filler until it matches the surrounding area. Use parallel movements while sanding. For larger areas, an orbital sander may be more efficient (Figure 5).

6) Apply primer.

Apply a high-quality water-based primer to the area to be repaired (Figure 6). Allow to dry completely.

7) Finish.

Refer to Legen General Finishing Instructions.

Figure 2B

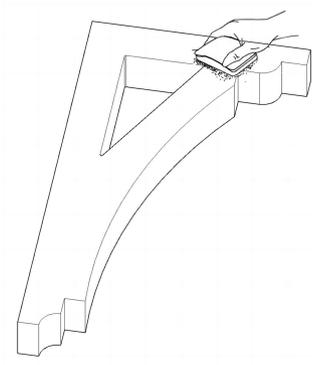


Figure 3B

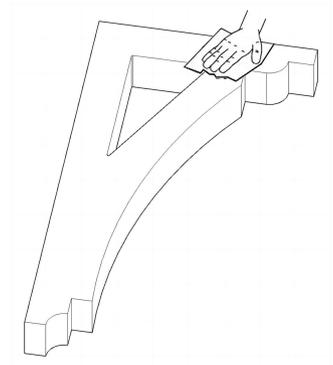


Figure 4B

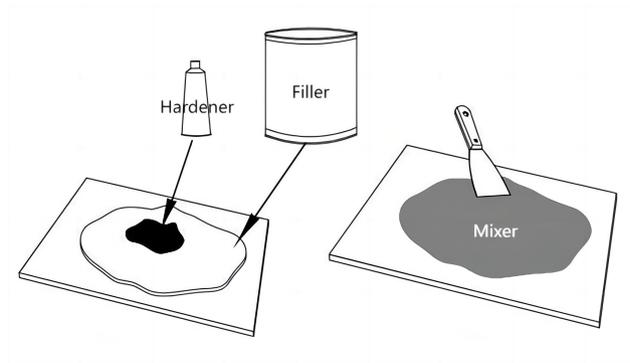


Figure 5

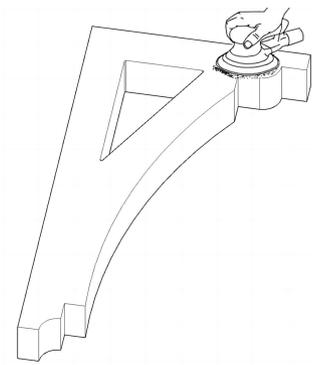
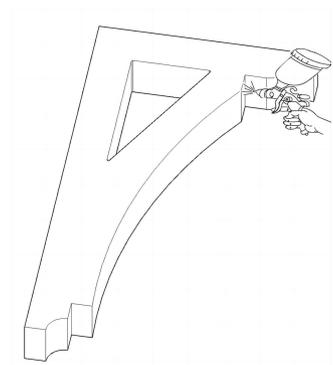


Figure 6



General & Safety Information

- Wear proper personal protective equipment (PPE).
- Operate all tools per manufacturer guidelines.
- Standard woodworking saws and blades can be used for cutting Legen polyurethane (PUR) products,
- Legen PUR parts are NOT load bearing.
- For best results, finish and allow to dry prior to installation. Refer to Legen General Finishing Instructions, which can be found at Legen.com/install.

Tools / Materials

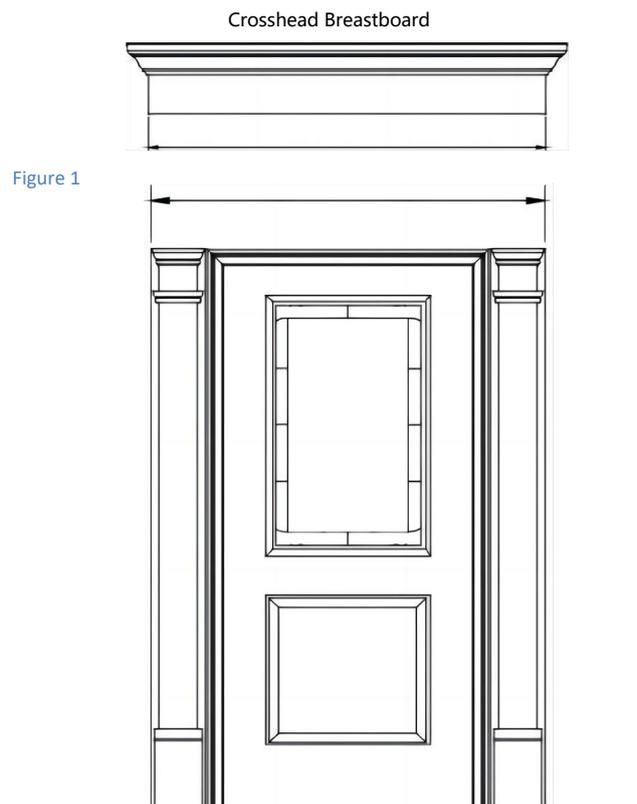
- Pencil
- Tape measure
- Square
- Hammer or pneumatic nailer
- Nail countersink
- Drill / driver (if using screws)
- Putty knife
- Saw
- Sandpaper (220-grit recommended)
- Caulk gun
- Exterior-grade polyurethane-compatible sealant and / or filler
- Exterior-grade polyurethane-compatible adhesive (Loctite PL Premium recommended)
- Exterior-grade fasteners (trim head screws recommended)

Fabrication Instructions

1) Determine desired crosshead length.

If desired length is not known, measure to the outside of the side trim pieces. For doors, this is typically to the outside of the pilasters. For windows, it is the width of the window, plus any trim. Typically, the final breastboard dimension of the crosshead will be equal to or slightly larger than this dimension (Figure 1).

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2) Cut crosshead.

If a keystone will be attached, divide the measurement in half from Step 1. Use that measurement and measure from the right side of the crosshead's breastboard, mark it using a square, and cut it (Figure 2A). Now do the same from the left side of the crosshead, mark it, and cut it (the section in the middle will be scrap).

If a keystone will not be attached, cut the crosshead so an end piece remains that has a breastboard dimension of 1". Then, measuring from the other end, mark and cut the remaining piece to be 1" less than the measurement from Step 1 (Figure 2B).

If using a trimmable crosshead, measure the back side of each end cap at the breastboard (Figure 2C). Multiply it times 2, subtract that number from the measurement in Step 1 and cut the trimmable crosshead to length (Figure 2D).

3) Assemble crosshead or pediment.

Apply adhesive to the two mating surfaces of the crosshead pieces (Figure 3A). Align the two pieces and press them together and fasten with exterior-grade fasteners (Figure 3B).

If not using a keystone, secure the short piece to the long piece by installing 2" trim screws from the short end (Figure 3C). Remove any excess adhesive. Patch and sand to hide the seam and fasteners.

If using a trimmable crosshead, apply adhesive to the back side of the end caps where they will overlap the trimmable piece (Figure 3D). Fasten with exterior-grade fasteners from the back side (Figure 3E). Remove any excess adhesive. Patch and sand to hide fasteners.

4) Attach accessory item (Figure 4) (keystone, trim strip, dentil trim, bottom trim).

Cut and fasten accessory item with adhesive and exterior-grade screws. Patch and sand to hide fasteners.

Figure 2A

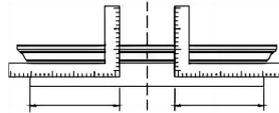


Figure 2B

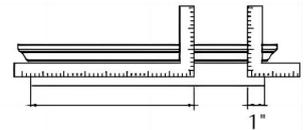


Figure 2C

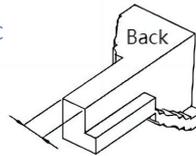


Figure 2D

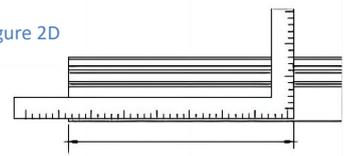


Figure 3A

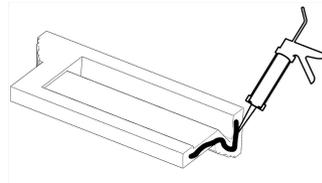


Figure 3B

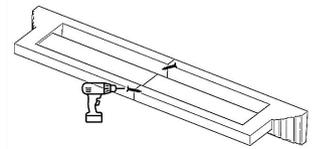


Figure 3C

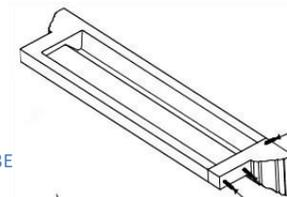


Figure 3D



Figure 3E

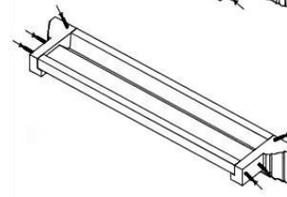
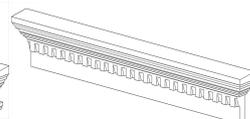


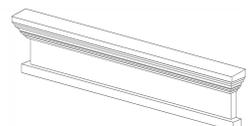
Figure 4



Trim Strip



Dentil Trim



Bottom Trim

General & Safety Information

- Wear proper personal protective equipment (PPE).
- Operate all tools per manufacturer guidelines.
- Standard woodworking saws and blades can be used for cutting Legen polyurethane (PUR) products.
- Legen PUR parts are NOT load bearing.
- For remodeling applications and alternative facades like stucco, vinyl, etc., please refer to Legen General Remodeling and Alternate Facade Instructions, which can be found at Legen.com/install.
- For best results, finish and allow to dry prior to installation. Refer to Legen General Finishing Instructions, which can be found at Legen.com/install.

Tools / Materials

- Pencil
- Tape measure
- Level
- Square
- Hammer or pneumatic nailer
- Nail countersink
- Drill / driver (if using screws)

- Putty knife
- Sandpaper (220-grit recommended)
- Caulk gun
- Exterior grade polyurethane compatible solvent and / or filler
- Exterior grade polyurethane compatible adhesive
- LockW® PA Premium® (recommended)
- Exterior grade fasteners (6-in head screws recommended)

Installation Instructions

1) Mark installation area.

Hold part in place, make sure it is level and plumb, and mark the desired location (Figure 1A). If the part has a hollow cavity on the back, a mounting block is recommended and should be installed at this time (Figure 1B). Pre-drill any fastener locations if using screws.

Figure 1A

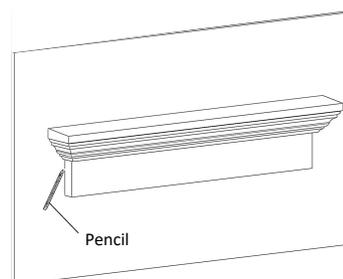


Figure 1B

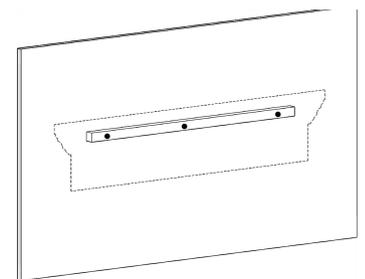
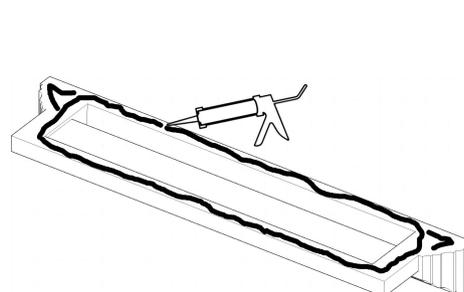


Figure 2



2) Apply adhesive.

Apply a 1/4" bead of adhesive to the mounting surfaces of the part, leaving gaps at the bottom for water to escape (Figure 2).

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Continued

3) Attach keystone, acorn or urn(if needed).

Apply adhesive to the keystone, acorn or urn, leaving the bottom open for water to escape (Figure 3A). Place it in the center of the crosshead or pediment and fasten from behind with exterior-grade fasteners (Figure 3B).

Figure 3A

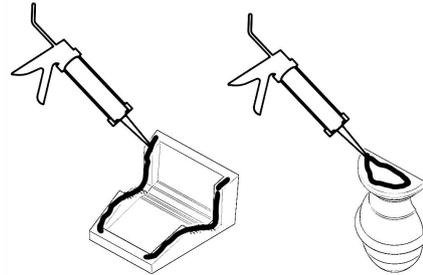
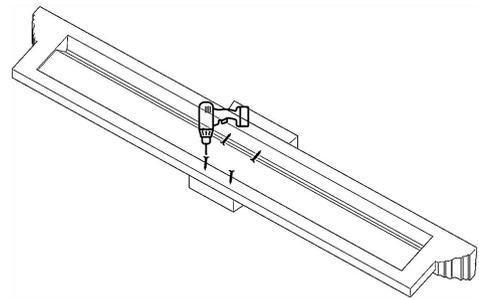


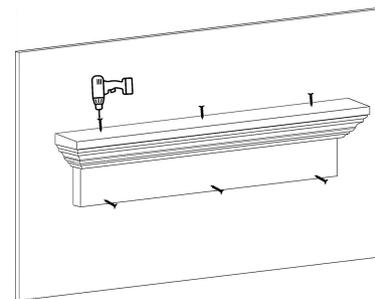
Figure 3B



4) Fasten.

Press the part into place and fasten with exterior-grade fasteners (Figure 4), making sure to countersink them below the surface. Fasteners should be no more than 16" apart. Remove any excess adhesive.

Figure 4



5) Fill and sand fastener holes.

Fill fastener holes with filler and sand to match surrounding area, making sure not to remove the primer.

6) Touch up or finish.

Refer to Legen General Finishing Instructions. If part was finished prior to installation, touch up filled fastener holes with color-matched finish. Caulk around top and sides with sealant, leaving the bottom open for water to escape.

General & Safety Information

- Wear proper personal protective equipment (PPE).
- Operate all tools per manufacturer guidelines.
- Standard woodworking saws and blades can be used for cutting Legen polyurethane (PUR) products.
- Legen PUR parts are NOT load bearing.
- For remodeling applications and alternative facades like stucco, vinyl, etc., please refer to Legen General Remodeling and Alternate Facade Instructions, which can be found at Legen.com/install.
- For best results, finish and allow to dry prior to installation. Refer to Legen General Finishing Instructions, which can be found at Legen.com/install.

Tools / Materials

- Pencil
- Tape Measure
- Level
- Square
- Hammer or pneumatic nailer
- Nail countersink
- Drill / driver (if using screws)
- Putty knife
- Saw
- Sandpaper (220-grit recommended)
- Caulk gun
- Exterior-grade polyurethane-compatible sealant and / or filler
- Exterior-grade polyurethane-compatible adhesive (Loctite® PL Premium® recommended)
- Exterior-grade fasteners (trim head screws recommended)

Installation Instructions

1) Measure and mark pilaster.

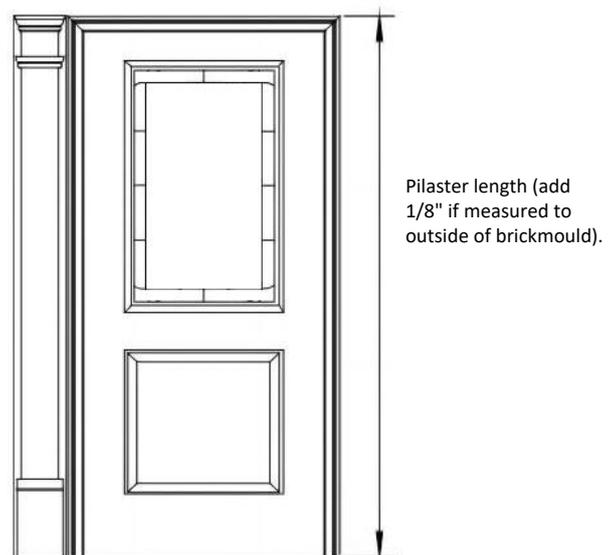
To determine the required pilaster length, measure the distance from the landing or porch floor to the top of the door, including brickmould, if applicable (Figure 1). Be sure to also include the height of any transom or over-the-door window. Measure the pilaster from the top and mark the dimension toward the bottom end. If installing around brickmould, mark the pilaster 1/8" longer than the measurement, so it will clear the brickmould and allow water to escape.

2) Cut to length.

Cut the pilaster to length at the bottom end. For concrete floors in colder climates, it is recommended to cut the pilaster slightly shorter to prevent buckling due to frost heave. If cutting down a detached plinth block, also cut it from the bottom.

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Figure 1

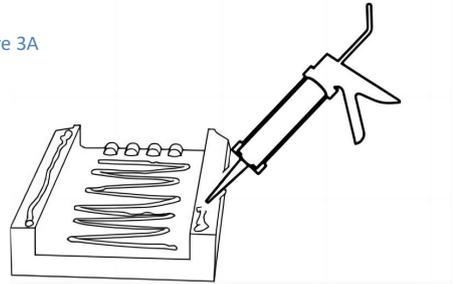


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3) Attach plinth block (if detached).

If using a pilaster with a detached plinth block, apply adhesive to the back of the plinth block, position it on the pilaster, and attach it with exterior-grade screws through the back of the pilaster (Figure 3A and Figure 3B).

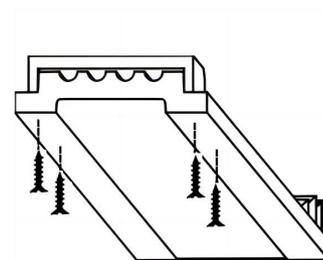
Figure 3A



4) Mark installation area.

Hold the pilaster in place, make sure it is level and plumb, and mark the desired location. Pre-drill fastener locations, if required. Spacing between fastener locations should not exceed 16".

Figure 3B



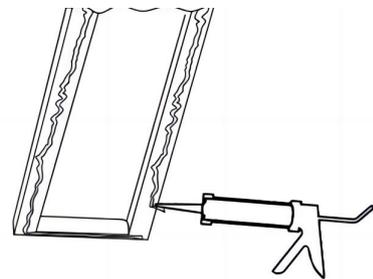
5) Apply adhesive.

Apply a 1/4" bead of adhesive to the mounting surfaces of the pilaster, leaving the bottom open for water to escape (Figure 5).

6) Fasten.

Press the pilaster into place, making sure the tops of the pilasters are level with each other and the top of the door, or 1/8" above the brickmould (Figure 6). Fasten with exterior-grade fasteners, making sure to countersink them below the surface of the pilaster. Spacing between fasteners should not exceed 16". Remove any excess adhesive.

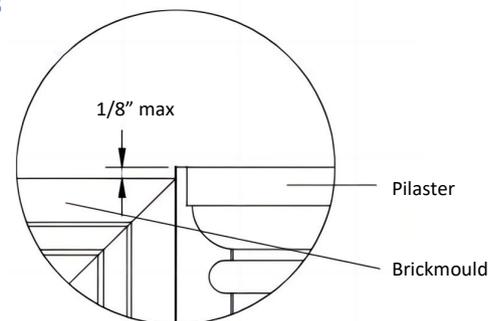
Figure 5



7) Fill and sand fastener holes.

Fill fastener holes with filler and sand to match surrounding area, if needed, but be careful not to remove the primer.

Figure 6



8) Touch up or finish.

Refer to Legen General Finishing Instructions. If part was finished prior to installation, touch up filled fastener holes with color-matched finish. Caulk around top and sides (including top of attached plinth block) with sealant, leaving the bottom open for water to escape.

General & Safety Information

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- Legen PUR parts are NOT load bearing.
- For remodeling applications and alternative facades like stucco, vinyl, etc., please refer to Legen General Remodeling and Alternate Facade Instructions, which can be found at Legen.com/install.
- For best results, finish and allow to dry prior to installation. Refer to Legen General Finishing Instructions, which can be found at Legen.com/install.

Tools / Materials

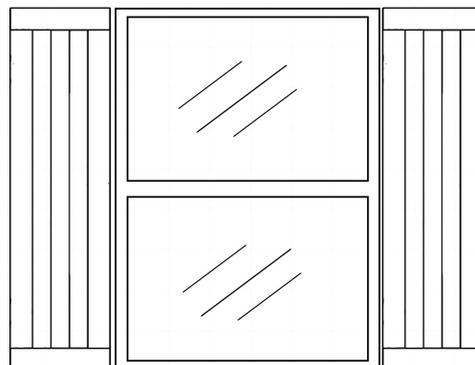
- Pencil
- Tape measure
- Level
- Hammer or pneumatic nailer
- Nail countersink
- Drill / driver (if using screws)
- Putty knife
- Saw (if trimming)
- Sandpaper (220-grit recommended)
- Caulk gun
- Exterior-grade Polyurethane-compatible sealant and / or filler
- Exterior-grade polyurethane-compatible adhesive (Loctite® PL Premium® recommended)
- Exterior-grade fasteners (trim head screws recommended)

Installation Instructions

1) Mark installation area.

Hold part in place, make sure it is level and plumb, and mark the desired location. Shutters are typically positioned so they are centered with the window (Figure 1). Pre-drill fastener locations if necessary. Fastener locations should be no more than 16" apart.

Figure 1



Continued on next page

Continued

2) Install installation strips(if new construction stucco).

Place 1" x 4" strips of moisture-resistant material on top of the brown coat, so they will sit 1/2" to 1" inside the edges of the shutters. Fasten them using adhesive and three exterior-grade screws (Figure 2), and cover screws with sealant prior to shutter installation. (The stucco finish coat can be applied around the installation strips and allowed to dry, before installing the shutters on top of the installation strips.)

3) Apply adhesive.

If using installation strips, apply a 1/4" bead of adhesive in a zigzag pattern to each one (Figure 3).

If not, apply a 1/4" bead of adhesive to the back of the shutters, leaving gaps at the bottom for water to escape.

4) Fasten.

Press the shutter into place and fasten with exterior-grade fasteners (Figure 4), making sure to countersink them below the surface. Remove any excess adhesive. If installing over installation strips, make sure the fasteners go into the installation strips. Fasteners should be no more than 16" apart.

5) Fill and sand fastener holes.

Fill fastener holes with filler and sand to match surrounding area, if needed, but be careful not to remove the primer.

6) Touch up or finish.

Refer to Legen General Finishing Instructions. If part was finished prior to installation, touch up filled fastener holes with color-matched finish.

Caulk around top and sides with sealant, leaving the bottom open for water to escape.

Figure 2

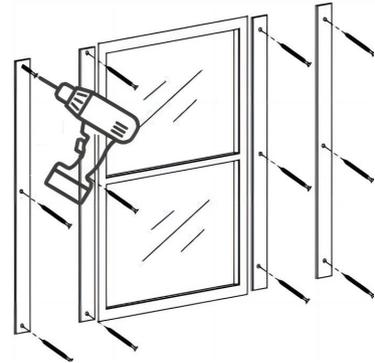


Figure 3

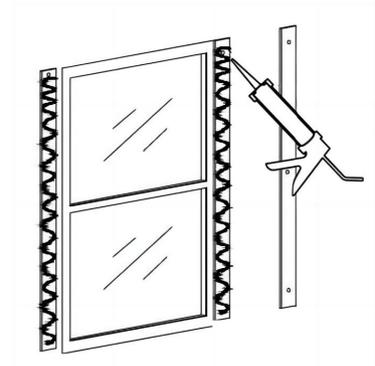
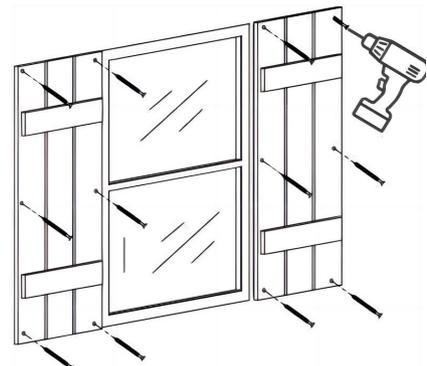


Figure 4



General & Safety Information

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- For best results, finish and allow to dry prior to installation. Refer to Legen General Finishing Instructions, which can be found at Legen.com/install.

Tools / Materials

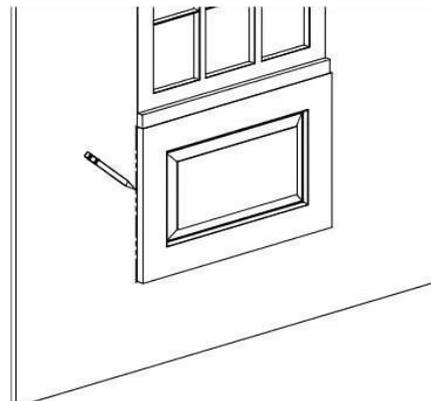
- Pencil
- Tape Measure
- Hammer or pneumatic nailer
- Nail countersink
- Drill / driver (if using screws)
- Putty knife
- Sandpaper (220-grit recommended)
- Caulk gun
- Exterior-grade polyurethane-compatible sealant and / or filler
- Exterior-grade polyurethane-compatible adhesive (Loctite® PL Premium® recommended)
- Exterior-grade fasteners (trim head screws recommended)

Installation Instructions

1) Mark installation area.

Hold the window panel in place and mark the desired location (Figure 1). Pre-drill fastener locations if needed. Spacing between fastener locations should be no more than 16".

Figure 1



Continued on next page

Continued

2) Apply adhesive.

Apply a 1/4" bead of adhesive to the mounting surfaces of the window panel on the back side, leaving gaps at the bottom for water to escape (Figure 2).

3) Fasten.

Press the window panel into place and fasten with exterior-grade fasteners (Figure 3), making sure to countersink them below the surface. Spacing between fasteners should be no more than 16". Remove any excess adhesive.

4) Fill and sand fastener holes.

Fill fastener holes with filler and sand to match surrounding area, if needed, but be careful not to remove the primer.

5) Touch up or finish.

Refer to Legen General Finishing Instructions. If part was finished prior to installation, touch up filled fastener holes with color-matched finish. Caulk around top and sides with sealant, leaving the bottom open for water to escape.

Figure 2

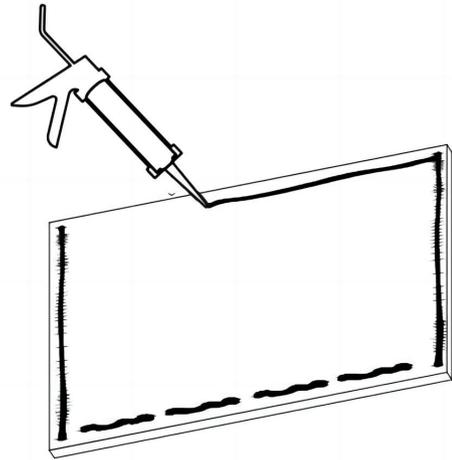
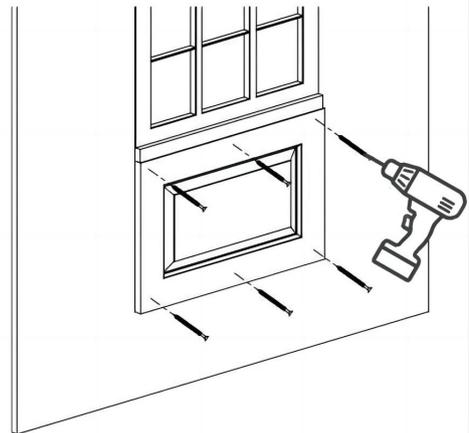


Figure 3



General & Safety Information

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- For best results, finish and allow to dry prior to installation. Refer to Legen General Finishing Instructions, which can be found at Legen.com/install.

Tools / Materials

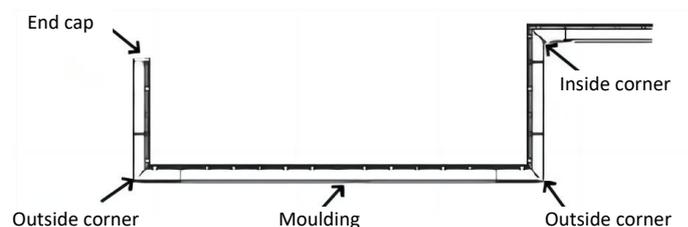
- Pencil
- Tape Measure
- Level
- Square
- Hammer or pneumatic nailer
- Nail countersink
- Drill / driver (if using screws)
- Putty knife
- Saw (if trimming)
- Sandpaper (220-grit recommended)
- Caulk gun
- Exterior-grade polyurethane-compatible sealant and / or filler
- Exterior-grade polyurethane-compatible adhesive (Loctite® PL Premium® recommended)
- Exterior-grade fasteners (trim-head screws recommended)

Installation Instructions

1) Draw roof layout.

Draw layout of roof line and label to mark corners and moulding lengths (Figure 1).

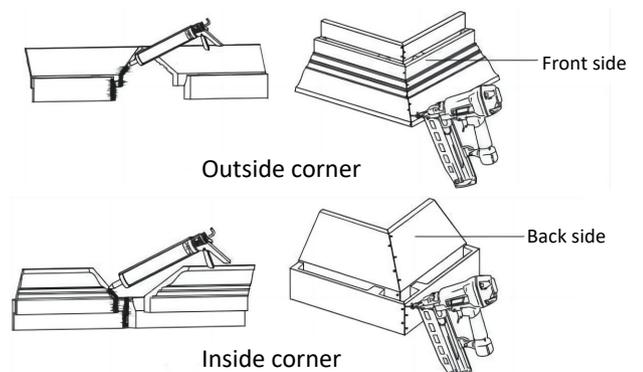
Figure 1



2) Assemble corner pieces.

Determine the number of outside and inside corner pieces that will be needed, based on the previous step. Apply a 1/4" bead of adhesive to the mitered joints for each corner piece, press the two pieces together and fasten together with exterior-grade fasteners (Figure 2). Do this for all of the corner pieces and allow them to cure per the adhesive manufacturer's instructions.

Figure 2



Continued on next page

Continued

3) Install corner pieces.

Apply a 1/4" bead of adhesive to the mounting surfaces of the corner piece and press it into place (Figure 3A). Secure with exterior-grade fasteners (Figure 3B). Install all of the interior and exterior corner pieces.

4) Determine moulding lengths.

Measure between the corner pieces and mark that dimension on the layout from Step 1. Add 1/4" for every 10 feet of length for a snug fit (Figure 4).

5) Cut moulding to length.

Cut moulding to the measurement from the previous step and check the fit. Trim if necessary. The moulding should fit tight so it bows slightly but straightens out when pressed into place (Figure 5A).

If the moulding is cut through a vent opening, attach a filler block to the cut end of the moulding to provide support. Apply adhesive to the filler block and fasten to the moulding with exterior-grade fasteners (Figure 5B).

6) Install moulding.

Apply a 1/4" bead of adhesive to the mounting surfaces of the moulding and press it into place. Secure with exterior-grade fasteners, starting at the ends and working toward the middle, with fasteners no more than 16" apart and countersinking the heads (Figure 6).

7) Fill and sand fastener holes.

Fill fastener holes with filler and sand to match surrounding area, if needed, but be careful not to remove the primer.

8) Touch up or finish.

Refer to Legen General Finishing Instructions. If part was finished prior to installation, touch up filled fastener holes with color-matched finish. Caulk around seams and top with sealant, leaving the bottom open for water to escape.

Figure 3A

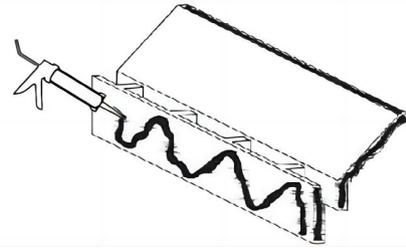


Figure 3B

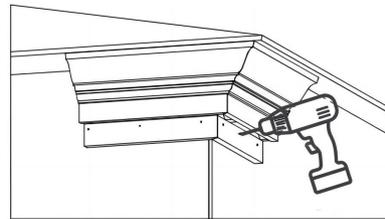


Figure 4

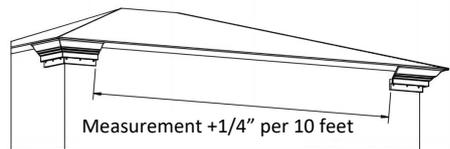


Figure 5A

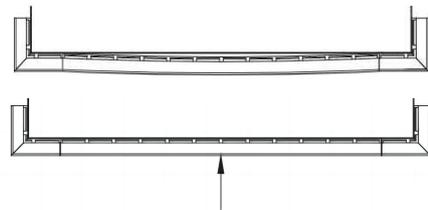
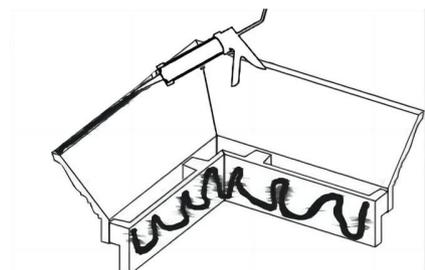
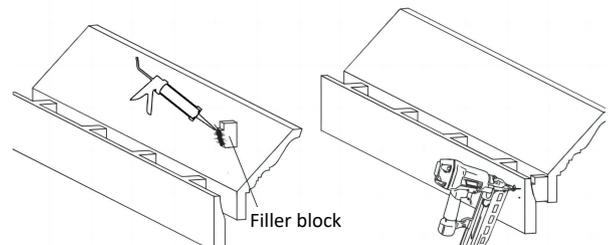


Figure 5B



General & Safety Information

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- For best results, finish and allow to dry prior to installation. Refer to Legen General Finishing Instructions, which can be found at Legen.com/install.

Tools / Materials

• Pencil

• Tape Measure

• Level

• Square

• Hammer or pneumatic nailer

• Nail/ Screws

• Drill / driver (if using screws)

• Putty knife

- Saw (if trimming)
- Sandpaper (220-grit recommended)
- Caulk gun
- Exterior-grade polyurethane-compatible sealant and / or filler
- Exterior-grade polyurethane-compatible adhesive (Loctite® PL Premium® recommended)
- Exterior-grade fasteners (trim head screws recommended)

Installation Instructions

1) Cut moulding to length.

Allow moulding to acclimate to the installation temperature for 24 hours before cutting it to length.

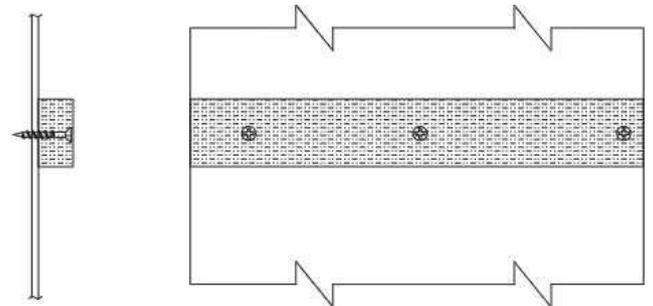
Measure location where moulding will be installed. Add 1/4" for every 10 feet of length and cut the moulding to that length to prevent gaps due to contraction in cold temperatures.

Note: Cut for miter joints at corners and butt joints at other seams.

2) Install ledger strip (if needed).

If the moulding is hollow, install a ledger strip for it to mount to (Figure 1).

Figure 1



Continued

3) Apply adhesive.

Apply a 1/4" bead of adhesive on the mounting surface of the moulding, leaving some gaps at the bottom for water to escape (Figure 2A).

IMPORTANT! Also apply adhesive liberally on the ends at all seams to prevent separation (Figure 2B).

4) Fasten moulding.

Use exterior-grade fasteners spaced not more than 16" apart, and not less than 3" from the end of each piece to secure moulding to the wall or ledger strip (Figure 3A). If the piece is between other pieces of moulding, it should spring fit (Figure 3B). Remove excess adhesive before it dries.

5) Fill and sand fastener holes.

Fill fastener holes with filler and sand to match surrounding area, if needed, but be careful not to remove the primer.

6) Touch up or finish.

Refer to Legen General Finishing Instructions. If part was finished prior to installation, touch up filled fastener holes with color-matched finish.

Caulk edges and exposed fastener heads to prevent water penetration around the moulding.

Figure 2A

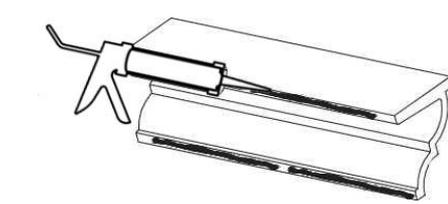


Figure 2B

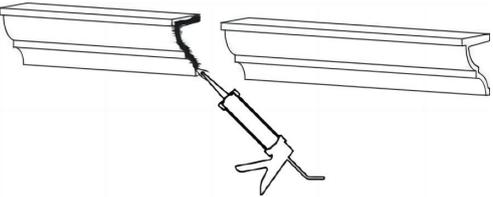


Figure 3A

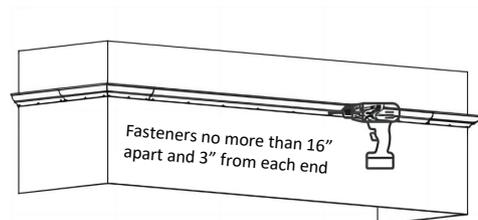
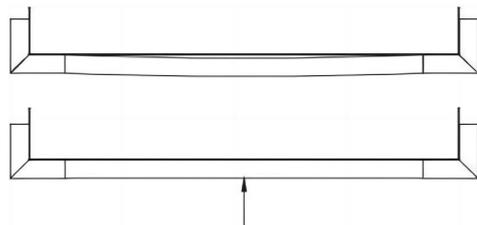


Figure 3B



General & Safety Information

- Wear proper personal protective equipment (PPE).
- Operate all tools per manufacturer guidelines.
- Standard woodworking saws and blades can be used for cutting polyurethane (PUR) products.
- Legen PUR parts are NOT load bearing.
- Always follow applicable code requirements and clearances with other equipment or fixtures per manufacturer recommendations.
- For best results, finish and allow to dry prior to installation. Refer to Legen General Finishing Instructions, which can be found at Legen.com/install.

Tools / Materials

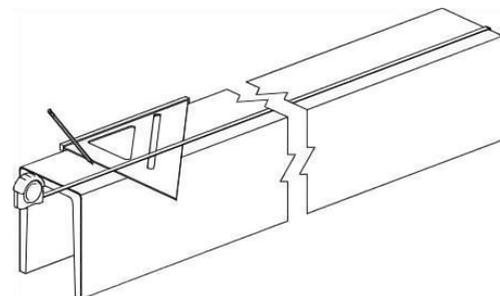
- Pencil
- Tape Measure
- Square and / or T-Bevel
- Hammer or pneumatic nailer
- Nail countersink
- Drill / driver (if using screws)
- Putty knife
- Jig saw w/ 45°-angle cut capability and fine-tooth blade
- Rasp or file
- Sandpaper (220-grit recommended)
- Caulk gun
- Exterior-grade polyurethane-compatible sealant and / or filler
- Exterior-grade polyurethane-compatible adhesive (Loctite® PL Premium® recommended)
- Exterior-grade fasteners (trim-head screws recommended)

Installation Instructions

1) Measure and mark beam.

Allow beam to acclimate to installation temperature for at least 24 hours, then measure and mark desired beam length. Use a square to mark straight lines on all sides of the beam that will be cut (Figure 1). If a beam top will be installed, mark it at the same time to the same length as the beam. If fitting against an angled wall or ceiling, a Tbevel may be helpful to identify the proper pitch and cut angle.

Figure 1



Continued on next page

Continued

2) Cut and machine beam.

Use a jigsaw with a fine-tooth blade to cut the beam. It may be helpful to use the square as a saw guide for a straight cut (Figure 2).

If a beam top or end cap will be installed, proceed to the next step. If not, refer to the Legen Standard Beam Installation Instructions.

3) Square beam.

Cut and insert blocks of polyurethane or other structural material along the length of the beam on the inside to make it square and a consistent width (Figure 3).

4) Bevel the end(s) of the beam and beam top (if end cap will be installed).

Adjust the jigsaw to a 45-degree angle and bevel the inside end(s) of the beam that will receive an end cap (Figure 4A). Also bevel the end(s) of the beam top, but round the corners to follow the shape of the beam (Figure 4B).

5) Trace the beam end cap (if applicable).

Temporarily assemble the beam top and tape it in place. Place the smooth side of the end cap against the end of the beam, with the desired area of grain showing. Hold the end cap in place and trace the outline of the beam on the back side of the end cap (Figure 5). Mark the top or bottom of the end cap, if desired.

6) Cut end cap.

Use the jigsaw to cut the beam end cap along the lines marked in the prior step. Round the corners to match the beam (Figure 6).

Figure 2

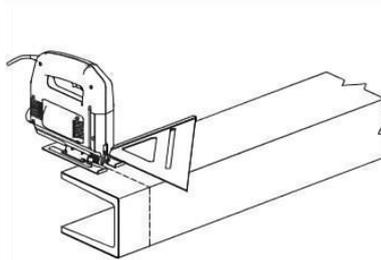


Figure 3

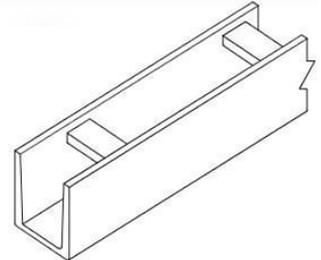


Figure 4A

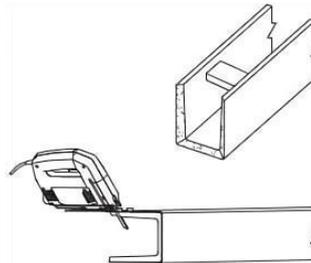


Figure 4B

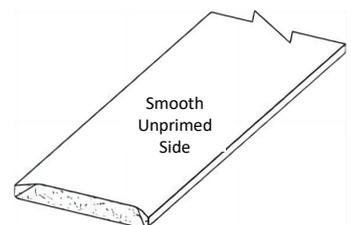


Figure 5

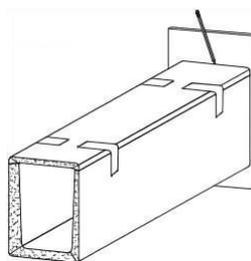
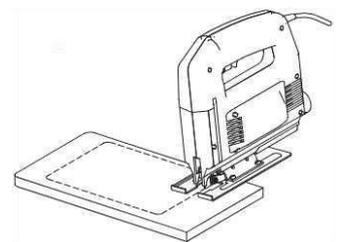


Figure 6



Continued on next page

Continued

7) Bevel the end cap.

Adjust the jigsaw to a 45-degree angle and cut around the end cap with the wood-grained side up, so all of the edges are beveled (Figure 7).

8) Dry fit and clean up the cut edges.

Dry fit the beam, beam top and / or end cap to confirm they fit tightly together. If they do not, use a rasp, file or sandpaper to modify the beveled edges where necessary, until they fit together as desired (Figure 8).

9) Assemble beam top (if applicable).

Apply a 1/4" bead of adhesive along the long edge of the beam (Figure 9A), press the beam top into place, and fasten (Figure 9B). Remove any excess adhesive.

In some cases, it may be necessary to perform this step after the beam is installed.

10) Assemble beam end cap(if applicable).

Apply a 1/4" bead of adhesive along the beveled edges of the end cap (Figure 10A) and press it in place. Tape or fasteners should be used to hold the end cap in place while the adhesive cures (Figure 10B), but remove any excess adhesive while it is still wet. Tape can be removed after the adhesive has cured (Figure 10C).

11) Fill and sand fastener holes.

Fill fastener holes with filler and sand to match surrounding area, if needed, but be careful not to remove the primer.

12) Touch up or finish.

Refer to Legen General Finishing Instructions. If part was finished prior to fabrication, touch up filled fastener holes with color-matched finish.

Figure 7

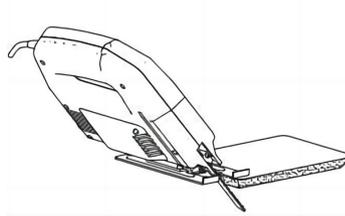


Figure 8

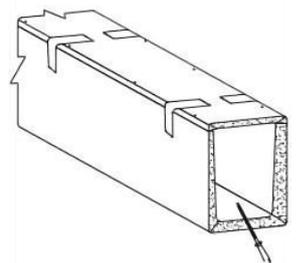


Figure 9A

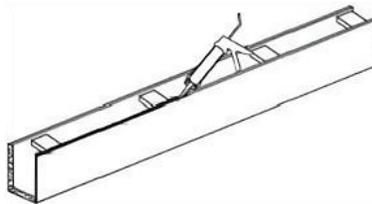


Figure 9B

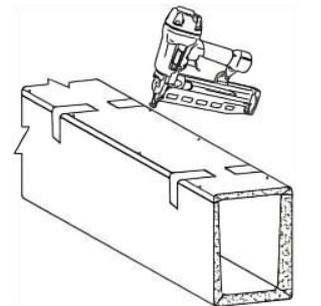


Figure 10A

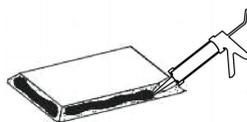
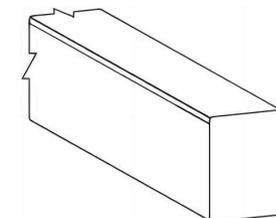
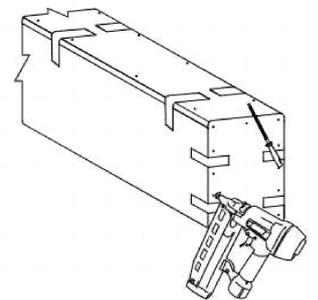


Figure 10B



General & Safety Information

- Wear proper personal protective equipment (PPE).
- Operate all tools per manufacturer guidelines.
- Standard woodworking saws and blades can be used for cutting Legen polyurethane (PUR) products.
- Legen PUR parts are NOT load bearing. However, Legen PUR beam mantels have been tested to support a weight load capacity of up to 200 lbs. if properly mounted.
- Always follow applicable code requirements and clearances with fireplaces or other heat sources per manufacturer recommendations. Legen PUR beam mantels have been tested to ASTM D1929 and shown to be safe from ignition to 300°C (572°F). For comparison, soft woods can ignite at temperatures as low as 180°C (356°F).
- For best results, finish and allow to dry prior to installation. Refer to Legen General Finishing Instructions, which can be found at Legen.com/install.

Tools / Materials

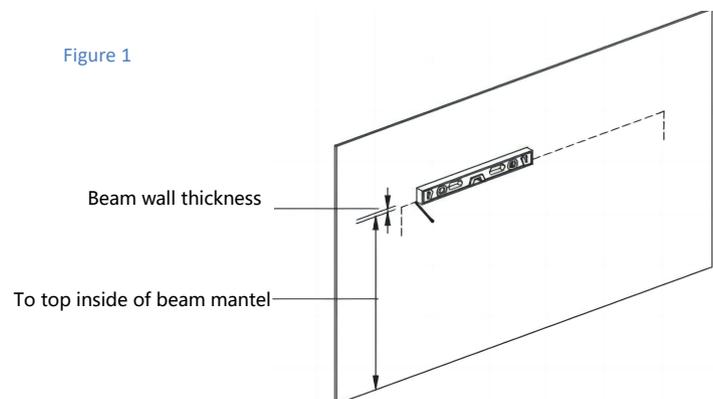
- Pencil
- Tape Measure
- Level
- Square and / or T-Bevel
- Stud finder
- Hammer or pneumatic nailer
- Nail countersink
- Drill / driver and appropriate bits
- 2x4 or 2x6 lumber
- Saw (to cut blocking)
- Putty knife
- Sandpaper (220-grit recommended)
- Caulk gun
- Exterior-grade polyurethane-compatible sealant and / or filler
- Exterior-grade polyurethane-compatible adhesive (Loctite® PL Premium® recommended)
- Exterior-grade fasteners (1 trim-head screws recommended)
- 3/16" x 4" toggle bolts
- 3" flat-head fasteners (for dry wall or wood)
- 1/4" x 2-½" flat-head concrete anchors (for masonry)

Installation Instructions

1) Mark guideline.

Refer to Figure 1. If installing the beam mantel over a heat source, ensure that the location meets applicable code requirements. Typically, the bottom of the beam mantel must be at least 12" above the heat source, plus 1" for every 1" that the mantel protrudes from the wall. Mark a straight and level guideline to denote the inside top and ends of the beam mantel. The top edge of the beam mantel will sit above this line, by its wall thickness.

Figure 1



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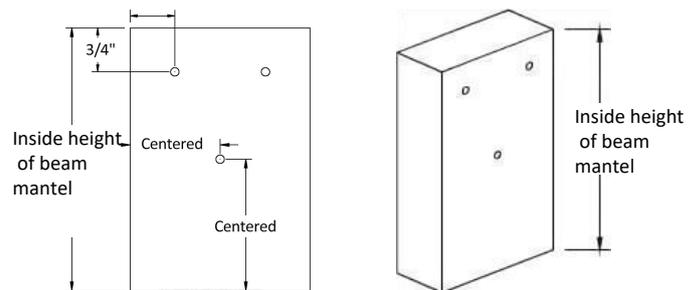
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2) Fabricate mounting blocks.

From 2x4 or 2x6 lumber, cut mounting blocks that match the inside height of the beam mantel, or cut a single board that is slightly less than the inside length of the beam mantel. Refer to the table on the right for the number of mounting blocks to cut, based on the length of the beam mantel (Figure 2A). Drill three 1/8" holes in each mounting block as shown (Figure 2B), with one in the center of the block and two more that are spaced 3/4" in from the top corners. If using a single board, wait to drill holes until the next step.

Beam Length	Wood Mounting Block (Qty)
Up to 60"	3
60" to 78'	4
78" to 90'	5

Figure 2B



3) Mark mounting block locations and prepare mounting blocks for installation.

Refer to Figure 3. Use a stud finder and mark any stud locations on the guideline.

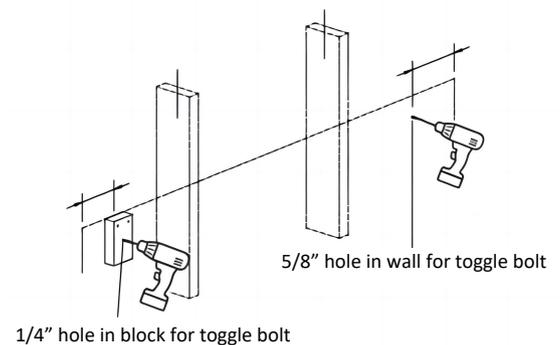
If the stud locations are more than 16" apart or not within 6" of the beam mantel ends, additional mounting locations will be needed, with toggle bolts at the non-stud locations.

For any of the center mounting block holes that will receive toggle bolts, enlarge the 1/8" hole in the block to 1/4" to allow the toggle bolt to pass through. Mark the toggle bolt hole location on the wall and drill a 5/8" hole for the expanding part of the toggle bolt to pass through.

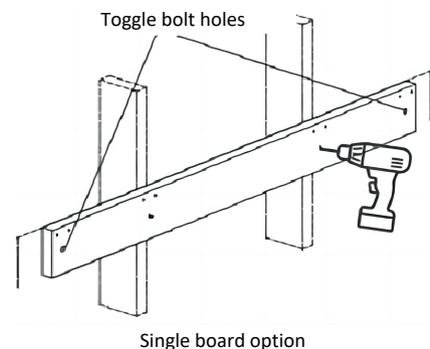
Similarly, if installing on masonry, pre-drill holes as needed for any masonry fasteners.

If using a single board, drill holes in the same pattern as the mounting blocks, to align with the identified mounting locations, and similarly prep any holes for toggle bolts or masonry fasteners.

Figure 3



Continued on next page



Continued

4) Attach mounting block(s).

Refer to Figure 4. Align the tops of the mounting blocks with the guideline at the desired locations and fasten to the wall using the appropriate fasteners. Secure to studs using 3" screws, masonry using masonry fasteners, or non-stud drywall locations using toggle bolts.

If using a single board, fasten in the same manner, using appropriate fasteners.

Use painter's tape to mark the location of each mounting block about 2" above and below the block, to mark where the beam will be fastened.

5) Apply adhesive to mounting blocks.

Apply a 1/4" bead of adhesive to the top and bottom of each mounting block (Figure 5).

6) Apply adhesive to the beam mantel.

Apply a 1/4" bead of adhesive to the back side of the beam mantel at the ends and about 6" in from the ends (Figure 6).

7) Install beam mantel.

Press the beam mantel over the mounting blocks and against the wall. Fasten at the mounting locations with 1 -W trim head screws, about 1" away from the wall, making sure to install them vertically and countersink them below the surface (Figure 7). Remove any excess adhesive and painter's tape.

8) Fill fastener holes.

Fill fastener holes with filler and sand to match surrounding area, if needed, but be careful not to remove the primer.

9) Touch up or finish.

Refer to Legen General Finishing Instructions. If part was finished prior to installation, touch up filled fastener holes with color-matched finish.

Figure 4

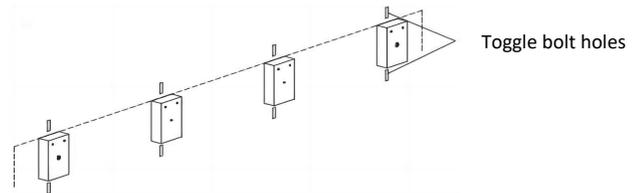


Figure 5

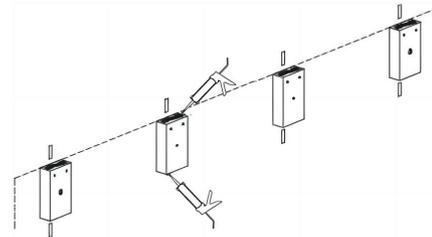


Figure 6

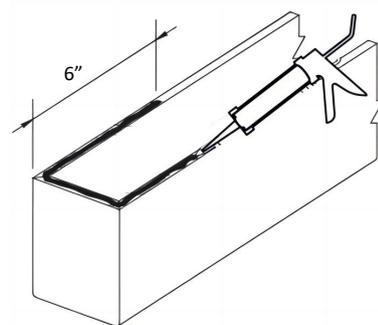
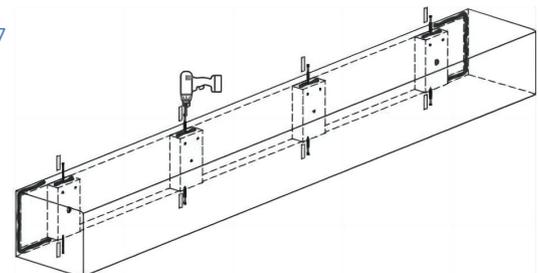


Figure 7



General & Safety Information

- Wear proper personal protective equipment (PPE).
- Operate all tools per manufacturer guidelines.
- Standard woodworking saws and blades can be used for cutting Legen polyurethane (PUR) products.
- Legen PUR parts are NOT load bearing.
- Always follow applicable code requirements and clearances with other equipment or fixtures per manufacturer recommendations
- For best results, finish and allow to dry prior to installation. Refer to Legen General Finishing Instructions, which can be found at Legen.com/install.

Tools / Materials

• Frost

• Tape Measure

• Level

• Square and / or T-Square

• Stud Finder

• Hammer or pneumatic nailer

• Nail Countersink

• Drill / driver (if using cement)

• Pencil

• Saw (if trimming)

- Plumb line (if using cable)
- Sandpaper (220-grit recommended)
- Chalk line
- Caulk gun
- Exterior-grade polyurethane-compatible sealant and / or filler
- Exterior-grade polyurethane-compatible adhesive (Loctite® PL Premium® recommended)
- Exterior-grade fasteners (trim head screws recommended)
- Cable, cable clamps and eye screws or threaded rod and threaded rod mounts / nuts

Installation Instructions

1) Install top vertical support mounts (if applicable).

Refer to Legen Standard Beam Installation Instructions to mark and install mounting blocks, including any locations that will have a vertical support or king post. If using cable, fasten an eye screw to the mounting block at the truss location (Figure 1A). If using a threaded rod, secure a threaded rod mount to the mounting block (Figure 1B).

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Figure 1A

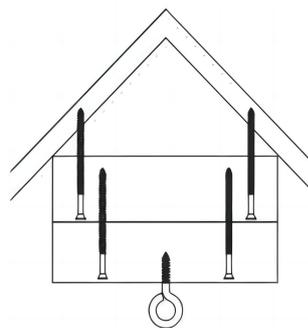
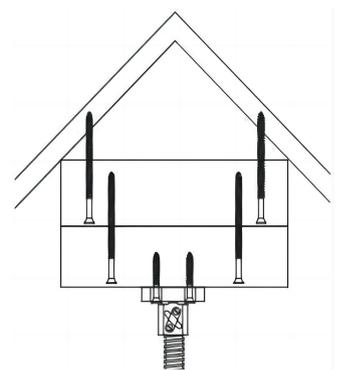


Figure 1B

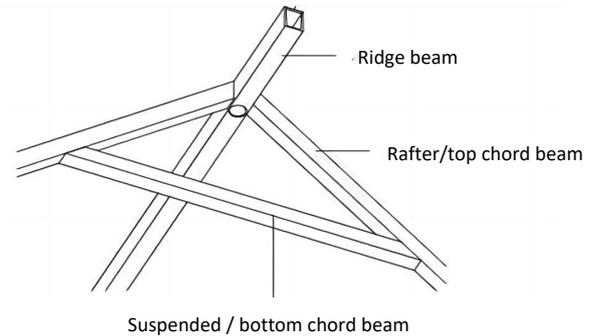


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2) Install ridge beams, rafter (top chord) beams, or suspended (bottom chord) beams.

Refer to the Legen Beam Fabrication and Standard Beam Installation Instructions. Install the ridge beam, with holes in all locations where vertical supports like cables or threaded rods will pass through the beam. Next, install any other rafter (top chord) beams. If the bottom chord of the truss will be a suspended beam, install it next (Figure 2).

Figure 2



3) Install bottom vertical support mounts (if applicable).

If using cable, suspend a plumb line from the eye screw to determine the mounting block location (Figure 3A). If using a threaded rod, install it into the threaded rod mount to determine the location of the mounting block at the bottom (Figure 3B). If there is not a full-length support in the suspended beam, cut and install a mounting block to attach the cable or threaded rod to. Apply a 1/4" bead of adhesive to the edges of the mounting block and secure it to the suspended (bottom chord) beam using trim screws (Figure 3C), with the heads countersunk. Drill a hole in the mounting block for the threaded rod (Figure 3D) or install an eye screw if using cable (Figure 3E).

Figure 3A

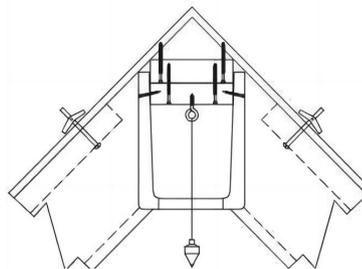


Figure 3B

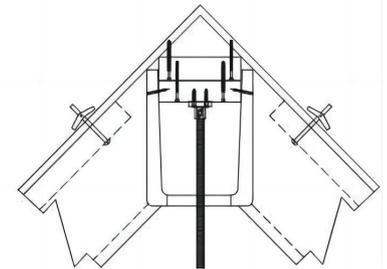


Figure 3C

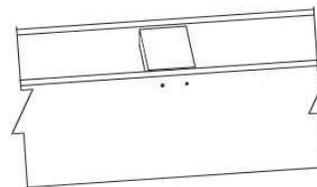


Figure 3D

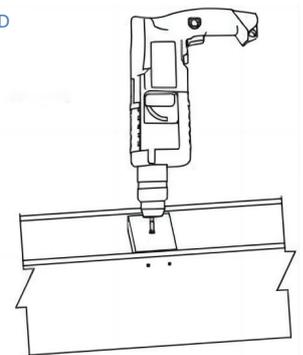
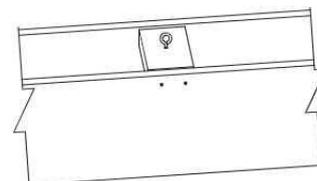


Figure 3E



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4) Attach vertical support to suspended beam.

If using cable, attach one end to the eye screw at the peak, using a cable clamp (Figure 4A). Attach the other end to the eye screw on the suspended beam, take out the slack in the cable and make sure the beam is level, then secure with a cable clamp (Figure 4B). A turnbuckle can also be used for fine tuning of the cable length. If using a threaded rod, make sure the suspended beam is level and secure the bottom of the threaded rod to the mounting block in the suspended beam (Figure 4C). The threaded rod may have to be cut before this step, leaving room for some adjustment.

5) Install beam tops (if desired).

If a beam top will be installed on the suspended beam, do so now. Refer to the Legen Beam Fabrication Instructions to fabricate and assemble the beam top. It may be necessary to fabricate the beam top in multiple pieces with notches in the ends to fit around the vertical support mount (Figure 5).

Figure 4A

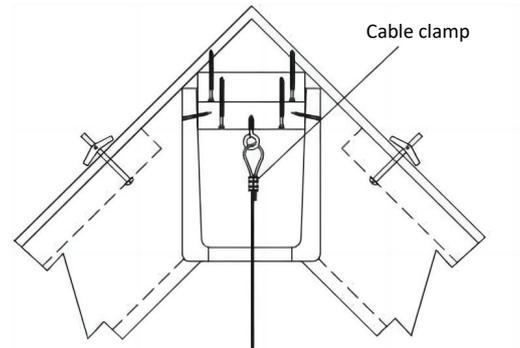


Figure 4B

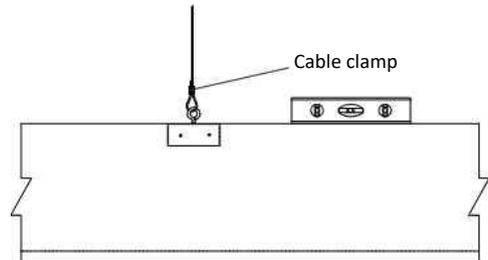


Figure 4C

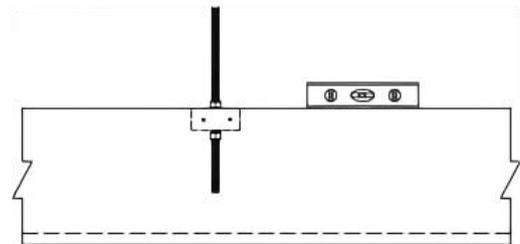
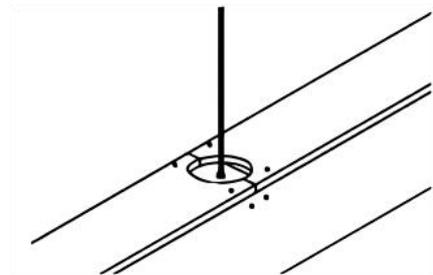


Figure 5



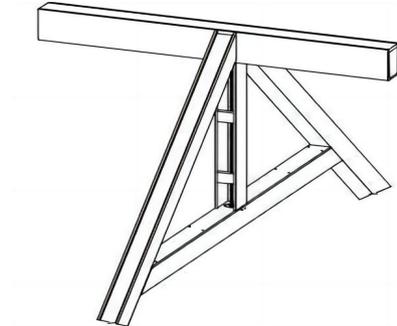
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6) Install king post beam around vertical support.

Refer to Legen Beam Fabrication Instructions if king post beam was not already cut. Install king post beam to hide the vertical support (Figure 6A) and install a beam top on the open side (Figure 6B). Fasten the king post beam at the top and bottom with trim screws and countersink the heads.

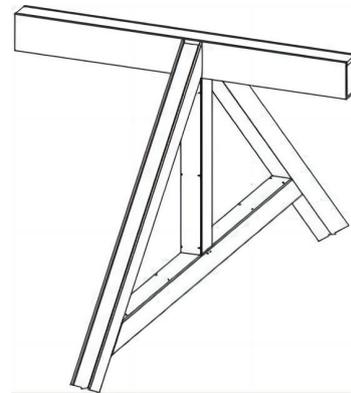
Figure 6A



7) Install additional beams.

Install any additional webbing (strut) beams (Figure 7). If additional mounting blocks are needed, follow the same process as before, and as shown in the Standard Beam Installation Instructions.

Figure 6B



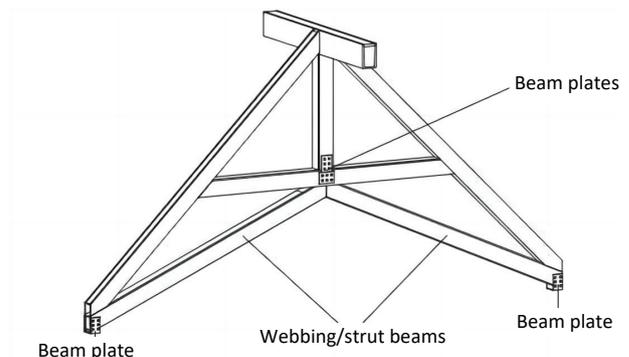
8) Attach any accessories.

Attach any beam straps, beam plates, etc. with adhesive and fasteners in the desired locations (Figure 8).

9) Fill and sand fastener holes.

Fill fastener holes with filler and sand to match surrounding area, if needed, but be careful not to remove the primer.

Figure 7



10) Touch up or finish.

Refer to Legen General Finishing Instructions. If part was finished prior to installation, touch up filled fastener holes with color-matched finish. Joints and seams can also be caulked if desired.

General & Safety Information

- Wear proper personal protective equipment (PPE).
- Operate all tools per manufacturer guidelines.
- Standard woodworking saws and blades can be used for cutting Legen polyurethane (PUR) products.
- Legen PUR parts are NOT load bearing.
- Always follow applicable code requirements and clearances with other equipment or fixtures per manufacturer recommendations.
- For truss applications, refer to Legen Beam Truss Installation Instructions, which can be found at [Legen.com/install](https://www.legen.com/install).
- For best results, finish and allow to dry prior to installation. Refer to Legen General Finishing Instructions, which can be found at [Legen.com/install](https://www.legen.com/install).

Tools / Materials

- Pencil
- Tape Measure
- Level
- Square and / or T-Bevel
- Stud finder
- Painter's tape
- Hammer or pneumatic nailer
- Nail countersink
- Drill / driver (if using screws)
- Putty knife
- Saw (if trimming)
- 2x lumber (for blocking)
- Sandpaper (220-grit recommended)
- Chalk line
- Caulk gun
- Exterior-grade polyurethane-compatible sealant and /or filler
- Exterior-grade polyurethane-compatible adhesive (Loctite® PL Premium® recommended)
- Exterior-grade fasteners (trim-head screws recommended)

Installation Instructions

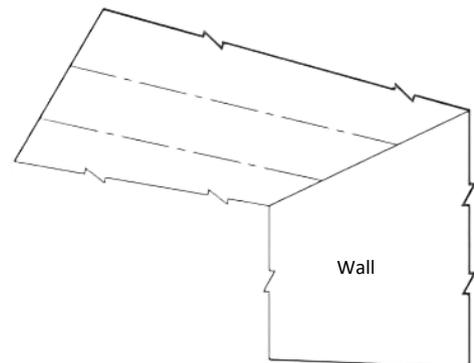
1) Mark installation area.

Mark the desired location(s) for the beam (Figure 1).

A chalk line works well for this.

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Figure 1

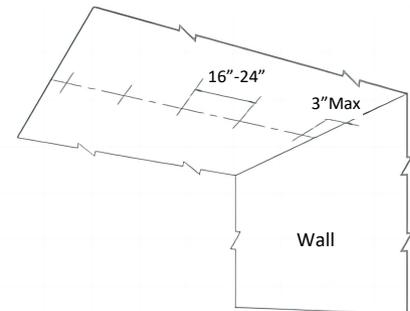


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2) Mark mounting locations.

If studs / rafters are present, use a stud finder to identify and mark locations for the mounting blocks on studs or rafters. If studs / rafters are not present, toggle bolts should be used. Mounting block locations should be within 3" of the ends of the beam, 16" - 24" apart, and at any joints where beams meet (Figure 2).

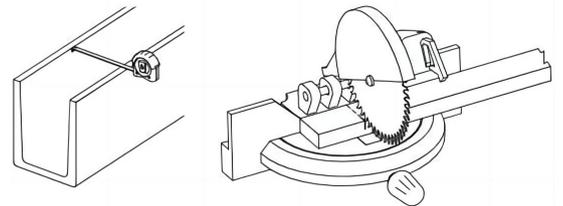
Figure 2



3) Fabricate mounting blocks.

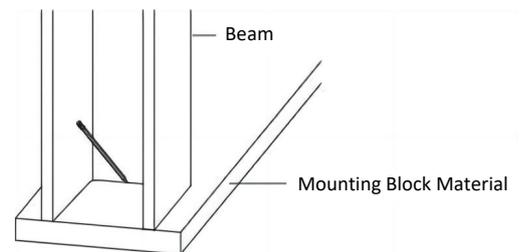
Measure the inside width of the beam and cut blocks to fit inside the beam (Figure 3A).

Figure 3A



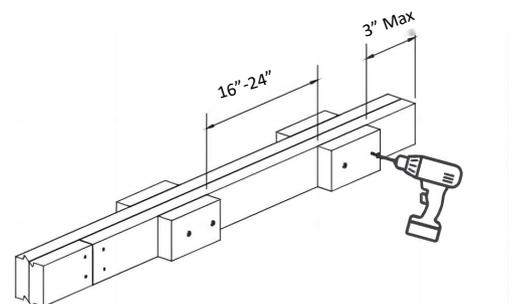
For suspended beams 8' long and shorter, the inside of the beam can be used to trace the outline for a mounting block that can be fastened to the wall (Figure 3B).

Figure 3B



For suspended beams over 8' long, a board or boards should extend the full length of the beam to prevent the beam from sagging over time. Multiple boards may need to be screwed together with mounting blocks attached to both sides to fasten the beam to (Figure 3C). Mounting block locations should be within 3" of the ends of the beam, 16" - 24" apart, and at any joints where beams will meet.

Figure 3C



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Continued

4) Install mounting blocks.

Align and fasten mounting blocks with the marks made in the previous step. Mark the block locations with painter's tape that will be visible and removable after the beam is installed (Figure 4A). If screwing into studs / rafters, make sure the screw will penetrate at least 1" into the stud / rafter (Figure 4B). If not screwing into studs / rafters, use toggle bolts (Figure 4C). Use at least two fasteners per mounting block.

If installing a ridge beam along the peak of a vaulted ceiling, install additional mounting blocks stacked on the first ones to provide sufficient contact surface for the beam (Figure 4D).

If installing a suspended beam, install mounting blocks to the walls or joist hangers and full-length board (Figure 4E).

5) Cut beam and machine as needed.

Refer to Legen Beam Fabrication Instructions if this was not already done.

6) Dry fit the beam.

Once beam has acclimated to the installation temperature for at least 24 hours, position the beam where it will be installed (Figure 5) and confirm a tight fit. If not, trim as needed.

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Figure 4A

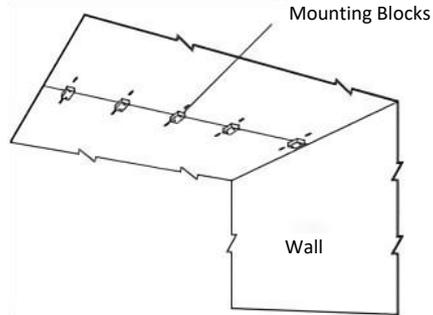


Figure 4B

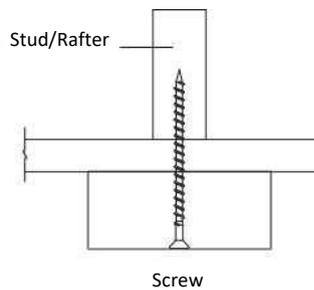


Figure 4C

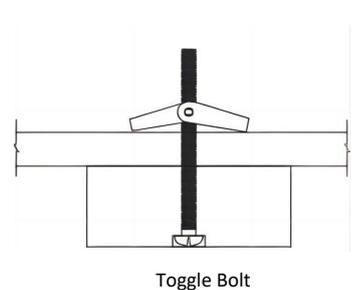


Figure 4D

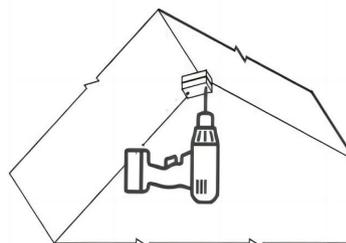


Figure 4E

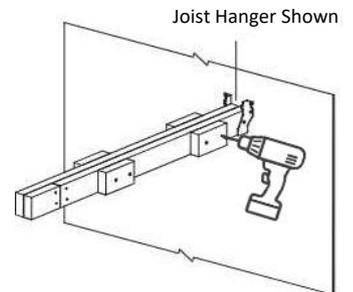
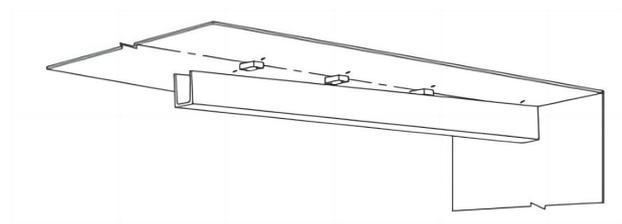


Figure 5



Continued

7) Apply adhesive.

Apply a 1/4" bead of adhesive to the sides of the mounting blocks that will contact the beam (Figure 6).

8) Fasten the beam.

Position the beam in place over the mounting blocks and up against the ceiling (if applicable). Fasten to the mounting blocks from the side of the beam, with at least four fasteners per mounting block (two per side), making sure to countersink them below the surface (Figure 7). Any painter's tape on the ceiling can also be removed after the beam is installed.

9) Fill and sand fastener holes.

10) Touch up or finish.

Refer to Legen General Finishing Instructions. If part was finished prior to installation, touch up filled fastener holes with color-matched finish. Joints and seams can also be caulked if desired.

Fill fastener holes with filler and sand to match surrounding area, if needed, but be careful not to remove the primer.

Figure 6

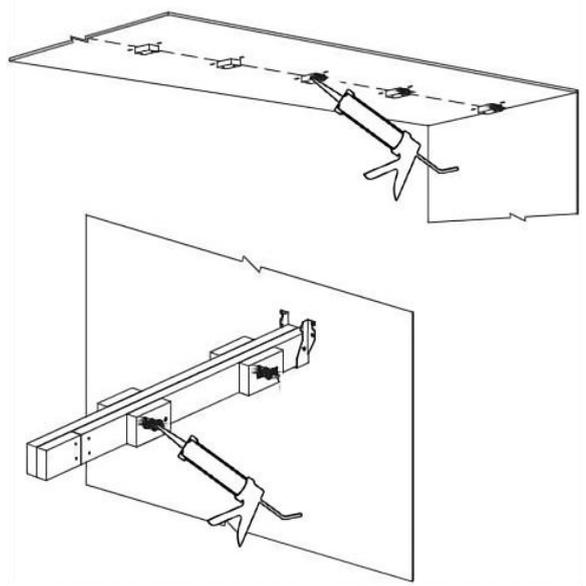
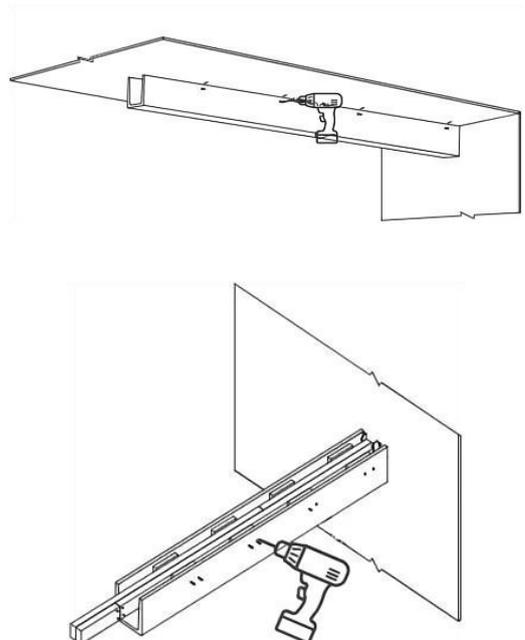


Figure 7



General & Safety Information

- Wear proper personal protective equipment (PPE).
- Operate all tools per manufacturer guidelines.
- Standard woodworking saws and blades can be used for cutting Legen polyurethane (PUR).
- Legen PUR parts are NOT load bearing.
- For remodeling applications and alternative facades like stucco, vinyl, etc., please refer to Legen General Remodeling and Alternate Facade Instructions, which can be found at Legen.com/install.
- For best results, finish and allow to dry prior to installation. Refer to Legen General Finishing Instructions, which can be found at Legen.com/install.

Tools / Materials

- Pencil
- Tape Measure
- Level
- Square
- Hammer or pneumatic nailer
- Nail countersink
- Drill / driver (if using screws)

- Putty knife
- Sealant (20-grit recommended)
- Caulk Gun
- Exterior grade Polyurethane-compatible wood and/or filler
- Exterior grade polyurethane-compatible adhesive
- (optional) 3/8" Primer** (recommended)
- Exterior grade fasteners (3/16" head screws recommended)

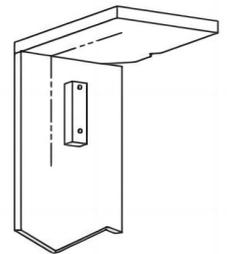
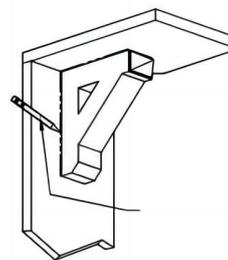
Installation Instructions

1) Mark installation area.

Hold the part in place, make sure it is level and plumb, and mark the desired location (Figure 1A). If the part has a hollow cavity on the back, a mounting block is recommended and should be installed at this time (Figure 1B). Pre-drill any fastener locations if using screws.

Figure 1A

Figure 1B

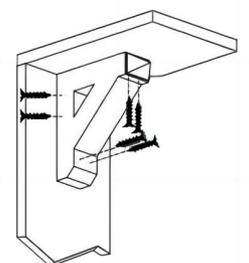
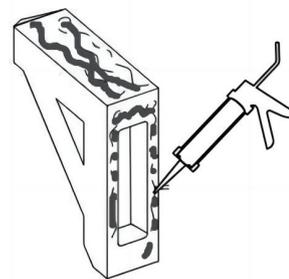


2) Apply adhesive.

Apply a 1/4" bead of adhesive to the mounting surfaces of the part, leaving the bottom open for water to escape (Figure 2).

Figure 2

Figure 3



3) Fasten.

Press the part into place and fasten with exterior-grade fasteners (Figure 3), making sure to countersink them below the surface. Fasteners should be no more than 16" apart. Remove any excess adhesive.

4) Fill and sand fastener holes.

Fill fastener holes with filler and sand to match surrounding area, if needed, but be careful not to remove the primer.

5) Touch up or finish.

Refer to Legen General Finishing Instructions. If part was finished prior to installation, touch up filled fastener holes with color-matched finish. Caulk around top and sides with sealant, leaving the bottom open for water to escape.

General & Safety Information

- Wear proper personal protective equipment (PPE).
- Operate all tools per manufacturer guidelines.
- Standard woodworking saws and blades can be used for cutting Legen polyurethane (PUR) products.
- Legen PUR parts are NOT load bearing.
- For remodeling applications and alternative facades like stucco, vinyl, etc., please refer to Legen General Remodeling and Alternative Facade Instructions, which can be found at Legen.com/install.
- For best results, finish and allow to dry prior to installation. Refer to Legen General Finishing Instructions, which can be found at Legen.com/install.

Tools / Materials

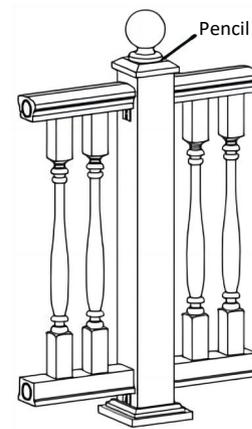
- Pencil
- Tape Measure
- Hammer or pneumatic nailer
- Drill / driver (if using screws)
- Putty knife
- Sandpaper (220-grit recommended)
- Caulk gun
- Exterior-grade polyurethane-compatible sealant and / or filler
- Exterior-grade polyurethane-compatible adhesive (Loctite® PL Premium® recommended)
- Exterior-grade fasteners (trim head screws recommended)

Installation Instructions

1) Mark installation area.

Hold the finial in place and mark the desired location. Pre-drill any fastener locations if using screws (Figure 1).

Figure 1



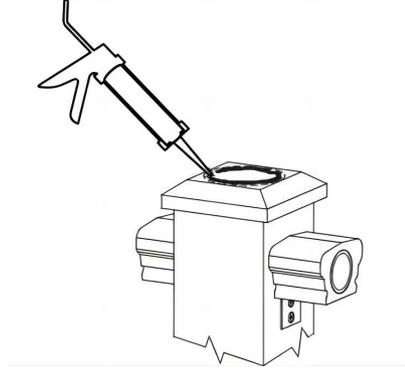
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Continued

2) Apply adhesive.

Apply a 1/4" bead of adhesive to the mounting surface for the finial (Figure 2).

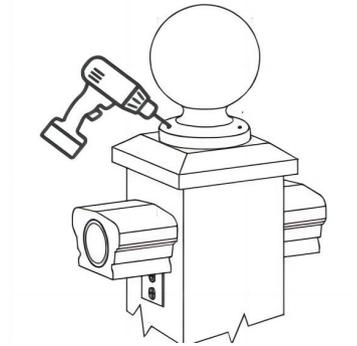
Figure 2



3) Fasten.

Press the finial into place and fasten with exterior-grade fasteners, making sure to countersink them below the surface (Figure 3). Remove any excess adhesive.

Figure 3



4) Fill and sand fastener holes.

Fill fastener holes with filler and sand to match surrounding area, if needed, but be careful not to remove the primer.

5) Touch up or finish.

Refer to Legen General Finishing Instructions. If finial was finished prior to installation, touch up filled fastener holes with color-matched finish. Caulk around the bottom of finial with sealant.

General & Safety Information

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- Legen PUR parts are NOT load bearing.
- For remodeling applications and alternative facades like stucco, vinyl, etc., please refer to Legen General Remodeling and Alternate Facade Instructions, which can be found at Legen.com/install.
- For best results, finish and allow to dry prior to installation. Refer to Legen General Finishing Instructions, which can be found at Legen.com/install.

Tools / Materials

- Pencil
- Tape measure
- Level (4, or longer recommended)
- Square
- Hammer or pneumatic nailer
- Nail countersink
- Drill / driver (if using screws)
- Putty knife
- Saw (if trimming)
- Sandpaper (220-grit recommended)
- Caulk gun
- Exterior-grade polyurethane-compatible sealant and / or filler
- Exterior-grade polyurethane-compatible adhesive (Loctite® PL Premium® recommended)
- Exterior-grade fasteners (trim-head screws recommended)

Installation Instructions

1) Measure installation area.

Measure height and width of installation area (Figure 1).

2) Determine number of pieces needed.

Divide the height (inches) of the installation area by 13- $\frac{1}{2}$ " to determine number of rows of fishscale needed and round up to the next whole number. Divide the overall width (inches) by 94" to determine the number of pieces needed for the width and round up to the next whole number. Multiply the two numbers to get the maximum total number of pieces. (If the area is triangular, there will likely be some pieces leftover.) See Figure 2 for example.

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Figure 1

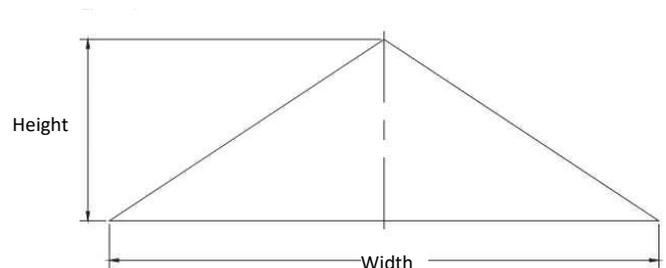
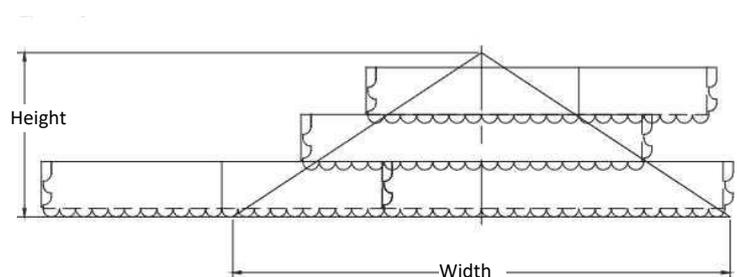


Figure 2



Continued

3) Install starter strip (if necessary).

Install a 1/4" thick x 2-1 1/2" wide moisture-resistant piece of material as a starter strip along the bottom of the area (Figure 3). This may not be necessary if siding will cover the area underneath the bottom edge of fishscale.

4) Fabricate bottom row of fishscale.

Level, then mark and cut ends to length. Leave a gap of about 1/8" between the end of the panel and the soffit or trim. See Figure 4A for example. Make sure the center line will be aligned with the center of a scale or the seam between two scales (Figure 4B). If more than one piece of fishscale is needed to cover the width at the bottom, the left or right ends of additional pieces may be needed to cover the full width. The right factory edge of a piece fits with the left factory edge of another piece, and vice versa. If the remaining section is long enough, it may be used later if a shorter piece is needed.

5) Attach bottom row of fishscale.

Apply 1/4" beads of adhesive in strips on the back of the fishscale from top to bottom at 6-8" spacing (Figure 5A). Level it, press into place, and attach with exterior-grade fasteners.

(Note: Keep fasteners no more than 2" from the top edge of the panel and no more than 16" apart. The next row of fishscale will overlap and hide these fasteners.) Another row of fasteners can be installed between the scales in the second row from the bottom of the panel (Figure 5B). Working from right to left, fasten left section by overlapping on top of the piece to its right, applying adhesive on the overlapped areas. Remove any excess adhesive.

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Figure 3

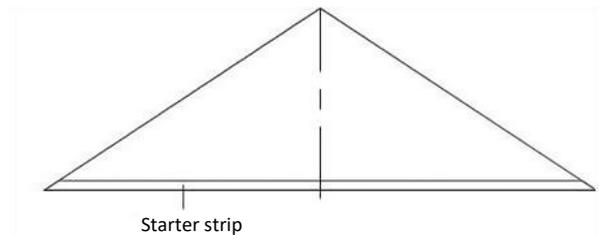


Figure 4A

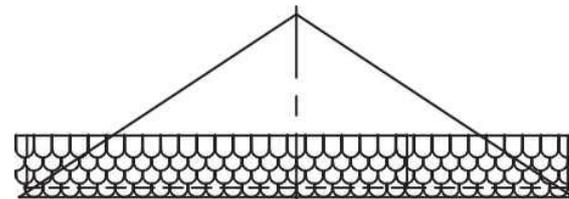
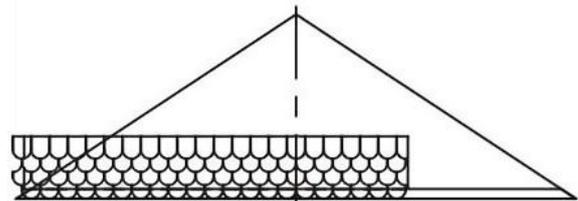


Figure 4B

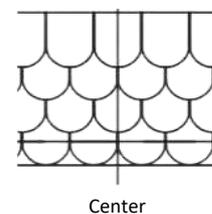


Figure 5A

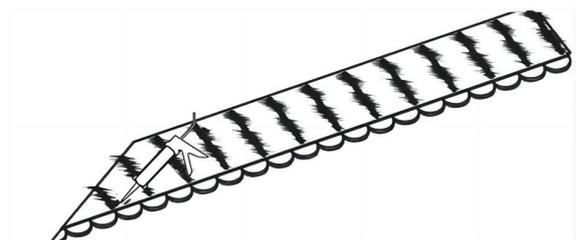
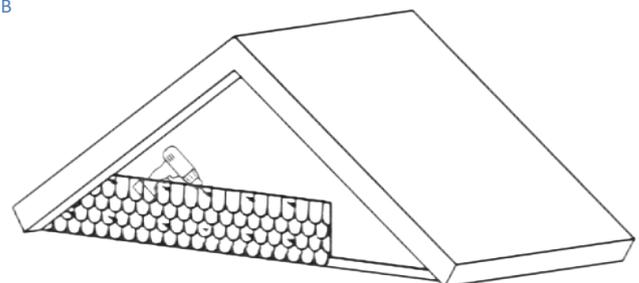


Figure 5B



Continued

6) Attach next row of fishscale.

Apply a 1/4" bead of adhesive to the top edge of the bottom row of fishscale (Figure 6A). Slide the next row of fishscale down on top of the previous row so that the cutout on the back overlaps the top of the row beneath it. Slide the piece left or right to make sure the scales overlap properly (Figure 6B). Cut left and right pieces as necessary, similar to the prior step. Level and install them, and any additional rows (Figures 6C-6E).

7) Fill and sand fastener holes.

Fill fastener holes with filler and sand to match surrounding area, if needed, but be careful not to remove the primer.

8) Apply sealant to all seams.

Use a good quality, paintable sealant, and apply to seams for a clean appearance (Figure 8). Clean up any excess sealant.

9) Touch up or finish.

Refer to Legen General Finishing Instructions. If part was finished prior to installation, touch up filled fastener holes with color-matched finish.

Figure 6A

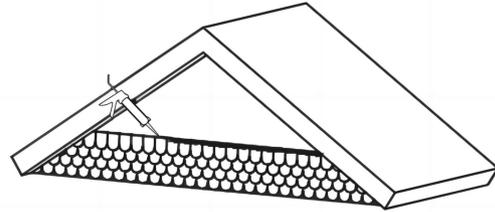


Figure 6B

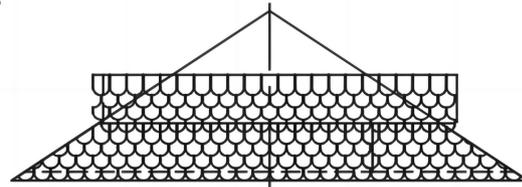


Figure 6C

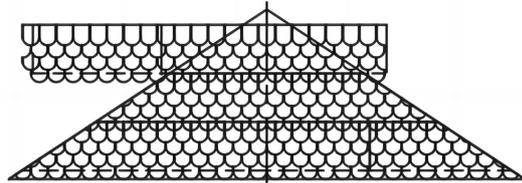


Figure 6D

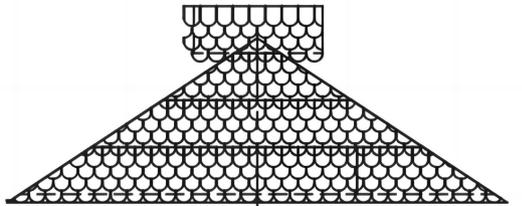


Figure 6E

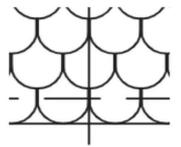
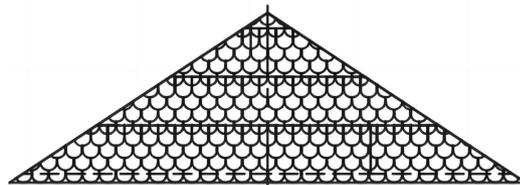
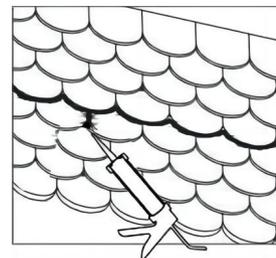


Figure 8



General & Safety Information

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- Operate all tools per manufacturer guidelines.
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- For remodeling applications and alternative facades like stucco, vinyl, etc., please refer to Legen General Remodeling and Alternative Facade Instructions, which can be found at Legen.com/install.
- For best results, finish and allow to dry prior to installation. Refer to Legen General Finishing Instructions, which can be found at Legen.com/install.

Tools / Materials

- Pencil
- Tape measure
- Level (4, or longer recommended)
- Square
- Hammer or pneumatic nailer
- Nail countersink
- Drill / driver (if using screws)
- Putty knife
- Saw (if trimming)
- Sandpaper (220-grit recommended)
- Caulk gun
- Exterior-grade polyurethane-compatible sealant and / or filler
- Exterior-grade polyurethane-compatible adhesive (Loctite® PL Premium® recommended)
- Exterior-grade fasteners (trim-head screws recommended)

Installation Instructions

1) Identify and prepare mounting surface.

Place fixture mount in desired location and trace the outline (Figure 1A).

For hardboard siding, cut siding away at traced line, being careful not to cut into house wrap underneath (Figure 1B). Apply Z-flashing along the top edge of the cutout behind the siding (Figure 1C).

For vinyl siding, cut the hole large enough to allow room for J-channel Unzip or remove piece(s) of siding (Figure 1D) before cutting (Figure 1E) to prevent damaging house wrap.

Figure 1A

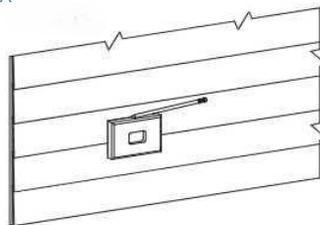


Figure 1B

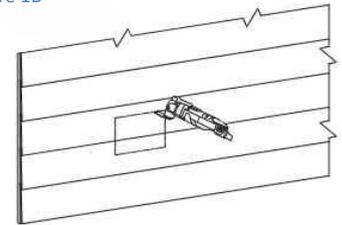


Figure 1C

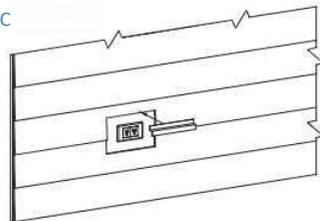


Figure 1D

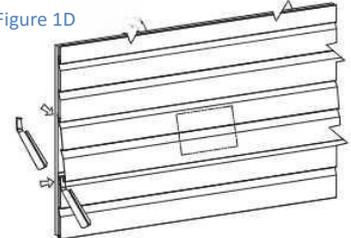
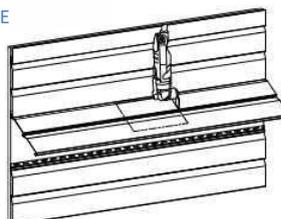


Figure 1E



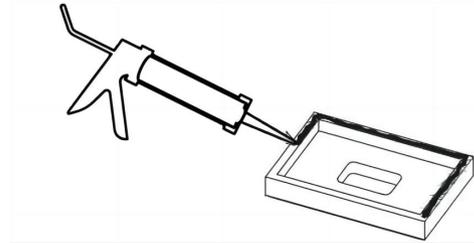
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Continued

2) Apply adhesive.

Apply a 1/4" bead of adhesive to the mounting surfaces of the fixture mount on the back side, leaving the bottom open for water to escape (Figure 2).

Figure 2



3) Fasten.

Press the fixture mount into place and fasten with exterior-grade fasteners (Figure 3A), making sure to countersink them below the surface. Remove any excess adhesive.

For vinyl siding, install J-channel around the edge of the fixture (Figure 3B) and reattach siding, working it into the J-channel pockets (Figure 3C).

Figure 3A

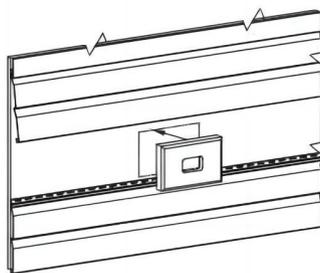


Figure 3B

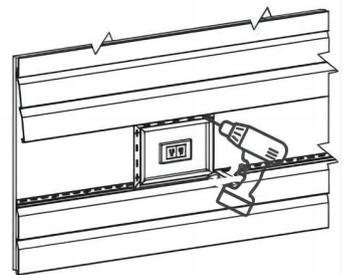
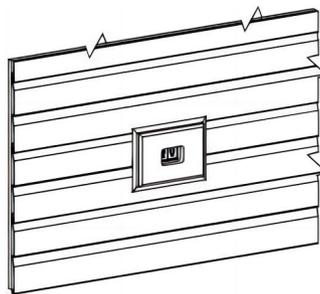


Figure 3C



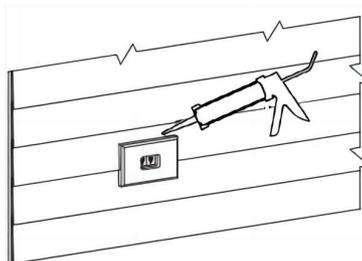
4) Fill and sand fastener holes.

Fill fastener holes with filler and sand to match surrounding area, if needed, but be careful not to remove the primer.

Figure 5

5) Touch up or finish.

Refer to Legen General Finishing Instructions. If part was finished prior to installation, touch up filled fastener holes with color-matched finish. For hardboard siding, caulk around top and sides with sealant, leaving bottom open for water to escape (Figure 5).



General & Safety Information

- Wear proper personal protective equipment (PPE).
- Operate all tools per manufacturer guidelines.
- Standard woodworking saws and blades can be used for cutting Legen polyurethane (PUR) products.
- Legen PUR parts are NOT load bearing.
- For remodeling applications and alternative facades like stucco, vinyl, etc., please refer to Legen General Remodeling and Alternate Facade Instructions, which can be found at Legen.com/install.
- For best results, finish and allow to dry prior to installation. Refer to Legen General Finishing Instructions, which can be found at Legen.com/install.

Tools / Materials

- Pencil
- Tape measure
- Level
- Square
- Saw (if cutting to match roof pitch)
- Hammer or pneumatic nailer
- Nail countersink
- Drill / driver (if using screws)
- Putty knife
- Sandpaper (220-grit recommended)
- Caulk gun
- Exterior-grade polyurethane-compatible sealant and / or filler
- Exterior-grade polyurethane-compatible adhesive (Loctite® PL Premium® recommended)
- Exterior-grade fasteners (trim-head screws recommended)

Installation Instructions

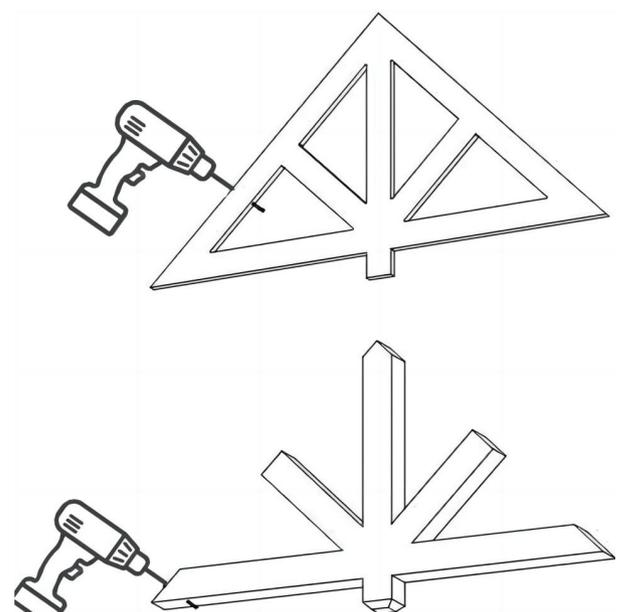
1) Cut gable pediment to match roof pitch (if necessary).

Measure the area where the gable pediment will fit and cut it to match the roof pitch, if required.

2) Mark installation area and pre-drill fastener locations.

Hold the gable pediment in place and mark the desired location. Make sure fasteners can anchor to solid material, and pre-drill fastener locations if needed (Figure 2). Fastener locations should be no more than 16" apart.

Figure 2



Continued on next page

Continued

3) Apply adhesive.

Apply a 1/4" bead of adhesive to the mounting surfaces of the gable pediment (Figure 3).

4) Fasten.

Press the pediment into place and fasten with exterior-grade fasteners (Figure 4), making sure to countersink them below the surface. Fasteners should be no more than 16" apart. Remove any excess adhesive.

5) Fill and sand fastener holes.

Fill fastener holes with filler and sand to match surrounding area, if needed, but be careful not to remove the primer.

6) Touch up or finish.

Refer to Legen General Finishing Instructions. If part was finished prior to installation, touch up filled fastener holes with color-matched finish. Caulk around top and sides with sealant.

Figure 3

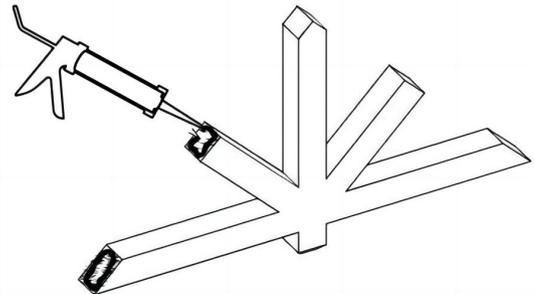
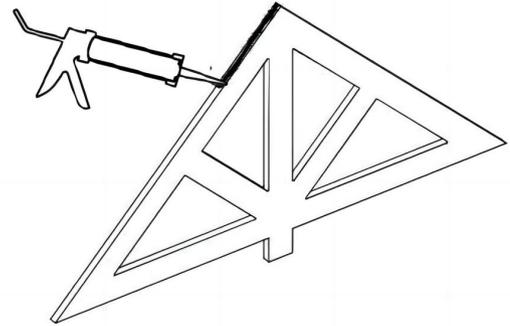
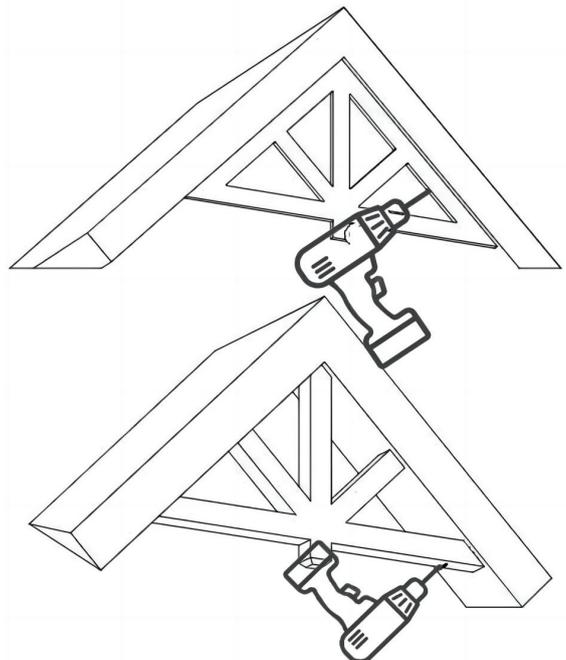


Figure 4



General & Safety Information

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- Operate all tools per manufacturer guidelines.
- Standard woodworking saws and blades can be used for cutting Legen polyurethane (PUR) products.
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- For best results, finish and allow to dry prior to installation. Refer to Legen General Finishing Instructions, which can be found at Legen.com/install.

Tools / Materials

- Fencil
- Tape measure
- Chisel tool
- Square
- Hammer or pneumatic nailer
- Nail countersink
- Drill driver and #2 Phillips driver bit
- Putty knife
- Sandpaper (220 grit recommended)
- Saw
- Chalk gun
- Chalk line

- Exterior-grade polyurethane-compatible sealant and / or filler
- Exterior-grade polyurethane-compatible adhesive (Loctite® PL Premium® recommended)
- Exterior-grade fasteners (trim head screws recommended)

Provided with kit

- (3) 4" x 48" flat boards
- (2) 18" x 24" large scroll brackets
- Plinth block
- 6" T-Strap bracket
- (12) #10x1" Phillips pan head stainless steel screws
- (4) 2-1/2" long trim screws

Fabrication Instructions

1) Fabricate gable pediment frame.

Lay out the 4" x 48" flat boards on a flat surface, with the primed surface facing down (Figure 1A).

Apply a 1/4" bead of adhesive to the ends of boards 1 and 2 and press them together, making sure they are aligned and straight (Figure 1B). Remove any excess adhesive.

Attach the 6" T-strap to boards 1 and 2 with (8) #10x 1" Phillips pan head stainless steel screws (Figure 1C).

Apply a 1/4" bead of adhesive to the end of board 3 and press it against boards 1 and 2 at the center, using a square to make sure they are perpendicular to each other (Figure 1D). Remove any excess adhesive.

Figure 1A

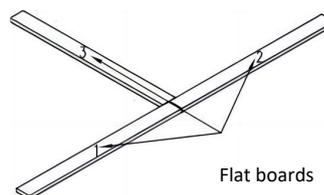


Figure 1B

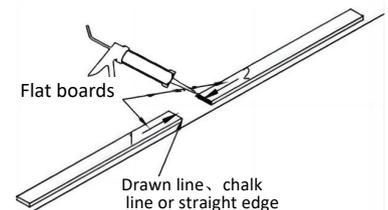


Figure 1C

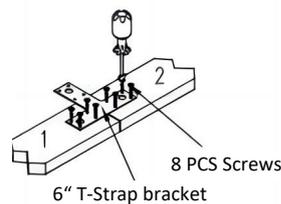
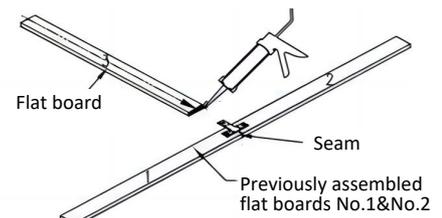


Figure 1D



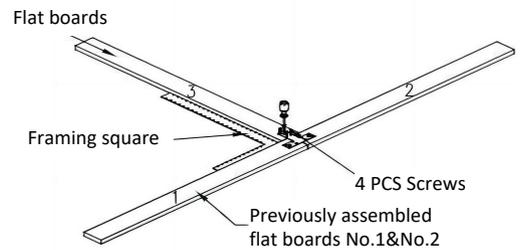
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1) Fabricate gable pediment frame.

Attach the 6" T-strap to board 3 with (4) #10x1" Phillips pan head stainless steel screws (Figure 1E).

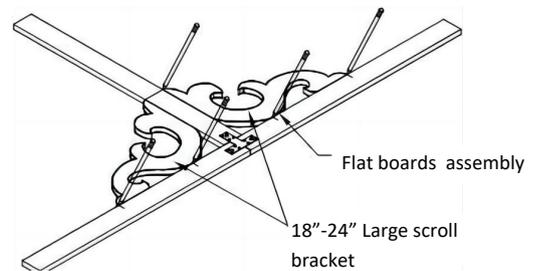
Figure 1E



2) Mark scroll bracket locations.

Lay the two 18" x 24" large scroll brackets in place as shown. Use a pencil to mark the points where the brackets contact the frame, making marks on both the brackets and the frame (Figure 2). These will be used for alignment when the brackets are assembled to the frame.

Figure 2



3) Assemble gable pediment.

Apply a 1/4" bead of adhesive to the scroll brackets and the locations marked in the previous step (Figure 3A).

Press the scroll brackets into place, aligning the marks on the brackets with the marks made on the frame. Attach the bracket to the frame with 2-1/2" long trim screws at the locations shown (Figure 3B). Remove any excess adhesive.

Figure 3A

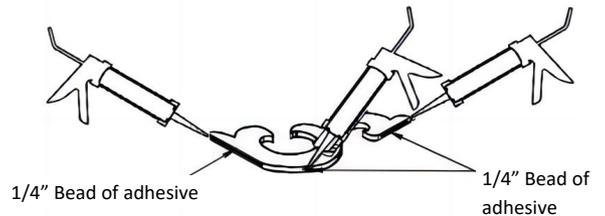
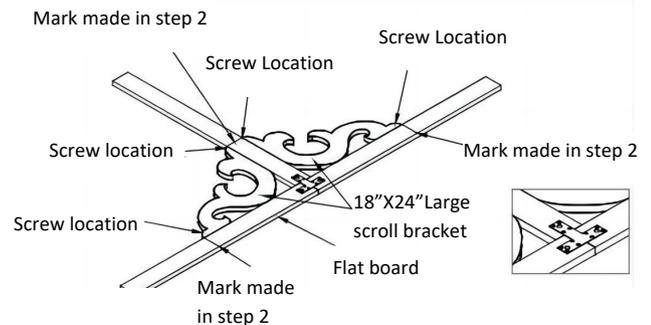


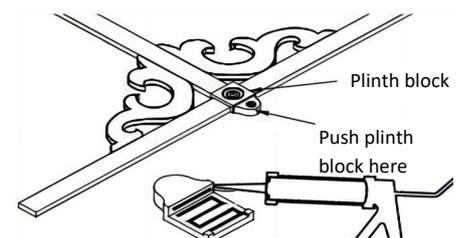
Figure 3B



4) Attach plinth block.

Turn the pediment over so the primed side (front) is facing up. Apply a 1/4" bead of adhesive to the back of the plinth block and place it on the gable pediment as shown (Figure 4). Push it up against the frame to ensure it is straight and remove any excess adhesive. Clamp the plinth block against the frame and let it sit overnight for the adhesive to cure.

Figure 4



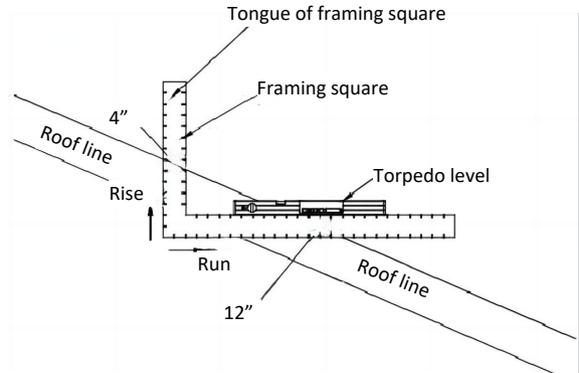
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5) Determine roof pitch.

Use a square and torpedo level to determine the roof pitch. Place the square so the 12" mark on the horizontal leg is at the roof line, this is the "run." Use the torpedo level to level the square and note the dimension at the roof line on the other leg of the square, this is the "rise" (Figure 5). The pitch is rise / run, or that number over 12. In Figure 5, the pitch is 4/12. Make sure the marks are either both on the inside or both on the outside of the square.

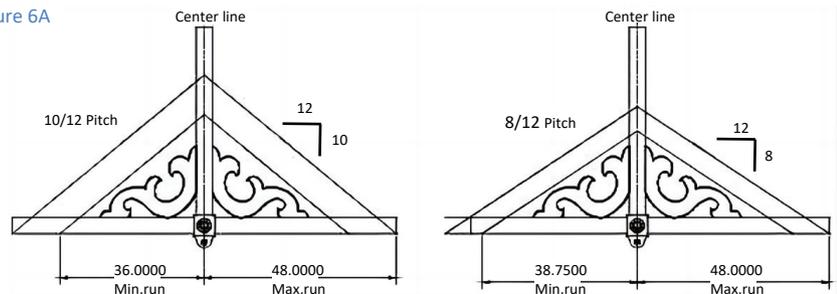
Figure 5



6) Mark cut lines.

Note the pitch determined in the previous step. Figure 6A shows minimum and maximum run dimensions for common roof pitches which will still allow the scroll brackets of the gable pediment to fit. Determine the desired height or width of the gable pediment, and use the equation shown in Figure 6B to calculate the other value.

Figure 6A



Measure and mark the gable pediment frame at these dimensions (Figure 6C) and use a square to draw square and straight lines across the boards. Then make a mark on the vertical board at the center of the board. Snap a chalk line on both the left and right sides of the pediment, between the mark at the center of the vertical board and the bottom of the horizontal boards where the lines are drawn. These lines will mark where the gable pediment frame will be cut.

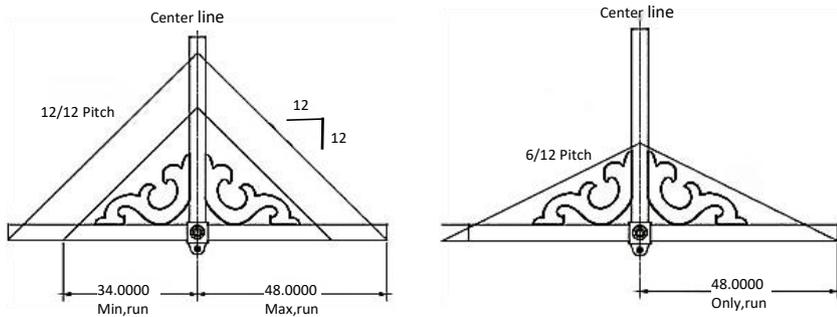


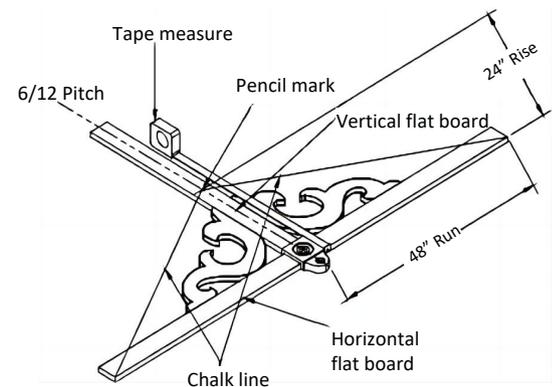
Figure 6B

Figure 6C

7) Cut the gable pediment to fit.

Cut along the chalk lines so the gable pediment will fit in the desired location.

Rise Equation
 $Rise = Run \times Pitch$
 $Rise = 48'' \times 6/12$
 $Rise = 24''$



8) Finish and install.

Refer to Legen Gable Pediment Installation Instructions.

General & Safety Information

- Wear proper personal protective equipment (PPE).
- Operate all tools per manufacturer guidelines.
- Standard woodworking saws and blades can be used for cutting Legen polyurethane (PUR) products.
- Legen PUR parts are NOT load bearing.
- For remodeling applications and alternative facades like stucco, vinyl, etc., please refer to Legen General Remodeling and Alternate Facade Instructions, which can be found at Legen.com/install.
- For best results, finish and allow to dry prior to installation. Refer to Legen General Finishing Instructions, which can be found at Legen.com/install.

Tools / Materials

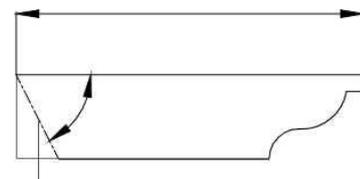
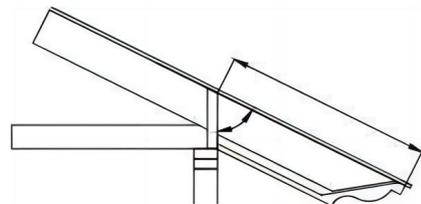
- Pencil
- Tape Measure
- Level
- Square or T-Bevel
- Hammer or pneumatic nailer
- Nail countersink
- Drill / driver (if using screws)
- Putty knife
- Saw (if trimming)
- Sandpaper (220-grit recommended)
- Caulk gun
- Exterior-grade polyurethane-compatible sealant and / or filler
- Exterior-grade polyurethane-compatible adhesive (Loctite® PL Premium® recommended)
- Exterior-grade fasteners (trim head screws recommended)

Installation Instructions

1) Measure and cut rafter tail.

Measure, mark, and cut rafter tails to correct length and pitch, if necessary (Figure 1). A T-bevel may be helpful to determine the proper pitch and cut angle.

Figure 1



Continued on next page

Continued

2) Prepare and install mounting blocks.

If the rafter tail is not being installed over an existing rafter, a mounting block is recommended and should be cut at this time (2x lumber can be used). In both situations, make sure the end of the rafter or mounting block is cut to fit inside the rafter tail (Figure 2A). Install the mounting blocks under the roof eaves (Figure 2B), and dry fit the rafter tails over them, pre-drilling any fastener locations if using screws (Figure 2C). Fasteners should be no more than 16" apart.

3) Apply adhesive.

Apply a 1/4" bead of adhesive to the mounting surfaces of the part, leaving the end open for water to escape (Figure 3).

4) Fasten.

Press the part into place and fasten with exterior-grade fasteners, making sure to countersink them below the surface. If the mounting block is narrower than the cavity in the part, shims may be necessary to fill the gaps (Figure 4A). Fasteners should be no more than 16" apart (Figure 4B). Remove any excess adhesive. Depending on the application, it may be necessary to remove or modify fascia to install the rafter tail.

5) Fill and sand fastener holes.

Fill fastener holes with filler and sand to match surrounding area, if needed, but be careful not to remove the primer.

6) Touch up or finish.

Refer to Legen General Finishing Instructions. If part was finished prior to installation, touch up filled fastener holes with color-matched finish. Caulk around top and sides with sealant, leaving the end open for water to escape.

Figure 2A



Figure 2B

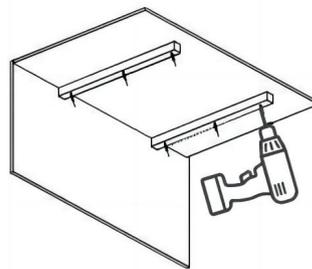


Figure 2C

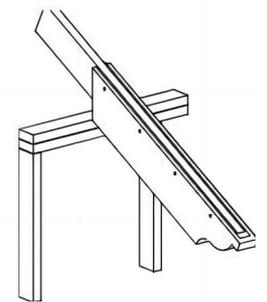


Figure 3

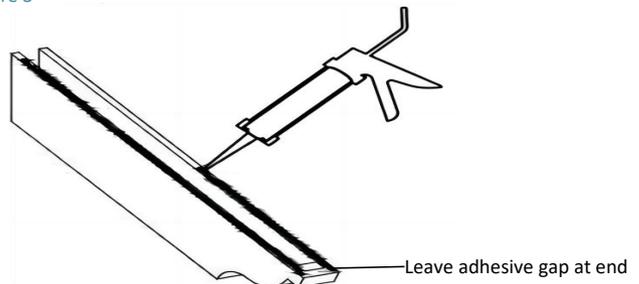


Figure 4A

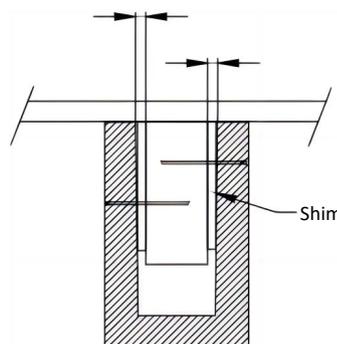
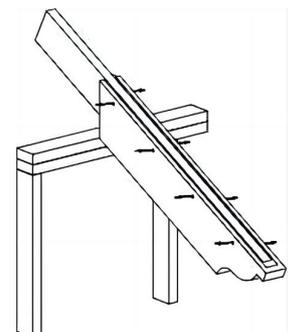


Figure 4B



General & Safety Information

- Wear proper personal protective equipment (PPE).
- Operate all tools per manufacturer guidelines.
- Standard woodworking saws and blades can be used for cutting Legen polyurethane (PUR) products, except in cases where metal is being cut.
- Some Legen spires have an internal metal pipe and may require lightning protection.
Consult your local code authority.
- For best results, finish and allow to dry prior to installation. Refer to Legen General Finishing Instructions, which can be found at Legen.com/install.

Tools / Materials

- Ladder
- Pencil
- Tape measure
- Level
- Combination square
- Drill / driver and bits per fastener type
- Drill bit (slightly larger than spire pipe diameter)
- Saw (for blocking)
- Caulk Gun
- Exterior-grade polyurethane-compatible sealant and / or filler
- Exterior-grade polyurethane-compatible adhesive (Loctite® PL Premium® recommended)
- Exterior-grade fasteners (lag bolts and trim head screws recommended)

Installation Instructions

1) Fabricate and install mounting block.

Cut a block of treated lumber or other moisture-resistant material to fit over the ridge of the roof. The block should be larger than the base of the spire.

Secure the block to a roof rafter or cross bracing so the top of the block is level, using adhesive and exterior-grade fasteners, such as galvanized lag bolts (Figure 1A). The block should NOT be fastened to roof sheathing alone. Flashing and sealant are also recommended to prevent water penetration (Figure 1B).

Figure 1A

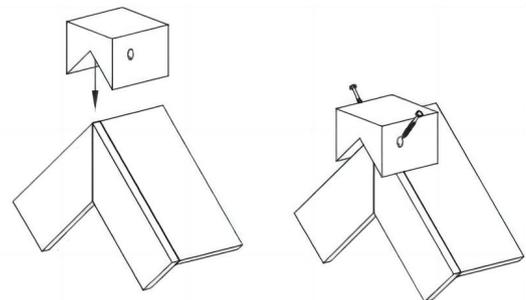
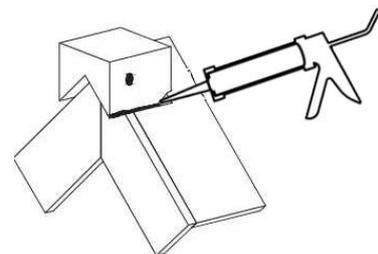


Figure 1B



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Continued

2) Drill hole for spire pipe.

Drill a hole through the mounting block and roof peak for the spire pipe to fit through (Figure 2). The hole should be slightly larger than the pipe diameter.

3) Install spire.

Apply adhesive to bottom of spire or flashing to top of mounting block (Figure 3A), and press spire on the mounting block. Fasten it to the mounting block with exterior-grade fasteners and apply sealant around the base of the spire (Figure 3B).

If desired, secure the pipe to a cross brace or rafter for extra stability (Figure 3C). It may be necessary to extend the pipe in order to reach a cross brace.

4) Fill and sand fastener holes.

Fill fastener holes with filler and sand to match surrounding area if needed, but do not remove the primer.

5) Touch up or finish.

Refer to Legen General Finishing Instructions.

If part was finished prior to installation, touch up filled fastener holes with color-matched finish.

Figure 2

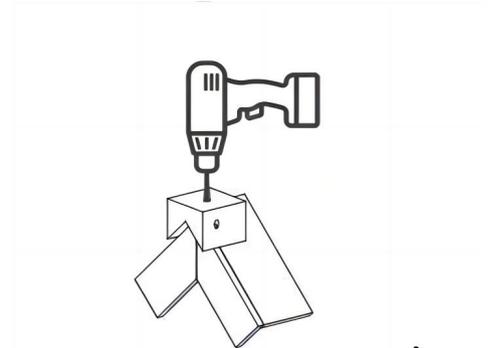


Figure 3A

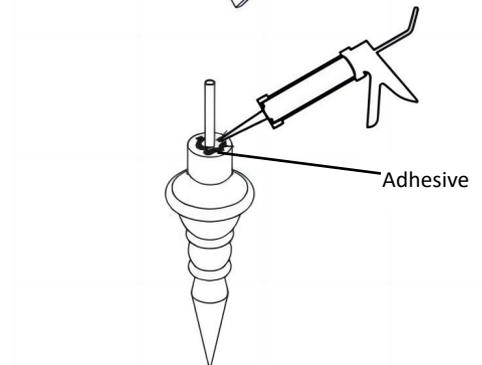


Figure 3B

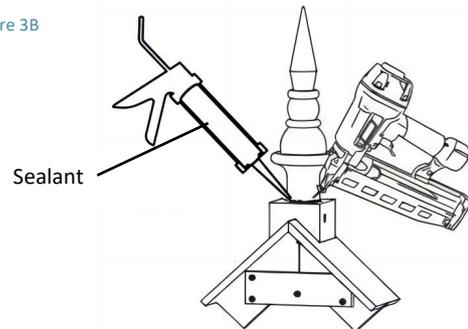
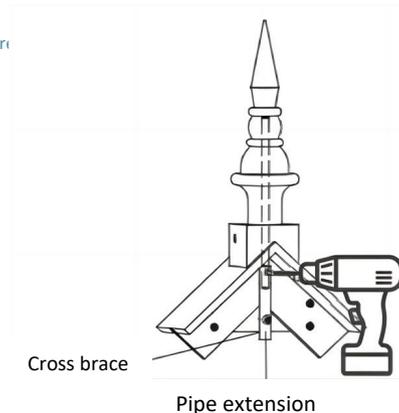


Figure 3C



General & Safety Information

- Wear proper personal protective equipment (PPE).
- Operate all tools per manufacturer guidelines.
- Standard woodworking saws and blades can be used for cutting Legen polyurethane (PUR) products.
- Legen PUR parts are NOT load bearing.
- For remodeling applications and alternative facades like stucco, vinyl, etc., please refer to Legen General Remodeling and Alternate Facade Instructions, which can be found at Legen.com/install.
- For best results, finish and allow to dry prior to installation. Refer to Legen General Finishing Instructions, which can be found at Legen.com/install.

Tools / Materials

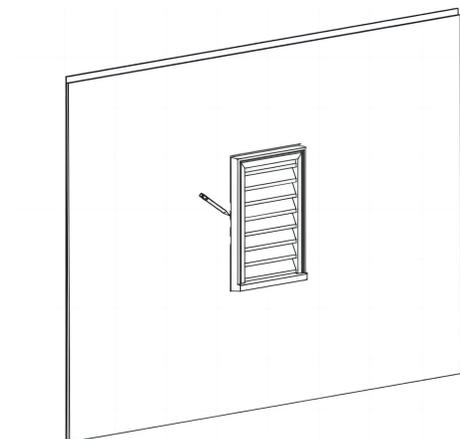
- Pencil
- Tape measure
- Level
- Square (if cutting)
- Hammer or pneumatic nailer
- Nail countersink
- Drill / driver (if using screws)
- Putty knife
- Saw (if cutting hole for functional louver)
- Sandpaper (220-grit recommended)
- Caulk gun
- Exterior-grade polyurethane-compatible sealant and / or filler
- Exterior-grade polyurethane-compatible adhesive (Loctite®PL Premium® recommended)
- Exterior-grade fasteners (trim head screws recommended)

Figure 1

Installation Instructions

1) Mark installation area.

Hold the louver in place and mark the desired location (Figure 1). Pre-drill fastener locations (no more than 16" apart) if needed.



Continued on next page

Continued

2) Cut opening (functional louvers only).

Mark a line that is 2" inside the outline of the louver made in Step 1. Check to make sure the cut will not pass through studs or electrical lines. Then cut along the line to form a 2" undersized hole inside the outline of the louver (Figure 2). DO NOT CUT THROUGH STUDS.

3) Apply adhesive.

Apply a 1/4" bead of adhesive to the mounting surfaces of the part, leaving the bottom open for water to escape (Figure 3).

4) Fasten.

Press the part into place and fasten with exterior-grade fasteners (Figure 4), making sure to countersink them below the surface. Fasteners should be no more than 16" apart. Remove any excess adhesive.

5) Fill and sand fastener holes.

Fill fastener holes with filler and sand to match surrounding area, if needed, but be careful not to remove the primer.

6) Touch up or finish.

Refer to Legen General Finishing Instructions. If part was finished prior to installation, touch up filled fastener holes with color-matched finish. Caulk around top and sides with a sealant, leaving the bottom open for water to escape.

Figure 2

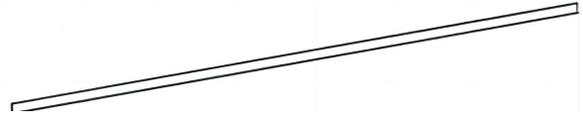


Figure 3

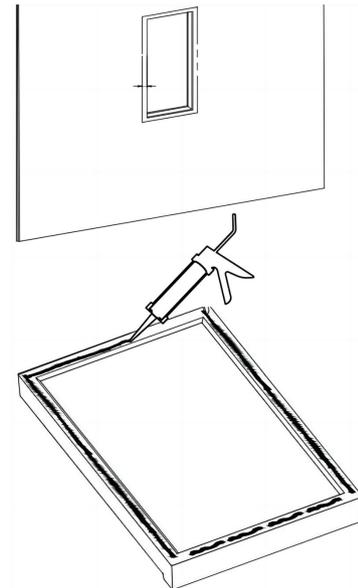
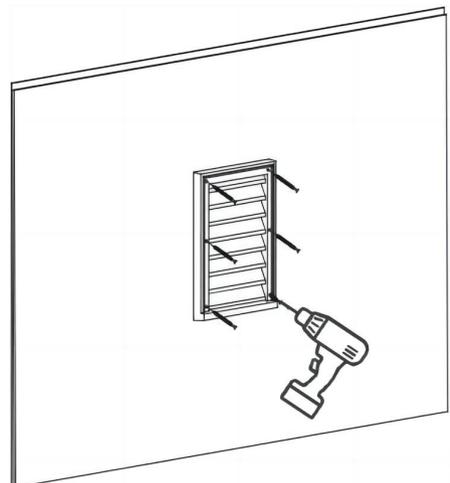


Figure 4



General & Safety Information

- Wear proper personal protective equipment (PPE).
- Operate all tools per manufacturer guidelines.
- Standard woodworking saws and blades can be used for cutting Legen polyurethane (PUR) products, except in cases where there is metal reinforcement.
- Legen PUR parts are NOT load bearing.
- For best results, finish and allow to dry prior to installation. Refer to Legen General Finishing Instructions, which can be found at Legen.com/install.

Tools / Materials

- Pencil
- Tape measure
- Level
- Square
- Hammer or pneumatic nailer
- Nail countersink
- Drill / driver
- 1/8" drill bit
- 3/4" open-end or adjustable wrench
- Putty knife
- Hand saw or reciprocating saw
- Miter Saw
- Sandpaper (220-grit recommended)
- Caulk gun
- Exterior-grade polyurethane-compatible sealant and / or filler
- Exterior-grade polyurethane-compatible adhesive (Loctite®PL Premium® recommended)
- Exterior-grade fasteners (trim head screws recommended)

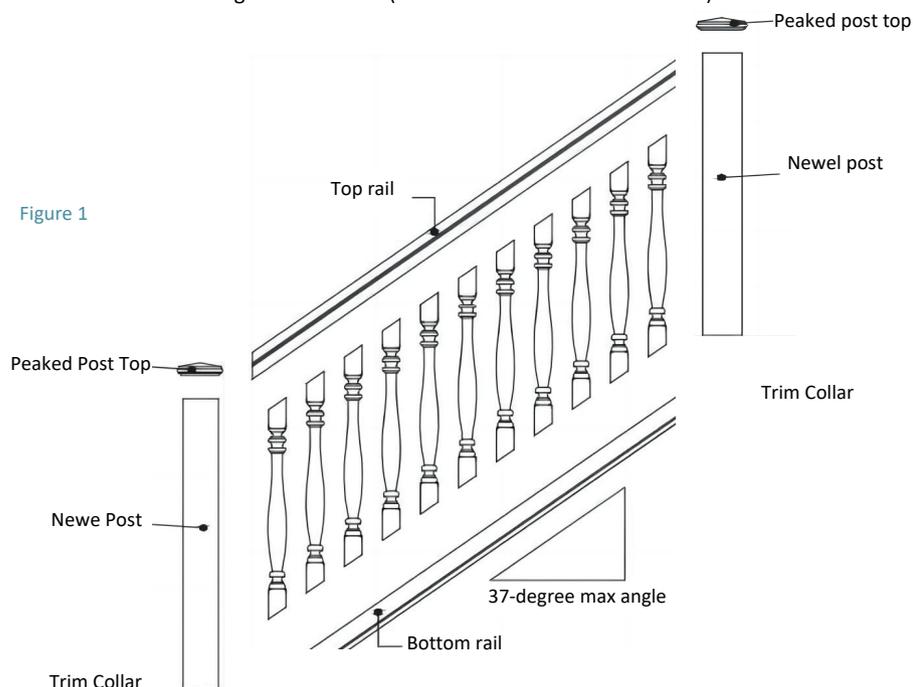
Installation Instructions

1) Identify post locations.

Mark locations on the floor where all balustrade support posts will be located.

Continued on next page

Figure 1



Continued

2) Install posts.

If installing Legen newel posts, position the steel base mounting plates per the locations marked in step 1 and secure them to the floor with exterior-grade fasteners (not provided). It may be necessary to mark the hole locations and pre-drill them if fastening to concrete (Figure 2A).

Note: If trimming newel posts to a desired height, measure from the top and cut to length at the bottom (Figure 2B). Add a centered saw kerf at the bottom for drainage, if desired (Figure 2C).

Cut the 3/8"-16 x 50 threaded rods (provided with newel post installation kit) to lengths that are 1/4" shorter than the newel posts (Figure 2D). Then install and tighten a threaded rod into each mounting plate (Figure 2E).

Align the post over the threaded rod and install the galvanized C-channel over the threaded rod and into the recessed cavity on top of the newel post. Then install 3/8" flat and lock washer and tighten 3/8" nut to a torque of 100 in-lbs (Figure 2F).

If installing trim collars, slide them over the top of the newel post and secure at the bottom using exterior-grade fasteners (Figure 2G).

Apply a 1/4" bead of adhesive to the top of the newel post and install the newel post top (Figure 2H). Secure with exterior-grade fasteners if desired. Remove any excess adhesive with a putty knife and damp cloth before the adhesive sets.

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Figure 2A

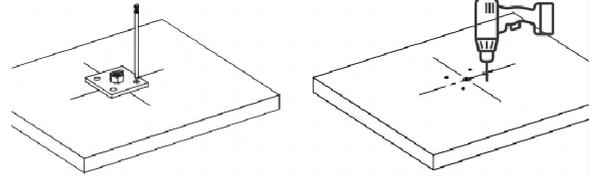


Figure 2B

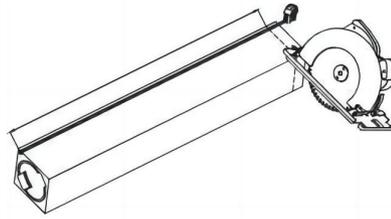


Figure 2C

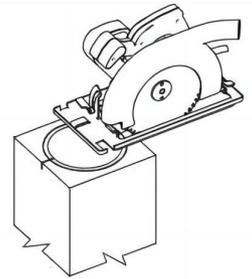


Figure 2D

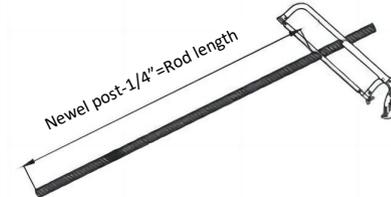


Figure 2E

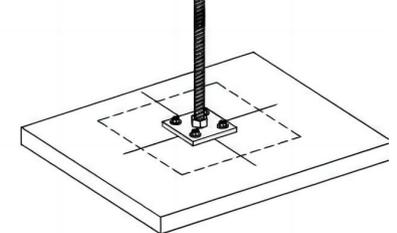


Figure 2F

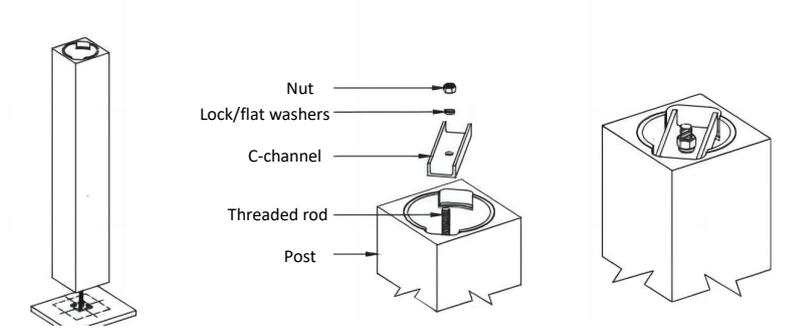


Figure 2G

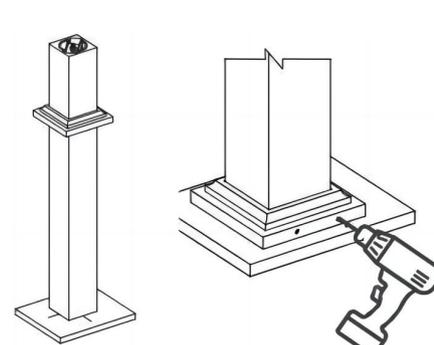
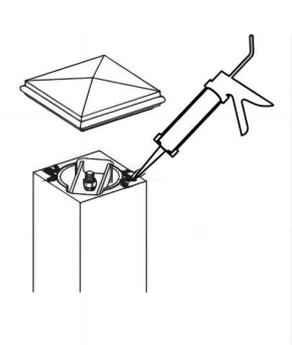


Figure 2H



Continued

3) Measure and cut rails.

Lay the bottom rail on the stair treads next to the mounting posts and mark lines on the rail to align with the mounting surfaces (Figure 3A).

Cut the bottom rail to length along the marked lines.

If the top rail will be mounted to the same surfaces as the bottom rail, position the rails next to each other and trace the cut lines of the bottom rail onto the top rail (Figure 3B).

If the top and bottom rails will be attached to different mounting surfaces, adjust marks as needed, maintaining the proper angle.

Cut the top rail to length along the marked lines.

Figure 3A

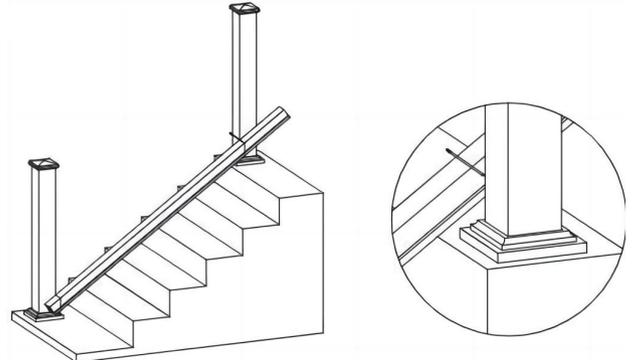
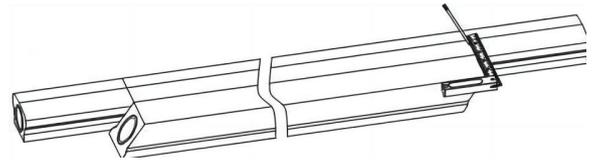


Figure 3B



4) Mark baluster locations.

Refer to the maximum baluster spacing in the table on the right (Figure 4A). The spacing shown is based on a straight rail application and refers to the center-to-center horizontal distance between balusters to maintain proper clearance for code requirements.*

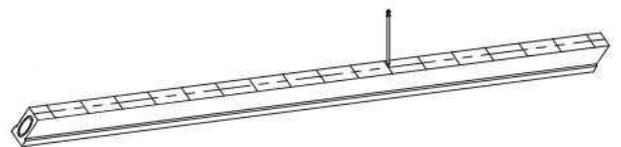
Mark the baluster center locations along the entire rail and equally spaced from each end (Figure 4B).

*For stair applications, code requires that a 4- $\frac{1}{8}$ " sphere cannot fit through the infill at any point.

Figure 4A

Maximum Baluster Spacing (Horizontal Center to Center)		
Style	Size	
	5"	7"
Woodruff	5- $\frac{1}{8}$ "	7- $\frac{1}{8}$ "
Square	5- $\frac{3}{4}$ "	
Rosedale		6- $\frac{3}{8}$ "
Logan	5- $\frac{1}{2}$ "	
Classic(CC)	5"	7- $\frac{1}{2}$ "
Classic(CCOB)		5- $\frac{3}{4}$ "
Ashley	5- $\frac{3}{8}$ "	7- $\frac{3}{8}$ "

Figure 4B



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Continued

5) Install bottom rail.

Lay the bottom rail on the stair treads, confirm it fits tightly to each mounting surface, and pre-drill two angled holes (in toe-nail fashion) into both sides of the rail, through the internal pipe, and into the mounting surface at each end (Figure 5A).

Apply a 1/4" bead of adhesive to the ends of the bottom rail (Figure 5B) and fasten it to the mounting surfaces with exterior-grade fasteners into the predrilled holes (Figure 5C). Make sure the fasteners are long enough to penetrate the mounting surface and internal pipe. Countersink the heads.

Figure 5A

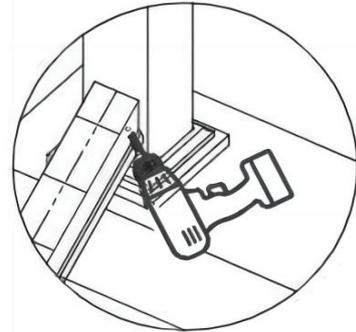


Figure 5B

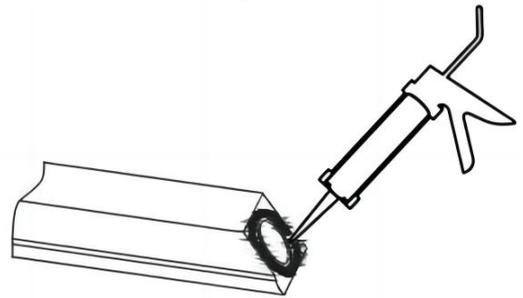
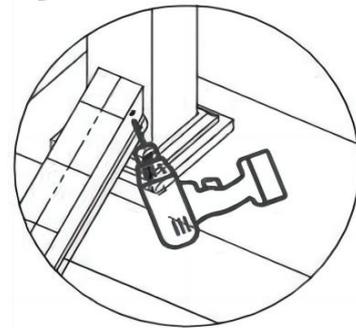


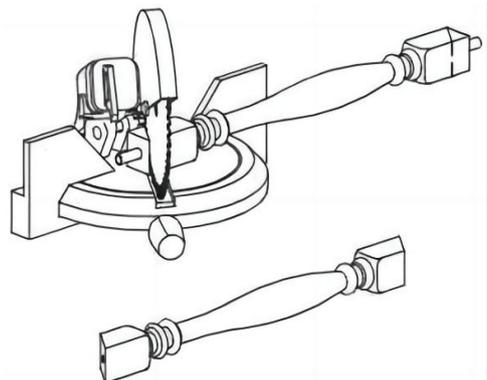
Figure 5C



6) Cut balusters.

Cut balusters to desired height and angle, so they will be plumb when installed (Figure 6). All balusters should be cut to the same size.

Figure 6



Continued on next page

Continued

7) Install balusters and top rail.

Apply a 1/4" bead of adhesive to the bottom end of a baluster (Figure 7A) and position it on the upper end of the bottom rail per the marks made in Step 4 (Figure 7B). Pre-drill and install a fastener by "toe-nailing" it through the baluster and its internal pipe, and into the bottom rail and its internal pipe (Figure 7C) so the baluster is plumb.

Countersink the fastener heads.

Working down the bottom rail, repeat and install the other balusters on the bottom rail, making sure they are plumb (Figure 7D).

Dry fit the top rail on top of the installed balusters, confirm it fits tightly to each mounting surface, and pre-drill holes through the rail and its internal pipe, into the mounting surfaces, as was done for the bottom rail.

Remove the top rail and apply a 1/4" bead of adhesive to the tops of all the balusters (Figure 7E) and to the ends of the top rail, as was done for the bottom rail.

Fasten the top rail to the mounting surfaces and the top ends of the balusters to the top rail with exterior-grade fasteners, making sure the balusters are plumb (Figure 7F). Make sure the fasteners are long enough to penetrate the mounting surface and internal pipe. Countersink the head

8) Fill and sand fastener holes.

Fill fastener holes with filler and sand to match surrounding area but be careful not to remove the primer.

9) Touch up or finish.

Refer to Legen General Finishing Instructions. If part was finished prior to installation, touch up filled fastener holes with color-matched finish. Caulk joints if desired for smooth appearance.

Figure 7A

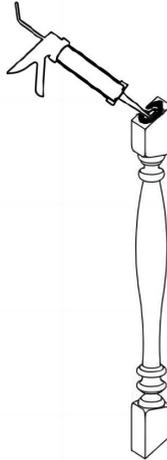


Figure 7B

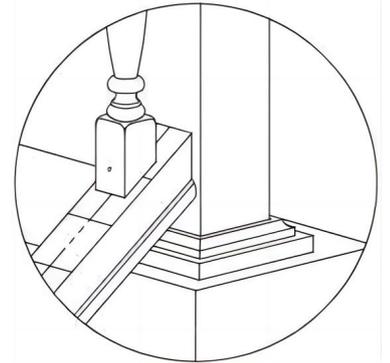


Figure 7C

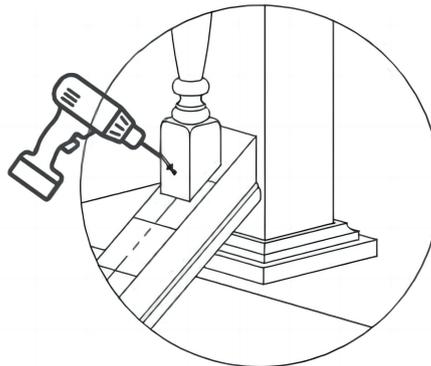


Figure 7D

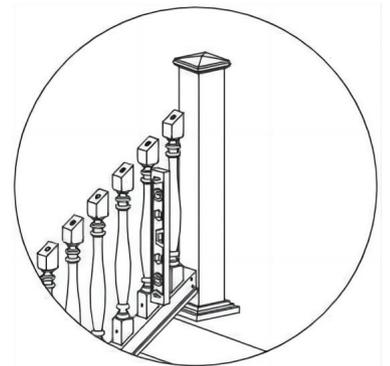


Figure 7E

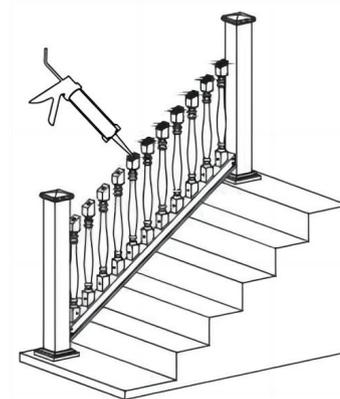
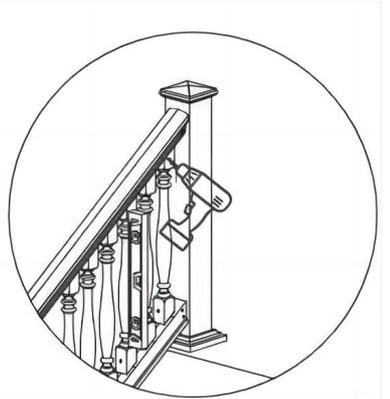


Figure 7F



General & Safety Information

- Wear proper personal protective equipment (PPE).
- Operate all tools per manufacturer guidelines.
- Standard woodworking saws and blades can be used for cutting Legen polyurethane (PUR) products, except in cases where there is metal reinforcement.
- Legen PUR parts are NOT load bearing.
- For best results, finish and allow to dry prior to installation. Refer to Legen General Finishing Instructions, which can be found at Legen.com/install.

Tools / Materials

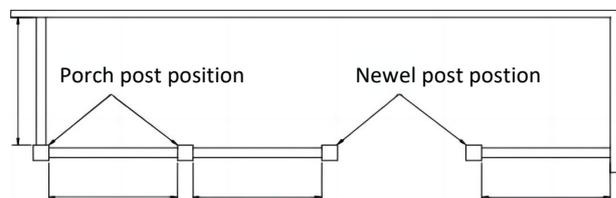
- Pencil
- Tape Measure
- Level
- Square
- Hammer or pneumatic nailer
- Nail Countersink
- Drill / driver (if using screws)
- 1/8" drill bit
- 3/4" or 1-1/8" drill bit (for baluster holes)
- 3/4" open-end or adjustable wrench
- Putty knife
- Hand saw or reciprocating saw
- Miter saw
- Sandpaper (220-grit recommended)
- Caulk gun
- Exterior-grade polyurethane-compatible sealant and / or filler
- Exterior-grade polyurethane-compatible adhesive (Loctite® PL Premium® recommended)
- Exterior-grade fasteners (trim-head screws recommended)

Installation Instructions

1) Identify post locations.

Mark locations on the floor where all balustrade support posts will be located (Figure 1).

Figure 1



Continued on next page

Continued

2) Install posts.

If installing Legen porch posts or structural posts with column wraps, refer to their respective installation instructions. Ensure there is blocking at the locations where the rail will attach, if installed over a column wrap.

If installing Legen newel posts, position the steel base mounting plates per the locations marked in step 1 and secure them to the floor with exterior-grade fasteners. Mark the hole locations and pre-drill them if fastening to concrete (Figure 2A).

Note: If trimming newel posts, measure from the top and cut to length at the bottom (Figure 2B). Add a centered saw kerf at the bottom for drainage, if desired (Figure 2C).

Cut the 3/8"-16 x 50 threaded rods (provided with newel post installation kit) to lengths that are 1/4" shorter than the newel posts (Figure 2D). Then install and tighten a threaded rod into each mounting plate (Figure 2E).

Align the post over the threaded rod and install the galvanized C-channel over the threaded rod and into the recessed cavity on top of the newel post. Then install 3/8" flat and lock washers and tighten a 3/8" nut to a torque of 100 in-lbs (Figure 2F).

If installing trim collars, slide them over the top of the newel post and secure at the bottom using exterior-grade fasteners (Figure 2G).

Apply a 1/4" bead of adhesive to the top of the newel post and install the newel post top (Figure 2H). Secure with exterior-grade fasteners if desired. Remove any excess adhesive with a putty knife and damp cloth before the adhesive sets.

Figure 2A

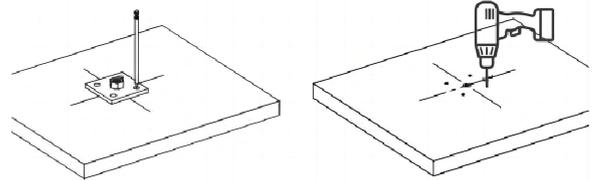


Figure 2B

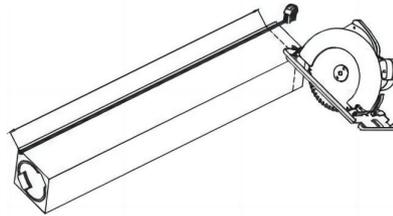


Figure 2C

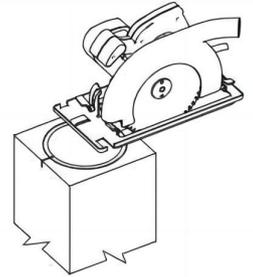


Figure 2D

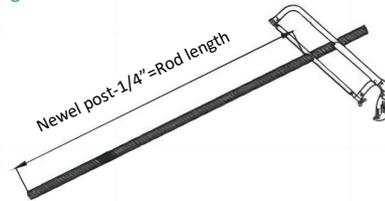


Figure 2E

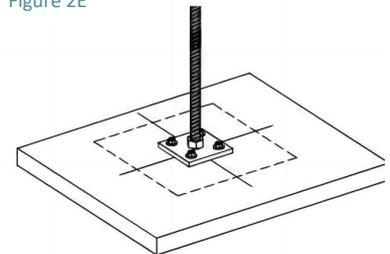


Figure 2F

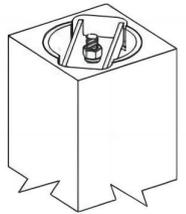
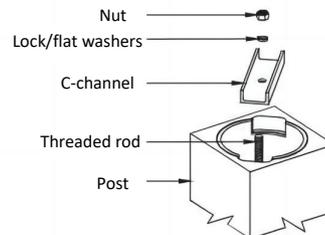
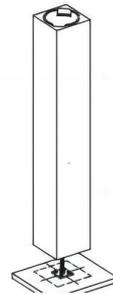


Figure 2G

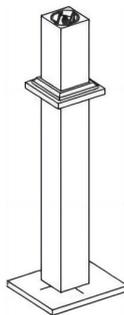
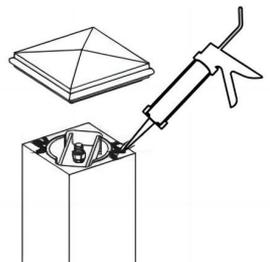
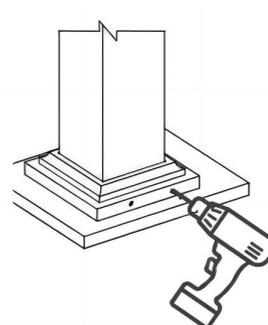


Figure 2H



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Continued

3) Assemble rail sections (if not pre-assembled).

Measure the distance between posts at the heights where the top and bottom rails will attach (Figure 3A). Cut the top and bottom rails to length for that section.

Note: The top and bottom rails may be different lengths.

Lay out and mark center lines on each rail where balusters will attach (Figure 3B). Refer to maximum spacing for baluster type (Figure 3C). Per code requirements, spacing cannot exceed 4" between balusters. Drill appropriate size holes to accept baluster pipe (Figure 3D).

Note: A drill press works well for this, if available.

Apply a 1/4" bead of adhesive on the bottom end of each baluster around the pipe (Figure 3E) and insert all of the balusters for that section into the holes in the bottom rail. Repeat this step to insert the balusters into the top rail.

Lay the rail assembly on a flat surface using three or more strap clamps, making sure the assembly is square and all balusters are oriented correctly (Figure 3F). Remove any excess adhesive with a putty knife and damp cloth and allow at least 12 hours for the adhesive to cure.

Painting of the rail sections can be done at this time if desired.

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Figure 3A

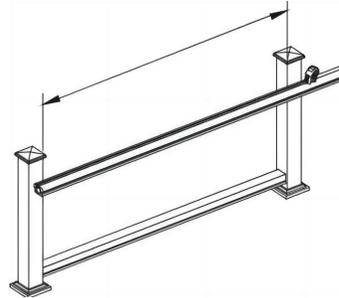


Figure 3B

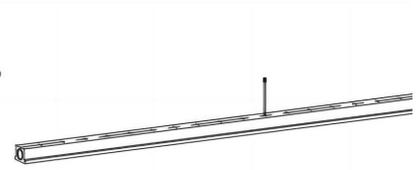


Figure 3C

Maximum Baluster Spacing (Horizontal Center to Center)		
Style	Size	
	5"	7"
Woodruff	5-1/8"	7-1/8"
Square	5-3/4"	
Rosedale		6-5/8"
Logan	5-1/2"	
Classic(CC)	5"	7-1/2"
Classic(CCOB)		5-3/4"
Beaumont		6-1/4"
Ashley	5-3/8"	7-3/8"

Figure 3D

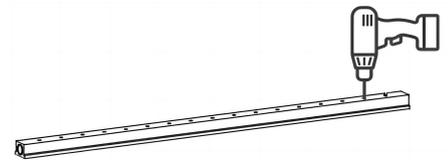


Figure 3E

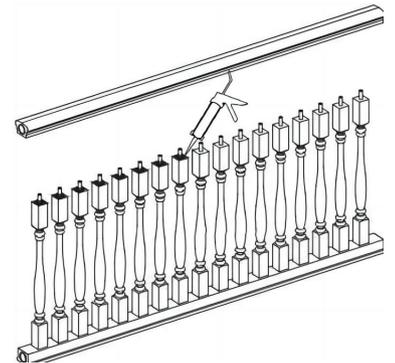
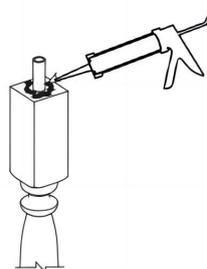
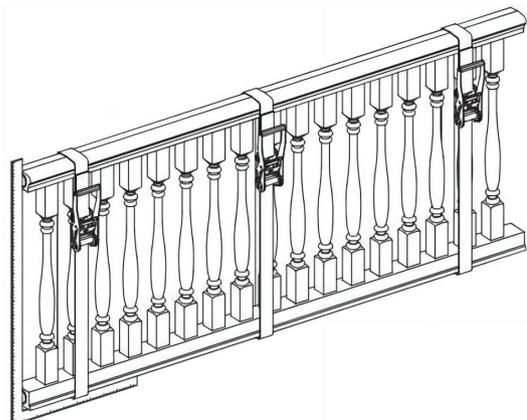


Figure 3F



Continued

4) Install rail sections.

Fasten angle brackets to the bottom rails as shown (Figure 4A), using the #14 x 2-1/8" stainless steel flathead screws provided with the bracket kit.

Identify the desired height of the railing and fasten angle brackets to the posts as shown (Figure 4B), using the #14 x 2-V2" stainless steel flathead screws provided with the bracket kit. The top rail will rest on them when installed.

Dry fit the rail assembly to make sure it will fit tightly. Then remove the rail assembly and apply a 1/4" bead of adhesive to the ends of the rails (Figure 4C) and reposition the rail assembly between the posts with the top rail resting on the top brackets.

Fasten the top brackets to the top rail and the bottom brackets to the post, using the #14 x 2-V2" stainless steel flathead screws provided with the bracket kit.

Remove any excess adhesive.

5) Install rail support blocks (if necessary).

If the rail section is more than 4" long, support blocks should be installed under the bottom rail so there is no unsupported section over 48" (Figure 5). Trim the block to height if necessary and apply a 1/4" bead of adhesive to the top of the block before sliding it under the bottom rail at the desired location.

6) Fill and sand fastener holes.

Fill fastener holes with filler and sand to match surrounding area, if needed, but be careful not to remove the primer.

7) Touch up or finish.

Refer to Legen General Finishing Instructions.

If part was finished prior to installation, touch up filled fastener holes with color-matched finish. Caulk joints if desired for smooth appearance.

Figure 4A

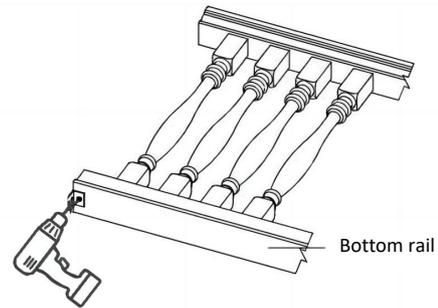


Figure 4B

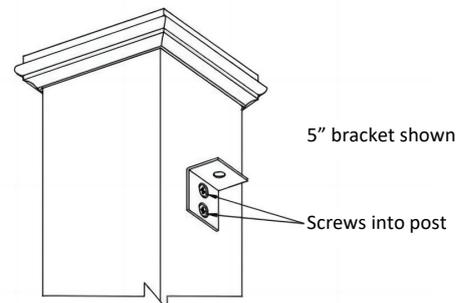


Figure 4C

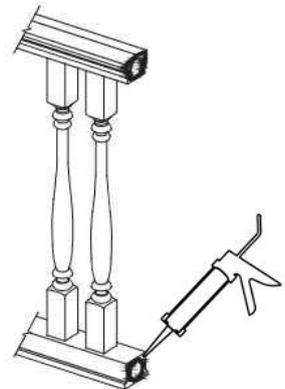
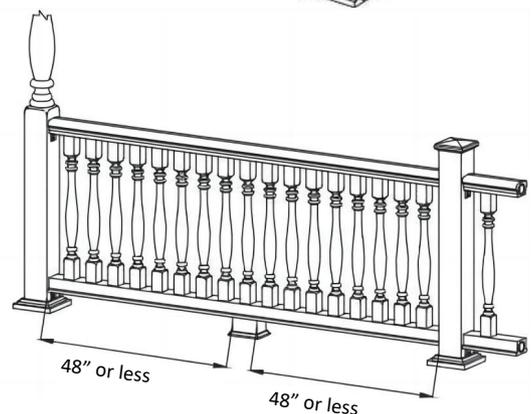


Figure 5



General & Safety Information

- Wear proper personal protective equipment (PPE).
- Operate all tools per manufacturer guidelines.
- Standard woodworking saws and blades can be used for cutting Legen polyurethane (PUR) products, except in cases where metal is being cut.
- Legen polyurethane porch posts and columns have an internal steel pipe and are load bearing.
See table in the following instructions for load-bearing capacities.
- Consult your local building department for applicable codes and building requirements.
- For best results, finish and allow to dry prior to installation. Refer to Legen General Finishing Instructions, which can be found at Legen.com/pages/install.

Tools / Materials

- Ladder
- Pencil
- Tape measure
- Level
- Square
- Drill / driver with Phillips bit
- Circular saw or hand saw (for cutting polyurethane)
- Hacksaw or reciprocating saw (for cutting inner steel tube)
- Plumb line
- Hydraulic jack and 4x4 (for lifting overhead porch structure)
- 3/16" drill bit

- 1/2" drill bit
- Sandpaper (220-grit recommended)
- Caulk gun
- Polyurethane-compatible filler
- Flat-head exterior-grade fasteners
- Zinc-based primer spray paint

Included with post kit:

- (1) Post
- (2) Mounting Plates
- (4) #14 x 2" Stainless Steel Sheet-Metal Screws

Installation Instructions

Polyurethane Porch Posts & Columns		
Type	Size	Load-Bearing Capacity (lbs)
Colonial	4-6"	6,000
	5-72"	6,000
Vintage	7-72"	12,000
Panel Square Column	6-75"	12,000
	8"	12,000
Wood-Grained Column	7"	12,000

Refer to the table above to verify the load-bearing capacity of the post being installed.



Colonial Porch Post

Vintage Porch Post

Panel Square Column

Wood-Grained Column

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Continued

1) Measure and cut post.

Measure the distance from the floor to the mounting surface on the overhead porch structure at the desired location for the post (Figure 1A). Measure that distance from the top end of the post and mark lines on all four sides using a square (Figure 1B).

lb ensure a square cut, use a circular saw or hand saw to cut through the polyurethane shell on all four sides, making sure not to cut the steel tube inside (Figure 1C). Then use a hacksaw or reciprocating saw to cut through the steel tube (Figure 1D) at the same location so it is flush with the polyurethane shell.

2) Paint pipe ends and mounting plates.

Paint the mounting plates and exposed steel pipe at both ends of the post with a high-quality zinc-based primer to prevent corrosion (Figure 2).

3) Drill mounting holes in post.

Drill a 3/16" diameter hole that is 3/4" from the bottom of the post and centered (Figure 3A). Make sure to drill through the polyurethane shell and steel tube. Drill an identical hole on the opposite side of the post. Repeat holes at top end of post. Now use a 1/2" drill bit to enlarge all four of the 3/16" holes in the polyurethane shell only, but do not drill through the steel tube (Figure 3B).

4) Attach mounting plates.

Refer to Figure 4 and fasten the top mounting plate at the at the desired location, using flat-head exterior-grade fasteners. Use a plumb line to align the holes in the top mounting plate with the holes in the bottom mounting plate on the floor and fasten the bottom mounting plate to the floor using flat-head exterior grade fasteners.

Figure 1A

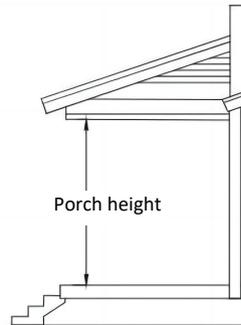


Figure 1B

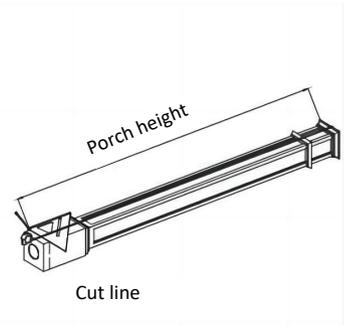


Figure 1C

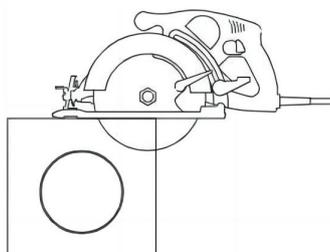


Figure 1D

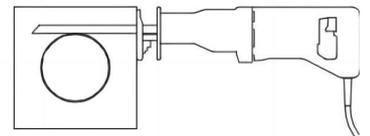


Figure 2

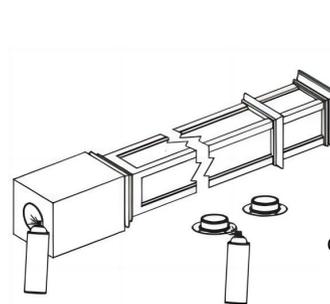


Figure 3A

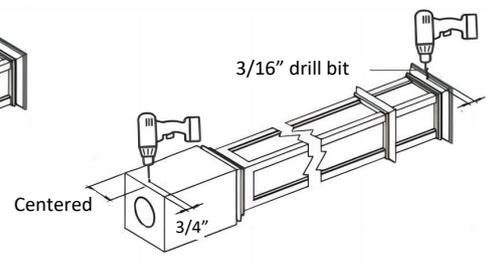


Figure 3B

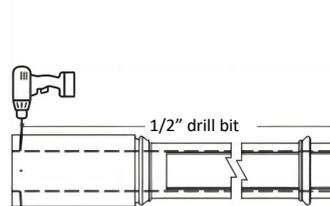
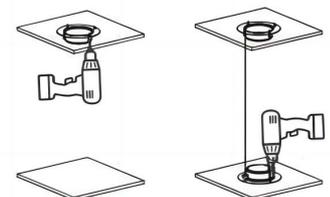


Figure 4



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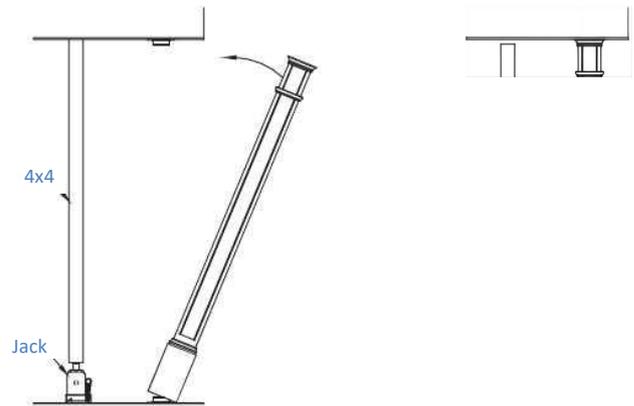
Continued

5) Position the post.

Refer to Figure 5. Use a jack and 4x4 (cut to fit) to raise the upper structure.

If trim pieces will be installed, slide them onto the post before setting it. Set the bottom of the post onto the bottom mounting plate and slowly lift the upper structure until the post can be tilted into place. Once the post is aligned with both the top and bottom mounting plates, slowly lower the jack until the upper structure rests on the post. Confirm the post is plumb, then remove the jack and 4x4.

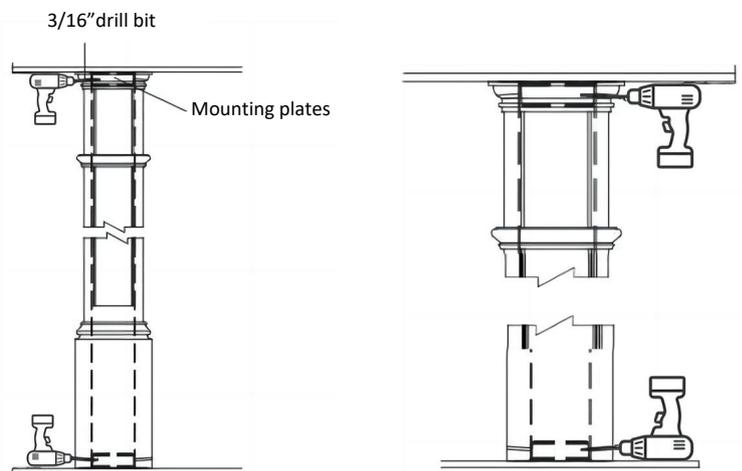
Figure 5



6) Secure post to mounting plates.

Refer to Figure 6. Using a 3/16" drill bit, drill through the top and bottom mounting plates using the previously drilled holes as a guide. Secure the post to the mounting plates using the provided #14 x 2" stainless steel sheet metal screws, so the heads are against the steel tubing inside the post.

Figure 6



7) Secure trim pieces

Apply adhesive to the trim pieces and press them against the overhead porch structure and / or porch floor. Secure with exterior-grade fasteners, if desired. Refer to Figure 7.

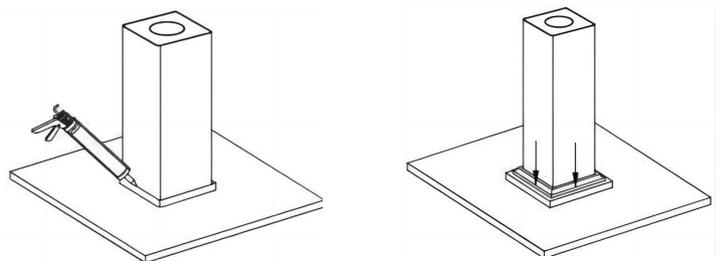
8) Fill and sand fastener holes.

Fill fastener holes with filler and sand to match surrounding area, if needed, but do not remove the primer.

9) Touch up or finish.

Refer to Legen General Finishing Instructions. If part was finished prior to installation, touch up filled fastener holes with color-matched finish.

Figure 7



General & Safety Information

- Wear proper personal protective equipment (PPE).
- Operate all tools per manufacturer guidelines.
- Standard woodworking saws and blades can be used for cutting Legen polyurethane (PUR) products.
- Legen PUR parts are NOT load bearing.
- For remodeling applications and alternative facades like stucco, vinyl, etc., please refer to Legen General Remodeling and Alternate Facade Instructions, which can be found at Legen.com/install.
- For best results, finish and allow to dry prior to installation. Refer to Legen General Finishing Instructions, which can be found at Legen.com/install.

Tools / Materials

- Pencil
- Tape Measure
- Hammer or pneumatic nailer
- Drill / Driver (if using screws)
- Putty knife
- Sandpaper (220-grit recommended)

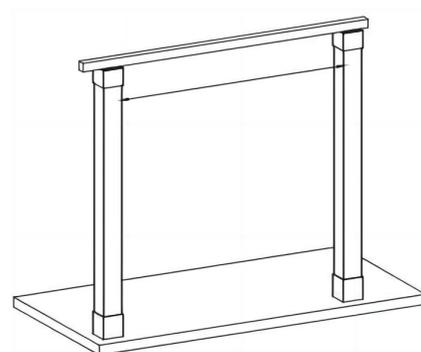
- Saw (cutting)
- Glue gun
- Exterior grade polyurethane-compatible solvent and / or filler
- Exterior grade polyurethane-compatible adhesive
- Quikrete® Pro-Finish™ (recommended)
- Exterior grade fasteners (304 stainless recommended)

Figure 1

Installation Instructions

1) Measure installation area and spandrel.

Measure the opening to determine if one or more spandrels will be needed to span the length (Figure 1).



Opening width = Overall spandrel length

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Continued

2) Prepare spandrel(s).

If multiple pieces are needed, cut pieces so the factory ends will be together (Figure 2A).

Lightly sand the factory ends. If assembling the spandrels before installation, apply adhesive to the factory ends, clamp them together, and fasten to form a continuous pattern (Figure 2B). Remove any excess adhesive. Pre-drill fastener locations every 16" or less (Figure 2C).

3) Apply adhesive.

Apply a 1/4" bead of adhesive to the mounting surfaces of the part, including the ends (Figure 3).

4) Fasten.

Press the spandrel into place and fasten with exterior-grade fasteners, making sure to countersink them below the surface (Figure 4). Remove any excess adhesive.

5) Fill and sand fastener holes.

Fill fastener holes with filler and sand to match surrounding area, but be careful not to remove the primer.

6) Touch up and finish.

Refer to Legen General Finishing Instructions. Part can be painted before or after installation. Ensure all fastener holes have been filled, sanded, re-primed and painted to complete project.

Figure 2A

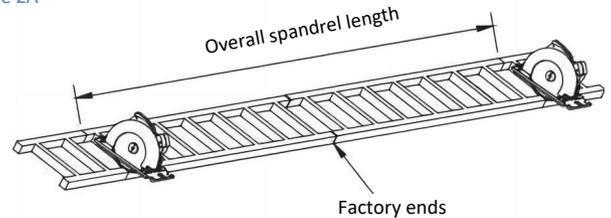


Figure 2B

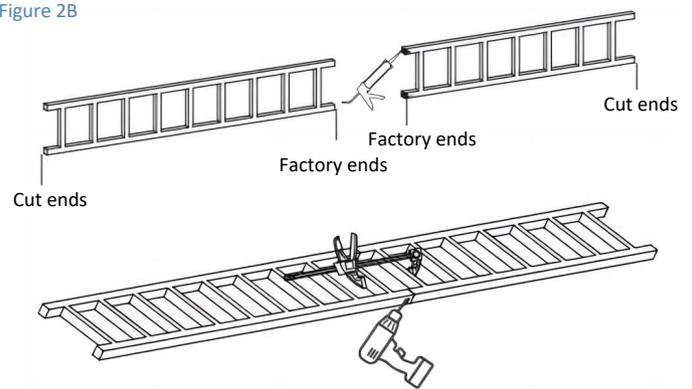


Figure 2C

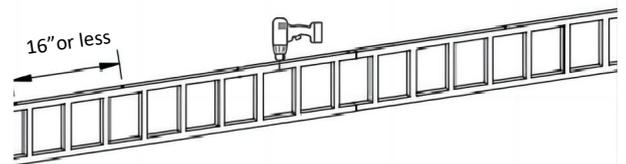


Figure 3

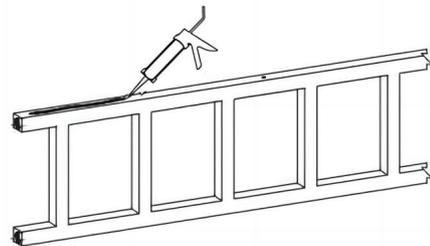


Figure 4

