

fiberon[®]

Decking Installation Instructions

For PVC and PE Decking

1-800-573-8841 | fiberondecking.com

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Safety Information

Read and understand this entire manual before you begin the installation of your decking.

Static Electricity Notice

Dry or windy environments may create a temporary condition of static electricity in many plastic-based products such as carpeting, upholstery, and composite and PVC decking, which will vary depending on climate and site conditions. Static electricity is a naturally occurring phenomenon and is not a defect. In the case of excessive static buildup on an installed deck, Fiberon recommends the following:

1. Remove loose debris from the deck surface.
2. Dilute ACL Staticide® Concentrate as directed on the bottle.
3. Spray or mop the 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.



CAUTION: Although very safe in diluted form, ACL Staticide Concentrate is considered a hazardous chemical non-diluted. DO NOT use ACL Staticide Concentrate non-diluted.



WARNING: Use extreme caution when using power tools.



WARNING: This decking is for deck surfaces and deck-related surfaces, such as stair treads or ramps, only. Material is not approved for structural applications.



CAUTION: 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. Always follow the ladder manufacturer's instructions and safety tips.



CAUTION: Unusual sources of heat and heat buildup can potentially damage decking surfaces. Examples include fire pits, reflected light from nearby windows and doors, and under-deck waterproofing installations that do not provide adequate ventilation. Exercise caution if walking barefoot on the deck while it is in full sun.



CAUTION: Fasteners have sharp edges. Use proper care when handling.

Warranty

Decking Warranties*	Promenade	Paramount®	Concordia™		Sanctuary®	Good Life		ArmorGuard®	Veranda® by Fiberon®
			Symmetry® Collection	Horizon® Collection		Escapes Collection	Weekender Collection		
Limited Performance Residential Warranty	Lifetime	Lifetime	Lifetime		40 Year	30 Year	25 Year	25 Year	25 Year
Limited Stain & Fade Residential Warranty	50 Year	50 Year	50 Year		40 Year	30 Year	25 Year	25 Year	25 Year
Limited Performance Commercial Warranty	10 Year	10 Year	10 Year		10 Year	10 Year	10 Year	10 Year	10 Year
Limited Stain & Fade Commercial Warranty	10 Year	10 Year	10 Year		10 Year	10 Year	10 Year	10 Year	N/A

*Warranties listed here are for decking applications only. When using Concordia in a cladding application refer to the Fiberon Residential Limited Warranty - Stain and Fade / Performance.

For more information, visit fiberondecking.com.



NOTE: Fiberon recommends the use of a quality joist flashing to ensure optimal installation and reduce potential 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 enable a smooth and consistent contact surface between joists and Fiberon® decking. All Fiberon decking offers long-term warranty coverage, as noted above. To extend the life of the joists beneath the decking, we recommend using joist tape. Properly applied, joist tape has proven effective in protecting joists against premature decay.

Pre-Installation



IMPORTANT: Follow local applicable building codes. Careful planning of the finished deck layout will result in more pleasing finished projects. Failure to follow installation guidelines could void the warranty.



IMPORTANT: Thoroughly read all instructions for both decking and railing systems planned for the project prior to installations. Failure to do so may result in more difficult installations and may void the warranty.

Before You Begin

ACCLIMATION AND STORAGE

Before installation, material should be stored on a flat surface, supported every 24 in. (609.6 mm), and in the shade or covered if original packaging is removed.

AIR FLOW AND DRAINAGE

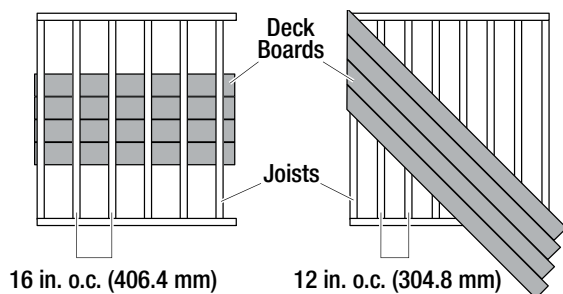
Make sure there is adequate and unobstructed air flow under 50 percent of the deck perimeter to allow for cross-ventilation. This is not only to promote dryness, but also to negate heat buildup beneath the deck. Allow a minimum of 1-½ in. (38.1 mm) between the bottom of the joists and the ground or existing surface. Water must be able to flow away from under the deck. Improve drainage or grade flat areas where standing water may gather. Do not install decking directly to an existing or solid surface.

Sleeper installation: Minimum joist height is 1-½ in. (38.1 mm), installed level, in the direction of water runoff and directly to a solid sub-structure. Create adequate cross-ventilation for the deck by widening side-to-side spacing between boards to 1/4 in. (6.4 mm) with a maximum of 3/8-in. (9.5 mm) gap. The deck design must allow for a minimum of 1-½ in. (38.1 mm) of unrestricted air flow under the deck at the open joist ends for cross-ventilation and drainage.

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. Follow all previous airflow and drainage requirements.

Determining Joist Location

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 14 for information about planning post placement for rail installations. Joists used in deck frame construction should be 2 in. x 8 in. (50.8 mm x 203.2 mm) or larger.



NOTE: For decks using metal joists, specialized surface fasteners are required. Do not use ArmorGuard® Hidden Fasteners or Phantom® hidden fasteners. Phantom universal fasteners may be used with the substitution of a metal self-drilling type screw (not included). Fasteners for metal that install at a 90 degree angle are required.

JOIST / STRINGER SPACING

	Residential			Commercial		
	Perpendicular	Diagonal (up to 45 degree angle)	Stairs	Perpendicular	Diagonal (up to 45 degree angle)	Stairs
Promenade **	16 in. (406.4 mm)*	12 in. (304.8 mm)	24 in. (609.6 mm)	12 in. (304.8 mm)	8 in. (203.2 mm)	20 in. (508 mm)
Paramount® **			12 in. (304.8 mm)			9 in. (228.6 mm)
Concordia™ Symmetry® and Horizon® Collections						
Sanctuary®						
Good Life Escapes and Weekender Collections						
ArmorGuard®						
Veranda® by Fiberon®						

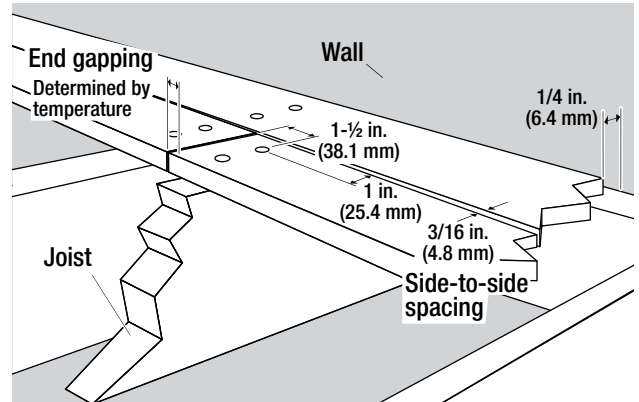
* Promenade and Paramount decking are approved for use over joists spaced a maximum of 16-in. on center. However, for a more ridged feel, Fiberon promotes spacing the joists at 12-in. on center.

** When installing Promenade or Paramount decking, secure stair treads over and in contact with a treated pine 2 in. x 4 in., installed on edge with 12D x 3-¼ in. galvanized nails, aligned with the center of the stair tread.

Pre-Installation (continued)

Expansion and Spacing Considerations

All decking materials, whether wood, composite or metal, undergo some degree of linear expansion with the change of weather and the seasons. For best spacing results, keep boards out of direct sun during storage and cutting processes and throughout installation, if possible. 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. (4.8 mm) between board sides will provide proper drainage and assist with the removal of small organic debris. Allow a minimum of 1/4-in. (6.4 mm) spacing between boards and any permanent structure. Spacing requirements must be met for full Fiberon® warranty coverage. End-to-side spacing recommendations are determined by the temperature at 1/8 in. for temperatures below 70 degrees Fahrenheit, or 1/16 in. for temperatures above 70 degrees Fahrenheit.



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, darker colored decking should be kept at ambient temperature and shaded from direct sun prior to cutting and immediate securing. To create less visible gapping, use lighter colored boards in the field of the deck with darker colored boards as design borders.

END-TO-END-SPACING BY INSTALLATION TEMPERATURE (FAHRENHEIT)

	35 degrees and below	36 - 69 degrees	70 - 89 degrees	90 - 109 degrees	110 degrees and above
Promenade	1/16 in. (1.6 mm)	1/32 in. (0.8 mm)	1/32 in. (0.8 mm)	0 in. (0 mm)	0 in. (0 mm)
Paramount®					
Concordia™ Symmetry® and Horizon® Collections	1/4 in. (6.4 mm)	3/16 in. (4.8 mm)	1/8 in. (3.2 mm)	1/16 in. (1.6 mm)	1/32 in. (0.8 mm)
Sanctuary®					
Good Life Escapes and Weekender Collection					
ArmorGuard®					
Veranda® by Fiberon®					

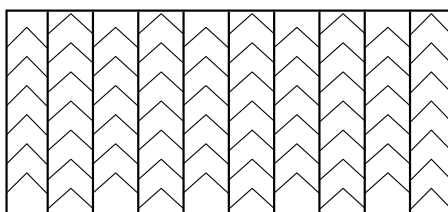


NOTE: In areas where extreme temperature swings are prevalent, adding 2x blocking at butt joints is recommended. When using hidden fasteners, add two surface fasteners into the deck at the joist location closest to the mid-point of each deck board to “pin” the board in place and make thermal expansion and contraction go equally in both directions.

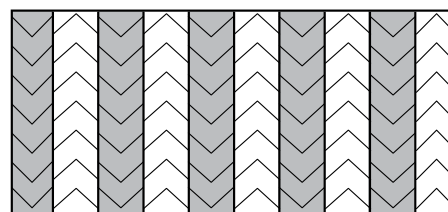
Creating Various Decking Patterns

Achieve different looks by laying the decking in the same or alternating directions. The embossed grain pattern repeats approximately every 44 in. (1117.6 mm) 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 embossed grain patterns and color tones may need to be mixed to achieve the desired look. Concordia Horizon decking has several different embossed grain patterns to provide a less repetitive and more natural wood appearance.

Embossed Grain Pattern Orientation During Installation



Same direction



Alternating direction

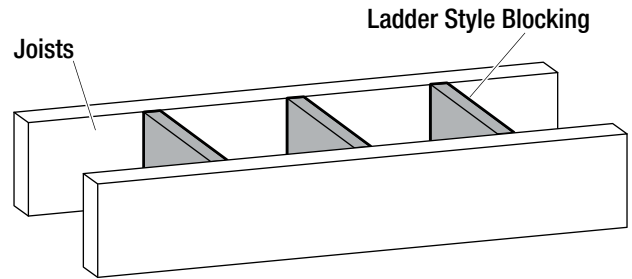
Pre-Installation (continued)

Special Note On Blocking Patterns

When installing additional blocking, remember that solid blocking (blocking laid flat) will inhibit water flow and result in buildup of organic materials over time, which will make cleaning more difficult and can cause eventual damage to the material. When blocking is required, install ladder style for best results.

Heavy Loads

When installing heavy loads such as a hot tub on your decking project, ensure that you understand and follow all of the manufacturer's requirements related to framing and support. These may affect decking warranty coverage.



Tools Required



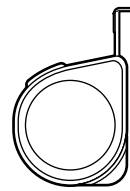
Power drill



1/8-in. (3.2 mm) countersinking drill bit



Safety goggles



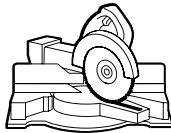
Tape measure



Torpedo level



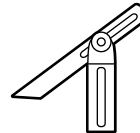
Speed square



Miter saw



Pencil



Adjustable square



Minimum 4 ft. (122 mm) level

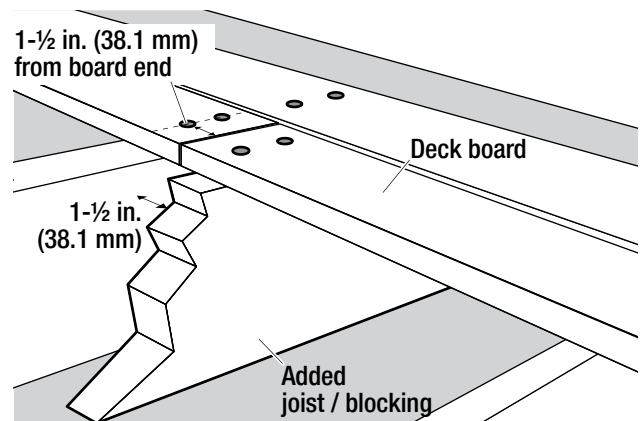
Surface Fastening and Fascia Installation

Deck Fastening Requirements

All brands of Fiberon® decking may be surface fastened. Use only screws designed for composite decking. Fiberon recommends using Fiberon-branded Cap-Tor® xd from Starborn® Industries for matching screw color to decking color. Avoid using plain, galvanized surface fasteners. Do not use traditional bugle-head screws. For best results, use either minimum #8 x 2-1/2 in. stainless steel or composite deck screws. Hidden surface-fastening systems can also be used as the screws are engineered specifically to work with composite decking and prevent mushrooming, resulting in more pleasing finished projects. Sufficiently long annular thread, ring shank and spiral shank nails all have excellent holding power. However, screws have superior holding power.

For Best Results

1. Screw heads must be flush with board surface or countersunk if using hidden surface fasteners with color-matched plugs (pg. 7).
2. Pre-drilling is required for end-of-board screw holes in cold climates to prevent immediate or eventual end splitting. It is recommended for surface screw fasteners. Pre-drilling all holes will result in more pleasing finished projects.
3. Use caution to avoid overtightening fasteners, or it may induce cracking at board ends and could lead to eventual cracking around other fasteners.
4. Do not surface fasten within 1-1/2 in. (38.1 mm) of the end of a board or within 1 in. (25.4 mm) from the side of the board.



Surface Fastening and Fascia Installation (continued)

5. 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 installing fasteners. Never use colored chalk.

Fastener Installation

Always drive surface fasteners in at a 90 degree angle to the decking surface with two fasteners at every joist location. Do not angle screws into the joist. Instead, place additional joists to allow perpendicular installation of surface fasteners at board ends. Spacing parallel joists apart at butt joints also aids in drainage around board ends.

Risers Installation

Riser boards are intended as a non-structural covering for stair stringers and are not suited for decking surfaces or structural applications. Riser boards are fastened across the face with two screws at a maximum of 12-in. (304.8mm) intervals. Fiberon recommends the use of Starborn® DeckFast® fascia screws or Starborn Pro Plug® system for fascia on the riser installation. Fasten no closer than 1-½ in. (38.1 mm) from ends of board and 1 in. (25.4 mm) from sides of board. Pre-drill screw holes to prevent mushrooming. Do not overtighten screws as buckling and cracking may result. Install with 1/8-in. (3 mm) spacing between ends in temperatures above 50 degrees Fahrenheit (10 degrees Celsius) and 3/16-in. (4.8 mm) spacing in temperatures below 50 degrees Fahrenheit (10 degrees Celsius).

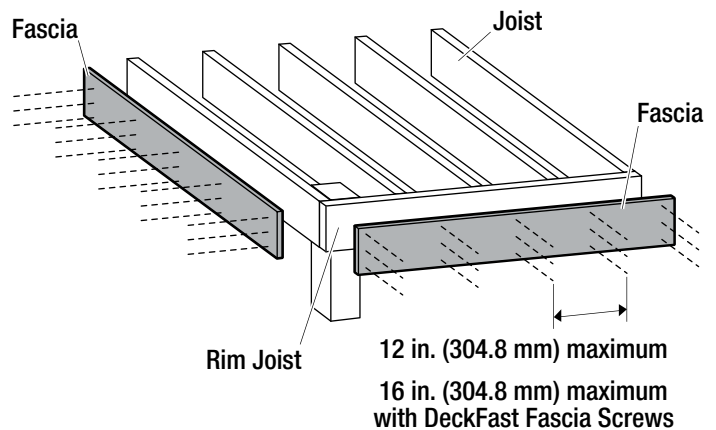
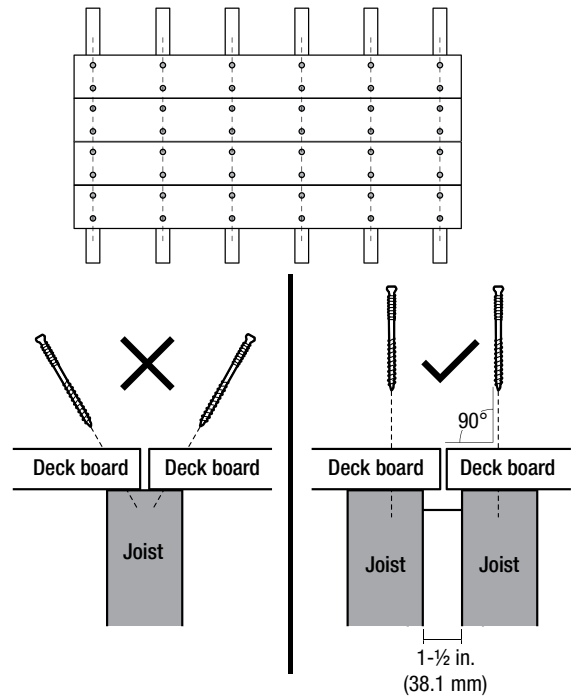
Fascia Installation

PVC Fascia Instructions

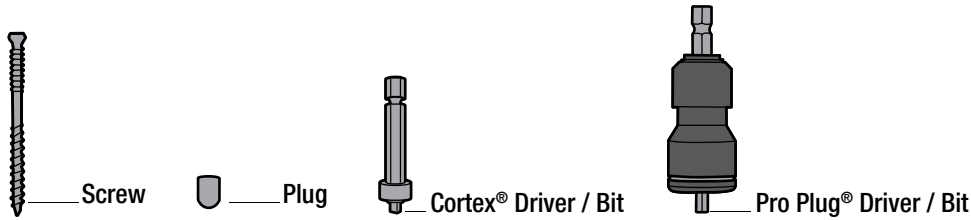
Fascia is fastened with a combination of screws and high quality exterior urethane / acrylic construction adhesive to prevent thermal buckling. Apply a zigzag bead of adhesive to the entire length of the back (smooth side) of the board, within 2 in. (50.8 mm) of the edges and ends. Install all fascia grain side out with grain peaks pointing in same direction for visual consistency. Use three screws across the face at a maximum of 12-in. (304.8 mm) intervals. The maximum spacing can be increased to 16-in. on center when using the Starborn® DeckFast® fascia fastening system and does not require adhesive. Fasten no closer than 1/2 in. (12.7 mm) of board ends and sides. Install with no gap between ends in temperatures above 50 degrees Fahrenheit (10 degrees Celsius). Leave 1/16-in. (1.58 mm) gap between ends in temperatures below 50 degrees Fahrenheit (10 degrees Celsius). Fascia is intended as a non-structural covering for rim joists, stair risers and stringers and is not suited for decking surfaces or structural applications. Do not overtighten screws as buckling and cracking may result.

Capped PE Fascia Instructions

Fascia is fastened with screws at a maximum of 12-in. (304.8 mm) intervals, with three screws across the face. The maximum spacing can be increased to 16-in. on center when using the Starborn DeckFast fascia fastening system and Starborn Pro Plug® System for fascia. Fasten no closer than 1-½ in. (38.1 mm) from ends of board and 1 in. (25.4 mm) from sides of board. Pre-drill ends of board screw holes to prevent immediate or eventual end splitting. Install with 1/8-in. (3mm) spacing between ends in temperatures above 50 degrees Fahrenheit (10 degrees Celsius) and 3/16-in. (4.8 mm) spacing in temperatures below 50 degrees Fahrenheit (10 degrees Celsius). Fascia is intended as a non-structural covering for rim joists, stair risers and stringers and is not suited for decking surfaces or structural applications. Do not overtighten screws as buckling and cracking may result.



Hidden Surface-Fastener Installation



Fastening Requirements

The hidden surface-fastening systems are the fastest, easiest way to hide deck screw heads on stairs, perimeter boards and square-edge deck surface boards. They are also the ideal fastener to use when replacing a deck board. The plugs are available in a variety of colors to match Fiberon® deck boards (not available for use with ArmorGuard® or Veranda®).

Cortex and Pro Plug hidden surface-fastening systems are available. Contact Fiberon® customer service for more information.



IMPORTANT: For a full written warranty, additional information or technical assistance, please visit fiberondecking.com.

Hidden surface-fastening systems are designed for traditional elevated deck surfaces. The following applications require a different fastening method or further instructions and will nullify the fastener warranties:

- Sleeper systems: Framing rests directly on the ground or roof deck.
- Docks or decks with framing members in constant contact with water.
- Restricted airspace where there is less than 1-½ in. (38.1 mm) of clearance on two sides of the deck.
- “Tear-offs” that utilize old framing as support for new decking.
- Deck materials other than 15/16 in. (24 mm) standard thickness with flat-profile bottom.

Installation

1 Pre-drilling fastener holes.



NOTE: Pre-drilling is required at board ends and where temperatures are below 40 degrees Fahrenheit.

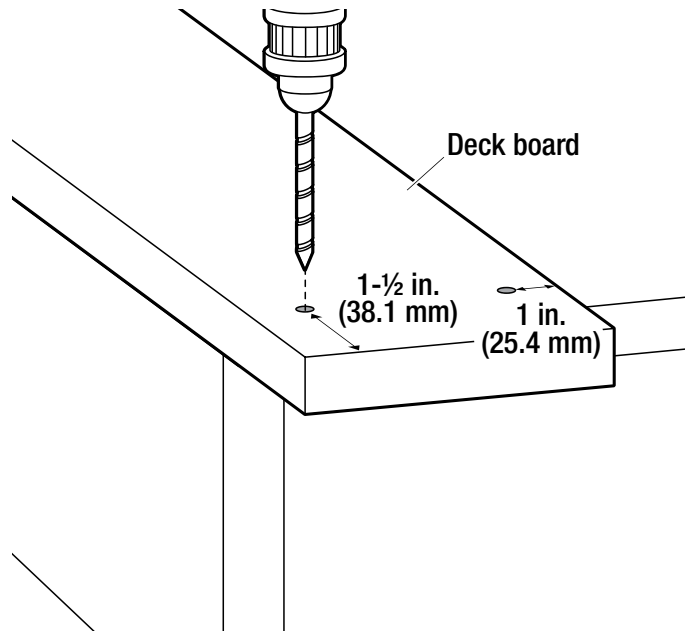


NOTE: Double joists are required at end-to-end seams.

Locate all fastener holes at least 1-½ in. (38.1 mm) from board ends and 1 in. (25.4 mm) from board sides. To prevent cracking at fastener locations, pre-drill all holes with a 1/8-in. (3.2 mm) or 5/32-in. (4 mm) drill bit. Keep the drill perpendicular to the deck surface in order to create the proper pilot hole and remove excess material.



NOTE: For best results, use a corded or battery power, variable speed, high-torque drill or impact driver. Starting screws slowly will help initial engagement. Always keep continuous pressure downward while driving screws.



Hidden Surface-Fastener Installation (continued)

2 Installing the fasteners.

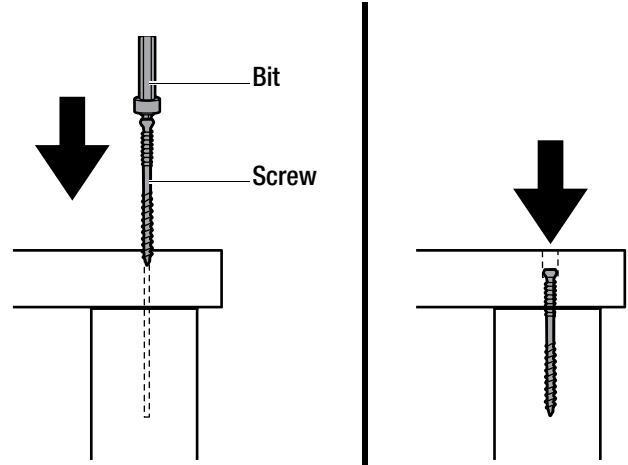
- Using the setting tool (bit), drive the fastener (screw) to the preset level below the deck surface, ensuring the fastener remains perpendicular to the deck surface. Install two fasteners at every joist and / or stair stringer.



NOTE: Replace a worn driver bit with a fresh bit periodically. We recommend replacement every 125 screws.



NOTE: If damage occurs to the screw while it is being driven in, do not continue. Follow the instructions in the “Removing Damaged Plugs or Screws” section of this manual.

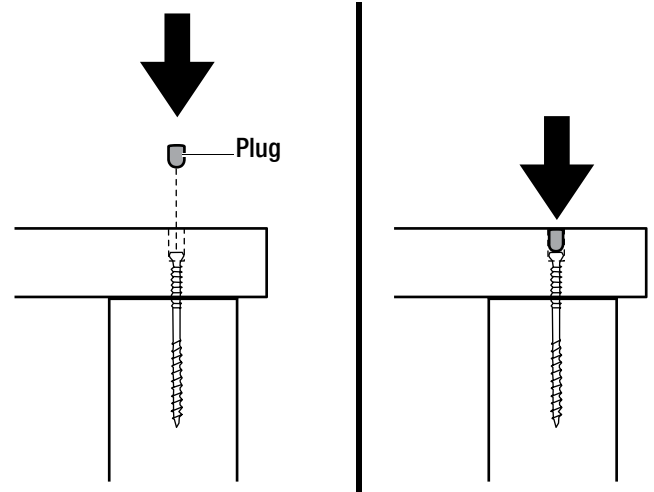


3 Inserting the plugs.

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



NOTE: Each box of fasteners comes with additional plugs. It is recommended you keep these plugs in case any boards need to be removed and replaced in the future, as the plugs are destroyed when they are removed and are not available separately.



Removing Damaged Plugs or Screws

- To prevent damage to the decking surface, mask off around the screw or plug being removed. Immediately clean off any debris left behind 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. Remove the plug. Using a standard #1 driver bit (not the setting tool), engage the driver bit into the screw recess prior to backing out. On slow speed, reverse the screw out of the deck. When removing a fastener, an impact drill offers best results.
- If the head of a damaged screw 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. Then, 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 these options in this order: (1) 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; (2) 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 pre-installed on the drill, carefully slide the open end onto the #2 bit; then, on low speed, reverse out the screw.

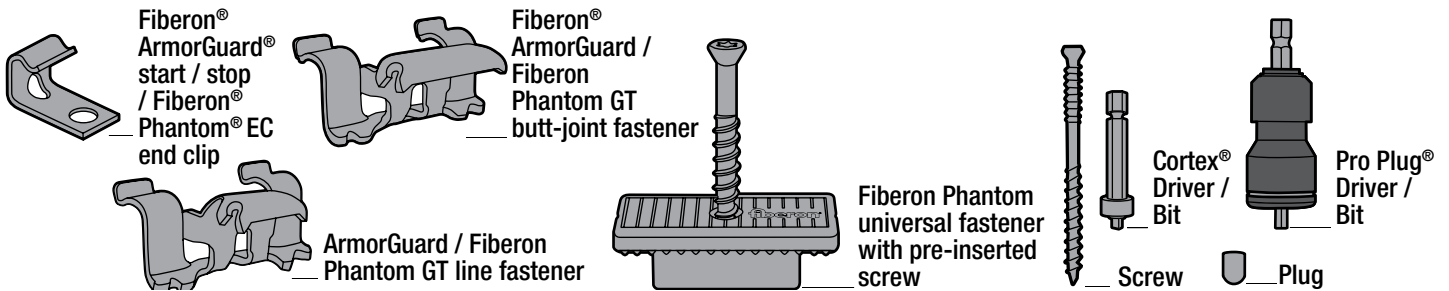
Hidden Fastener Installation for Composite Decking End Boards



NOTE: To reduce appearance of gapping at end-to-end seams and to limit the movement of the deck board along the joists, we recommend using two hidden surface-fastening system screws or stainless steel composite deck screws placed into the deck at the joist location closest to the mid-point of each deck board. This helps ensure that the deck boards stay positioned and maintain proper gapping as the boards expand and contract with temperature changes.

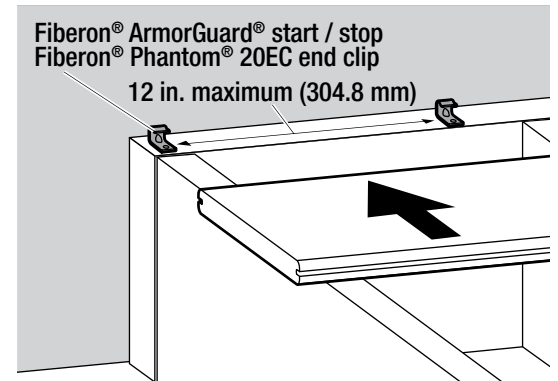


NOTE: The use of hidden fasteners is not recommended for installations at elevations above 6,500 feet.



1 Installing the first end boards.

- Fiberon recommends starting on the outside of the deck and working toward the house / wall. This way, if any boards needs cutting down to fit, the cut side will be against the house / wall. However, if starting at the house / wall, secure Fiberon® end clips a minimum of 1/4 in. (6.4 mm) from the wall with a single screw into the joist.
- Space clips no greater than 12 in. (304.8 mm) 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.
- Check to ensure that the board is fully inserted into the clips.



NOTE: Follow instructions for Fiberon ArmorGuard / Fiberon Phantom GT (pg. 10) or Phantom universal fasteners (pg. 11) to install the mid-deck area before the end boards.

2 Installing the final end boards.



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. Only applicable for installation of flat bottom board. Start / stop / end clip fasteners are not approved to secure boards with a scalloped bottom.

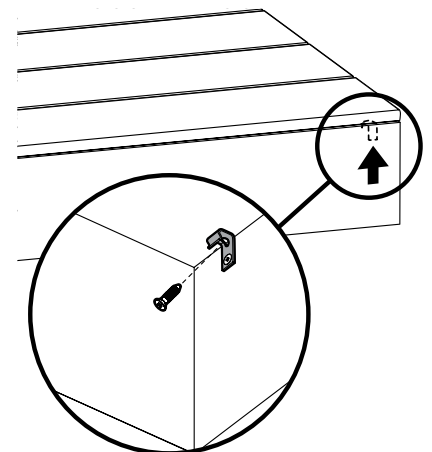


NOTE: Use a square-edge board to create a smooth, finished look along the perimeter of the deck.

- 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 degree angle. Ensure the screw inserts fully and pulls the board down. Space no more than 12 in. (304.8 mm) apart. The last board can also be surface fastened into place with composite screws installed flush with the deck surface or with hidden surface fasteners.



NOTE: When thickness of rim joist exceeds 1-1/2 in. (38.1 mm), end clips should be secured to the outer edge of the joist.



Hidden Fastener Installation for Grooved-Edge Composite Decking

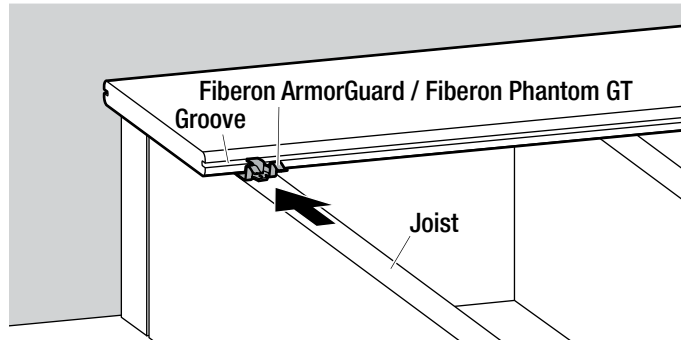
Fiberon® ArmorGuard® / Fiberon® Phantom® GT Hidden Fastener Installation

1 Preparing the grooved board edges.

- After installing the first end boards (pg. 9), insert a Fiberon ArmorGuard / Fiberon Phantom GT hidden fastener into the groove of the board, centering on joists.

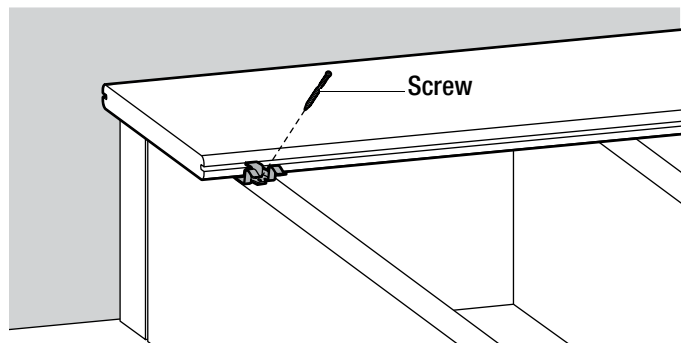


NOTE: Grooved boards are not intended to be used as perimeter boards unless you are also installing fascia boards appropriately to cover the exposed grooves, or when the groove is against a wall or other hard structure.



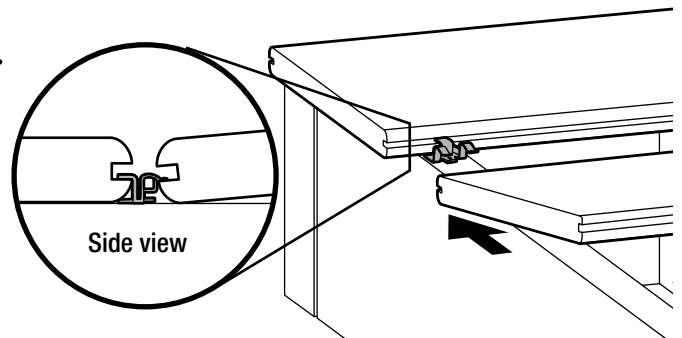
2 Securing the fasteners.

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



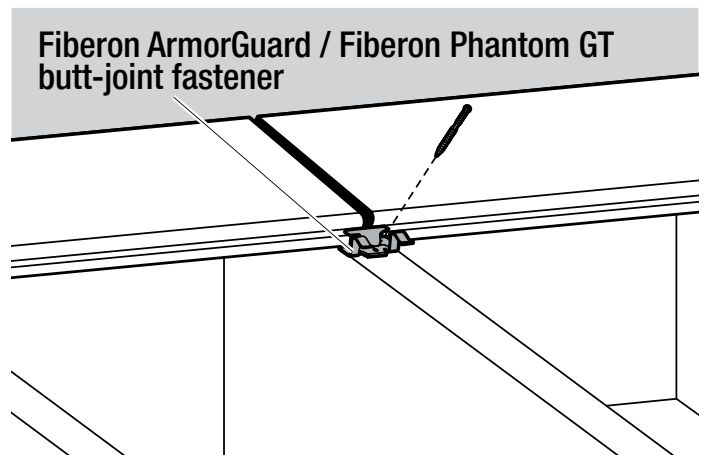
3 Installing the remaining boards / rows.

- Position the next deck board into the fasteners. It may be helpful to angle the board slightly to fully seat it into the fasteners.
- Repeat installing fasteners and positioning boards to cover the deck surface. See "Installing the final end boards" (pg. 9) for completing the deck.



4 Installing butt joints.

- Where two boards butt together, allow for adequate end-to-end board spacing and use a single butt-joint hidden fastener to secure board ends.

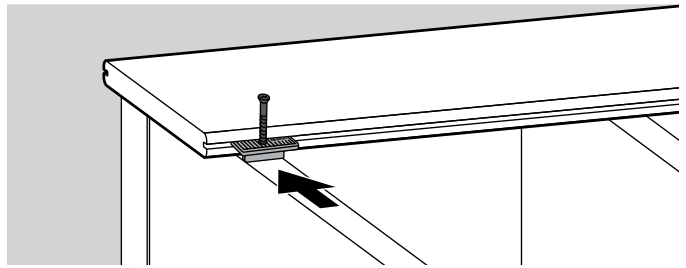


Hidden Fastener Installation for Grooved-Edge Composite Decking

Fiberon® Phantom® Universal Hidden Fastener Installation

1 Preparing the grooved board edges.

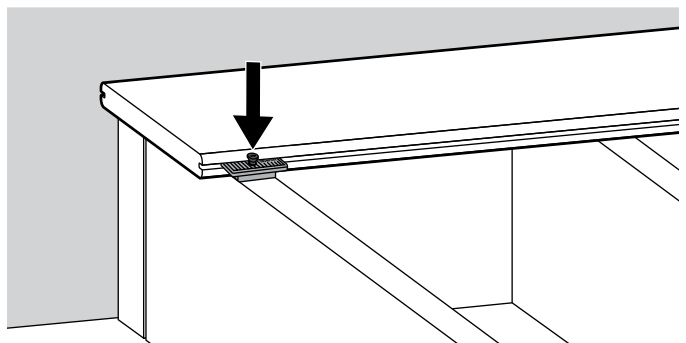
- After installing the first end boards (pg. 9), insert the Fiberon Phantom universal clip into the grooved edge of the deck board in alignment with the center of each joist. The screws are pre-inserted for your convenience.



NOTE: Grooved boards are not intended to be used as perimeter boards unless you are also installing fascia boards appropriately to cover the exposed grooves, or when the groove is against a wall or other hard structure.

2 Securing the fasteners.

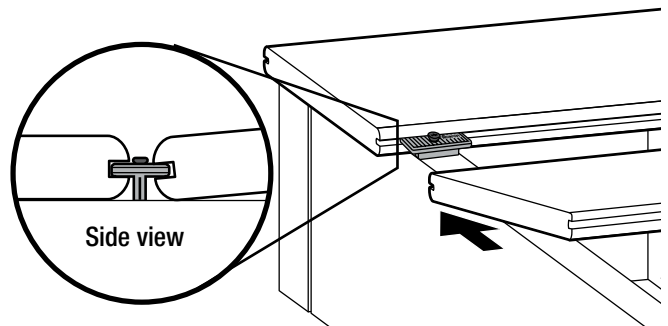
- Using the included T-15 Star drive bit, drive the screw vertically down, not angled, until it is flush in the countersunk hole. With some deck boards it may be necessary to leave the screw loose until the next course of decking is laid; then, tighten the screw completely. Be careful not to overtighten the screw to prevent breakage or bowing of the clip. A screw gun with a clutch setting is very effective for this application.



NOTE: The Fiberon Phantom universal fastener provides a 3/16-in. side-to-side gap between each deck board and is designed to be 1-½ in. wide to completely cover the joist and further enhance the hidden fastener aesthetics.

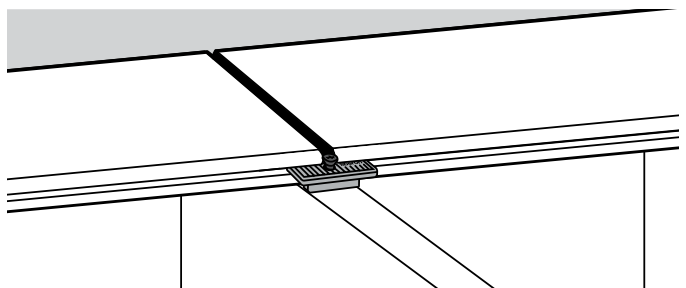
3 Installing the remaining boards / rows.

- Slide the second deck board into place and push or tap forward to ensure the board is flush against the Fiberon Phantom universal deck clip. If left loose, finish driving the screw vertically down, not angled, until it is flush in the countersunk hole. Install the remaining Fiberon Phantom clips where each joist intersects with the deck board.
- Repeat installing fasteners and positioning boards to cover the deck surface. See “Installing the final end boards” (pg. 9) for completing the deck.



4 Installing butt joints.

- Where two boards butt together, allow for adequate end-to-end board spacing and use a single Fiberon Phantom universal hidden fastener to secure board ends.



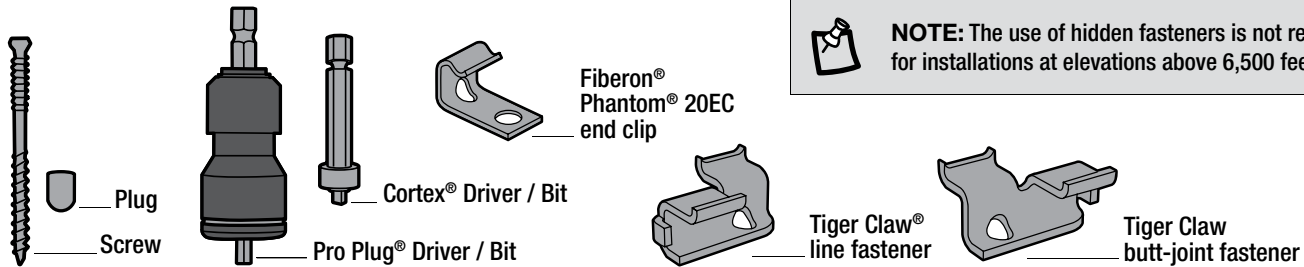
Hidden Fastener Installation for PVC Decking End Boards



NOTE: Fiberon recommends the use of a quality joist flashing to ensure optimal installation and reduce potential 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 enable a smooth and consistent contact surface between joists and Fiberon® decking. To extend the life of the joists beneath the decking, we recommend using joist tape. Properly applied, joist tape has proven effective in protecting joists against premature decay.



NOTE: To reduce appearance of gapping at end-to-end seams and to limit the movement of the deck board along the joists, we recommend using two hidden surface-fastening system screws or stainless steel composite deck screws placed into the deck at the joist location closest to the mid-point of each deck board. This helps ensure that the deck boards stay positioned and maintain proper gapping as the boards expand and contract with temperature changes.

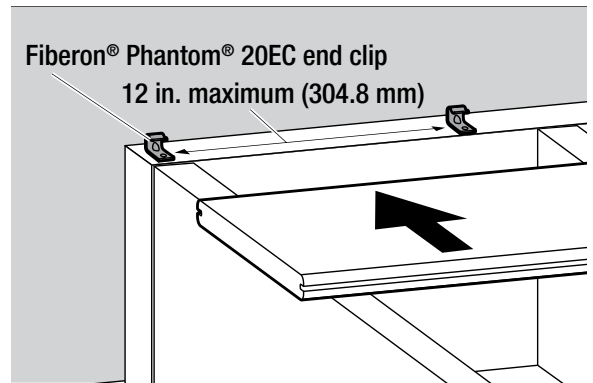


NOTE: The use of hidden fasteners is not recommended for installations at elevations above 6,500 feet.

Fiberon Phantom 20EC Installation

1 Installing the first end boards.

- Fiberon recommends starting on the outside of the deck and working toward the house / wall. This way, if any boards needs cutting down to fit, the cut side will be against the house / wall. However, if starting at the house / wall, secure Fiberon Phantom 20EC (20 mm) end clips a minimum of 1/4 in. (6.4 mm) from the wall with a single screw into the joist.
- Space clips no greater than 12 in. (304.8 mm) 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.
- Check to ensure that the board is fully inserted into the clips.



NOTE: Follow instructions for Tiger Claw hidden fasteners (pg. 13) to install the mid-deck area before the end boards.

2 Installing the final end boards.



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.

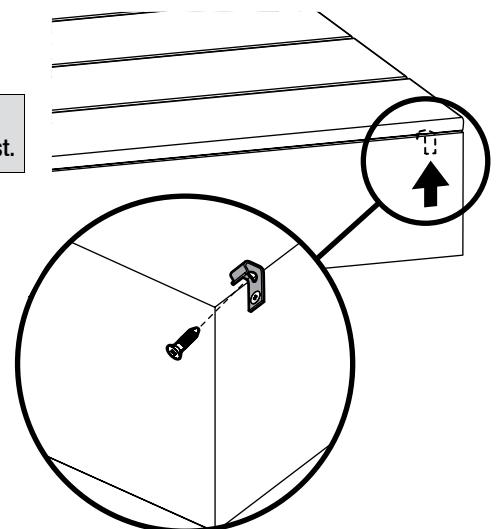


NOTE: Use a square-edge board to create a smooth, finished look along the perimeter of the deck.

- 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 degree angle. Ensure the screw inserts fully and pulls the board down. Space no more than 12 in. (304.8 mm) apart. The last board can also be surface fastened into place with composite decking screws installed flush with the deck surface or with hidden surface-fastener screws.



NOTE: When thickness of rim joist exceeds 1-1/2 in. (38.1 mm), end clips should be secured to the outer edge of the joist.



Hidden Fastener Installation for Grooved-Edge PVC Decking

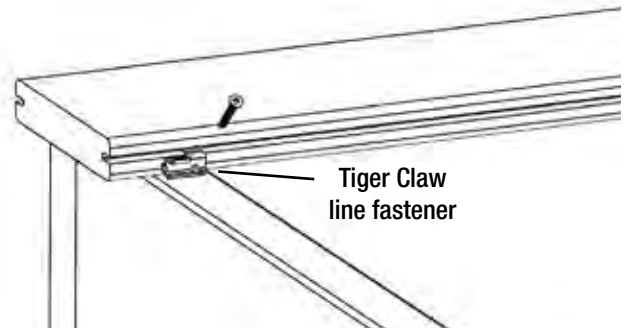
Tiger Claw® Hidden Fastener Installation

1 Preparing the grooved board edges.

- After installing the first end boards (pg. 12), insert a Tiger Claw TC-G line fastener into the groove of the board, centering on joists.

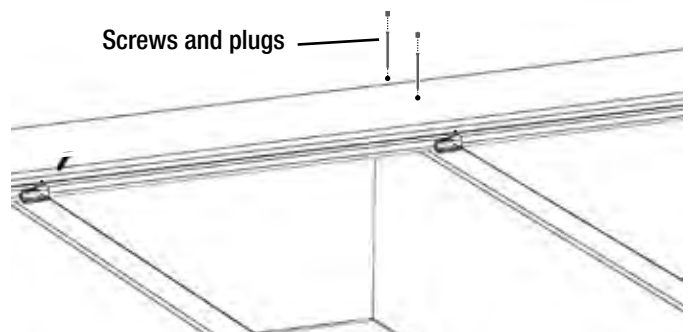


NOTE: Grooved boards are not intended to be used as perimeter boards unless installing fascia boards appropriately to cover the exposed grooves, or when the groove is against a wall or other hard structure.



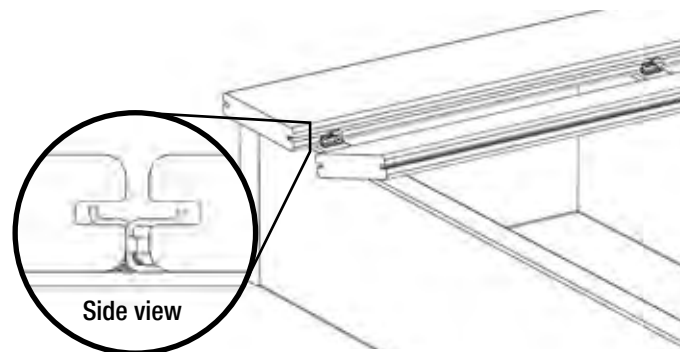
2 Securing the fasteners.

- Secure fasteners by driving the screw fully into the joist. Continue installing and securing the fasteners in the center of each joist along the remainder of the deck board.
- Center-pin the board at the centermost joist with two hidden surface-fastener screws.



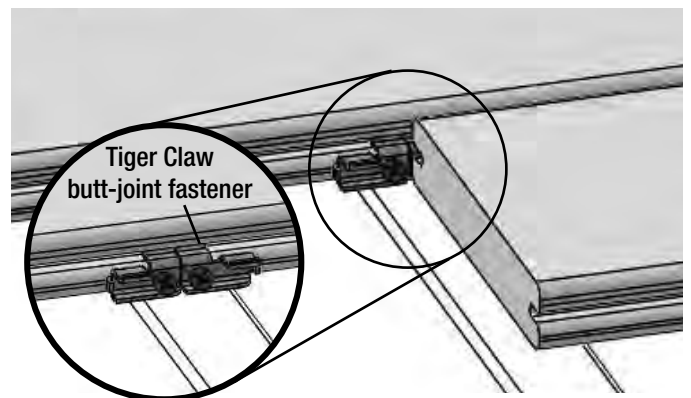
3 Installing the remaining boards / rows.

- Position the next deck board into the fasteners. It may be helpful to angle the board slightly to fully seat it into the fasteners.
- Repeat installing fasteners and positioning boards to cover the deck surface. See "Installing the final end boards" (pg. 12) for completing the deck.



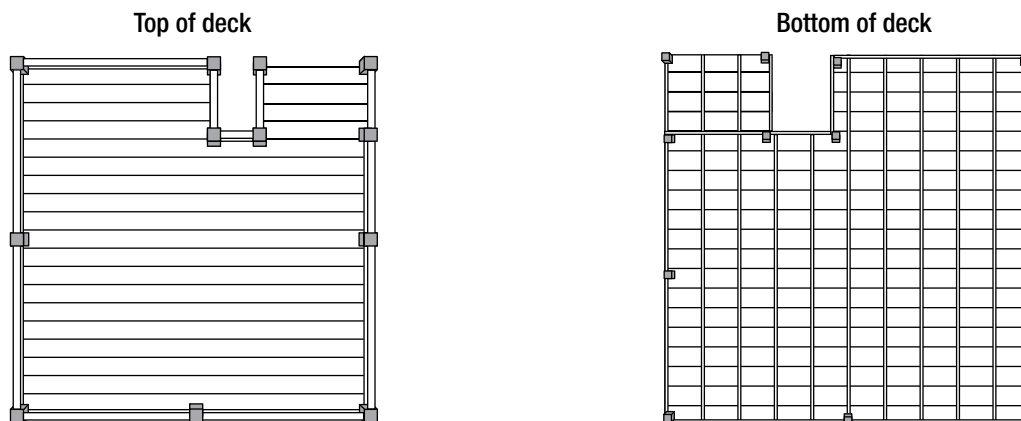
4 Installing butt joints.

- Where two boards butt together, allow for adequate end-to-end board spacing and use a Tiger Claw line fastener and a Tiger Claw butt-joint fastener on the joist to secure board ends.



Before you install post sleeves.

Rail posts may be installed by using the structural posts that support the joists, additional pressure-treated 4 in. x 4 in. (101.6 mm x 101.6 mm) lumber or by using a surface mount bracket. The Fiberon® surface mount bracket requires that the thickness of the decking and reinforcement boards underneath the deck be a minimum of 5 in. (127.0 mm). This equates to two structurally sound 2 in. x 8 in. (50.8 mm x 203.2 mm) treated lumber boards and one structurally sound 1 in. x 8 in. (25.4 mm x 203.2 mm) treated lumber board under the 1-in. (25.4 mm) 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 prior to installing the deck surface. Use a scaled drawing of your project or the online Fiberon Deck Design 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 be secured only to code-compliant posts.



Installing post sleeves to structural posts.

Guardrails can be secured to structural 4 in. x 4 in. (101.6 mm x 101.6 mm) posts, or to 4 in. x 4 in. (101.6 mm x 101.6 mm) posts secured to the support framing in a code-approved manner. Always check to ensure posts are plumb and true. Check maximum and minimum distance requirements for the railing that is being installed to ensure a snug fit and proper baluster spacing.

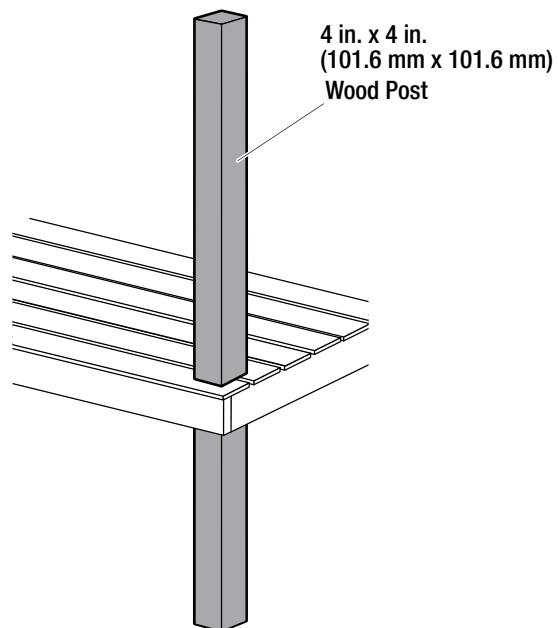
Post Sleeve Installation (continued)

1 Preparing for installation.

- Ensure 4 in. x 4 in. (101.6 mm x 101.6 mm) wooden posts are secured in a code-compliant manner and, where possible, spaced equally for the best looking application.

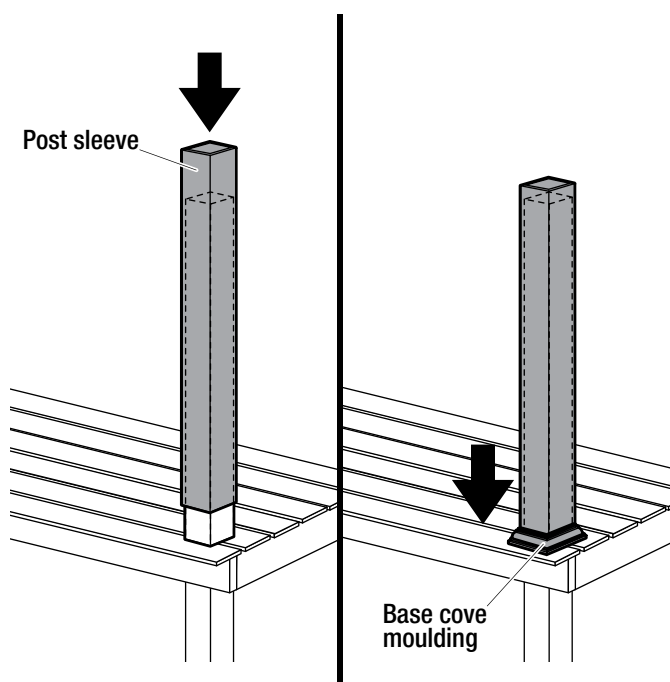


NOTE: Wooden 4 in. x 4 in. (101.6 mm x 101.6 mm) posts will vary. Shims may need to be inserted between the 4 in. x 4 in. (101.6 mm x 101.6 mm) post and the post sleeve to prevent the post sleeve from cracking during guardrail installation.



2 Installing the post sleeves.

- After decking is installed, slide post sleeve and moulding over the 4 in. x 4 in. wood post or surface mount.





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Retain this manual for future use.

Visit fiberondecking.com for the most up-to-date installation requirements.