PARALLEL
ARCHITECTURAL PRODUCTS

Fencing + Gate **Installation Guide**

2025 Version 1

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1A. Features + Colors

Woodgrain Finishes

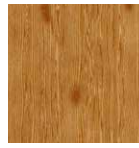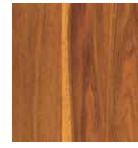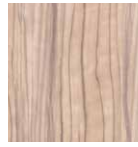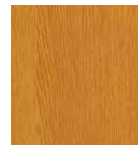|									
Amberwood	American White Ash	Birchwood	Blonde Teak	Brazilian Rosewood	Chocolate Teak	Classic Cherry	Coastal Wood	Crimson Cedar	Dark Ember
Ebony	English Chestnut	Espresso Walnut	Gilded Light Oak	Golden Cedar	Greystone	Hawaiian Koa	Heritage Royal Oak	Honeywood	Malacca
Obsidian Hickory	Pacific Kwila	Provincial Pine	Red Cedar	Redwood	Rich Spotted Gum	Rose Mahogany	Sapwood	Seaside Oak	Sedona Cherry
Soft Ash	Spanish Moss	Sunlit Teak	Sycamore	Tasmanian Oak	Warm Hickory	Zebrawood			

Solid Colors
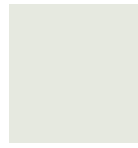
Alabaster Pearl	Blue Mist	Charcoal	Desert Sand	Fawn	Fog	Grey Ash
Jet Black	Rustic Bronze	Sand Dollar	Slate	Tundra	Vintage Pewter	
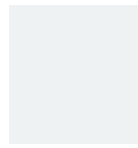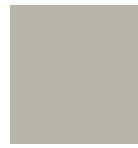
At Parallel, we're always **expanding our color palette** to align with current trends, address market needs, and spark the creative inspiration you need to elevate your projects.

To browse all of our current finishes, scan the QR code or visit **parallelap.com/colors**.

Parallel Architectural Products

Resists Warping + Cracking

Non-Combustible + Fire Safe

Marine Grade Material

Freeze + Frost Resistant

Control Unwanted Pests

Weatherproof Colors

Lightweight + Easy to Install

1B. Material Care + Handling

Before Beginning Installation:

- ✓ Research and be aware of all municipal building codes and project specifications.

- ✓ Use appropriate personal protection equipment (PPE) and ensure a safe work environment. *(See 2A. Personal Protection Equipment)*

- ✓ Ensure correct tools are supplied to installers and tools are in safe and working order. *(See 2B. Tools and Accessories)*

- ✓ When materials have arrived on site, the Bill of Lading (BOL) should be located and contents of delivery checked immediately to ensure all correct components have arrived and are undamaged.

- ✓ Note: All extrusions, with the exception of accessories, come in standard 20' lengths.

- ✓ Note: Accessory parts including end caps, base plates, cladding clips, gate hardware, and other small items are packaged in a box or container attached to the bundle or crate. These items should be located and quantities verified against the BOL.

> ⚠ Failure to complete or acknowledge all of the above initial steps before installation may impact product performance, void product and/or finish warranty, impact project completion time/budget, and increase the risk of personal injury.

Care + Maintenance

There are many ways to clean aluminum, from using plain water to harsh abrasives. When cleaning your Parallel aluminum products, always try the mildest method possible. The following cleaning materials and procedures are listed in ascending order of harshness. The gentlest treatment (plain water) should be tried on a small area and if not satisfactory only then should you attempt to apply the next item on the list.

- Plain water
- Mild soap or detergent
- Solvent cleaning, e.g. kerosene, turpentine, white spirit
- Non-etching chemical cleaner
- Wax base polish cleaner
- Abrasive wax
- Abrasive cleaner

Once you have cleaned the affected area(s) with the proper cleaner, rinse the aluminum surfaces and thoroughly dry them in order to avoid streaking. Always be sure to follow the directions given by the maker of any specific cleaning chemical you may use.

Handling + Storage

Aluminum does not need much maintenance in order to stay in peak condition. It will not corrode, mar or warp in the ways that other materials often do when being transported or stored. For the best results, Parallel products should be stored indoors or covered until ready to be installed. Do not remove protective film until time of installation. Do not allow moisture to accumulate beneath film.

At Parallel, we make an effort to pack up all orders so that they are as protected as possible against the conditions that could potentially damage the products, such as abrasions or staining. We strategically wrap our products in paper and plastic wrapping to prevent any flexing, twisting, or outside contact with any visible surfaces. While we take great care in producing, packing and shipping our orders, we cannot control for all variables, thus it is important to inspect all orders as soon as possible after arrival to ensure that no damage has been caused by unpredictable or extreme transport conditions.

For more detailed information on handling and storage, see our full Product Terms and Conditions, provided to you by your Parallel representative.

2A. Personal Protection Equipment (PPE)

Parallel Architectural Products recommends the appropriate use and application of the following PPE during installation:

1. Steel Toe Boots
2. Cut Resistant Gloves
3. Safety Glasses
4. Hard Hat
5. Ear Protection
6. Safety Vest

7. Fall Protection
8. First Aid Kit

⚠️ WARNING: Consult your local safety codes and regulations.
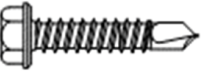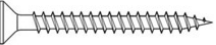
2B. Tools + Accessories

The following general tools are needed for a successful installation:

1. Sawhorses / Worktables
2. 12" Sliding Compound Miter Saw
3. 96T Non-Ferrous Metal Cutting Blade
4. Dead Blow Hammer *(Do Not Use Rubber Mallet)*
5. Extension Cord
6. Impact Driver
7. Nut Driver Set
8. Carpenter's Pencil

9. Chalk Line
10. Level
11. Tape Measure
12. Utility Knife
13. Jigsaw (optional)
14. Circular Saw
15. Bi-metal Hole Saw
16. Six10 Epoxy (or equivalent)

2C. **Fastener Guide**

Fasteners	Type	Size	Length	Systems	Make	Applications	Uses
	Self-Tapping Hex Head (5/16")	#10, #12, #14	1/2", 3/4", 1"+, 2"+	Fencing, Gates, Guardrail, Cladding, Soffit, Screening, Battens	Hot-dipped galvanized, epoxy-coated (coarse thread)	Metal to Metal Metal to Wood	• Slats to post • Slats to channel • Slats to gate frame
	Self-Drilling Phillips Flat Head	#12	2", 2-1/2"	Cladding, Soffit, Fencing, Gates, Screening (Baseplates / Mounting)	Hot-dipped galvanized, epoxy-coated (coarse thread)	Metal to Metal	• Baseplates to posts

NOTE: Parallel does NOT automatically provide fasteners with the material. Rely on this table to select the proper fasteners for installation.

Parallel can source and supply fasteners and saw blades for an additional cost! Contact info@parallelap.com for more details.

2D. **Material + Jobsite Conditions**

Jobsite Conditions

Before starting the fencing or gate installation, make sure your project design meets all local building codes, specified design loads, and design requirements. Consult with Parallel Architectural Products for project specific engineering if required.

It is important to remember the following when installing Parallel aluminum:

- Never install directly on pressure treated materials.
- Masonry and concrete walls may require specified fastening per application.

Woodgrain Patterns

Parallel's premium woodgrain finishes have a distinctive repeat pattern of 4', which varies by finish selection. It is suggested to alternate slat selection from two or more cases during installation. When working with a single case of product, select every other board. Installers using multiple cuts from the same slat should flip and rotate each board orientation for the most authentic pattern.

Prior to installation and fabrication, remove the protective sublimation film.

Safety Regulations

Please adhere to all applicable safety regulations, particularly OSHA guidelines. For your protection, ensure proper use of safety equipment including gloves, protective eyewear, and fall protection equipment when installing Parallel aluminum products.

Warranty Registration

Register your warranty by filling out the form found at parallelap.com/warranty, or provided by your sales representative. Once complete, submit your warranty form to info@parallelap.com.
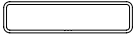
Expansion and Spacing
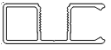
Parallel Architectural fence and gate slats may be installed for full privacy or with custom spacing. Typical post spans should not exceed 6' on center for most fencing applications (vertical and horizontal). Slats begin to experience flex/deflection at 7' spans. Typical post heights should not exceed 6' tall for most fencing applications.*

- **P-2W & P-C:** Max post span at 6' O.C.
- **S-2.5, S-4 & S-6:** Max flex span at 6' O.C.

Consult Parallel Product Support or project EOR (engineer on record) for project-specific applications that may seek to exceed the listed maximum spans/heights.

3A. **Profile Legend**

		S-2.5	2.5" Single-Piece Slat – 2.5" x 5/8" x 20'
		S-4	4" Single-Piece Slat – 4" x 5/8" x 20'
		S-6	6" Single-Piece Slat – 6" x 5/8" x 20'
		P-2W	Two-Way Post – 2-1/2" x 2-1/2" x 20'
		P-C	Two-Way Corner Post – 2" x 5/8" x 20'
		P-1W	One-Way Post / Rail – 2-1/2" x 1" x 20'
		SH-2.5x2.5	2.5" Square Hollow Post – 2-1/2" x 2-1/2" x 20'
		SH-4x4	4" Square Hollow Post – 4" x 4" x 20'
		SH-6x6	6" Square Hollow Post – 6" x 6" x 20'
		GF-S	Small Gate Frame – 2" x 1-1/2" x 20'
		GF-L	Large Gate Frame – 4" x 2" x 20'
		GF-CSS	Small Gate Frame Corner Stake (Mill Finish)
		GF-CSL	Large Gate Frame Corner Stake (Mill Finish)

3A. Profile Legend

		P-IFS	Infill Strip – 5/8" x 20'
		P-BPS2.5	Base Plate Surface Mount (For P-2W and P-C)
	–	**P-EC2W**	Two-Way Post End Cap (For P-2W and P-C)
	–	**G-135**	Safetech Adjustable Hinges (Pair)
	–	**G-VGL**	Safetech Viper Gravity Latch (One)
		U-CHNL	U-Channel – 1-1/8" x 1-1/8" x 20'
	–	**P-BP4**	Base Plate for 4" x 4" Post – 8" Internal Sleeve
	–	**P-BP6**	Base Plate for 6" x 6" Post – 6" Internal Sleeve

Diagram 1
Horizontal Fencing

Refer to the diagram below as you follow the horizontal fence installation steps beginning on page 11.

Note: This diagram and these instructions illustrate one possible configuration of Parallel's fencing and gate systems. Parallel offers endless design possibilities! Contact your sales representative with questions about other options.

Post Option #1

Post Option #2

P-2W

STEP 1 - CHANNEL INSTALL (Pg. 12)

P-EC2W

P-EC1W

P-IFS

STEP 2 - SLAT INSTALL (Pg. 12)

GF-S

GF-CSS

STEP 3 - END CAP & INFILL (Pg. 12)

P-2C

S-6

STEP 4 - GATE INSTALL (Pg. 17-18)

P-1W

P-BPS2.5

SH-2.5x2.5

G-VGL

G-135

Post Option #3 - Not Shown
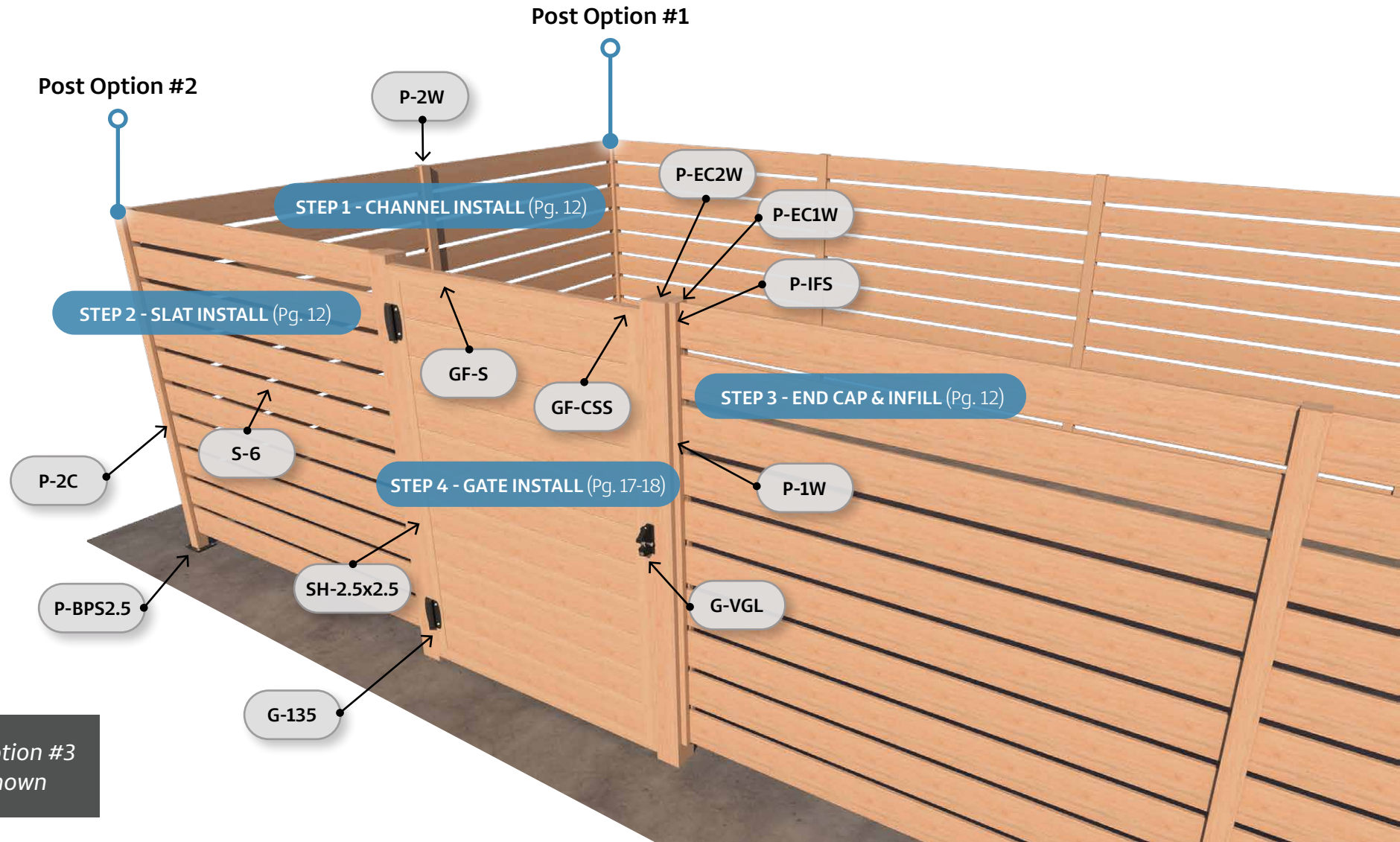
3B. Horizontal Fencing Installation

The following guide includes step-by-step instructions to perform proper installation of Parallel fencing products in a typical horizontal orientation.

POST OPTION 1 | Post Footing Installation (P-2W and P-C)

- **Parallel fencing posts are traditionally installed in a typical concrete footing. Footings may be required for integrated slat channels posts and blind hollow posts:**

  1. The two-way corner post (P-C) is to be used in a typical 90-degree corner.

  2. The simple two-way post (P-2W) is to be used for both intermediate and end posts. (Two-way corner posts (P-C) may also be used for end posts where necessary)

  3. The blind hollow post (SH-4x4) is to be used for gate hinge and latch posts.

  Note: Typical footing requirements are no less than 1/3 of the exposed post height, but they can vary. Check your local municipality / EOR for code requirements.

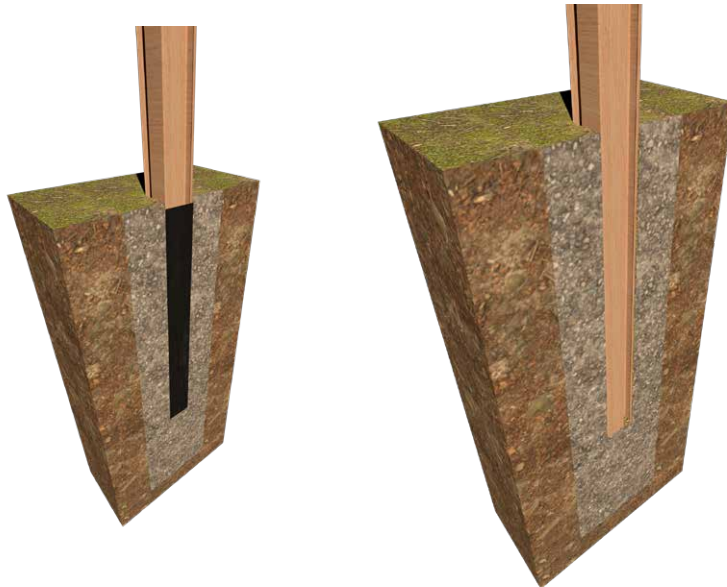- **Cut the corner post (P-C) to the required length. Before setting in concrete, wrap the post in painter's tape, or wrap the portion below grade in plastic wrap to prevent electrolysis.**

POST OPTION 2 | Post Baseplate Installation (P-2W and P-C)

- **Cut the two-way post (P-2W) to the required length.** Attach the surface baseplate (P-BPS2.5) to the bottom of the two-way post using eight (8) 3" #12 decking screws. Then, attach post and baseplate assembly to the slab or surface using four 5/16" anchor bolts.

  Note: Anchor specification may vary per project requirement.

POST OPTION 3 | Post Baseplate Installation (SH-2.5x2.5, SH-4x4, SH-6x6)

- **Cut the 4x4 post (SH-4x4) to the required length and attach the sleeve baseplate (P-BP4) to the surface or slab using four 5/16" anchor bolts.** Sleeve the post over the sleeve baseplate. Shim between the sleeve and post as needed. Then, through-bolt the post to the sleeve baseplate.

STEP 1 | Channel Installation

- If you are using a hollow post such as our SH-4x4, cut the one-way post (P-1W) to the required length to attach the fencing slats into the post(s).

- Attach the 1-way post to the side/face of SH-4x4 through the slat channel using #10 self-tapping screws 16" o.c.
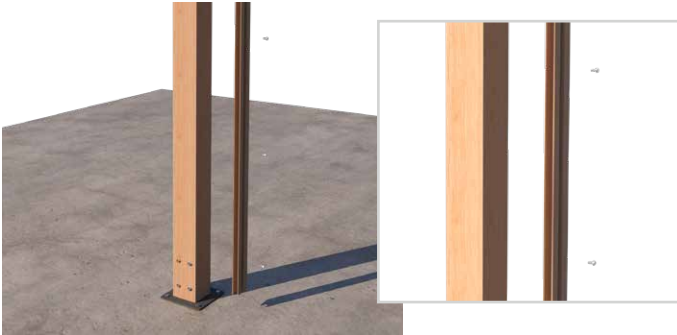
STEP 2 | Horizontal Slat Installation (S-6)

- If you are using any of our integrated posts, cut the 6" single-piece slat (S-6) to the required length. Slide the slat into the slat channel of each post (P-2W, P-C, P-1W). Fasten the slat to the channel using two #10 self-tapping screws at each slat end.

  - *Ex: Each 6" slat should have four fasteners in a fully assembled fence panel.*

- Slat spacers (A-SP) can be provided in 3/8", 1/2", 3/4" lengths or may be cut to size for installation. Stack the spacers and slats together in each fence bay as necessary before fastening. Full-privacy panels do not include spacers.


STEP 3 | Infill (P-IFS) and End Cap (P-EC2W) Installation

- Cut the 5/8" infill strip (P-IFS) to the required length to cover all post fastening channels.

- Snap the infill strip into the desired post's fastening channel at one end, using a dead blow hammer.

  - Lightly hammer the infill strip into the channel from one end to the other. Ensure the strip is fully seated for a clean finish.

  - Cut the 5/8" infill strip to size to enclose or cap off any incomplete or open slat and/or fastening channels.

- Apply a bead/dollop of structural silicone or epoxy along the inside of each post top edge.

- Seat the aluminum routed post end caps (P-EC2W) into their respective posts. Apply short strip of painter's tape to the cap assembly and remove once the silicone cures.

Diagram 2
Vertical Fencing

Refer to the diagram below as you follow the vertical fence installation steps beginning on page 14.

Note: This diagram and these instructions illustrate one possible configuration of Parallel's fencing and gate systems. Parallel offers endless design possibilities! Contact your sales representative with questions about other options.

Post Option #1

Post Option #2

P-2W

STEP 1 - CHANNEL INSTALL (Pg. 10)

P-EC2W

P-EC1W

U-CHNL

P-IFS

STEP 2 - SLAT INSTALL (Pg. 10)

GF-S

GF-CSS

STEP 3 - END CAP & INFILL (Pg. 10)

S-6

STEP 4 - GATE INSTALL (Pg. 17-18)

P-2C

SH-2.5x2.5

P-1W

P-BPS2.5

G-VGL

G-135

*Post Option #3
- Not Shown*
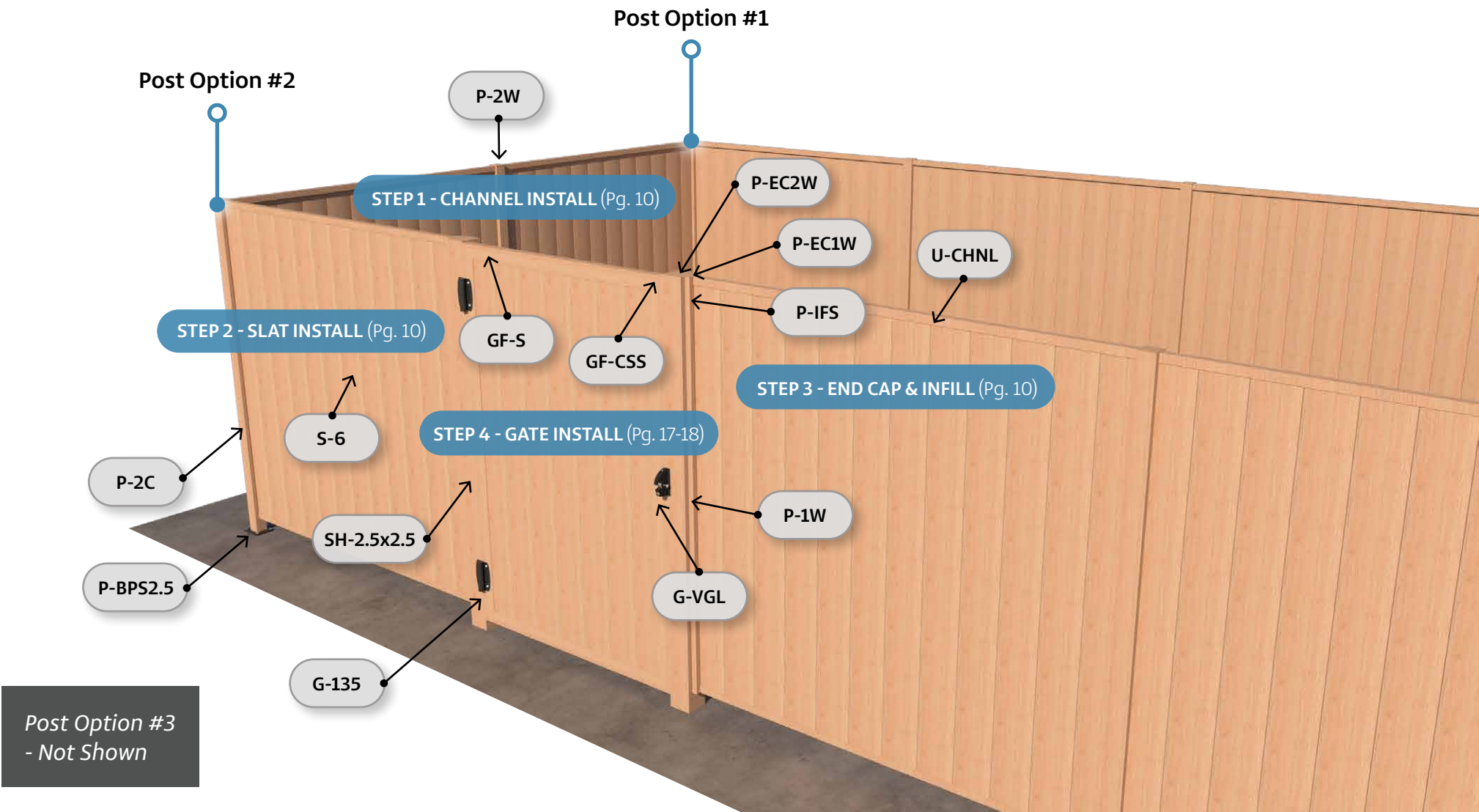
3C. Vertical Fencing Installation

The following guide includes step-by-step instructions to perform proper installation of Parallel fencing products in a typical vertical orientation.

POST OPTION 1 | Post Footing Installation (P-2W and P-C)

- **Parallel fencing posts are traditionally installed in a typical concrete footing. Footings may be required for integrated slat channels posts and blind hollow posts:**

    1. The two-way corner post (P-C) is to be used in a typical 90-degree corner.

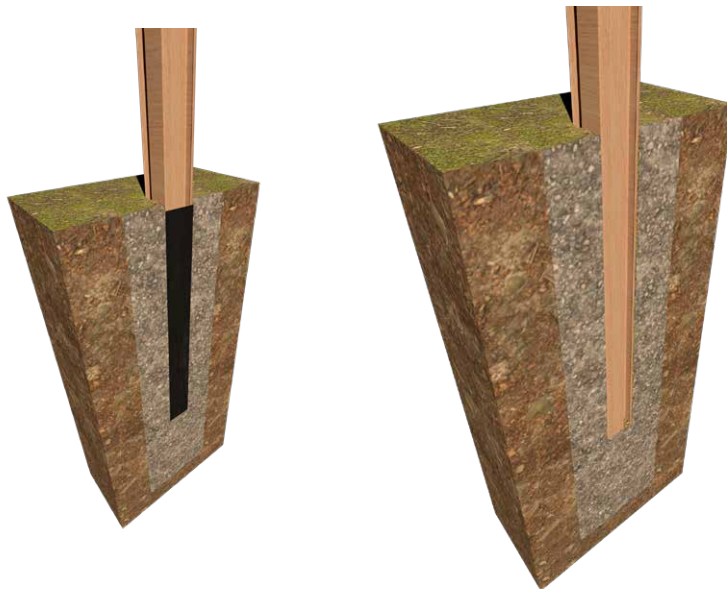   2. The simple two-way post (P-2W) is to be used for both intermediate and end posts. (Two-way corner posts (P-C) may also be used for end posts where necessary)

    3. The blind hollow post (SH-4x4) is to be used for gate hinge and latch posts.

    Note: Typical footing requirements are no less than 1/3 of the exposed post height, but they can vary. Check your local municipality / EOR for code requirements.
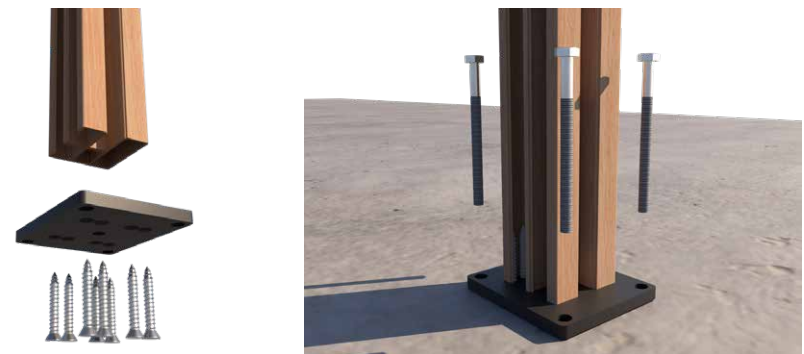
- **Cut the corner post (P-C) to the required length. Before setting in concrete, wrap the post in painter's tape, or wrap the portion below grade in plastic wrap to prevent electrolysis.**

POST OPTION 2 | Post Baseplate Installation (P-2W and P-C)

- **Cut the two-way post (P-2W) to the required length.** Attach the surface baseplate (P-BPS2.5) to the bottom of the two-way post using eight (8) 3" #12 decking screws. Then, attach post and baseplate assembly to the slab or surface using four 5/16" anchor bolts.

    Note: Anchor specification may vary per project requirement.

POST OPTION 3 | Post Baseplate Installation (SH-2.5x2.5, SH-4x4, SH-6x6)

- **Cut the 4x4 post (SH-4x4) to the required length and attach the sleeve baseplate (P-BP4) to the surface or slab using four 5/16" anchor bolts.** Sleeve the post over the sleeve baseplate. Shim between the sleeve and post as needed. Then, through-bolt the post to the sleeve baseplate.

SECTION 3. FENCING INSTALLATION

STEP 1 | Channel Installation

- To complete Step 1, cut the one-way post (P-1W) to the required length to terminate the slats into the gate post(s).
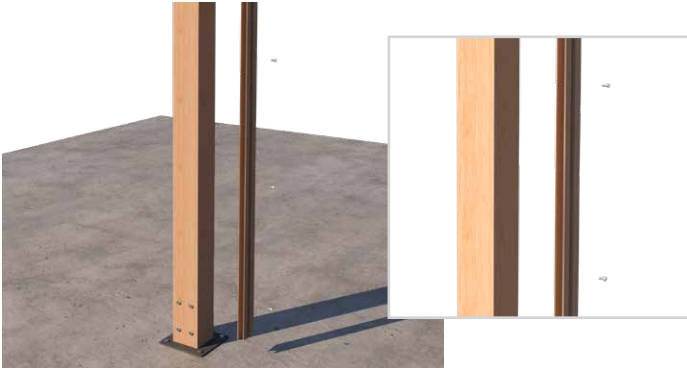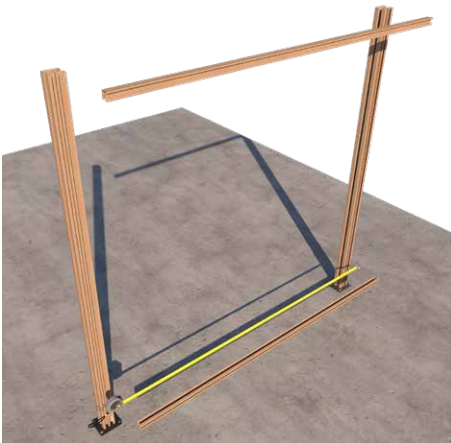
- Attach the 1-way post to the side/face of SH-4x4 through the slat channel using #10 self-tapping screws 16" o.c.


STEP 2 | Vertical Slat Installation (S-6)

- First, measure the fence panel span from post to post.

- Then, cut two pieces of u-channel (U-CHNL) to length for the top and bottom fence rails.

STEP 2 | *CONTINUED*

- Cut the 6" single-piece slats (S-6) to the required length. Then layout the top and bottom rails with the 6" slat on a soft, level surface or shop table.

- Insert the slat into the u-channel, leaving a min of 1/2" of slat overhang, and a maximum of 1" overhang.

- Fasten the slat to the u-channel using two #10 self-tapping screws at each slat end. *Ex: Each 6" slat should have four fasteners in a fully assembled fence panel.*

- Finish installing all slats into the u-channels. Snap in infill (P-IFS) to the u-channel to complete the fence panel.
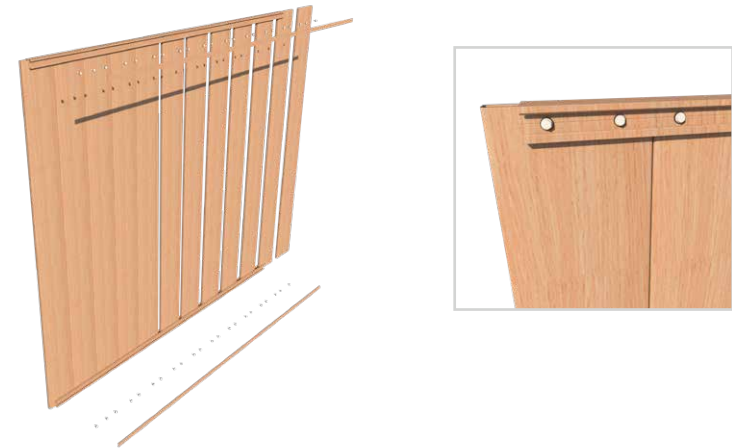
- Next, slide the assembled fence panel unit down into the existing posts (P-2W, P-C, P-1W). Fasten the panel in place through the post channels using a #10 self-tapping screw every 6" on center.

STEP 3 | Infill (P-IFS) and End Cap (P-EC2W) Installation

- **Cut the 5/8" infill strip (P-IFS) to the required length to cover all post fastening channels.**

- **Snap the infill strip into the desired post's fastening channel at one end, using the 8oz(+) dead blow hammer.**

  - Lightly hammer the infill strip into the channel from one end to the other. Ensure the strip is fully seated for a clean finish.

  - Cut the 5/8" infill strip to size to enclose or cap off any incomplete or open slat and/or fastening channels.

- **Apply a bead/dollop of structural silicone or epoxy along the inside of each post top edge.**

- **Seat the aluminum routed post end caps (P-EC2W) into their respective posts. Apply short strip of painter's tape to the cap assembly and remove once the silicone cures.**

LOOKING FOR MORE INSTALLATION ASSISTANCE?

Contact your sales rep or reach out to our technical support team at **parallelap.com/contact** or by calling **866.472.7255**.

We are here to help make your project a success.

4A. Typical Swinging Gate Installation

The following guide includes step-by-step instructions to perform proper installation of Parallel's gate products in a typical swinging application. *Reference diagram 1 (pg. 10) and/or diagram 2 (pg. 13) for further guidance.*

STEP 1 | Small Gate Frame Assembly (GF-S and GF-CSS)

- **To begin, cut the small gate frame (GF-S) into four piece – two different lengths: two pieces for gate rails, and two pieces for the stiles.**

- **Miter cut all gate frame ends at 45-degree angles.**

- **Use a self-etching primer to finish any visible mill finish cuts of the gate frame BEFORE assembly.**

  Note: Be sure to use a flat and level surface when assembling the gate panel. A soft surface or moving blanket is recommended for gate panel fabrication.

- **Insert two small gate frame corner stakes (GF-CSS) into the two rails and bottom gate stile using a dead blow hammer.**

  IMPORTANT: *The corner stakes will NOT come out of the frame once hammered in.*
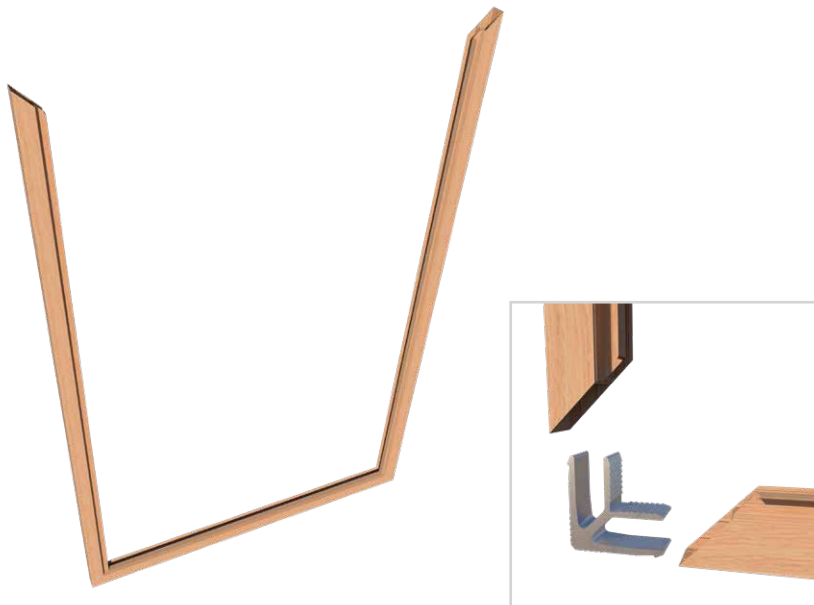
STEP 1 | *CONTINUED*

- **Cut the 6" slats (S-6) to the required length.** Slide the slats into the 3-sided gate frame channel. Fasten the slat (S-6) to the gate frame (GF-S) using two #10 self-tapping screws at each slat end (four fasteners per slat).

 **IMPORTANT:** *Using two #10 self-tapping screws is crucial to prevent racking.*

- **Insert the corner stakes (GF-CSS) into the last gate frame (GF-S) using a dead blow hammer.** Then, attach the frame and corner assembly to the fabricated gate panel. Wrap 2 ratchet straps around the gate panel and systematically tighten them to assist with tight corners. Hammer the gate miters in a star pattern to ensure tight and uniform corners.

- **Cut the infill (P-IFS) to the required length.** Miter the infill strips before installing into the gate frame. Hammer the infill strips into the assembled gate panel, starting at either channel end, to complete the gate.

STEP 2 | Gate Panel Installation

- *IMPORTANT: Use COARSE THREAD fasteners for hinge and latch installation(s).*
- **Layout the hinging and latching on the blind hollow posts (SH-2.5x2.5) and mark the fastening locations for mounting the hinge and latch receivers.**
- **Layout the hinging and latching on the assembled gate panel and mark fastening locations for mounting.**
- **Fasten the hinges to the blind hollow posts using #10 self-tapping fasteners.**
- **Fasten the latch to the assembled gate panel using #10 self-tapping fasteners.**
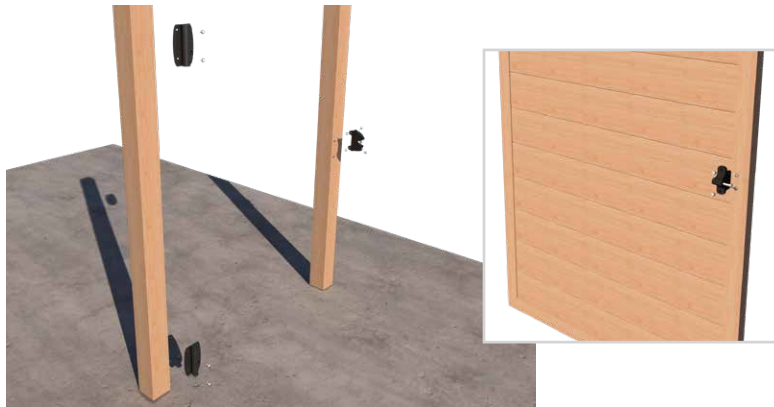
- **Use the help of another laborer to lift and mount the gate panel to the hinge and post assembly.**
- **To complete the gate, fasten the gate panel to the hinges using #10 self-tapping fasteners.**

LOOKING FOR MORE INSTALLATION ASSISTANCE?

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We are here to help make your project a success.