

PVC Decking Installation Instructions

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 installed deck, douse with water to remove static charge. For a more effective solution, 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.



NOTE: Even though the IRC / IBC has no requirement of a minimum slip-resistance for exterior composite decking, all Fiberon® composite decking is tested using ASTM and other standards for resistance to slip. However, numbers alone may not be in line with actual perceived slipperiness, and the perception of what is slippery can differ dramatically from one person to another. Fiber Composites, LLC is committed to ensuring all Fiberon decking provides a safe all climate walking surface.



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 glass and / or reflective metal surfaces, 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		Residential Limited Warranty		Commercial Limited Warranty
		Performance	Stain and Fade	Stain, Fade and Performance
PVC	Promenade	Lifetime	50 Year	10 Year
	Paramount	Lifetime	50 Year	10 Year



NOTE: Warranties listed here are for decking, stair tread, riser and ramp applications only. See your Fiberon seller or visit www.fiberondecking.com/resources/warranty-registration for details on limited warranties and exclusions.



IMPORTANT: For a full written warranty, additional information or technical assistance, please 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) open space between the bottom of the joists or fascia (if it hangs lower than 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.

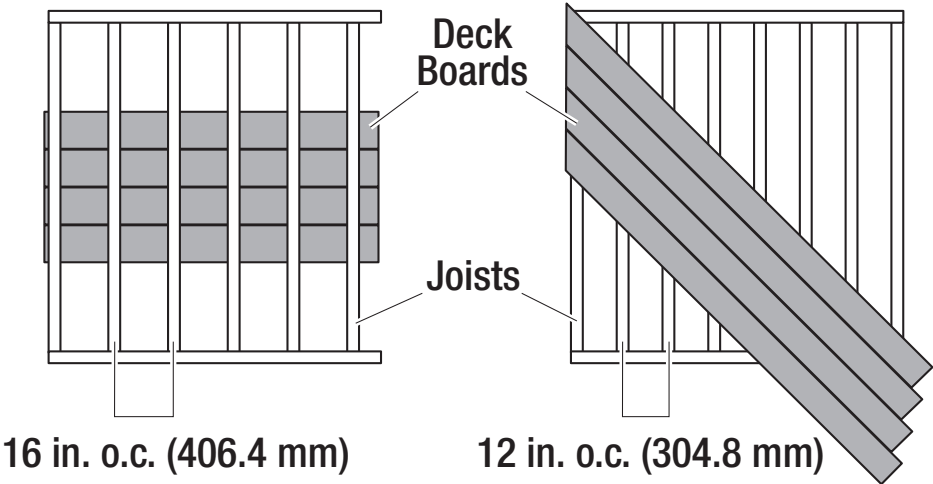
Under-deck waterproofing systems, properly installed, can provide additional living or storage space. Improper installations are those that restrict air flow and result in buildup of heat and / or humidity, which can result in unwarranted consequences. Any system used must follow manufacturer's guidelines in addition to the previous air flow and drainage requirements.


PVC decking has been tested and approved for installation that would result in a condition of submersion, either partially or completely, such as docks or pool applications. However, PVC decking should not be installed or left in an installation where that water is subject to a freeze/thaw cycle. Having the PVC decking exposed to a freeze thaw cycle when submerged in water will void the warranty.

Pre-Installation (continued)

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. Joists used in deck frame construction should meet all applicable IRC / IBC, state and local codes.

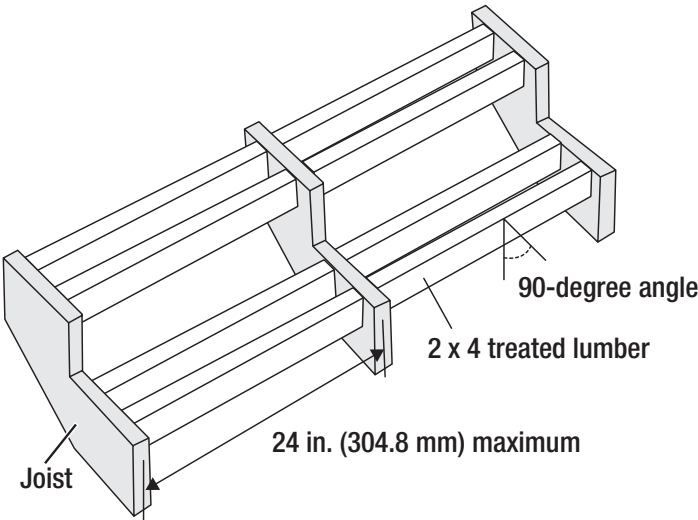


 **NOTE:** For decks using metal joists, specialized face fasteners are required. Fiberon® EDGEXMETAL® clips are available for metal joists. Fasteners for metal that install at a 90-degree angle are required. Call Fiberon at 1-800-573-8841 for more information.

Joist / Stringer Spacing		Residential			Commercial		
		Perpendicular	Diagonal (up to 45-degree angle)	Stairs	Perpendicular	Diagonal (up to 45-degree angle)	Stairs
PVC	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						

*Promenade and Paramount decking are approved for use over joists spaced a maximum of 16 in. on-center. However, for a more rigid feel, Fiberon recommends 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 two 12D x 3-1/4 in. galvanized nails, aligned with the center of the stair tread.



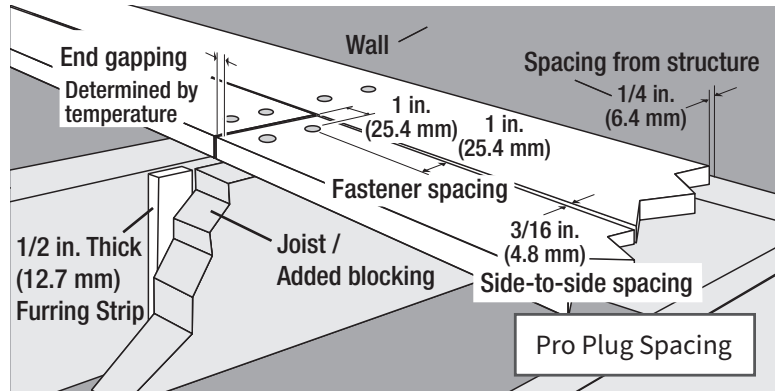
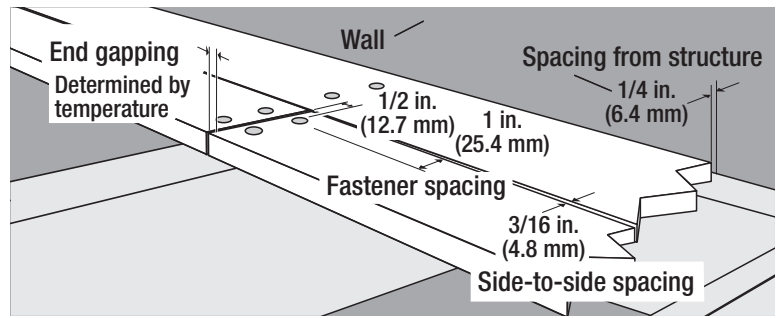
Pre-Installation (continued)

Expansion and Spacing Considerations

All decking materials, whether wood, composite or metal, undergo some degree of 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 spacing recommendations are determined by the temperature. See chart below for details

When using Pro Plug fasteners, separate the joist from the blocking with a 1/2 in. thick shims. Shimming ensures the fastener has the required penetration into solid wood, and reduces the chance of water pooling on the joist.



Spacing By Installation Temperature (Fahrenheit)		Maximum Overhang	End-To-End-Spacing			End-To-Side-Spacing	
			35 degrees and below	36 - 89 degrees	90 degrees and above	70 degrees and below	71 degrees and above
PVC	Promenade	1 in. (6.4 mm)	1/8 in. (3.2 mm)	1/16 in. (1.6 mm)	0 in. (0 mm)	1/8 in. (3.2 mm)	1/16 in. (1.6 mm)
	Paramount						



NOTE: In areas where extreme temperature swings are prevalent, adding 2x blocking at butt joints is recommended. When using hidden fasteners, secure the board with two face fasteners at the joist closest to the mid-point to “pin” the board in place and make thermal expansion and contraction go equally in both directions. For the best gap consistency, when using board lengths greater than 16 ft., it is recommended to “pin” the ends of the boards using two face fasteners placed in the outermost joists. Hidden face fasteners are available for this application to maintain a hidden fastener look.



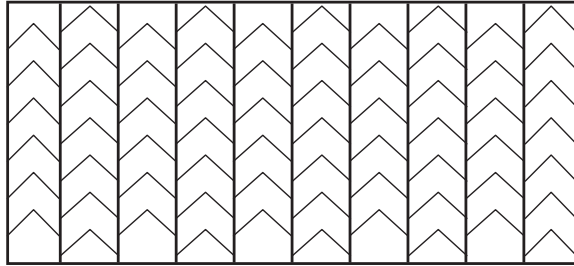
NOTE: Special consideration should be taken when working in direct sunlight, as decking will experience larger temperature swings in full sun. To help control end-to-end spacing, decking should be kept at ambient temperature and shaded from direct sun prior to cutting and immediate securing.

Pre-Installation (continued)

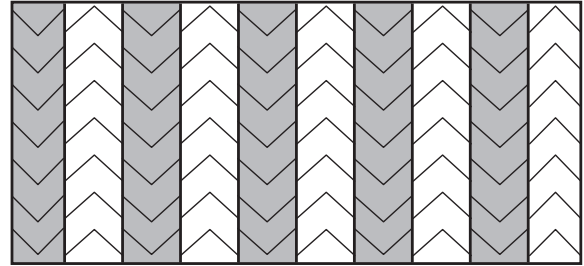
Creating Various Decking Patterns

Achieve different looks by laying the decking in the same or alternating directions. 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, streaking patterns and color tones may need to be mixed to achieve the desired look. The embossed grain pattern repeats approximately every 44 in. (1117.6 mm) along the board length. Decking with a linear embossing pattern will have minimal impact on the design lay-out versus chevron embossing patterns. Decking with dramatic streaking patterns can heavily impact the overall deck design.

Embossing and Streaking Pattern Orientation During Installation



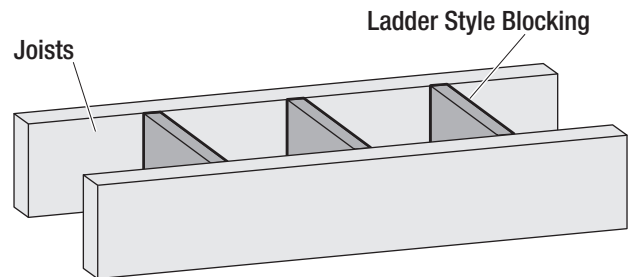
Same direction



Alternating direction

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 blocking 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. Decking failure due to improperly supported heavy loads is not warranted.

Tools Required



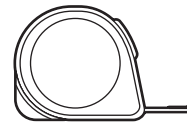
Power Drill



1/8 in. (3.2 mm)
Countersinking Drill Bit



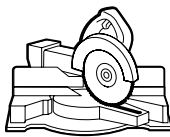
Safety Goggles



Tape Measure



Speed Square



Miter Saw



Pencil

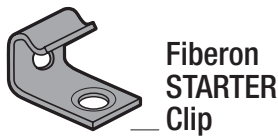


Adjustable Square



Level
Minimum 4 ft. (122 mm)

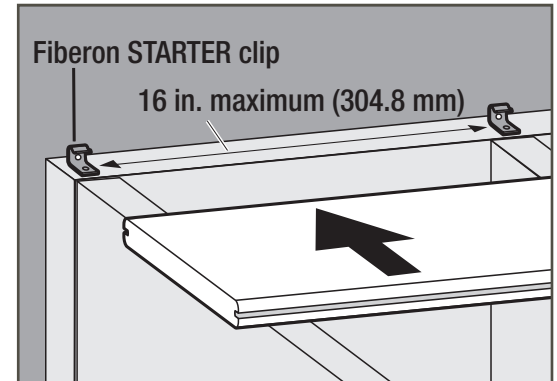
Fiberon® STARTER Hidden Fastener Installation



Fiberon
STARTER
Clip

1 Installing the first grooved end boards.

- Fiberon recommends starting on the outside of the deck and working toward the house / wall. This way, if any board needs cutting down to fit, the cut side will be against the house / wall. If starting at the house / wall, secure STARTER 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 16 in. (406.4 mm) apart.
- Position the deck board into the STARTER clip fasteners. It may be helpful to angle the board slightly to fully seat it into the clips.
- Ensure that the board is fully inserted into the clips and gently push the board down to lock it in place



NOTE: Follow instructions for Fiberon EDGE® (pg. 8 - 10) to install the mid-deck area before the end boards.

2 Installing the final end boards.

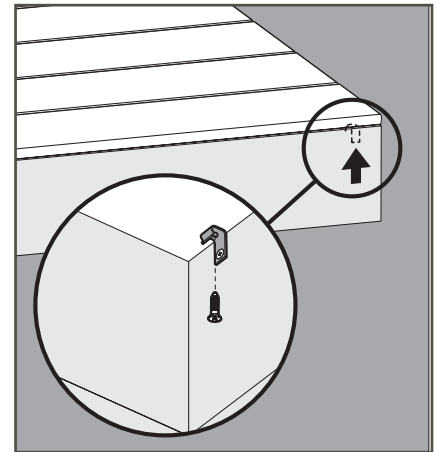


NOTE: Prior to positioning the last deck board, place the STARTER clips on the inside of the rim joist, securing them with a single screw inserted perpendicular through each clip into the joist.

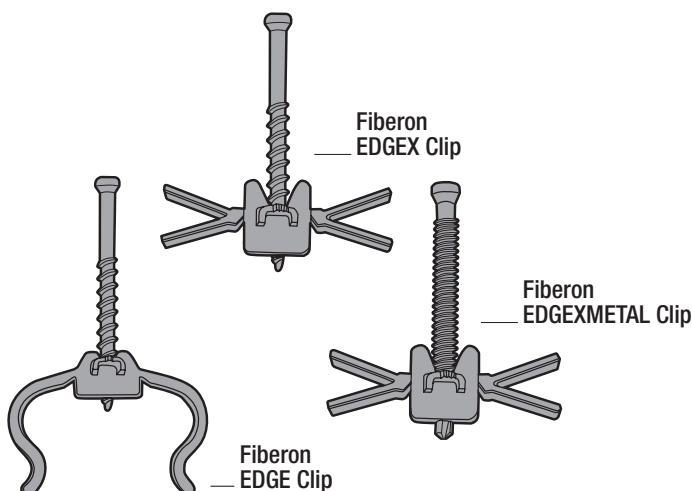
- After positioning the last deck board in place, secure the deck board by driving the fastener through the clip and into the board at a 90-degree angle. Ensure the screw inserts fully and pulls the board down. Space no more than 16 in. (406.4 mm) apart. The last board can also be face fastened into place with composite screws installed flush with the deck surface or with hidden face fasteners.



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



Fiberon® EDGE® and Fiberon EDGEX® Hidden Fastener Installation



NOTE: Use Fiberon EDGEX clips for installing deck boards at up to a 45-degree angle. Fiberon EDGE clips can be used but would require removing the legs of the clips.



NOTE: Impact drivers should not be used when installing Fiberon EDGE or Fiberon EDGEX hidden fasteners.



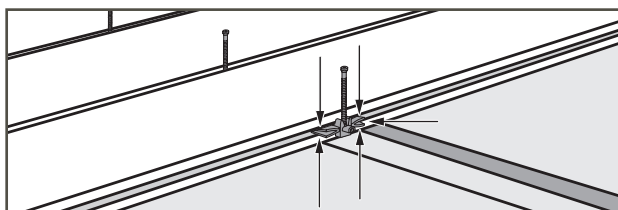
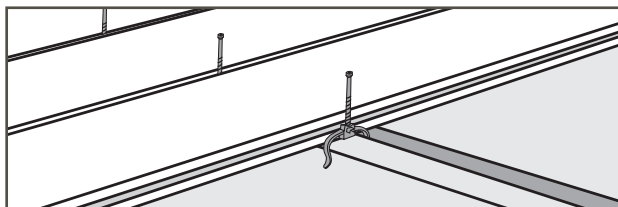
NOTE: Fiberon EDGEXMETAL® clips are available with a different screw for drilling into 14-18 gauge metal joist framing. Installation process is the same as Fiberon EDGEX.



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.

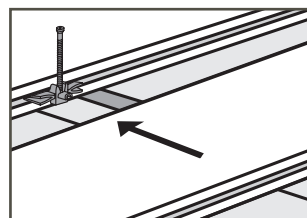
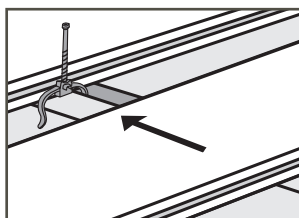
1 Preparing the grooved board edges.

- After installing the first end boards (pg. 6), position Fiberon EDGE or Fiberon EDGEX hidden fasteners along the deck board, centering on joists.
- For Fiberon EDGE clips, place clip on the joist with the gusset in the groove.
- For Fiberon EDGEX clips, pinch the wings of clip together and slide the clip into the groove.
- Both types of clips are designed to stay in place until you're ready to fasten.



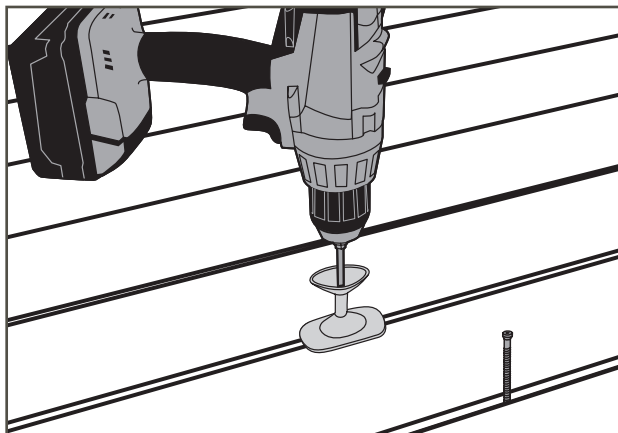
2 Installing the remaining boards / rows.

- Place the next board up against the clips and insert fully.



3 Securing the boards.

- Ensure correct end-to-end gapping and hold the boards tightly while securing or lock them in place with CAMO® LEVER® (sold separately).
- Screw down all of the clips between the boards. Use NEVER-MISS™ Guide (included in pail) for fast manual installation, or CAMO DRIVE™ tool (optional and sold separately) to fasten while standing up.
- Repeat installing fasteners and positioning boards to cover the deck surface. See "Installing the final end boards" (pg. 7) for completing the deck.



Fiberon® EDGE® and Fiberon EDGEX® Butt-Joint Installation

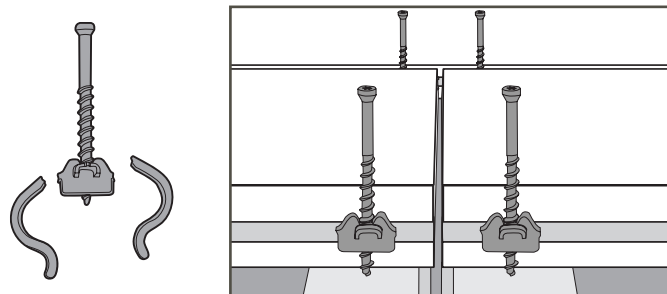


NOTE: See Expansion and Spacing Considerations (pg. 5) for end-to-end spacing and blocking considerations

Fiberon EDGE Fastener Butt-Joint installation

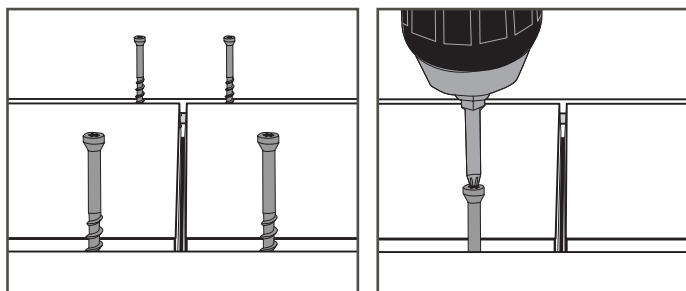
1 Remove legs on Fiberon EDGE clip.

- Where two boards butt together, allow for adequate end-to-end board spacing and center the end gap over the joist.
- You will need four clips for each butt joint (two on each side). If needed, remove the legs of the Fiberon EDGE clip so that they can sit side-by-side on the joist / blocking.



2 Securing the fasteners.

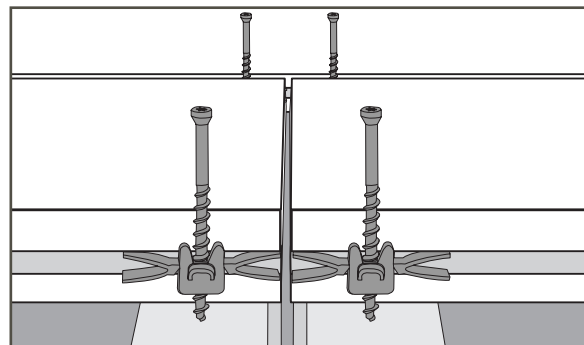
- With boards positioned correctly, place the clips in the groove, centered on joists on both sides of the boards. Partially fasten the screws to hold them in place until next board is set, then fully fasten the screws.



Fiberon EDGEX Fastener Butt-Joint installation

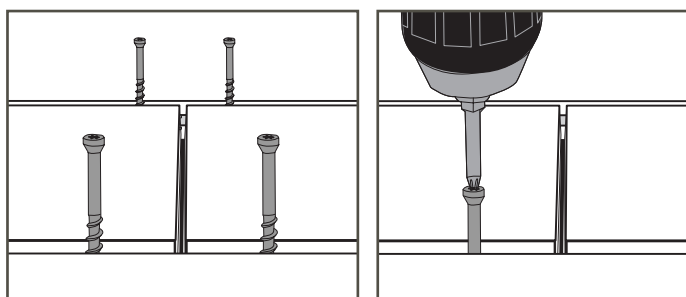
1 Place four Fiberon EDGEX clips.

- Where two boards butt together, allow for required end-to-end board spacing, center the end gap over the joist and use four Fiberon EDGEX clips (two on each side of the board ends) to secure them.



2 Fasten screws.

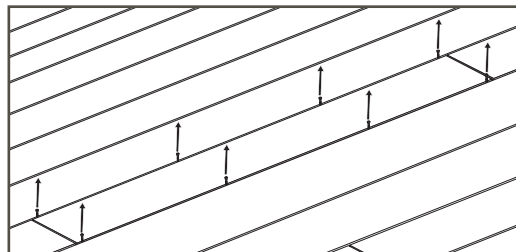
- With boards positioned correctly, place the clips in the groove, centered on joists on both sides of the boards. Partially fasten the screws to hold them in place until next board is set, then fully fasten the screws.



Fibron® EDGE® and Fibron EDGEX® Process for Replacing Damaged Deck Boards

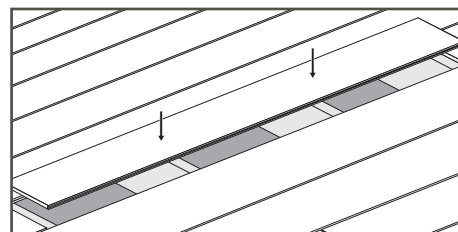
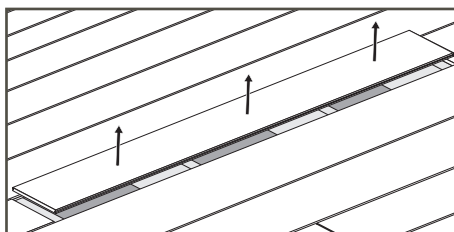
1 Back out screws from joist.

- Back out all of the Fibron EDGE or Fibron EDGEX screws from the joist along both sides of the damaged deck board



2 Replace board.

- Pull up on the board to remove it.
- Clean away any remaining fasteners on the joists and lay the new deck board in position without any fasteners in place.

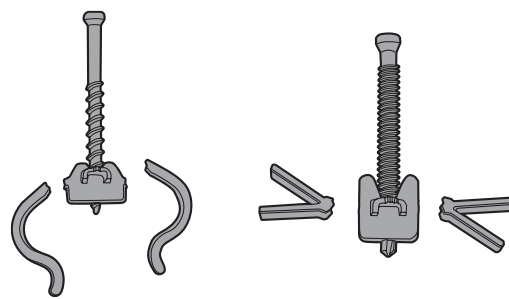


3 Remove fastener legs or wings.

- Count the number of fasteners needed and snap off the Fibron EDGE legs or Fibron EDGEX wings on each fastener.

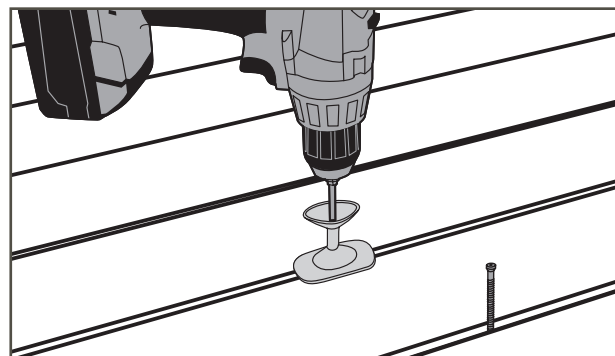
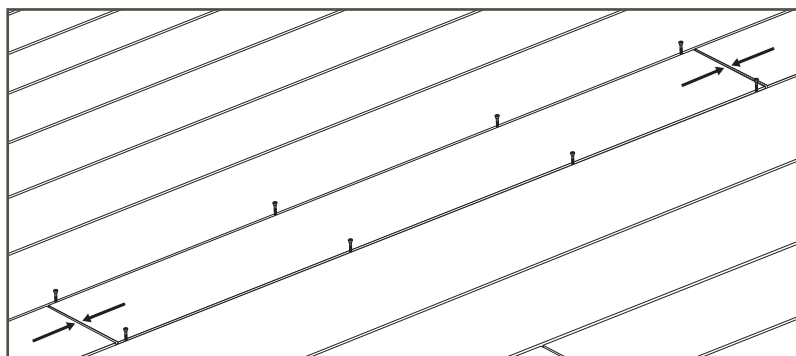
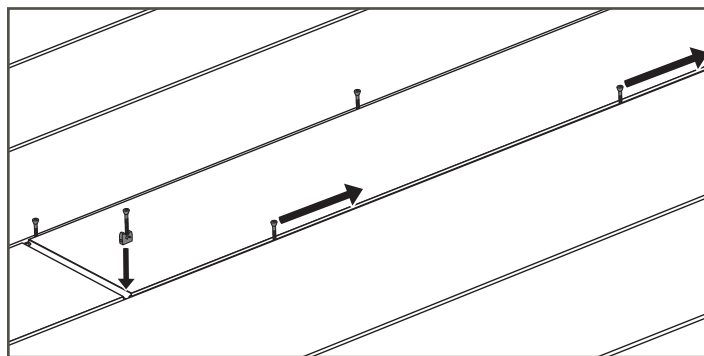


NOTE: Fasteners that were holding the damaged board can be reused if they are undamaged.



4 Securing the board.

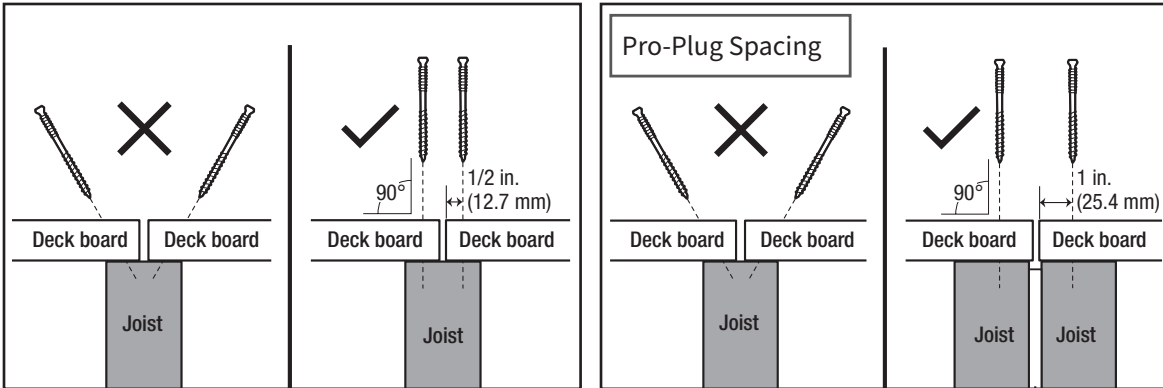
- Slide the fasteners (screws and gussets) down the groove, positioning one over each joist on both sides of the board.
- Ensure there is correct end-to-end gap spacing.
- Fasten clips securely in place using the NEVER-MISS™ Guide (included in pail).



Face-Fastener Installation

Fastener Installation

Always drive face 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 face fasteners at board ends. Spacing parallel joists apart at butt joints also aids in drainage around board ends.

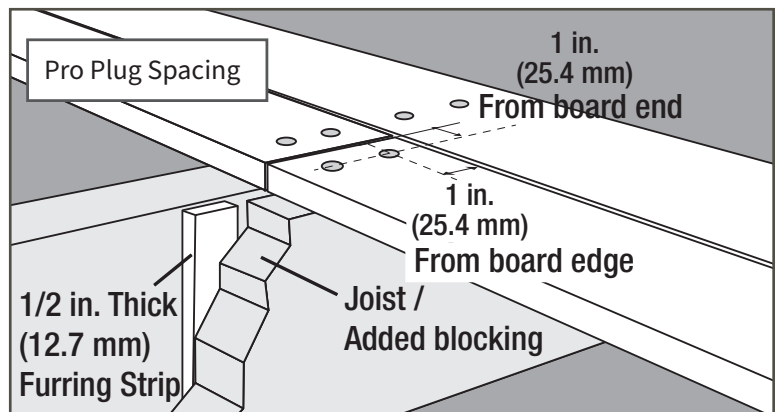
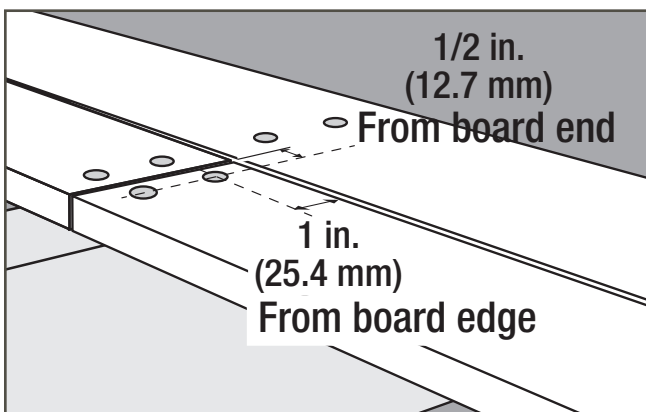
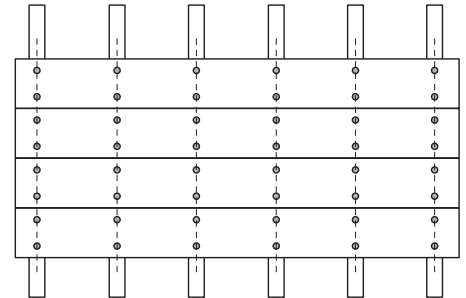


Deck Fastening Requirements

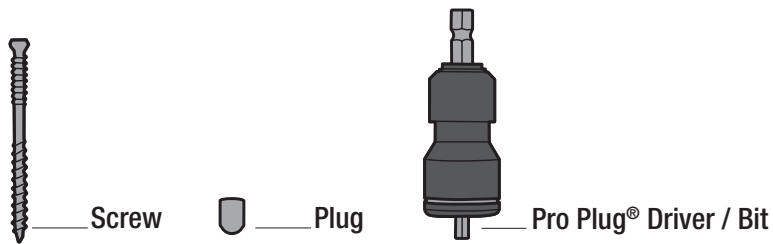
All brands of Fiberon® decking may be face fastened with two fasteners at every joist location. Use only screws designed for composite decking. Fiberon recommends using Fiberon-branded Cap-Tor® xd from Starborn® Industries for matching screw color to decking color. Do not use plain, galvanized face fasteners or traditional bugle-head screws. For best results, use a minimum of two #8 x 2-1/2 in. stainless steel or coated composite deck screws at every joist location. Hidden face-fastening systems, such as Fiberon Starborn ProPlug, can also be used as the screws are engineered specifically to work with composite decking and prevent mushrooming, resulting in more pleasing finished projects.

For Best Results

1. Screw heads must be flush with board surface or countersunk if using hidden face fasteners with color-matched plugs (pg. 13).
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. 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.
5. Use 1/2 in. shims or furring strips between joists / blocking for drainage and ventilation.



Hidden Face-Fastener Installation



Fastening Requirements

The hidden face-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 made from decking material to match Fiberon® deck boards.

Pro Plug hidden face-fastening system is available for Promenade and Paramount. Contact Fiberon customer service for more information.

Hidden face-fastening systems are designed for traditional elevated deck surfaces. The following applications will nullify the fastener warranty:

- 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 50% of the deck project.
- Deck materials less than 15/16 in. (24 mm) thickness with flat-profile bottom.

Installation

1 Pre-drilling fastener holes.

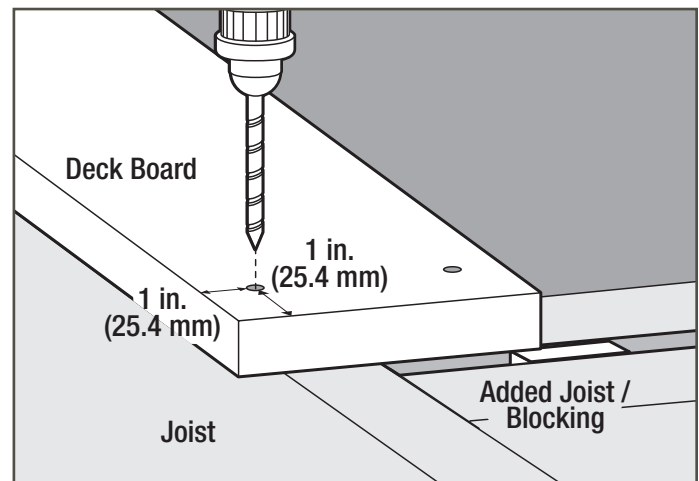


NOTE: Pre-drilling is required at board ends and where temperatures are below 40 degrees Fahrenheit.



NOTE: The minimum 1 in. fastener setback for decking end-to-end seams requires double joists or additional blocking to allow the fastener to be driven perpendicular to the surface.

Locate all fastener holes at least 1 in. (25.4 mm) from board ends and at least 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 pre-drilling results, starting screws slowly will help initial engagement. Always keep continuous pressure downward while driving screws. The Starborn® Smart-Bit® pre-drilling and countersinking tool may be used for best results. Unlike a standard 1/8 in. drill bit, the Smart-Bit removes material the screw head must contain to prevent an unsatisfactory finish. For more information visit Starbornindustries.com

Hidden Face-Fastener Installation (continued)

2 Installing the fasteners.

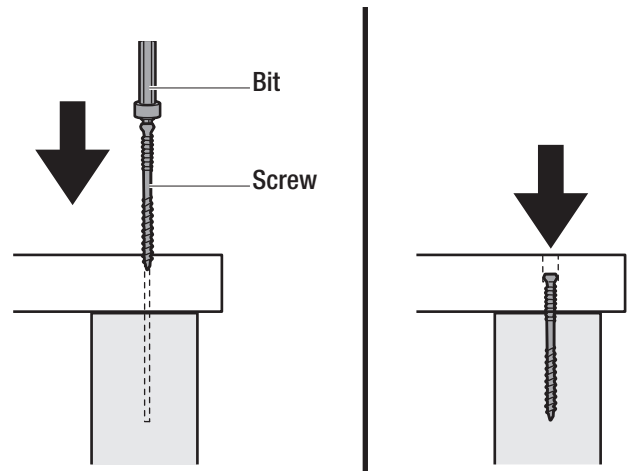
- Using the setting tool (bit), drive the fastener (screw) to the preset level below the deck surface, ensuring the fastener remains perpendicular to the deck surface. Install two fasteners at every joist and / or stair stringer.



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 (below).



3 Inserting the plugs.

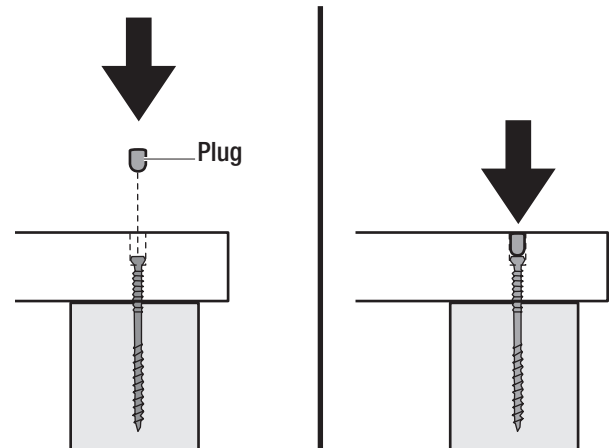
- Ensure the cored hole is free of debris or moisture. Place the plug into the cored hole and gently tap with a smooth hammer head until it is flush with the deck surface.



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.



NOTE: Plugs are made from decking material and vary in color and grain pattern based upon where on the board it was taken from. Fiberon recommends inspecting the plugs to select the one that best matches where it will be installed and aligning the plug's grain pattern with the deck board for the most seamless look.



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.



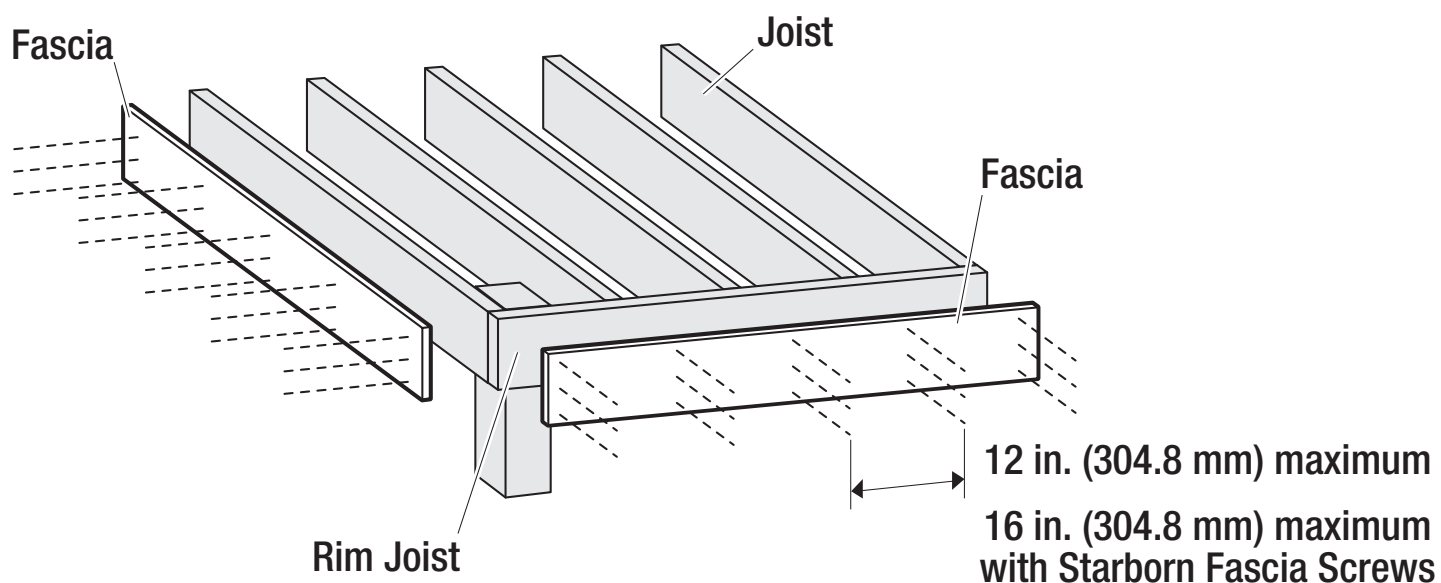
NOTE: If you prefer to use Vise-Grips, grasp the screw head but be sure to protect the deck surface from tool marks by providing enough clearance between the tool and the deck surface.

- 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.

Fascia Installation

Fascia Installation

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 down 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®FASCIA SYSTEM. Always drive face fasteners in at a 90-degree angle to the board surface no closer than 1/2 in. (12.7 mm) from board ends and 1 in. (25.4 mm) from sides. Install with no gap between ends in temperatures above 50 degrees Fahrenheit (10 degrees Celsius). Leave 1/8 in. (3 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.





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Retain this manual for future use.

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