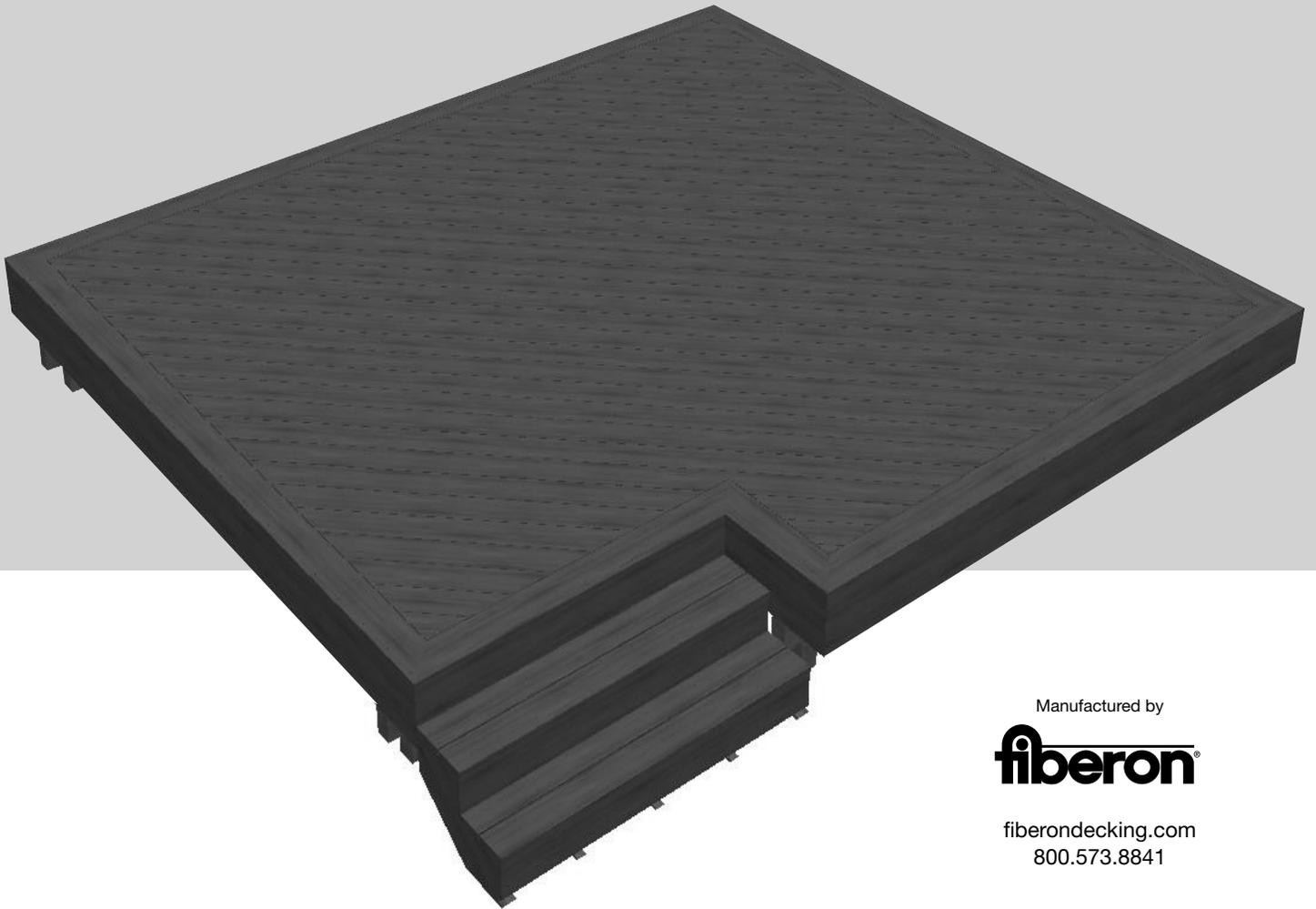


# fiberon<sup>®</sup> Decking

Installation Instructions



Manufactured by

**fiberon<sup>®</sup>**

fiberondecking.com  
800.573.8841

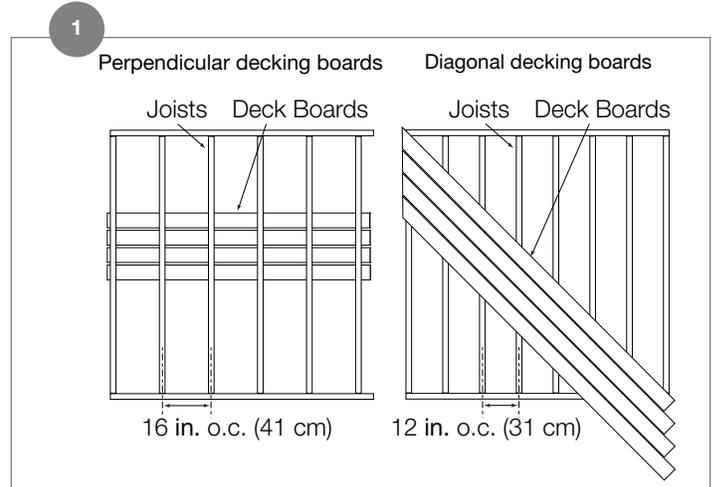


MADE IN USA

## Getting started

Follow local approved building codes. Careful planning of the finished deck layout will result in better looking finished projects. Failure to follow installation guidelines could void warranty.

- Before starting, material should be stored on a flat surface, supported every 24 in. (61 cm) and covered if original packaging is removed.
- Read the instructions of both the decking and railing systems planned for the project. Thoroughly reading all instructions first will make for more profitable projects. Failure to do so may result in more difficult installation and may void warranty.
- Do not install decking directly to a solid surface. Make sure there is adequate and unobstructed air flow under the deck to prevent excessive water absorption. Improve drainage or grade flat areas where standing water may gather. Allow a minimum of 6 in. (15 cm) between the bottom of the deck substructure/joists and the ground. The deck design must allow unrestricted airflow under at least 50% of its perimeter to permit adequate ventilation.
- Under-deck waterproofing systems, properly installed, can provide additional living or storage space. Improper installations are those that restrict air flow and result in buildup of heat and/or humidity which can result in unwanted consequences. Contact the manufacturer of the specific under-deck waterproofing system for installation instructions to ensure required 6 in. (15 cm) of unobstructed net-free ventilation is achieved for Fiberon decking. If already installed, seek methods to achieve the ventilation requirement.
- When using a ladder on composite decking, it is mandatory to lay down a sheet of plywood over the deck surface to disperse the load of the ladder's feet to nearby underlying joists. Drill fasteners downward through the top of the plywood sheet to keep it from slipping. Position fasteners so they adequately protrude and rest firmly in the gaps between the deck boards and into the joists. This will avoid leaving holes in your decking once the plywood sheet is removed. Be sure to always follow the ladder manufacturer's instructions and safety tips.
- Composite decking will retain heat when exposed to direct or reflective sunlight. Exercise caution if walking barefoot as footwear may be required. Fire and unusual sources of heat and heat buildup can potentially damage Fiberon decking surfaces. Examples would include fire, reflected light from different types of glass (ex. low-e glass), fire features and under-deck waterproofing installations that do not provide the 6 in. (15 cm) of unobstructed net free ventilation.
- Dry or windy environments may create a temporary condition of static electricity, which will vary depending on climate and site conditions. In the case of excessive static buildup on an installed PVC or capped PE deck, Fiberon recommends to use the following procedure: 1. Remove loose debris from the deck surface. 2. Dilute ACL Staticide® Concentrate 1 part to 39 parts water (1:39). 3. Spray or mop entire surface of the deck. Allow to air dry - do not attempt to wipe the surface dry as wiping will reduce the effectiveness of the anti-static coating (\*Although very safe in diluted form, ACL Staticide® Concentrate is considered a hazardous chemical non-diluted. DO NOT use ACL Staticide® Concentrate non-diluted.)



Joist location is important for the safety of the deck and will affect the layout, cost, and ease of installation for the railing system. If railing will be installed, determine rail post placement prior to joist construction. See page 9 for information about planning post placement for rail installations. Joists used in deck frame construction should be 2 in. x 8 in. (5 cm x 20 cm) or larger.

*Note: For decks using metal joists, specialized surface fasteners are required. Do not use Phantom Hidden Fasteners. Fasteners for metal that install at a 90 degree angle only are required.*

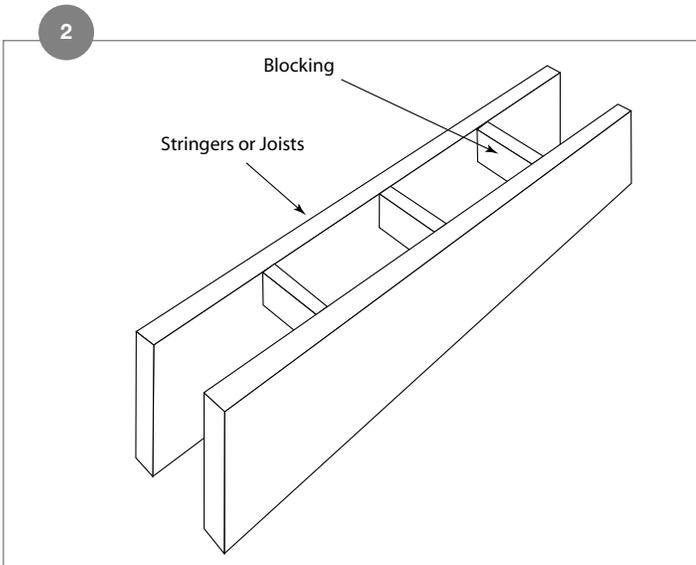
When installing heavy loads on top of your decking project, a hot tub, for example, it is important to also understand the requirements of the manufacturer as they may have specific framing and support requirements for their warranty coverage.

*Note: Using joist tape can lengthen the life of the decking substructure.*

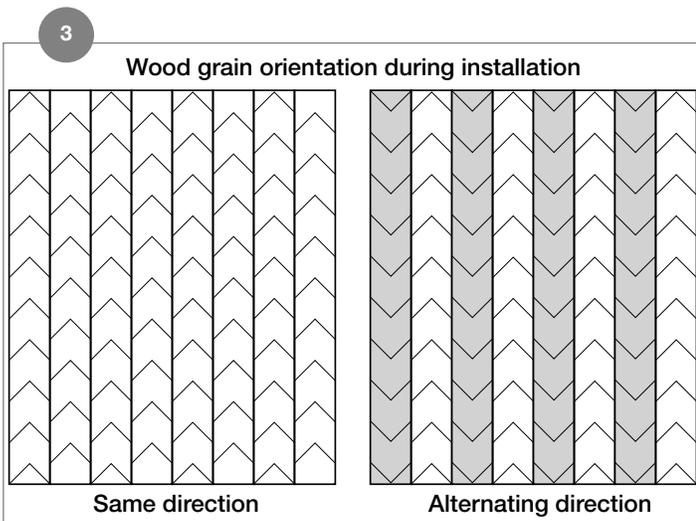
Joist/Stringer spacing						
	Residential			Commercial		
Brand	Perpendicular	Diagonal	Stairs	Perpendicular	Diagonal	Stairs
Paramount	16 in.	12 in.	*16 in.	12 in.	8 in.	*12 in.
Horizon	16 in.	12 in.	12 in.	12 in.	8 in.	9 in.
Sanctuary	16 in.	12 in.	12 in.	12 in.	8 in.	9 in.
ProTect Advantage	16 in.	12 in.	11 in.	12 in.	8 in.	9 in.
Good Life	16 in.	12 in.	8 in.	12 in.	8 in.	8 in.
Docking	24 in.	12 in.	12 in.	N/A	N/A	N/A

*Note: \*When installing Paramount decking, secure stair treads over and in contact with a treated pine 2x6, installed flat, not on edge, as under support, and secured with Simpson A23 approved connectors and 10d x 1-1/2 in. hot galvanized nails.*

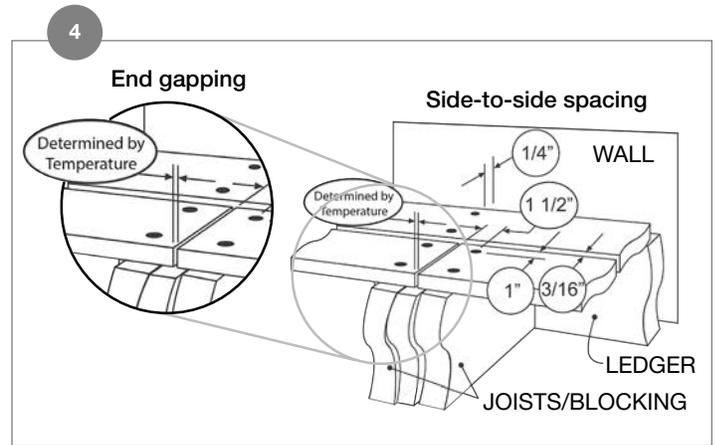
# Decking installation instructions



When installing blocking for more intricate decking patterns, remember that solid blocking (blocking laid on the flat) will inhibit water flow and result in buildup of organic materials over time, which will make cleaning more difficult. For best results when blocking is required, install ladder style.



Achieve different looks by laying the decking in the same or alternating directions. There are several different wood grain patterns to provide a less repetitive and natural wood appearance. The graining pattern repeats approximately every 44 in. (1.12 m) along the board length. During the planning phase of any deck project, arrange decking before installation to achieve the desired pattern and color effect. This is also important if different lengths/bundles of material are used as different wood grain patterns and color tones may need to be mixed to achieve the desired look.



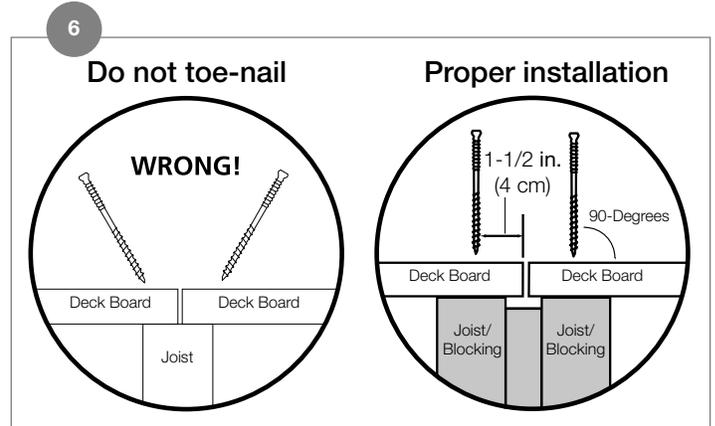
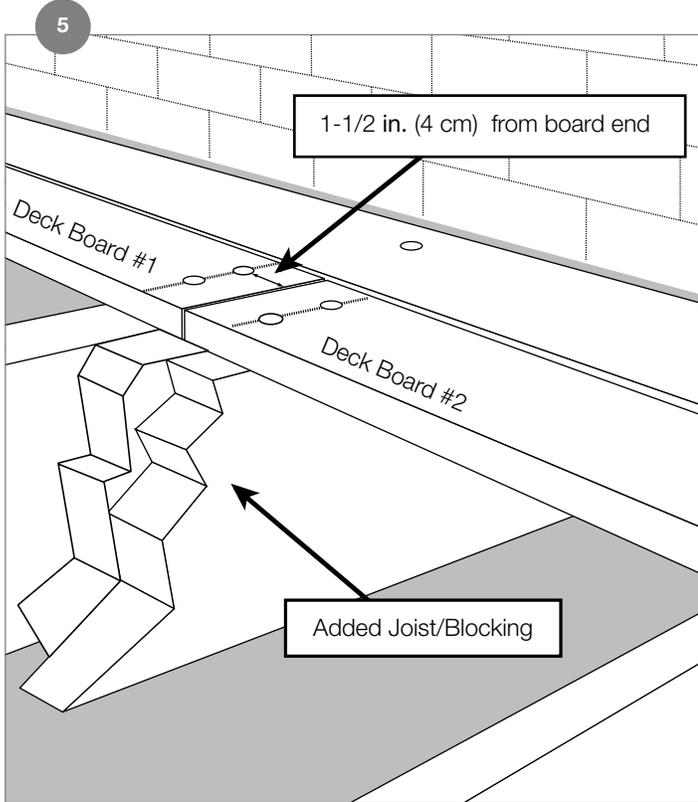
All decking materials, whether wood, composite or metal, undergo some degree of linear expansion with the changes of weather and the season. For best spacing results, keep boards out of direct sun during storage and cutting processes, and throughout installation if possible. Never cut and install boards in direct sunlight. To compensate for the effects of contraction and expansion, use short boards where possible with splitter/divider boards between each continuous run of boards.

Adequate board spacing of a minimum 3/16 in. between board sides will provide proper drainage and ventilation while assisting with the removal of small organic debris. Allow a minimum of 1/4 in. spacing between boards and any permanent structure. Spacing requirements must be met for full Fiberon warranty coverage.

*Note: Special consideration should be taken when working with dark colors as they will experience larger temperature swings during normal use. To help control end-to-end spacing, dark color decking should be kept at ambient temperature and shaded from direct sun prior to cutting and immediate securing. Using lighter colored boards in the field of the deck with darker colored boards as design accents creates less visible gapping.*

End-to-end spacing by temperature					
Brand	35° & Under	36° - 69°	70° - 89°	90° - 109°	110° & Up
Paramount	1/16 in.	1/32 in.	1/32 in.	0 in.	0 in.
Horizon	1/4 in.	3/16 in.	1/8 in.	1/16 in.	1/32 in.
Sanctuary	1/4 in.	3/16 in.	1/8 in.	1/16 in.	1/32 in.
ProTect Advantage	1/4 in.	3/16 in.	1/8 in.	1/16 in.	1/32 in.
Good Life	1/4 in.	3/16 in.	1/8 in.	1/16 in.	1/32 in.
Docking	1/4 in.	3/16 in.	1/8 in.	1/16 in.	1/32 in.

*Note: For locations with extreme temperature swings, double joists and surface fastening may be required to minimize shifting of material.*



Always drive surface fasteners in at a 90° angle to the decking surface with two fasteners at every joist location. Do not toe-nail screws into the joist. Instead, place blocking/sister joists to allow perpendicular installation of surface fasteners at board ends.

Fasteners recommended for use with Fiberon grooved (GV) deck boards include Phantom Hidden Fasteners and Phantom End Clip Hidden Fasteners.

Check [fiberondecking.com](http://fiberondecking.com) for the most up-to-date fastener recommendations, including specific instructions for square edge and grooved Paramount deck boards.

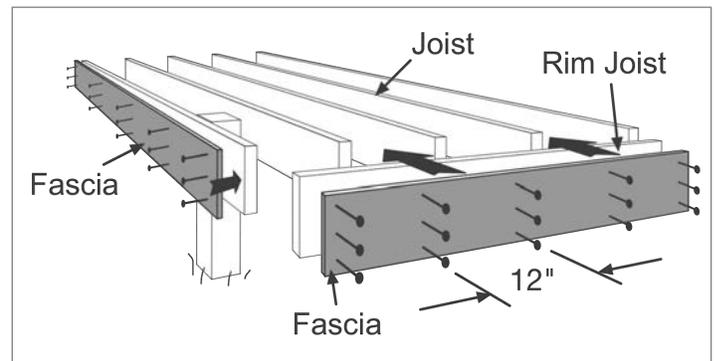
All brands of Fiberon decking may be surface fastened. Annular thread, ring shank and spiral shank nails, of sufficient length, have excellent holding power and produce good results, but screws have superior holding power. Use only screws designed for composite decking. Plain, galvanized surface fasteners are not recommended. Do not use traditional bugle-head screws.

For best results, use either stainless steel composite deck screws, color match stainless steel decking screws or the Cortex hidden fastener system. These screws are engineered specifically to work with composite decking and prevent mushrooming, resulting in better looking finished projects. Screw heads must be flush with board surface or countersunk for color matching Cortex plugs. Pre-drilling is recommended for all surface fasteners and is necessary for end of board screw holes and cold climates to prevent immediate or eventual end splitting. Pre-drilling all holes will result in better looking finished projects. Use caution to avoid overtightening fasteners or it will induce cracking at board ends and can lead to eventual cracking around other fasteners. Do not surface fasten within 1½ in. (4 cm) of the end of a board or 1 in. (3 cm) from the side of the board.



*Tip: Straight rows of fasteners look cleaner and less noticeable than uneven rows. White chalk, straight boards or string lines can be used as guides for straight lines.*

## Installing fascia board



Fascia is intended as a non-structural covering for rim joists, risers and stringers. Install screws at a maximum 12 in. (30 cm) interval, with three screws across the face at each interval. For Paramount, also apply a zigzag bead of high quality exterior adhesive to the entire length of the back (smooth side) of the board, within 2 in. (5 cm) of the edges and ends. Do not overtighten screws as buckling and cracking may result. Install with 1/8 in. (3 mm) spacing between the edges and ends in temperatures above 50° F (10° C). Leave 3/16 in. (5 mm) space between edges and ends in temperatures below 50° F (10° C).

## Cortex hidden face fastener instructions - square edge surface fastening system

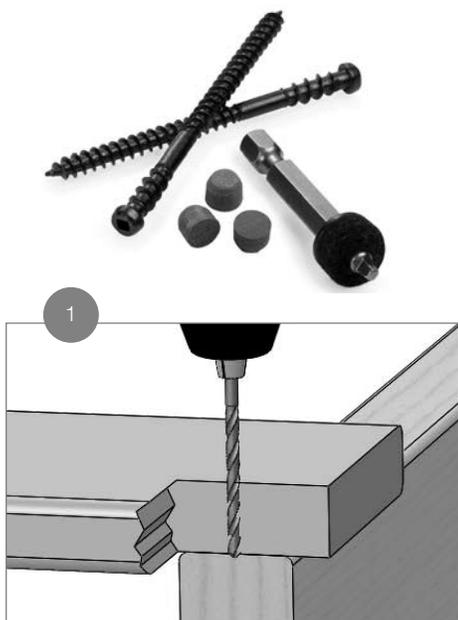
The Fiberon Cortex® hidden face fastening system is the fastest, easiest way to hide deck screw heads on stairs, perimeter boards or when replacing a deck board. The Cortex plugs come in a variety of colors that are complementary to Fiberon decking boards.

*Note: The use of non-Cortex screw or non-Cortex plug will nullify the warranty. For a full written warranty, additional information or technical assistance, please contact Fiberon, at 800-573-8841 or visit [fiberondecking.com](http://fiberondecking.com).*

The Fiberon Cortex hidden face fastening system is designed for traditional elevated deck surfaces.

The following applications require a different fastening method or further instructions and will nullify the warranty:

- Sleeper systems: Framing rests directly on the ground or roof deck
- Over solid wood surfaces (i.e. fascia boards, handrails, benches).
- Docks or decks with framing members in constant contact with water
- Restricted airspace when there is less than 12 in. of clearance on three sides of the deck
- “Tear-offs” that utilize old framing as support for new decking.
- Deck materials other than 1 in. standard thickness

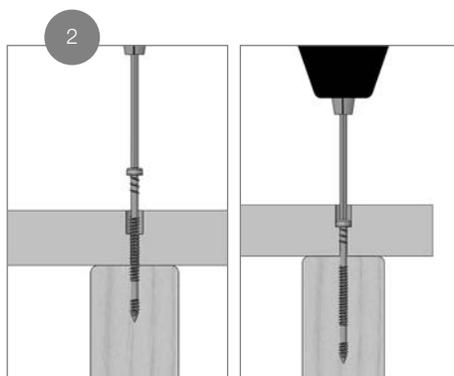


Locate all fastener holes at least 1 1/2 in. from board ends and 1 in. from board sides. For best results, pre-drill all holes with a 5/32 in. drill bit perpendicular to the deck surface to create the proper pilot hole and remove excess material to prevent cracking at fastener locations.

*Note: Pre-drilling is required at board ends and where temperatures are below 40° F or above 80° F.*

*Note: Double joists are required at end-to-end seams.*

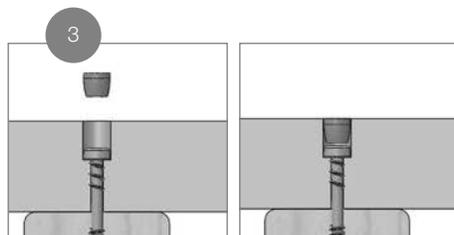
*Note: Use a high torque drill with a 1/2 in. chuck either corded or battery powered of at least 18 volts for best results. Do not use any speed higher than 1800 rpm. Turn any torque setting to the infinite setting. An impact driver may also be used with PVC decking only.*



Using the Cortex setting tool, drive the fastener to the preset level below the deck surface in one continuous motion perpendicular to the deck surface. Install two fasteners at every joist and/or stair stringer. Overtightening will induce cracking at fastener locations.

*Note: Periodically change a worn driver bit for a fresh bit at least every 125 screws.*

*Note: If damage occurs to the screw while being driven, do not continue to drive the screw in. Follow the instructions on how to remove damaged screws.*



Ensure the cored hole is free of debris or moisture. Place the Cortex plug into the cored hole and gently tap with a smooth hammer head until it is flush with the deck surface.

### Removing damaged plugs or screws

Always be careful not to damage the decking surface by masking off around the screw or plug being removed. Clean off any debris left behind immediately after the work is completed.

Existing plugs can be removed by tapping into the plug center with a trim screw (#7 or smaller) until it reaches the screw head below the plug. Using a standard #1 driver bit (not the Cortex setting tool), engage driver bit deep into screw recess prior to backing out, then slowly reverse fastener out, centering weight over the drill. An 18V impact drill can offer best results when removing a fastener.

To replace a damaged screw if the head is above the deck surface, remove the driver bit from your drill and open the chuck wide enough to capture the head of the screw. Tighten the chuck firmly around the head and set the drill in reverse and, on low speed, slowly draw the fastener out of the deck.

*Note: If you prefer to use Vise-Grips, grasp the screw head but be sure to protect the deck surface from tool marks by providing enough clearance between the tool and the deck surface.*

If the head of the damaged screw is at or slightly below the deck surface use an impact driver with a new standard #1 square drive. Set the tool on reverse, centering weight over the drill and slowly remove the screw. Use a #2 square drive bit and drive the bit into the head of the screw with a few firm hits of a hammer. Using a sleeve or extension preinstalled on the drill, carefully slide the open end onto the #2 bit and on low speed reverse out the screw.

## Installing Paramount PVC decking

Check [fiberondecking.com](http://fiberondecking.com) for the most up-to-date fastener recommendations, including specific instructions for grooved Paramount decking.

Fibron recommends the Tiger Claw TC-G® hidden fastener in combination with Fibron Cortex® fasteners as the only approved system for installing hidden fasteners in grooved Fibron Paramount deck boards.

*Note: Fastener parts have sharp edges. Use proper care when handling.*



Tiger Claw TC-G fasteners should be secured to each joist with an impact driver.



Use one Cortex screw per deck board to limit the movement of the deck board against the joist. The Cortex screw should be placed into the joist closest to the mid-point of each deck board from one end to the other end, and be centered on the deck board from side-to-side. This helps to ensure the deck board stays positioned as the environmental temperatures expand and contract the deck board.



Fibron Phantom 20EC End Clip Fasteners may be used for hidden fastening on perimeter deck and fascia boards.

Fibron recommends the use of a quality joist flashing to ensure optimal installation, and reduce the potential of noise caused by the boards moving against the joist. Products such as Grace Vycor Deck Protector, Tite Seal, or other comparable self-adhesive flashing products, will allow for a smooth and consistent contact surface between joists and Fibron Paramount decking. The Paramount deck boards have a lifetime limited warranty and joist tape will extend the life of the joists upon which the deck boards are fastened.

Fibron also recommends spacing the joists at 12 in. on-center to increase stability and reduce the flexing of the deck boards. This will also help to minimize potential noise.

The use of hidden fasteners is not recommended for installations above elevations of 6,500 feet.

All approved face fasteners and hidden fastener systems are listed on the [Fiberondecking.com](http://Fiberondecking.com) website and are designed to accommodate normal dimensional changes without material fracture or change in holding capability and are solely recommended for installation of Paramount decking products.

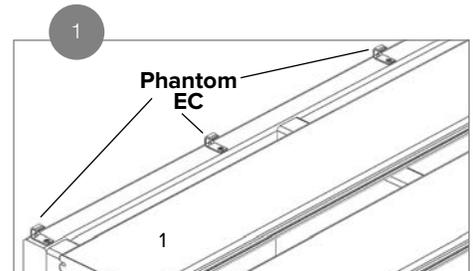
Any use of unapproved fasteners, including biscuits or nails, may lead to product failure and will void the product warranty.

## Installing PE capped composite decking

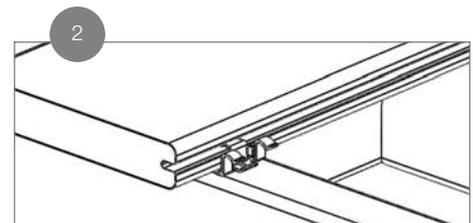


The PhantomEC and PhantomGT hidden fasteners are part of a deck fastening system designed specifically for grooved (GV) deck boards to provide a fast and simple way to create a smooth deck surface, uninterrupted by visible screws or nails. All are sold separately.

*Note: Fastener parts have sharp edges. Use proper care when handling.*

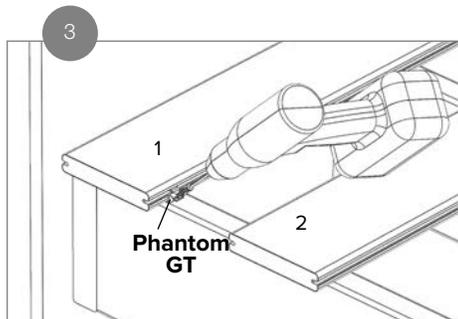


Secure Fibron PhantomEC end clips a minimum of 1/4 in. from the wall with a single screw into the joist. Space clips no greater than 12 in. apart. Position the deck board into the end clip fasteners. It may be helpful to angle the board slightly to fully seat it into the clips.

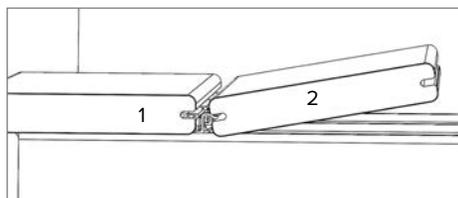
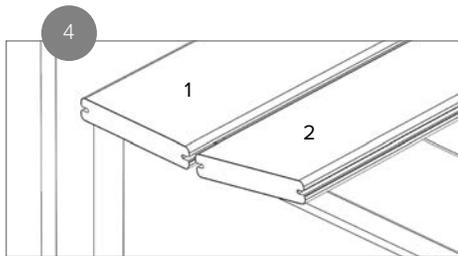


Insert a Fibron PhantomGT fastener into the groove of the board, centering on joists.

## Hidden fastener instructions - grooved edge fastening systems



Secure GT fasteners by driving the screw fully into joist. Continue installing and securing the fasteners in the center of each joist along the remainder of the deck board.



Position the next deck board into the GT fasteners. It may be helpful to angle the board slightly to fully seat it into the fasteners.

Repeat installing fasteners and positioning boards to complete the deck. Use PhantomGT Butt Joint Hidden Fasteners where two boards butt together allowing for adequate end-to-end spacing.

### How to finish the installation with end clips on the rim joist interior

*Note: Prior to positioning the last deck board, place the end clips on the inside of the rim joist securing them with a single screw inserted perpendicular through each clip into the joist.*

*Note: Use a square edge board for a smooth deck board edge on the perimeter of the deck. This requires a field-grooved cut on the inside edge only for the PhantomGT hidden fastener.*

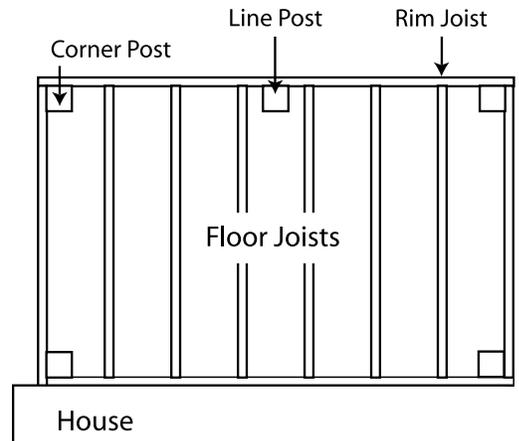


After positioning the last deck board in place, secure the deck board by angling a screw through the clip and into the board at a 30° - 45° angle. Be careful to make sure the screw inserts fully and pulls the board down (2). Space no more than 12 in. (30 cm) apart.

*Note: When thickness of rim joist exceeds 1 1/2 in. (4 cm), end clips should be secured to the outer edge of the joist.*



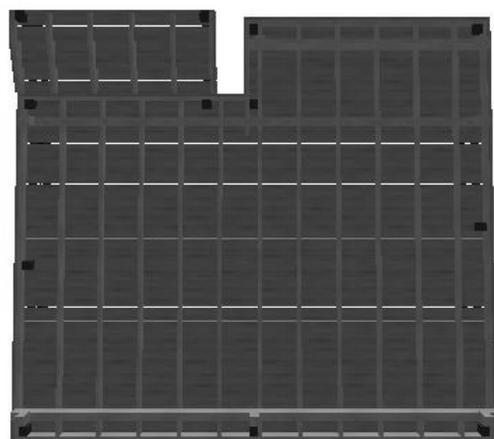
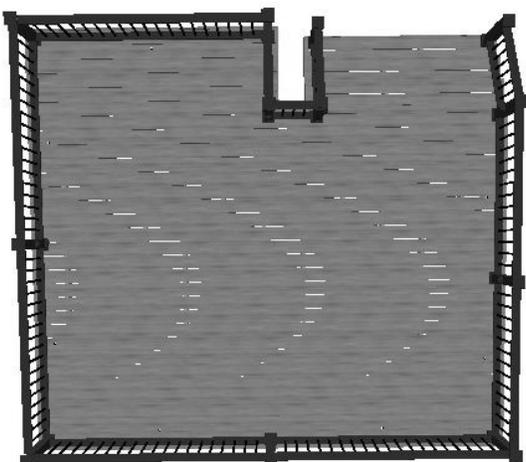
## Post sleeve installation



Fibron composite railing systems are designed to work with a number of different decking materials and surfaces. Before initiating any project, obtain a copy of your local building codes and understand them thoroughly. Local building code requirements will always supersede any and all suggested procedures and measurements in the following installation guideline.

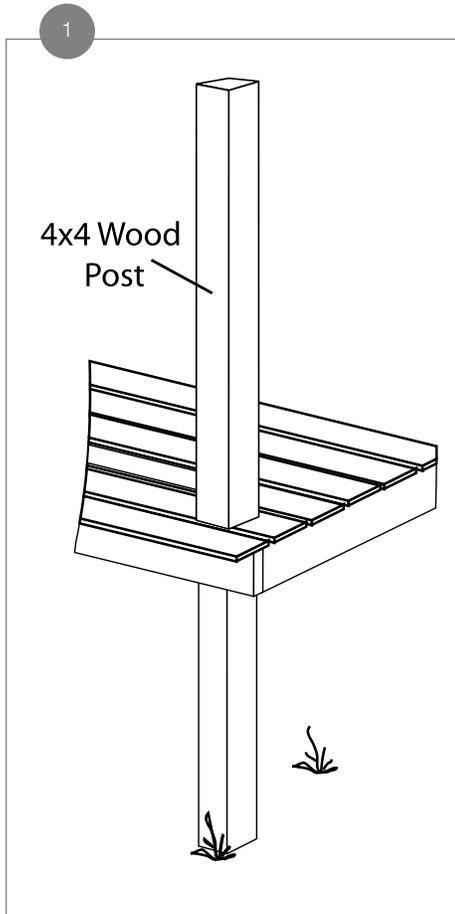
Rail posts may be installed by using the structural posts that support the joists or by using a Surface Mount Bracket. The Fibron Surface Mount Bracket requires that the thickness of the decking and reinforcement boards underneath the deck be a minimum of 4 in. (two treated and structurally sound 2 in. x 8 in. lumber under the deck board), unless otherwise specified by local building codes. To optimize post placement, additional joists, blocking or alternative locations may be required. Determine post placement and install reinforcement boards and/or additional support joists prior to installing the deck surface. Use a scaled drawing of your project or the Fibron Deck Designer Tool to determine where posts will be installed. For proper aesthetics, divide the perimeter dimensions evenly so that posts are spaced equally. Composite guardrail systems should only be secured to code compliant posts.

For post sleeve or post cap lighting, cut or rout a channel in the structural wood post to allow for wire thickness. Then slip post sleeve covers and base molding over post and install rails.



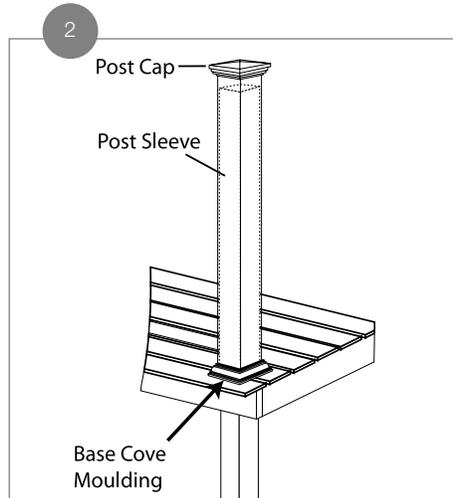
# Post sleeve installation to structural posts

Attaching the railing using the structural posts supporting the joists can be done on new construction decks, where wood 4 in. x 4 in. (10 cm x 10 cm) deck support posts extend through the deck surface at planned intervals serving as rail posts, or in code compliant applications where existing 4 in. x 4 in. (10 cm x 10 cm) wooden posts are properly spaced and plumb. Check maximum and minimum distance requirements for the railing that is being installed to ensure a snug fit and proper baluster spacing.



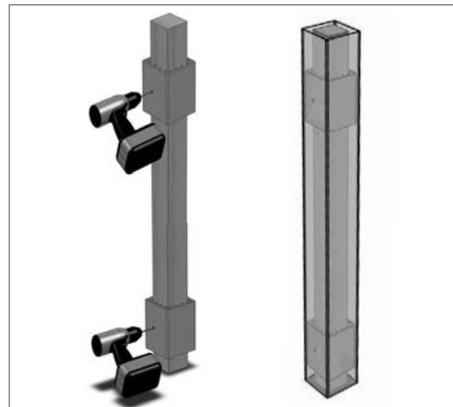
Ensure 4 in. x 4 in. (10 cm x 10 cm) wooden posts are code compliant and, where possible, spaced equally for the best looking application.

*Note: Wooden posts actual size should be 3.5 in. x 3.5 in. (9 cm x 9 cm). Trim posts as needed.*

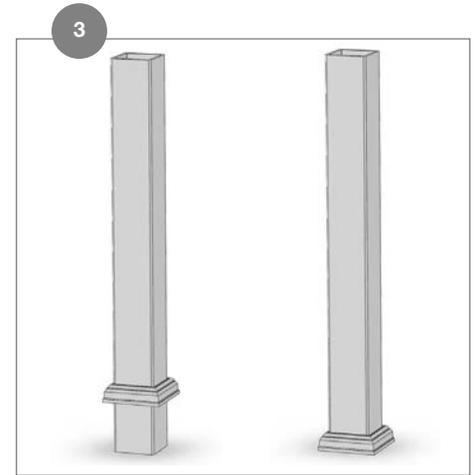


Determine the desired height of the post sleeve. Typically, the height is no less than 2 in. (5 cm) above the top of the finished railing system. This ensures the proper placement of the post caps that fit over the top of the post sleeve. Cut the post sleeve to the desired height.

The wood post should be approximately 1 in. (3 cm) shorter than the height of the post sleeve. Cut wood posts as necessary.



Horizon railing 5 3/4 in. post sleeves require adapters to be installed over 4 in. x 4 in. posts for a snug fit prior to covering with the post sleeve.



After decking is installed, slide post sleeve and moulding over the wood 4 in. x 4 in. (10 cm x 10 cm) post.

For Horizon Railing 5-3/4" post sleeves, install the base moulding and base moulding adapter over the 4 in. x 4 in. wood posts prior to covering with the post sleeve. After installing the post sleeve and rails, slide on the post cap adapter and post cap.

## Required tools and supplies (sold separately):

### for wood installation:

- 4 - galvanized 5/16 in. x 5 in. hex bolts
- 4 - 5/16 in. galvanized nuts
- 3 to 6- #8 x 1 in. flat-head screws

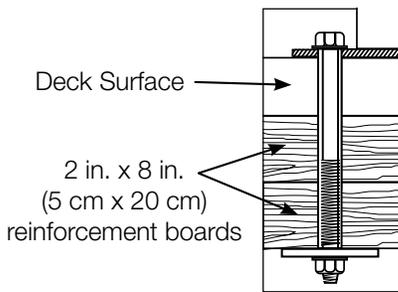
### for concrete installation:

- 3 to 6- #8 x 1 in. flat-head screws

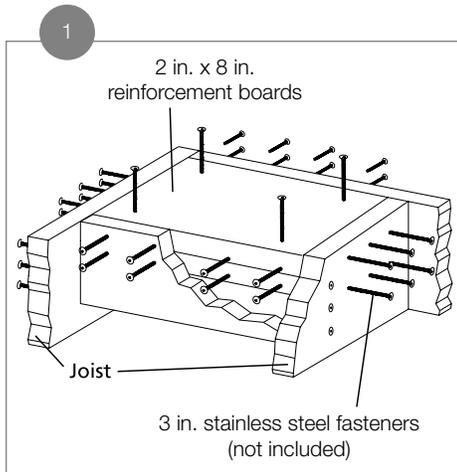
## Kit Includes:

- 1 - surface mount bracket
- 1 - 4 in. x 4 in. wood post
- 4 - 1/4 in. x 3 in. Wedge-Bolt™ anchors
- 4 - 5/16 in. fender washers

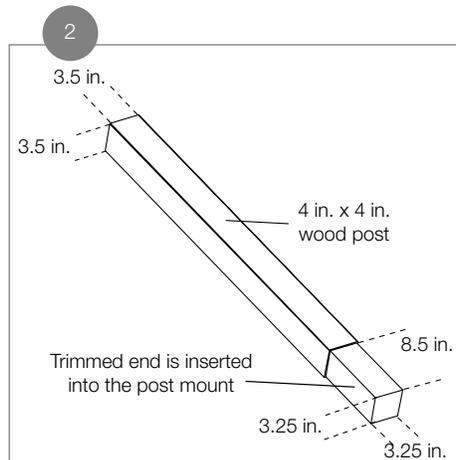
## Wood installation



*Note: The thickness of the wood/composite deck and reinforcement boards underneath the deck must be a minimum of 4 in. (two treated and structurally sound 2 in. x 8 in. lumber under the deck board), unless otherwise specified by local building codes.*



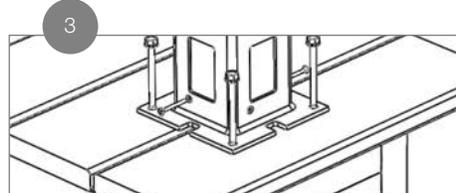
Determine the desired locations and fasten the reinforcement boards with 3 in. stainless steel fasteners as shown, prior to install the deck surface. Continue to step 2 after the deck surface is installed.



Cut the post sleeve to desired length.

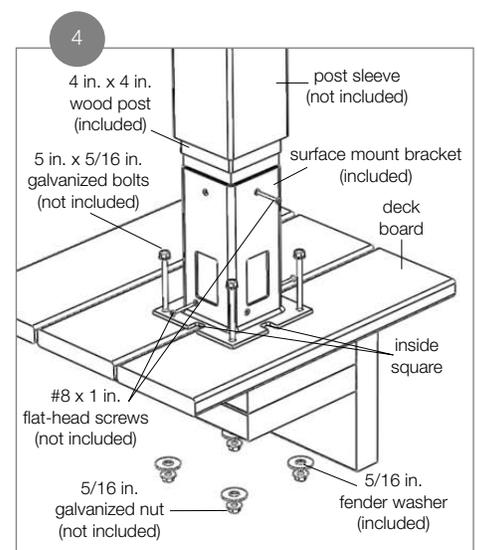
The wood post is typically 1 in. to 2 in. shorter than the post sleeve length. Cut the length of the 4 in. x 4 in. wood post insert if required.

*Note: If required, cut on the untrimmed end of the wood insert.*



Use the base of the mount as a template and mark the four corner holes on the deck surface. Mark inside square of bracket on the deck surface.

Drill four 3/8 in. holes at the marked locations, drilling through the deck board and the reinforcement boards. Drill a 3/8 in. drainage hole in square through deck board and reinforcement boards for drainage.



Insert the trimmed end of the 4 in. x 4 in. wood post into the mount. If necessary, place a shim under the mount to make the post plumb and true). If the wood post is loose within the mounting bracket, secure the wood post with (3) #8 x 1 in. flat-head screws (not included) on the sides with pre-punched holes.

Insert a 5/16 in. x 5 in. galvanized hex bolt into the mount holes and the drilled holes (galvanized bolts and nuts, not included).

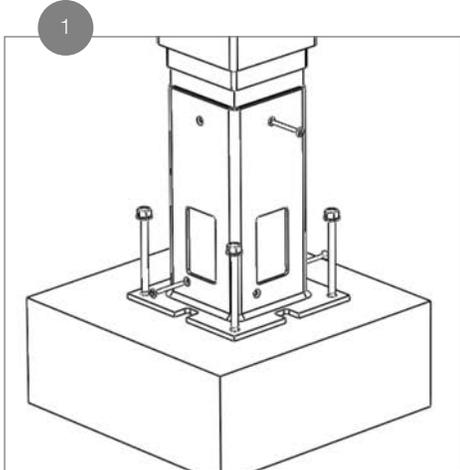
Secure the four bolts underneath the reinforcement boards with the 5/16 in. fender washer (included in kit) and 5/16 in. galvanized hex nuts (not included).

Slide the post sleeve (not included) over the 4 in. x 4 in. treated wood post until it contacts the base of the mount.

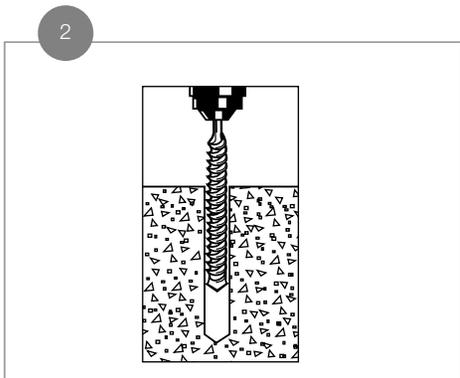
# Post sleeve surface mount installation

## Concrete installation

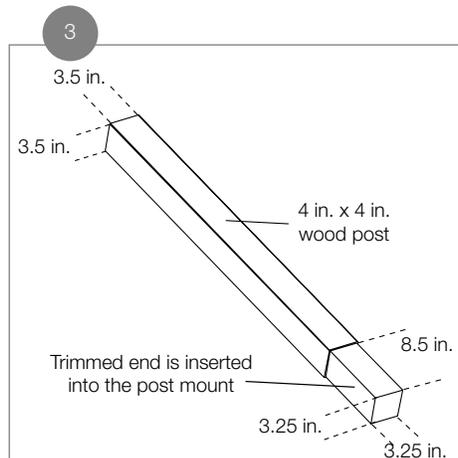
*Note: Install on a 4 in. minimum concrete thickness underneath the mount unless otherwise specified by local building codes.*



Determine the desired post locations. Use the base of the mount as a template to mark the four corner holes for the concrete Wedge-Bolt™ anchors, included in the kit.



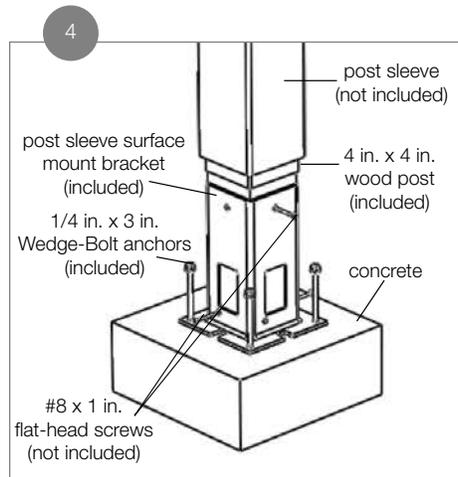
Drill the marked holes per the local building code requirements. Using a 1/4 in. masonry drill bit, drill the holes into the concrete base to a depth of at least 1/2 in. deeper than the length of the 1/4 in. x 3 in. Wedge-Bolt anchors. Blow the hole clean of dust and debris.



Cut the post sleeve to desired length.

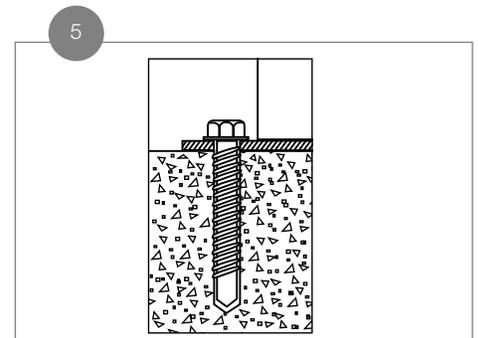
The wood post is typically 1 in. to 2 in. shorter than the post sleeve length. Cut the length of the 4 in. x 4 in. wood post insert if required.

*Note: If required, cut on the untrimmed end of the wood insert.*



Locate the mount by aligning the mount corner holes over the drilled holes.

Insert the trimmed end of the 4 in. x 4 in. wood post (included) into the mount. If necessary, place a shim under the mount to make the post plumb and true. If the wood post is loose within the mounting bracket, secure the wood post with (3) #8 x 1 in. flat-head screws (not included) on the sides with pre-punched holes.



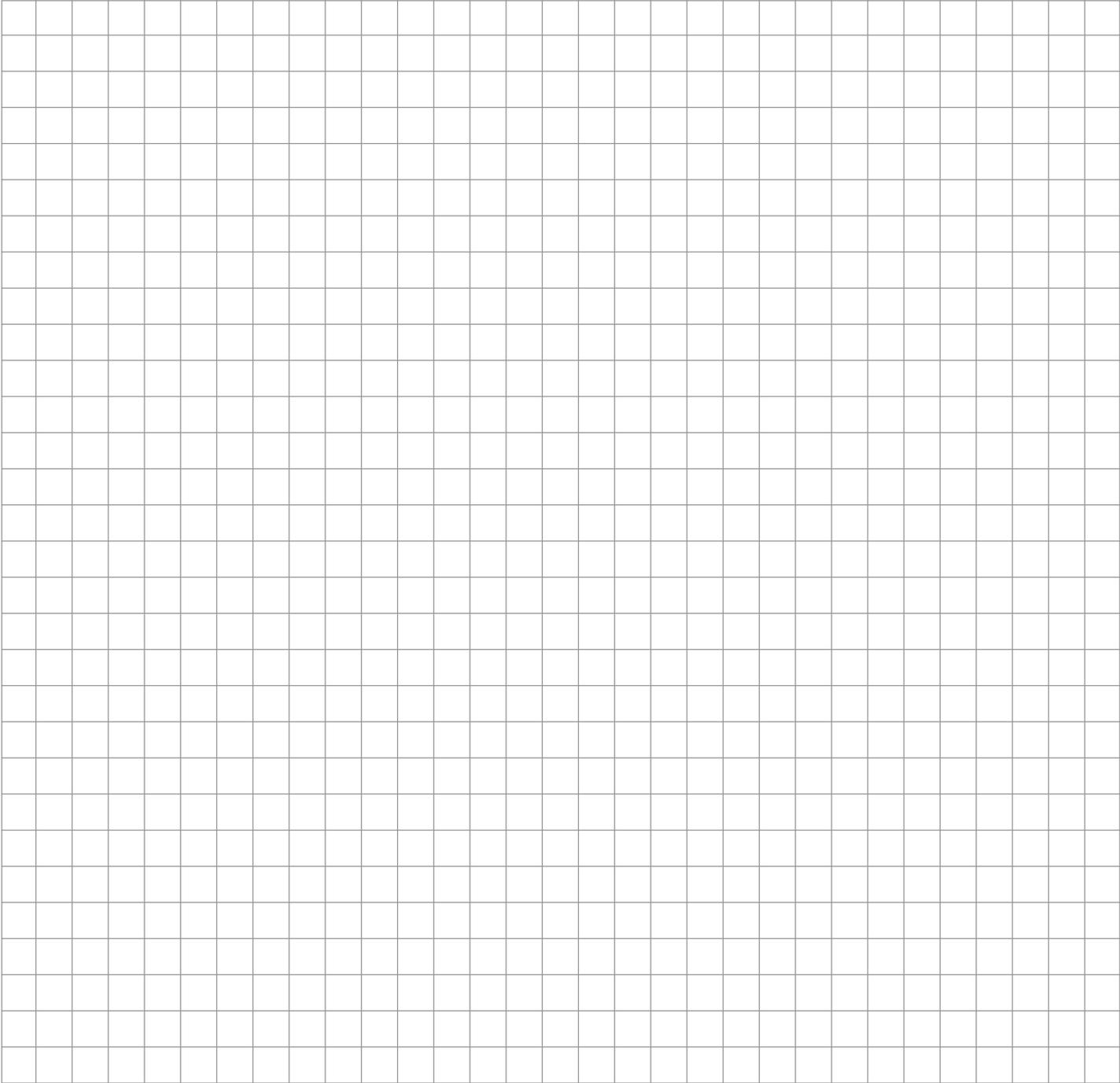
Fasten mount to concrete per local building code requirements. Insert the four concrete Wedge-Bolt anchors into the corner holes of the mount. Begin tightening the Wedge-Bolt anchor by rotating clockwise and applying pressure in toward the base. This will engage the first few threads as the Wedge-Bolt anchor begins to advance. Continue tightening until the head of the Wedge-Bolt anchor is firmly seated against the post mount. Repeat for the remaining fasteners.

Slide the post sleeve (not included) over the 4 in. x 4 in. treated wood post until it contacts the base of the mount.

Slide post sleeve moulding over post sleeve before attaching the railing to fully cover the surface mount bracket.

# Design Grid

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