



ALTITUDE DECKING INSTALLATION INSTRUCTIONS

Note: Prior to construction, check with your local regulatory agency for special code requirements in your area.

Store on flat surface and allow to acclimate to jobsite conditions prior to installation. For best results, follow these simple installation instructions, paying close attention to gapping, spacing, and fastener requirements.

Deckorators Altitude is not suitable for structural use. It **must not** be used for primary load-bearing members such as posts, joists, beams, or stringers. The same common-sense precautions should be taken when handling Deckorators Altitude as with wood or other building materials. Dust masks and eye protection devices are recommended to avoid possible irritation from sawdust and chips. Gloves will help protect hands. Hands should be washed after construction work.

Required Tools

- Drill/power screwdriver
- 3/16" drill bit for predrilling surface or pro plug screws
- Circular saw with carbide-tip blade
- 2½" composite wood deck screws (Surface Fastening)
- 2¾" Cap-Tor® xd Epoxy Coated composite wood deck screws (Hidden Surface Fastening)
- Pro Plug® Hidden Fastening System (Hidden Surface Fastening)
- Tape measure
- Pencil
- Safety glasses/goggles

Notice to Installers

- DO NOT use cordless impact drivers
- Set drill speed to 1500-1750 RPM
- Max torque not to exceed 23 inch pounds
- Pre-drill knots or dense hardwood

Installation Assistance

If you need help during your installation process:



Contact us at
Deckorators.com/Contact-Us
Or by calling 800-556-8449

Temperature Considerations

Be mindful of excessive heat from outside sources.

These may be fireplaces, heaters, grills, reflection from Low E glass, etc. Low E glass is designed to reduce the amount of energy entering the structure it is mounted on by reflecting/redirecting it elsewhere. This redirecting can result in concentrated pockets of light energy outside of the environmental factors taken into account during the design of this product. To prevent this, contact the Low E glass manufacturer for their recommendations.

Color impact on Temp.

While all decking products, composite, wood, etc. get hot due to sun exposure, color plays a role in slight differences in the extent of the heat gain. The darker the color, the hotter it can become and inversely the lighter the color, the less affected it will be, although both will still be affected.

Notice:

Deck surface

Altitude decking is designed for use in a decking, ramp, and stair use only.

Static electricity

Static buildup on decking may occur similar to carpeting or other plastic based clothing or fabrics, and can occur due to certain atmospheric conditions.

Overhang

The Altitude decking has a maximum overhang of one inch on the end of the board and should be supported if overhanging more than 1/4" along the edge of the board.

Notching

Whenever a notch is needed for around an obstruction such as a post or building, the deck board must be fully supported around the affected area.

Gapping and Spacing

Like most building materials composite decking will expand or contract based on the temperature of its environment. To account for this reference the information below.

- Side to side spacing: $\frac{1}{4}$ "
- End to end spacing based on install temp:

32° F and below	33° F to 79° F	80° F and above
5/16" gap	1/4" gap	1/8" gap

- Allow $\frac{1}{4}$ " distance between all decking material and permanent structures or posts.

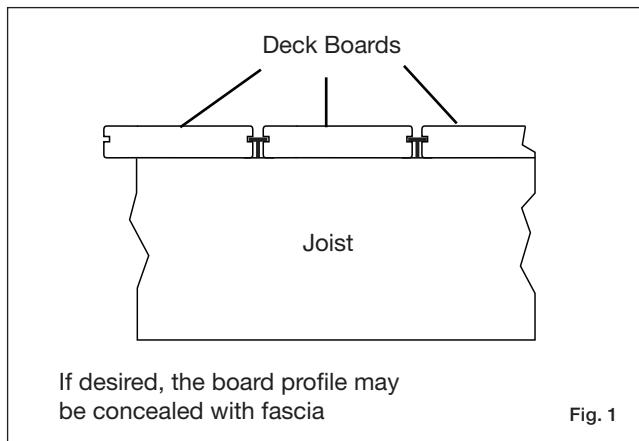


Fig. 1

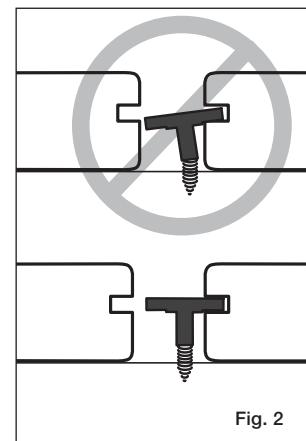


Fig. 2

Substructure

Before installing your decking examine the substructure to ensure there are no fasteners or other objects protruding above the top surface of the deck frame and that all of the joists are level. Composite decking will conform to the shape of the surface underneath resulting in dips/bumps in unlevel joists. To prevent board and support movement, blocking must be placed every 4'-6' between the joists.

Joist span

Before building consult the local building requirements, refer to BD21-017 for Canada. Deckorators decking, like all wood and composite decking products, requires proper ventilation and drainage in order to ensure its longevity. When using a minimum 2x6 joist standing on edge, with the suggested $\frac{1}{4}$ " side gap, there must be a minimum 2" clear space between the bottom edge of the joists and grade to allow for proper ventilation. Adequate drainage is also needed to prevent water from pooling under the deck.

Standard installation: 16" on center

Commercial/heavy used areas and diagonal decking patterns: 12" on center

Special considerations: The homeowner/contractor must install solid bridging at locations where sustained heavy point loads from BBQ's, fire pits, etc..., are anticipated. This bridging must be installed perpendicular to the deck joists at 12" on center in the areas where the point load(s) will be applied.

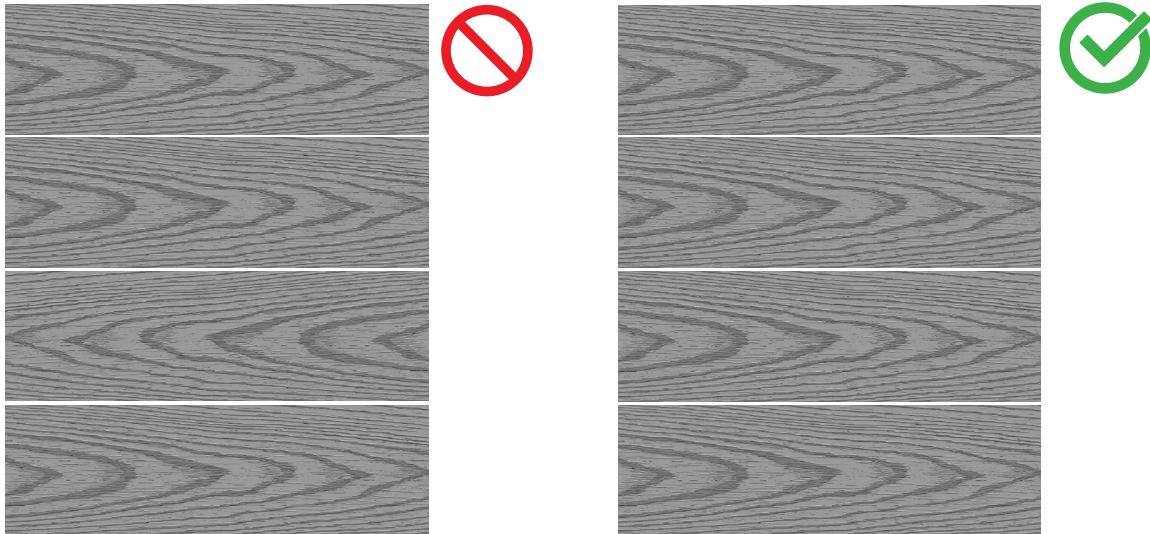
Decking Install

Color and Pattern

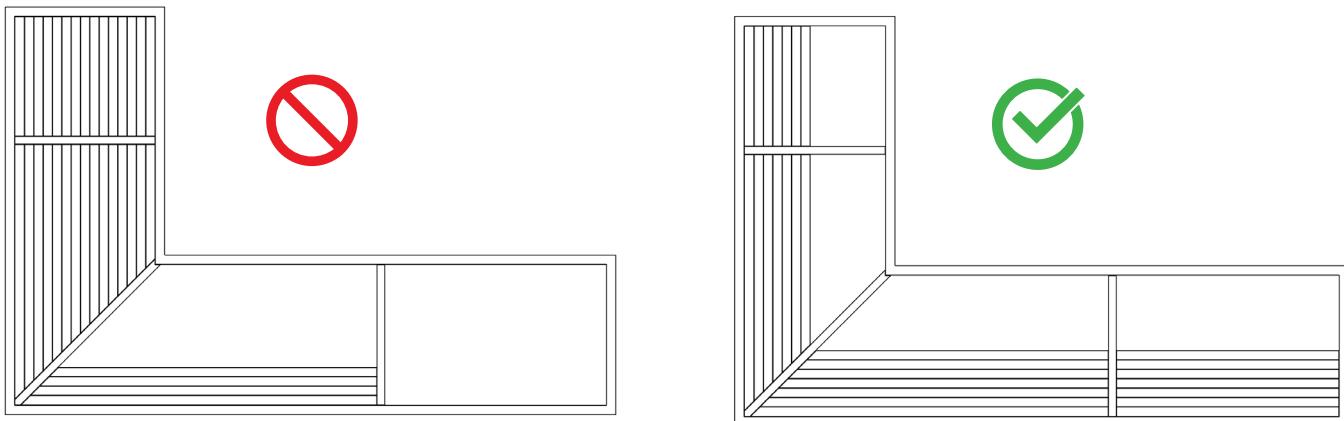
Altitude decking is designed with variation of natural wood in mind and has a natural range designed into the manufacturing process to better simulate real wood. For best results, lay out the decking on the frame before installing and shuffle the boards for your desired effect especially when using material from multiple units. Remember to look at the boards under different lighting conditions for the best affect. Installation of the boards is an acceptance of the boards. Installation of decking is acceptance of the decking's appearance. Purchasing all required material at one time is recommended, as manufacturing runs can produce slightly different colors. Do not install if color variation is not acceptable.

Laying down the boards:

To prevent dissatisfaction it is recommended to pay attention to the grain of the decking and install with all grain pointed the same direction.



To keep gaps lined up, you must build all sections of a split deck at the same time. This will allow you to adjust for natural variation in board width as you go. Snap 1 line to start the decking then reference with a measurement every 2 or 3 rows off the original line.



Cutting

10" 40T-80T circular blade (Carbide)

12" 40T-80T circular blade (Carbide)

For wood plastic composite decking:

- Use fine tooth carbide trim blade to cut
- Use a sharp utility knife or jigsaw to finish cuts where a circular saw cannot fully complete cut. (marking on the backside when needed)
- Use a jigsaw to cut openings for protrusions. (8-12T per inch on the blade)
- If necessary, use a large file or medium-grit sandpaper to clean cut edges.
- Use utility knife to cut any fibers or strands. (in the rare event that a strand or fiber protrudes from the board, do not pull it.)
- If you are using a painted blade, you can remove the paint residue with medium grit sandpaper.

Fasteners

For a list of recommended and compatible fasteners please visit www.Deckorators.com/FastenerInfo

Recommended fasteners are those which are recommended by the manufacturer of Deckorators Decking. Compatible fasteners are those which have been tested and recommended for use with Deckorators Decking by the fastener manufacturer. The use of a non-recommended fastener will not void the Deckorators Decking Warranty; however if a decking failure is caused by the use of a non-recommended fastener, any corresponding warranty claim will be denied.

Surface Fastening:

For ease of installation, we recommend using 2-3/4" corrosion-resistant, composite wood deck screws. These screws help mini-mize the common "mushroom" effect that sometimes occurs when using standard deck fasteners. Always pre-drill a pilot hole and countersink prior to driving screws. (Fig. 6.) Ensure the screws are fastened flush with the deck surface.

Hidden Fastening:

For ease of installation, we recommend using 2-3/4" Cap-Tor® xd Epoxy Coated composite wood deck screws with Pro Plugs. These screws help minimize the common "mushroom" effect that sometimes occurs when using standard fasteners. Always predrill a pilot hole prior to driving screws. Screws must be driven using the Pro Plug® Hidden Fastener tool to ensure the screws will be driven to the preset level below the deck surface (diag).

Installation - Screw Placement

A) For all deck board fastening, it is recommended that you use the locator tool to ensure accurate screw placements into the thickest lobed areas (fig. 5). You can either mark the location using the locator tool for predrilling or use the notches in the side of the tool to predrill the holes for the screws. For more information and instructions on how to use the locator tool please visit www.Deckorators/locatortool.com.

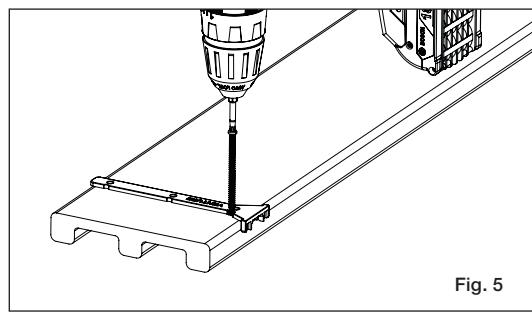


Fig. 5

B) Standard Surface Fastening: Use two fasteners per deck board at each joist. It is required that screws be placed 0.50" from both edges to ensure screws are in the thickest lobed area.

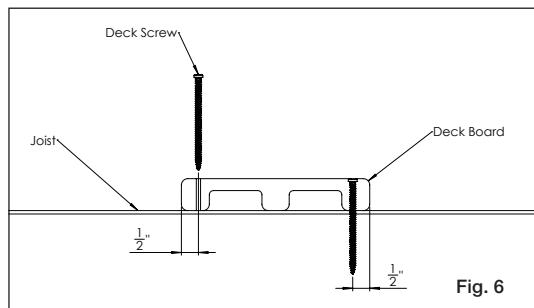


Fig. 6

Installation - Screw Placement, continued

C) Picture Frame Surface Fastening: Use two fasteners per deck board. It is required that the screw into the Rim Joist be placed either 0.50" or 2-3/4" from the edge of the deck board.

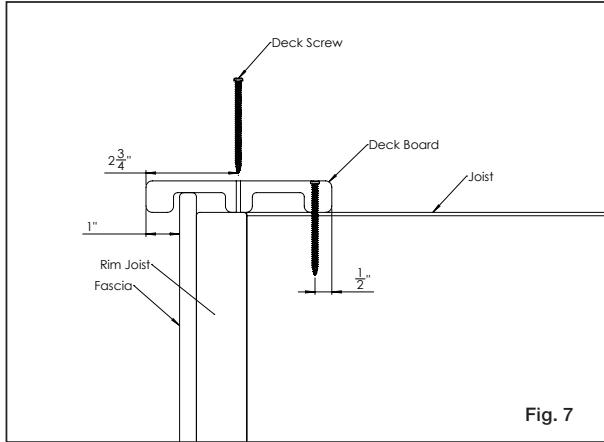


Fig. 7

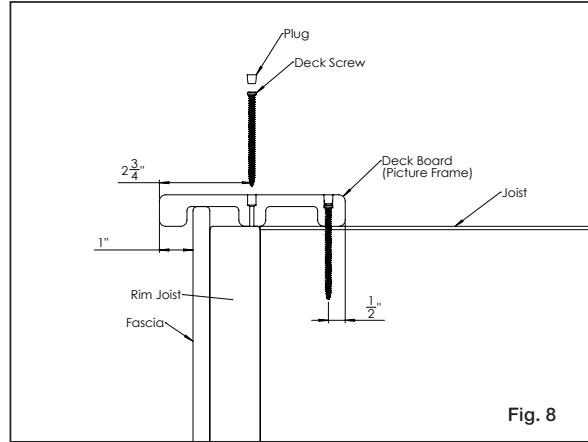


Fig. 8

D) Board End Fastening: For any decking where two boards meet end-to-end over a joist, you must add additional blocking (fig. 9/10). It is required that screws be placed 0.50" from both edges to ensure screws are in the thickest lobed area. Screws must also be placed at least 1-1/2" from the cut end of the deck boards. Be careful to not to over-tighten screws near board ends.

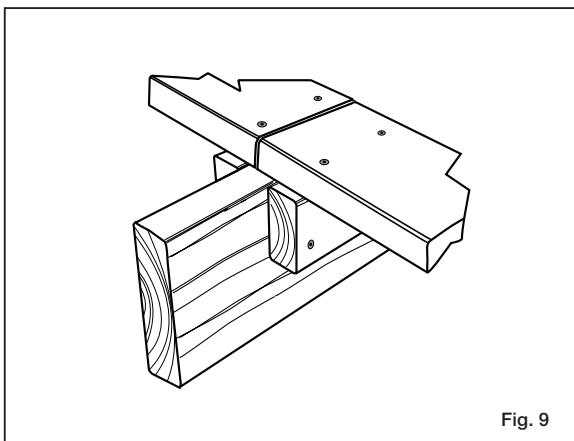


Fig. 9

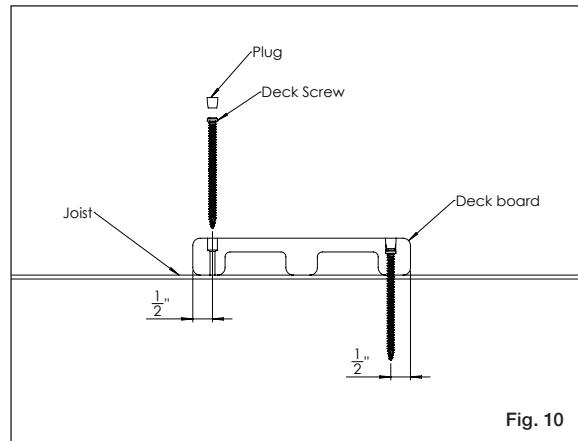


Fig. 10

Grooved Board Installation

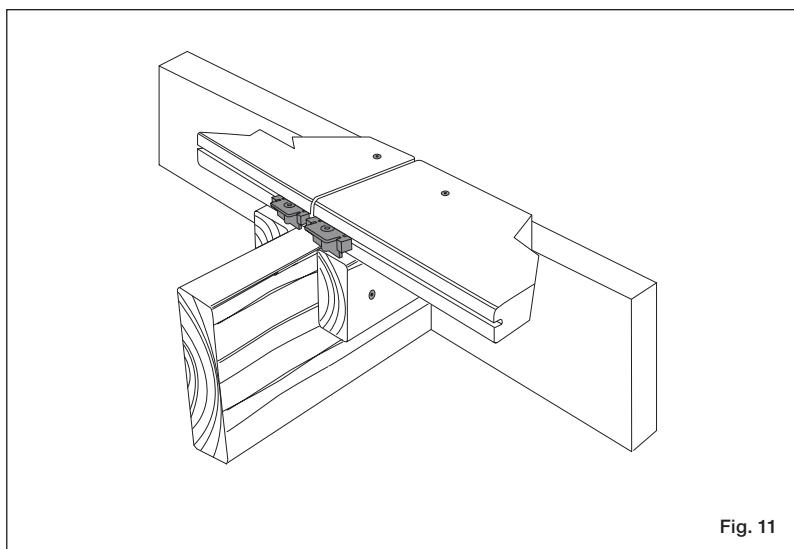
Fasteners

For ease of installation, our Stowaway fastener fits into the groove on each side of the deck board to eliminate pre-drilling and provide a fastener-free deck surface. The deck boards require traditional fasteners on the outside and inside edges of the deck.

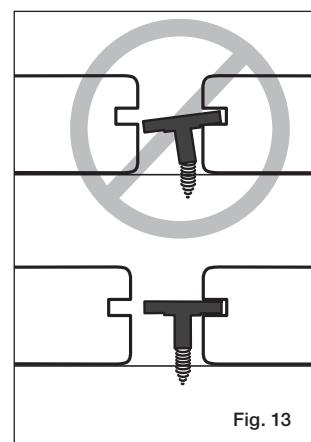
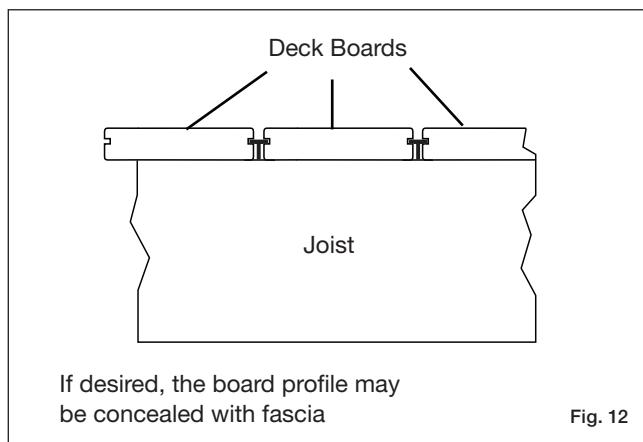
Step 1 Begin by fastening the outside edge of the first board to the rim joist every 16". For this, we recommend using 2-1/2" cor-rosion-resistant, composite wood deck screws. These screws help minimize the common "mushroom" effect that sometimes occurs when using standard fasteners. They can also reduce the amount of pre-drilling and countersinking.

Note: If using ordinary coarse-thread deck screws, always pre-drill a pilot hole and countersink prior to driving screws. Screws must be driven flush with the surface. Do not over-tighten. Use one fastener per board every 16".

Step 2 Use two fasteners per deck board at each joist. For any decking where two boards meet end-to-end over a joist, additional blocking must be used for proper board end support (Fig. 11). Always predrill a pilot hole when fastening within 1-1/2" of board ends, whether using composite or wood screws. Do not over-tighten screws at board ends.



Step 3 On the other side of the board, place a Stowaway hidden fastener into the groove and center on the joist (Fig. 12). Install the preset screw at a 90° angle through the Stowaway fastener and drive flush. Do not over-tighten. The fastener wings must remain level with the joist for the next board to fit correctly (Fig. 13).



Grooved Board Installation, cont.

Step 4 Install one Stowaway fastener at each joist location. Slide the next board into place so the wings on the previous fasteners fit into the groove on the side of the board. Make sure the side gap between the boards is 1/4".

Step 5 To keep the interior boards from moving over time, the boards must be pinned at the center of their length using a #8, 2" stainless steel screw. This holds the deck board in place at the center of each board and allows the decking to expand/contract at the ends. Pre-drill in the groove of the deck board with an 1/8" drill bit (Fig. 14). Drive screw into the groove so it's flush with the bottom of the groove (Fig. 15). This will allow you to properly fit a Stowaway hidden fastener into the groove.

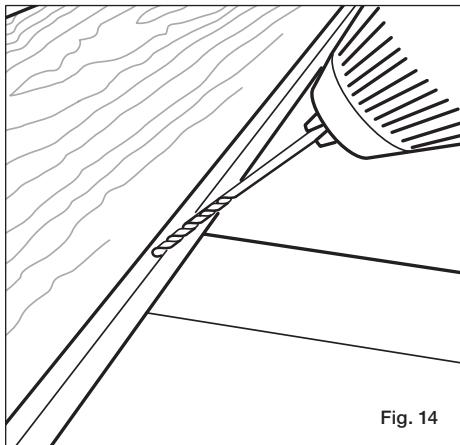


Fig. 14

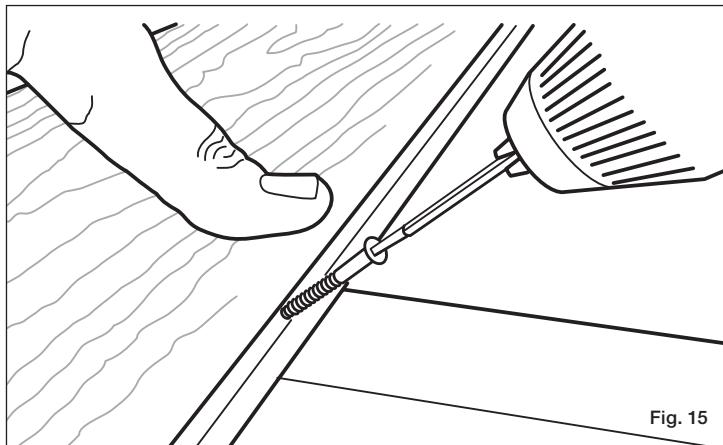


Fig. 15

Step 6 Install a Stowaway hidden fastener clip over the screw and centered over the joist. Fasten using preset screw at a 90° angle through the Stowaway hidden fastener and drive flush with the clip (Fig. 16). The fastener wings must remain level with the joist for the next board to fit correctly (Fig. 17).

Note: To cut a groove on one side of deck board, we recommend using a 5/32" T-slot cutter.

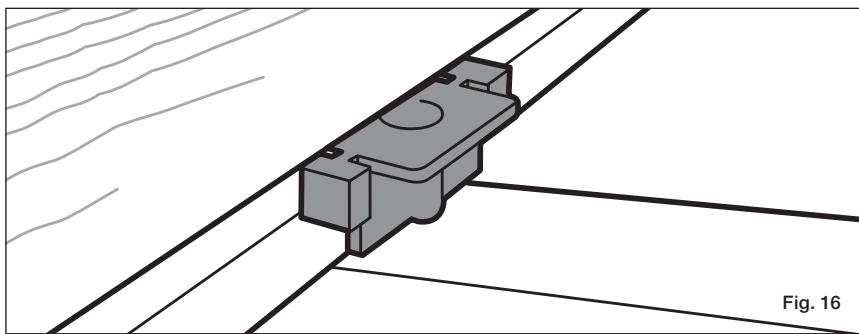


Fig. 16

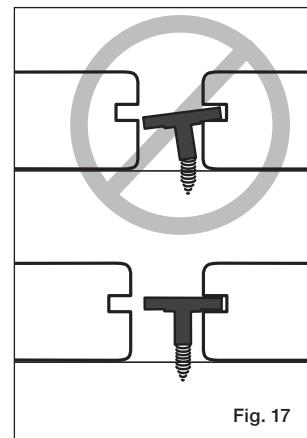
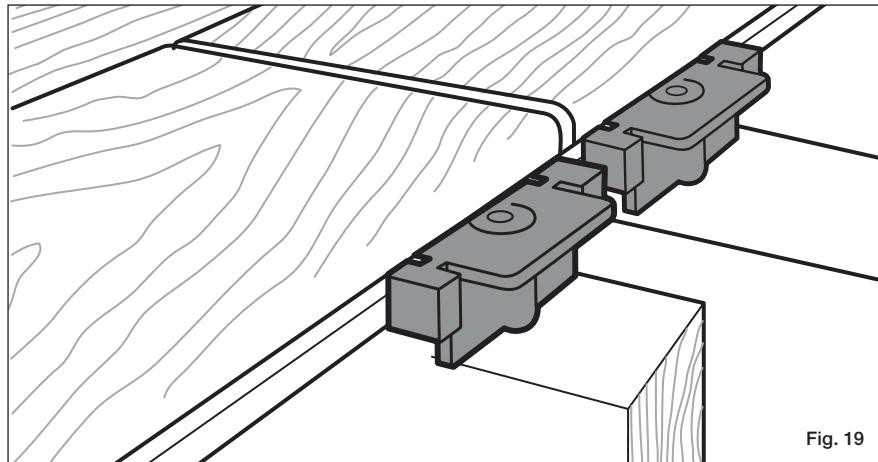
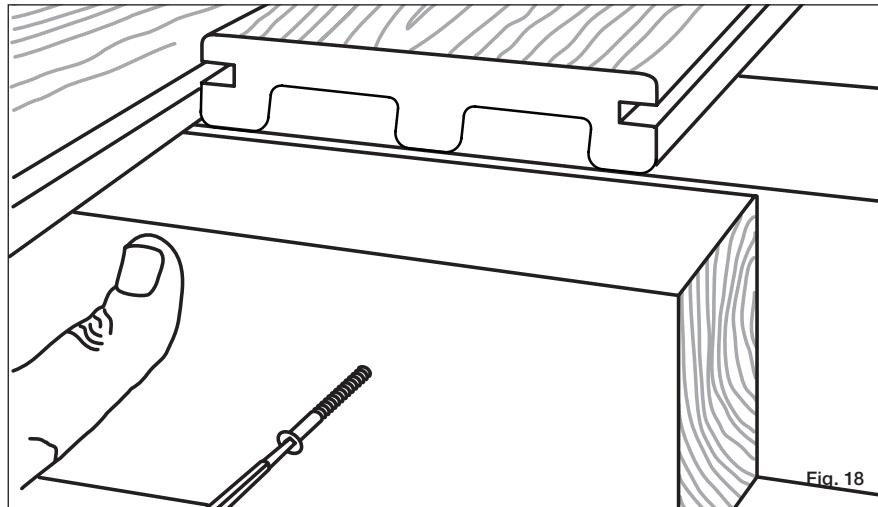


Fig. 17

Grooved Board Installation, cont.

Step 7 Install one Stowaway fastener at each joist location along the length of the board. For installations where deck boards are butted end-to-end at the joist, an 8" block must be added using a Stowaway hidden fastener clip at the end of each board (Fig. 18 and Fig. 19). Be sure to gap the boards as previously described.



Step 8 Repeat the process for each board until the outside edge of the final board is fastened with screws. Use fascia to conceal the board profile and inhibit board movement over time. Please refer to the fascia installation instructions for the approved fastening methods for fascia boards.

Step 9 If no fascia is being used, the entire perimeter of the deck should be fastened to the rim joist with screws. Use two screws per joist on the perimeter board. These screws will be inconspicuous once the railing is installed. Decking should be fastened with screws when being used as stair treads.

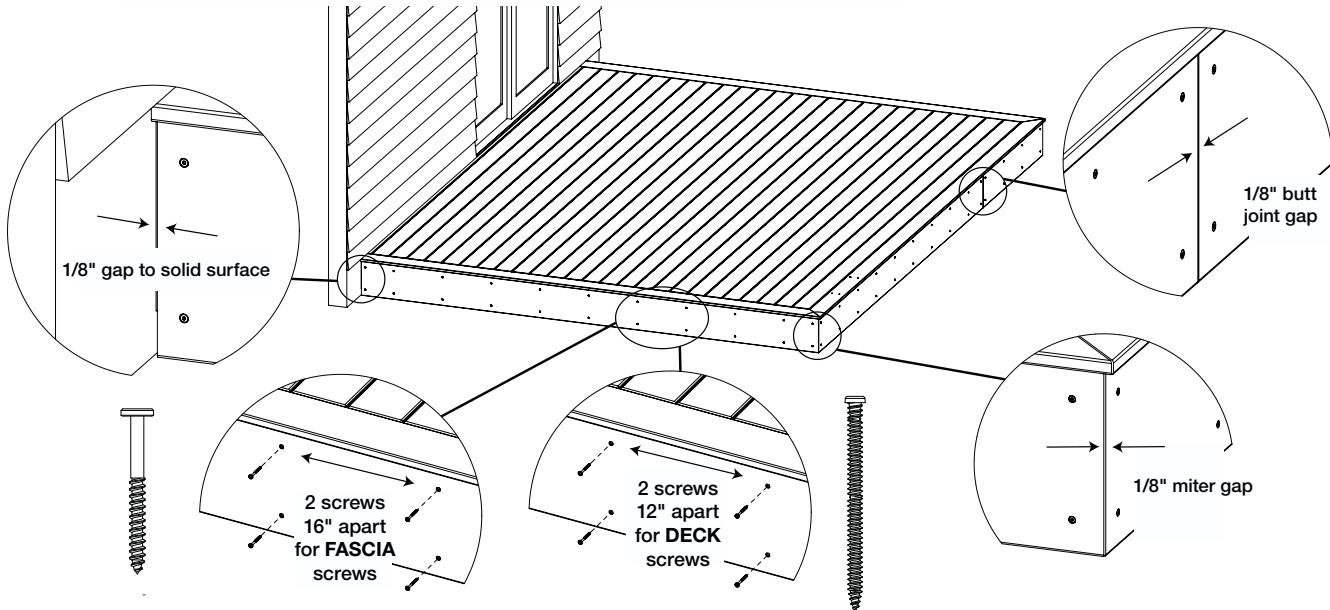
ALTITUDE FASCIA INSTALLATION INSTRUCTIONS

Tools and Items Needed

- Drill/power screwdriver
- 1/8" drill bit
- Circular saw with carbide-tip blade
- 2 1/2" composite wood deck screws
- Tape measure
- Carpenter's pencil
- Safety glasses/goggles

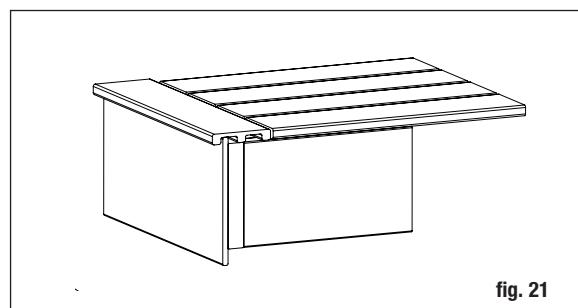
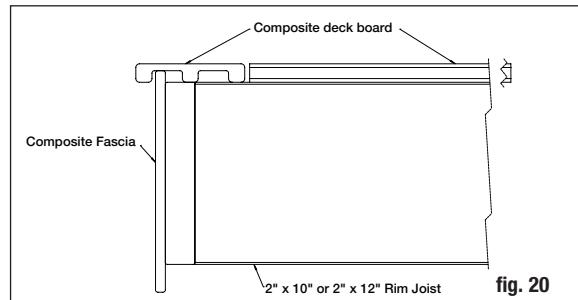
Notice to Installers

- DO NOT use cordless impact drivers
- Set drill speed to 1500-1750 RPM
- Max torque not to exceed 23 inch pounds
- Pre-drill knots or dense hardwood



Attach fascia to the rim joist using 2 screws spaced no further apart than 16" on-center when using fascia fasteners and 12" on center with deck fasteners. Predrill all holes in the fascia using the Fascia tool drill bit to get the correct hole for fascia screws. If using color matched Deck screws predrill using 3/16" drill bit. Fasten the fascia from one end to the other, or from the center out to each end. Never fasten the fascia from both ends to the center. Leave a 1/8" gap between the fascia ends where two pieces meet or wherever a piece meets a solid surface (i.e., a corner or a building wall) to allow for expansion of the material. Use one of the recommended installation configurations below for best results. Do not install fascia board flush with decking that runs perpendicular (see figures 20-21 for possible configurations to conceal 2x10 and 2x12 joists).

Note: Deckorators Fascia is not suitable for structural use. It must not be used for primary load-bearing members such as posts, joists, beams or stringers. The same common sense precautions should be taken when handling Deckorators products as with any wood or other building materials. Dust masks and eye protection devices are recommended to avoid possible irritation from sawdust and chips. Gloves will help protect hands. Hands should be washed after construction work.



ALTITUDE DECKING STAIR INSTALLATION INSTRUCTIONS

Tools and Items Needed	Notice to Installers
<ul style="list-style-type: none">• Drill/power screwdriver• 1/8" drill bit• Circular saw with carbide-tip blade• 2 1/2" composite wood deck screws• Tape measure• Carpenter's pencil• Safety glasses/goggles	<ul style="list-style-type: none">• DO NOT use cordless impact drivers• Set drill speed to 1500-1750 RPM• Max torque not to exceed 23 inch pounds• Pre-drill knots or dense hardwood

Prior to construction, check with your local regulatory agency for special code requirements in your area. Store on flat surface and allow to acclimate to jobsite conditions prior to installation. For best results, follow these simple installation instructions, paying close attention to gapping, spacing, and fastener requirements.

Unsupported Stair Stringer Spacing

For use with Stair joists only— Stringers should be spaced no greater than 8" on-center.

Tread dimension WITHOUT RISER (11" Fig 22)

= 2x(5.5" boards) + 0" gap between the boards + 0" gap from board to riser.

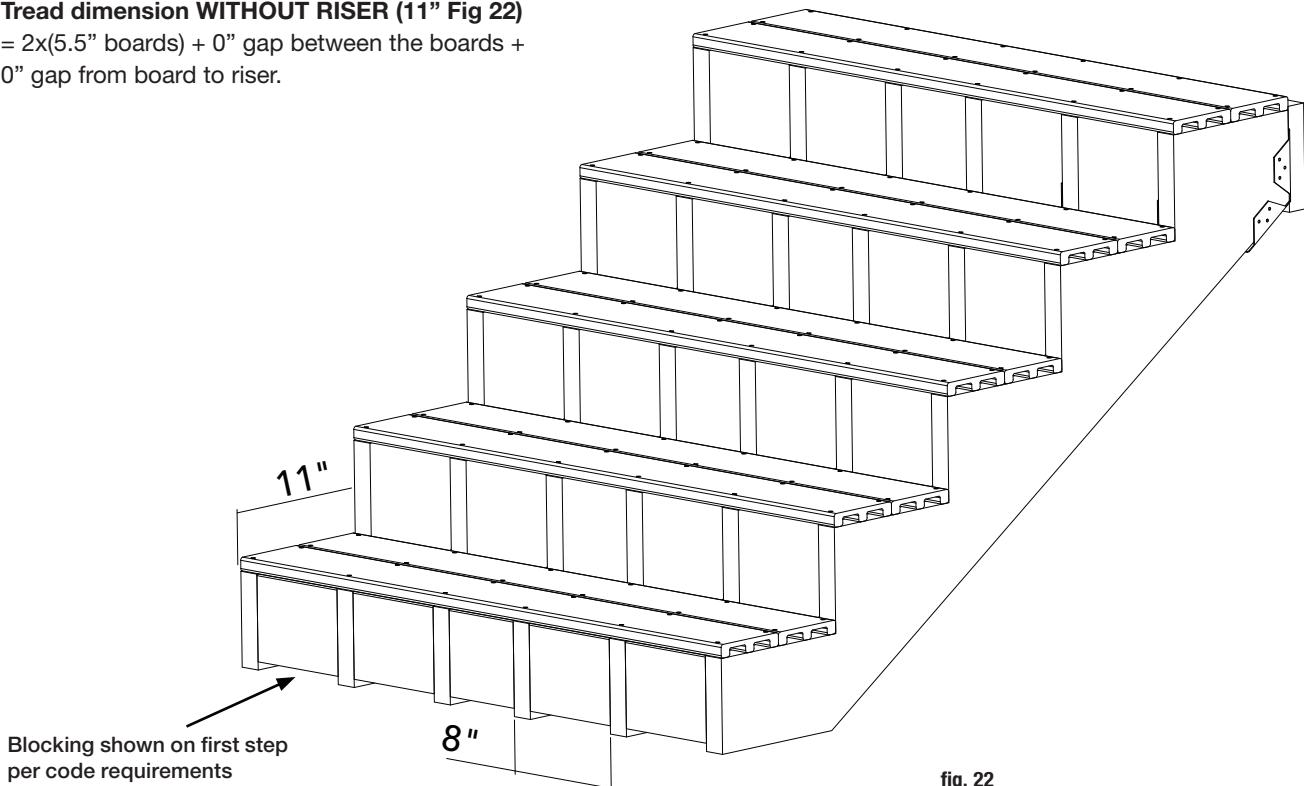


fig. 22

Riser Supported Stair Spacing

Full Support Option

With use of supported treads—stair joist/stringer spacing is a maximum of 16" on-center (2x4 kick plate support is highly recommended). For commercial applications, maximum of 8" on-center stair joist spacing.

Allow a minimum of 1/8" between board ends. Allow 1/4" distance between all stair tread material and any permanent structure or post.

Tread dimension WITH RISER (11.5" Fig 23 and Fig. 24)

= $2 \times (5.5\text{'' boards}) + 0.25\text{'' gap between the boards} + 0.25\text{'' gap from board to riser.}$

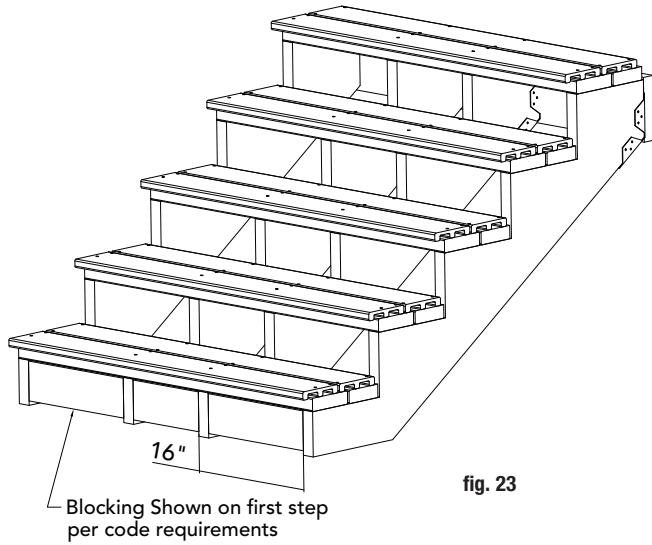


fig. 23

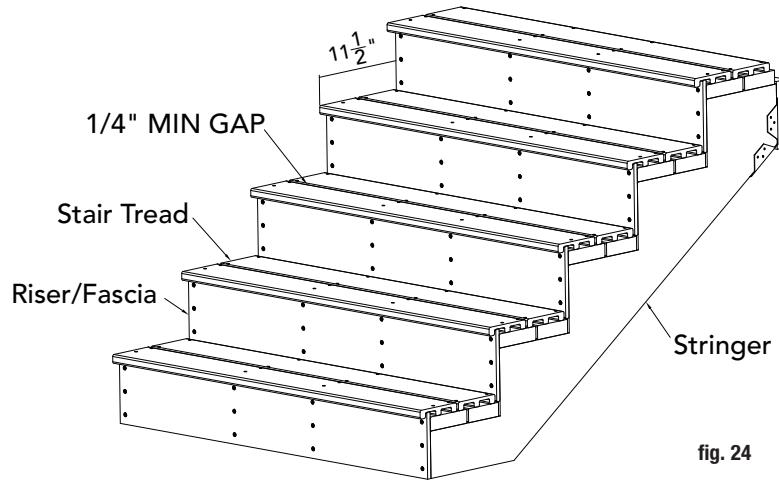


fig. 24

Fasteners

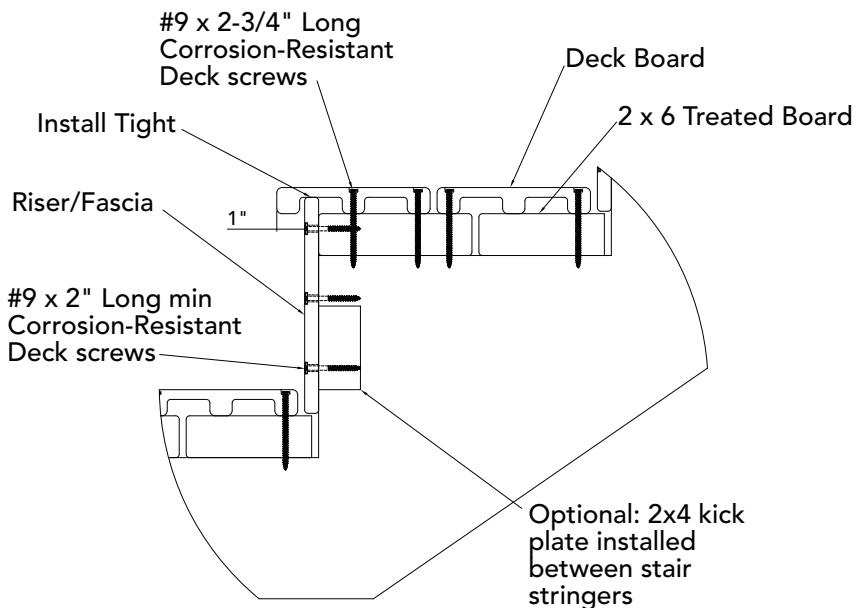
For a list of recommended and compatible fasteners please visit <http://deckorators.com/plan-install/literature.aspx>.

Recommended fasteners are those which are recommended by the manufacturer of Deckorators Stair Tread. Compatible fasteners are those which have been tested and recommended for use with Deckorators Stair Tread by the fastener manufacturer. The use of a non-recommended fastener will not void the Deckorators Decking Warranty; however if a stair tread failure is caused by the use of a non-recommended fastener, any corresponding warranty claim will be denied.

For ease of installation, we recommend using 2-3/4" corrosion-resistant, composite wood deck screws. These screws help minimize the common "mushroom" effect that sometimes occurs when using standard fasteners. They can also reduce the amount of pre-drilling and countersinking. If using ordinary coarse thread deck screws, always pre-drill a pilot hole and countersink prior to driving screws.

Screws must be driven flush with the Deckorators stair tread surface. Do not over-tighten.

Use two fasteners per stair tread board at each stringer. For any stair tread where two boards meet end-to-end, an additional stringer is required so each end is supported. Always pre-drill a pilot hole and countersink at board ends when using composite screws. Be careful not to over-tighten screws near board ends. Altitude (wood plastic composite) riser/fascia must be installed tight to the bottom of the board acting as the nose of the stair tread, and fastened with (3) #10 x 2" composite deck screws per joist. The overhanging tread board should be tight to the overhanging lobe or up to 1 inch of overhang. A support board is highly recommended behind the Riser/Fascia board to help prevent damage from kicking over time.



Color Variation

Like most composites, Deckorators stair tread will have color variations from piece to piece. This is due to naturally occurring variations in wood fibers and polymers. Purchasing all required stair tread material at one time is recommended, as manufacturing runs can produce slightly different colors. Do not install if color variation is not acceptable.

Preventing Mold and Mildew Growth

Mold and mildew can be a nuisance on any exterior building surface, regardless of the material. If the conditions are right, they will grow on wood, plastic, concrete, metal, and other surfaces. Mold formation is the most prevalent in consistently wet, shaded areas. Spores from the natural environment are carried by the wind and commonly land on deck surfaces. It is important to note that the appearance of mold/mildew is a function of nature, not necessarily a deficiency with any of the material on which it grows.

Cleaning

Periodic washing with soap/mild detergent and water will help remove surface dirt. This will also help prevent the buildup of pollen, debris and spores that can cause and accelerate mold/mildew growth. Caution: A pressure washer must not be used to "blast" mold/mildew or soils from a deck surface. The abrasive nature of water stream can potentially cause damage by driving spores deeper into the material, which may create a more challenging problem to remedy. A pressure washer with a fan-tipped nozzle must only be used to lightly wet or rinse wood or composite deck surfaces.

There are many deck wash and exterior cleaning products available at retail. Only use cleaners intended for your application. Instructions provided by the manufacturer must be followed. Some cleaning products and inhibitors may be more effective than others, depending on the environmental conditions your deck is subjected to. Additionally, it is always a good idea to test the cleaner in a small, inconspicuous area prior to applying it to the entire deck (www.deckorators.com).

Mold Inhibitors

As with deck washes, there are several mold-inhibitor products available from paint stores, hardware stores, online outlets and home centers to prevent long-term mold/mildew growth. For any product selected, be certain to read, understand, and follow all instructions provided by the manufacturer. Depending upon the environmental factors affecting your deck, some preventative cleaning products may be more effective than others. It may be necessary to try more than one product. For ongoing preventive maintenance, follow the manufacturer's recommendation. Note: Deckorators is not suitable for structural use. It must not be used for primary load-bearing members such as posts, joists, beams, or stringers. The same common-sense precautions should be taken when handling Deckorators as with wood or other building materials. Dust masks and eye protection devices are recommended to avoid possible irritation from sawdust chips. Gloves will help protect hands. Hands should be washed after construction work.

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