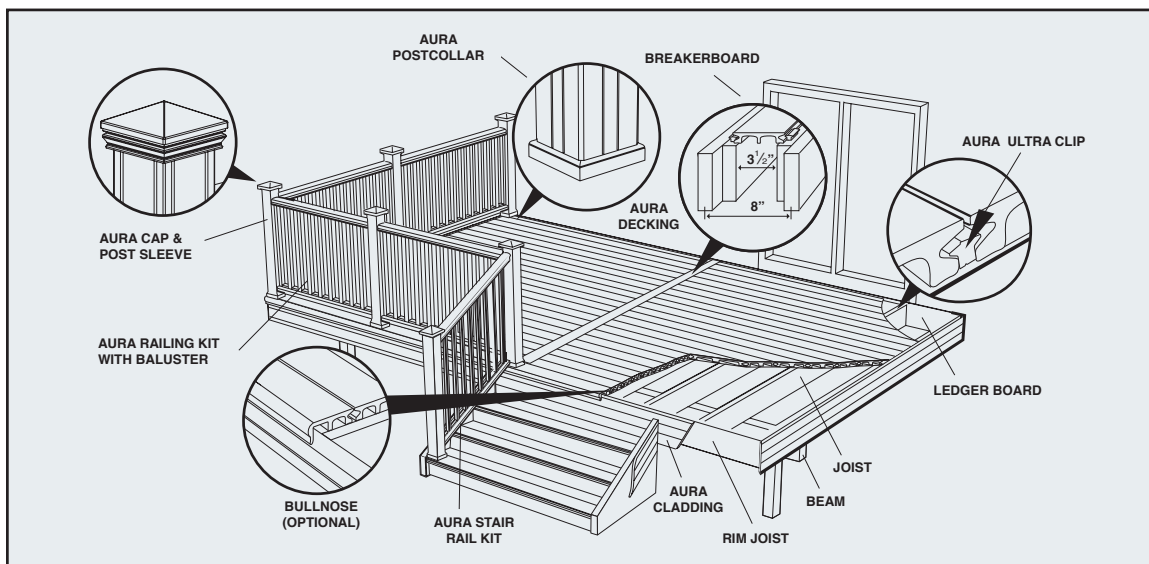




2015 AURA® DECKING INSTALLATION MANUAL

Welcome to Aura®. The following instruction manual will assist you with the installation of your virtually maintenance-free deck.

(ENSURE THAT YOU ARE USING THE CORRECT YEAR)



CODES & STANDARDS

- Always conform to your local building codes and the requirements of all authorities having jurisdiction.

SAFETY

- Protective safety equipment is always recommended, e.g., eyewear, safety boots.

TOOLS AND HARDWARE REQUIRED (NOT INCLUDED)

Standard woodworking tools are recommended for Eon® installations:

- Miter saw with coarse blade (carbide blade recommended) or handsaw
- Measuring tape
- Drill and $\frac{3}{16}$ " drill bit
- Screwdriver
- Rubber mallet (non-marking)
- #8 deck screws ($1\frac{5}{8}$ ", 2" and 3")
- Rotary tool with spiral bit
- **Ultra Clips**

SUBSTRUCTURE

1. Aura decking and railing is designed to be installed on a conventional wood substructure (pressure treated recommended).
2. **For enhanced feel and performance, Aura recommends 12" on center joist installation (straight application)**

Note: Please consult your local building code for joist span requirements as they may vary between 12" and 16" on center.

3. Joists should be installed 10" on center for angled decking.
 - Joists must be level and aligned before installing Aura decking.
 - Rim joist must be raised $\frac{7}{8}$ " to support optional bullnose trim.
 - Stair stringers should also be installed 12" on center.
 - 4" x 4" wood posts must be used and bolted to the inside of the substructure to support the Aura railing system. This is done before you install the deckboard.



ATTENTION!!

READ THIS SECTION BEFORE YOU START!

FAILURE TO FOLLOW THESE STEPS MAY VOID YOUR WARRANTY

DO read this entire installation guide before beginning installation.

DO remove the protective plastic (where applicable) and inspect for defects and proper color before installation (once installed color variance will not be covered under warranty).

DO use an Aura board as a breaker board for large decks or when using 20' boards (this will reduce visual effect for expansion/contraction) You may want to use this for 12' and 16' boards as well. (REFER TO FIG. 12 + 13)

DO ensure all joists are level and aligned.

DO toe screw all boards at a 45° angle through the lower lip of the board to a joist in one location only. Boards should be toe screwed either in the center to force equal expansion/contraction to both ends or closer to one end (1/4 of the board length from the end) to force the expansion/contraction to the opposite end. (REFER TO FIG. 5 + 7)

DO refer to the chart on page 2 of the 2013 Install Guide for proper spacing for expansion and contraction.

DO pre-drill slotted holes (sized to accommodate the appropriate expansion / contraction) when installing fascia cladding L-Trim and bullnose to allow for lateral movement. Failure to pre-drill slotted holes may cause material to crack and will not be covered under warranty.

DO ensure there is enough space between the deckboard and any posts to allow for expansion/contraction. (REFER TO FIG. 3 + 4)

DO double the joist thicknesses if two boards butt end-to-end. Each board requires its own clip fastener. (REFER TO FIG. 3 + 4)

DO raise rim joists 7/8" when using the bullnose to support the lip of the board. (REFER TO FIG. 2)

DO employ caution when using barbecues, fire pits, grills and chimneys on an Aura deck. Never leave an open flame unattended!

DO NOT use petroleum based products on Aura boards i.e. solvents, suntan lotion, bug spray, bubble solution, harsh cleaners and rubber backed mats which may discolor the deck.

DO NOT butt 20' boards. If you must butt 20' boards ensure that you follow the installation guide recommendations and use a breaker board. This will avoid dissatisfaction with apparent expansion and contraction when installed incorrectly.

DO NOT share clip fasteners at the joist if butting boards end-to-end.

DO NOT use nails to fasten Aura. Only screws are to be used with the clip fastening system.

DO NOT use a pressure washer, only a garden hose is required with mild soap if necessary.

DO NOT toe screw at more than one point in the same board.

DO NOT over-torque clip screws, this could result in inconsistent spacing. (REFER TO FIG. 3 + 4)

BEFORE INSTALLING AURA DECKING

COLOR VARIATION

- Slight color variations are normal within your purchased set of deck boards. In a similar manner that you would install roof shingles or hardwood flooring, we recommend you randomize any slight color variation that may exist within your deck boards.

Note: Please remove protective plastic and inspect for defects and proper color before installation.

STORAGE AND HANDLING

- Carefully unload, do not dump.
- Do not drag decking against abrasive surfaces.
- Store with the face side up.
- Do not use petroleum based products on the boards. i.e. sun tanning lotion, bug spray or rubber backed mats.

DIMENSIONS

- Deck board = $5\frac{1}{2}$ "
- Ultra-Clip = $\frac{1}{4}$ "
- Deck board and Ultra-Clip combined = $5\frac{3}{4}$ "

To calculate how many deckboards you will need, divide the width of your deck (in inches) by 5.750".

CALCULATING ULTRA-CLIP REQUIREMENTS

- 12" on center: one bag (100 Ultra-Clips) for every 50 SQ.FT.
- 16" on center: one bag (100 Ultra-Clips) for every 66 SQ.FT.
- 10" on center (for angled decking): one bag (100 Ultra-Clips) for every 40 SQ.FT.

BOARD WEIGHT

- Deck board 1.15 lbs/ft
- Bullnose board 1.40 lbs/ft

INSTALLATION TIPS FOR EXPANSION/CONTRACTION

Because of the amount of expansion/contraction that occurs on Aura material, you must consider the following points when designing and building your deck:

- Consider including a breaker board in your deck design, especially where longer deckboards may meet end-to-end. The addition of a breaker board would divide this space into two smaller spaces on either side of the breaker board. (REFER TO FIG.22)
- Leave proper expansion/contraction spaces at the ends of all deck boards and around any cut out notches for posts. (REFER TO CHART ON NEXT PAGE)
- Always toe screw each deck board or bullnose trim to a joist in the approximate center of the board with a single #8 x 2" deck screw. Pre-drill a $\frac{3}{16}$ " hole before installing screw. This will fix the deck board to the joist and allow the deck board to expand equally on either end. (REFER TO FIG.6)
- 9" Fascia cladding must be installed with screws along its entire length. The **pre-drilled holes must be slotted** to accommodate expansion and contraction (REFER TO FIG.14), especially closer to the ends of the length. Alternately, cladding can be trimmed into two 6' sections and mitre cut to eliminate the need for slotted holes along the length of the cladding. The amount of expansion/contraction from the installation temperature can also be looked up from the expansion/contraction tables on the next page. (REFER TO FIG.13)
- Deck board ends should lie on a full joist width. Wherever two deck boards are butted end-to-end, a double joist thickness is required with a **separate fastener** for each board. (REFER TO FIG.12)
- If you wish to stagger the deck board ends to achieve a random-looking pattern of deck boards, double joist thicknesses are required at each end-to-end joint. (REFER TO FIG.12)

Note: The spaces between the deckboard ends and fascia cladding or breaker boards may vary because of the varying deckboard lengths.

UNDERSTANDING EXPANSION AND CONTRACTION

- Aura deckboards, bullnose trim, and fascia cladding expand in length with rising temperatures and contract or shorten in length with falling temperatures. This expansion and contraction only occurs lengthwise not across the width.

HOW MUCH WILL YOUR AURA MATERIAL EXPAND AND CONTRACT?

- This depends on the length of the material and the temperature variations in your geographical area. See the chart for typical lengths of 12', 16', and 20'.

Warning: Do not look up the current temperature in the chart. You must look up the expected temperature range during the course of the year.

Expansion/Contraction Chart Example:

*Temperature at time of installation:
70°F or 20°C*

*Maximum Expected Temperature:
110°F or 40°C*

*Expected max rise=40°F or 20°C
Length of deckboard being used:
20 feet*

- Looking up the expansion for a 40°F temperature range on a 20' deck board gives an expansion of $\frac{3}{8}$ " on each end of the deck board. Therefore you must leave a $\frac{3}{8}$ " gap between the ends of the deck boards and any fixed structure such as a post, breaker board, house structure or fascia cladding. If two 20' deck boards meet end-to-end, then you must leave a gap of twice the size ($\frac{3}{8}$ " x 2 or $\frac{3}{4}$ " in this example) to allow for expansion of both deck boards.
- This chart can also be used to look up the contraction of the deck board to predict the maximum gap that will occur in the coldest temperature in your geographical area.

Note: If you wish to achieve a smaller gap than estimated from the chart, then shorter deck board lengths or the installation of a breaker board is recommended. Breaker boards are described later in this guide. All deck boards/ bullnose trim must be toe screwed in the middle with a single screw.

FAHRENHEIT EXPANSION / CONTRACTION CHART

<i>Expected Maximum Rise in Outside Air Temperature (range)</i>	DECK BOARD LENGTH		
	12' DECKBOARDS	16' DECKBOARDS	20' DECKBOARDS
	<i>Expected Expansion on Deckboard End*</i>	<i>Expected Expansion on Deckboard End*</i>	<i>Expected Expansion on Deckboard End*</i>
+30 °F	$\frac{3}{16}$ "	$\frac{1}{4}$ "	$\frac{5}{16}$ "
+40 °F	$\frac{1}{4}$ "	$\frac{5}{16}$ "	$\frac{3}{8}$ "
+50 °F	$\frac{1}{4}$ "	$\frac{3}{8}$ "	$\frac{7}{16}$ "
+60 °F	$\frac{5}{16}$ "	$\frac{3}{8}$ "	$\frac{1}{2}$ "
+70 °F	$\frac{5}{16}$ "	$\frac{7}{16}$ "	$\frac{9}{16}$ "
+80 °F	$\frac{3}{8}$ "	$\frac{1}{2}$ "	$\frac{5}{8}$ "
+90 °F	$\frac{3}{8}$ "	$\frac{1}{2}$ "	$\frac{11}{16}$ "
+100 °F	$\frac{7}{16}$ "	$\frac{9}{16}$ "	$\frac{11}{16}$ "

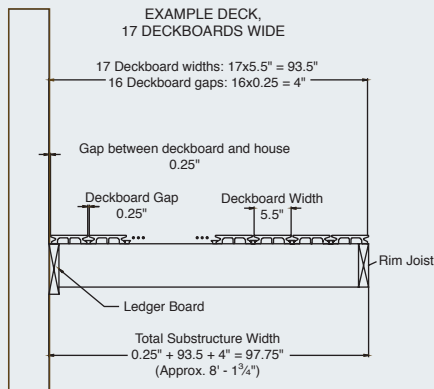
CELSIUS EXPANSION / CONTRACTION CHART

<i>Expected Maximum Rise in Outside Air Temperature (range)</i>	DECK BOARD LENGTH		
	12' DECKBOARDS	16' DECKBOARDS	20' DECKBOARDS
	<i>Expected Expansion on Deckboard End*</i>	<i>Expected Expansion on Deckboard End*</i>	<i>Expected Expansion on Deckboard End*</i>
+10 °C	$\frac{3}{16}$ "	$\frac{1}{4}$ "	$\frac{5}{16}$ "
+20 °C	$\frac{1}{4}$ "	$\frac{5}{16}$ "	$\frac{3}{8}$ "
+30 °C	$\frac{5}{16}$ "	$\frac{3}{8}$ "	$\frac{1}{2}$ "
+40 °C	$\frac{5}{16}$ "	$\frac{7}{16}$ "	$\frac{9}{16}$ "
+50 °C	$\frac{3}{8}$ "	$\frac{1}{2}$ "	$\frac{11}{16}$ "

Notes: For expansion values on or near the shaded region in the chart, if deckboards will be butted end-to-end, we recommend using breaker boards in the installation and/or shorter deckboard lengths.

The values shown are the expansions that will occur equally and on BOTH ENDS of a deckboard that is toe screwed with a single deck screw in the middle of the deckboard length. The expansion on the two ends of a deckboard will be different if the toe screw is not placed in the approximate middle of the deckboard.

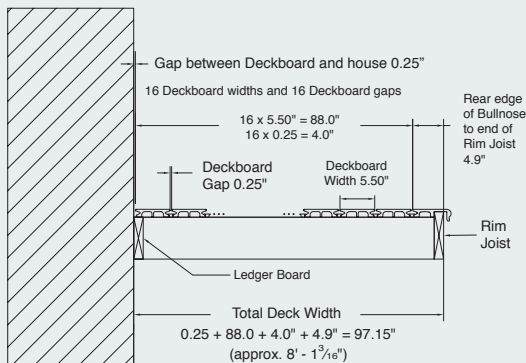
CALCULATING SUBSTRUCTURE DIMENSIONS: INSTALLATION WITH ALL DECKBOARDS



The Ultra Clip creates a 1/4" spacing between boards. Use the sample calculations in FIG.1 to determine the substructure measurements.

FIG.1a

CALCULATING SUBSTRUCTURE DIMENSIONS: INSTALLATION WITH BULLNOSE TRIM



The Ultra Clip creates a 1/4" spacing between boards. Use the sample calculations in FIG.1 to determine the substructure measurements.

FIG.1b

conventional wood substructure (pressure treated lumber is recommended). In order to accommodate Aura decking and railings, the substructure should be built with these additional features:

- Joist spacing at 12" on center. 10" on center for angled decking. (Please consult local building code for joist span requirements for Aura Decking as they may vary between 12" and 16" on centre.)
- Joists must be level to one another.
- Frequent bracing between joists are required: at least every 6'.
- Any rim joists or other joists that will support the optional bullnose trim piece along its length must be raised by 7/8". The bullnose trim must rest on this 7/8" step. (REFER TO FIG.2d)
- Bolt the 4"x4" posts to the inside of the substructure prior to installing the deckboard.
- Stair stringers must also have an additional support raised 7/8" from the stringer step to support the bullnose

Note: if other features are included in your deck, such as breaker boards, deck boards butting end-to-end, the substructure may need some minor additions.

2. INSTALLING FIRST DECKBOARD (OR BULLNOSE)

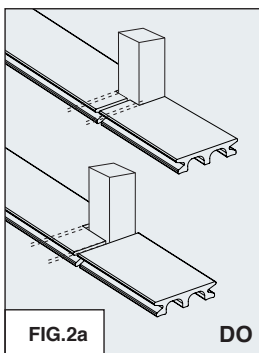
- Cut deckboard to required length. Refer to expansion/contraction section to determine the gap required for your particular installation.
- Cut out notches in the inside edge of the deckboard to fit any 4x4 posts, leaving a 3/8" gap on both sides of the posts for expansion and contraction. Avoid placing cut out notches near the end of a long deckboard by placing end-to-end butt joints at the post. (REFER TO FIG.2a)
- Place the deckboard onto the substructure with one edge on top of the rim joist. Pre-drill holes into the outer lower edge of the deckboard and attach the outer edge of the deckboard to the rim joist with 2" screws, spaced 12"-24" apart. All holes should be pre-drilled and preferably slotted to allow for expansion/contraction. (REFER TO FIG.2b)

1. BUILD SUBSTRUCTURE

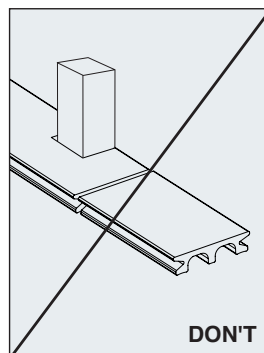
Use Fig.1a and 1b and the example calculations to estimate your deck width to fit an even number of deck boards. This example shows a calculation for an 8' deck. This calculation should only be used as a guideline to build your deck substructure, as slight variations in installation (and deckboard gaps) may cause the predicted measurement to differ from the actual installation.

- Deck board width: 5 1/2"
- Gap between deck boards: 1/4"
- Bullnose width to rim joist outer edge: 4 7/8"

Eon® decking and railing should be installed on a



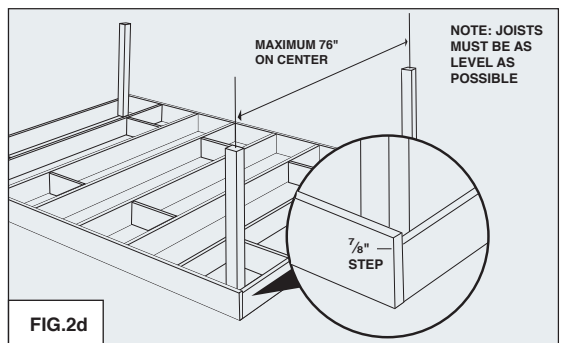
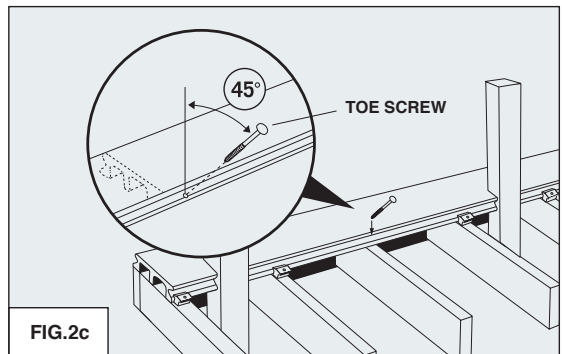
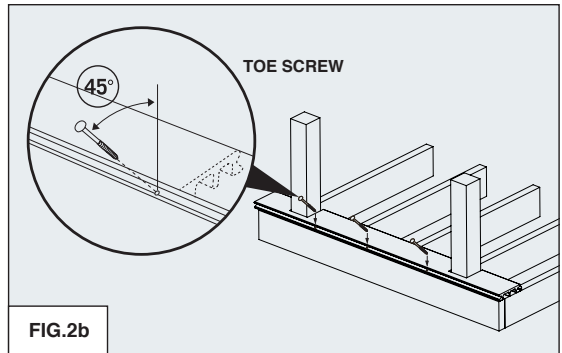
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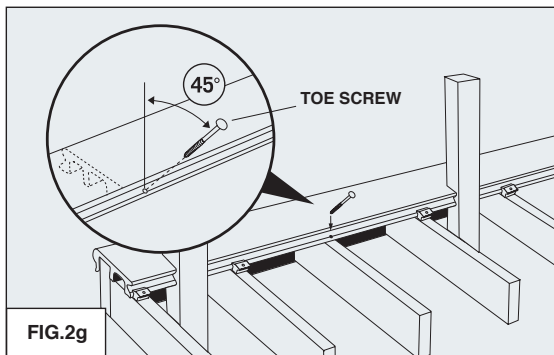
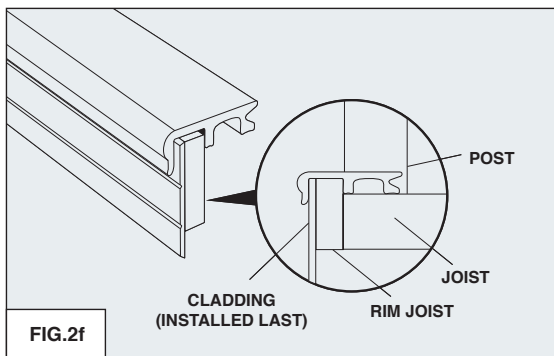
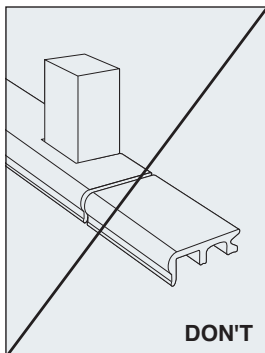
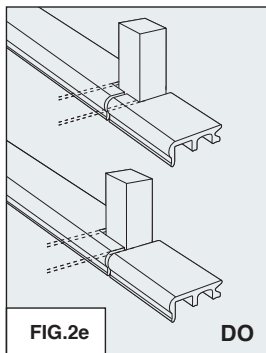
CUTTING AND DRILLING AURA

Cutting and drilling Aura is different from cutting wood. Standard woodworking tools are recommended, but in order to avoid melting the plastic during cutting, drilling, etc., we recommend the following as a starting point:

- Table saws, circular saws, and miter saws should be equipped with carbide blades with coarse teeth. Make sure the saw is at full speed before you start cutting. All cuts should be made quickly, rather than slowly. As a rough guideline, a miter saw can cleanly cut through a deck board in less than one second.
- Wax or cooking spray can be used on the blade for a clean cut.
- Jigsaws can be used with Aura but coarse blades and slower blade speeds are recommended as a starting point. A jigsaw that is equipped with an orbital cutting action may reduce heat buildup that causes melting.
- Drilling should be done at slower RPM speeds to prevent melting. Forstner bits work well for large holes.
- Slotted holes are often required for Aura to allow for expansion and contraction, especially on the fascia cladding, Bullnose and L-Trim.
- A rotary tool with a spiral bit is easier and faster at slotting holes than using a drill with a standard drill bit.
- Aura can be filed by hand if required. Power sanders (belt or random orbital) will melt the material.
- Wood chisels can be used with Aura material.



- On the lower lip of the deckboard, pre-drill a 3/16" hole through the exposed foot of the deckboard at the centre point of the board at a 45° angle. Install a single 2" screw through the deckboard and into the middle joist to toe-screw the deckboard to the substructure. (REFER TO FIG.2c)
- Install a row of Ultraclips along the inside edge of the first deckboard on the remaining joists to secure the deckboard to the substructure. (REFER TO FIG.2c)



OPTIONAL BULLNOSE TRIM INSTALLATION

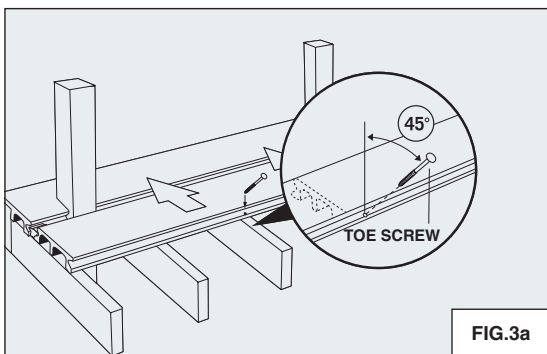
- The decking installation can also begin with a Bullnose Trim instead of a regular deckboard. If starting the decking installation with Bullnose Trim, be sure that any rim joists that will support the Bullnose Trim are raised by 7/8". (REFER TO FIG.2d). The calculation of substructure dimensions is slightly different when using Bullnose. (REFER TO FIG.1b)
- Cut Bullnose trim to required length in the same manner as for standard deckboards, referring to the expansion/contraction section to determine the gap required for your particular installation.
- Cut out notches in the Bullnose trim to fit 4" x 4" posts, leaving a 3/8" gap on both sides of the posts for expansion and contraction. Avoid placing cut out notches near the end of a long Bullnose Trim piece by placing end-to-end butt joints at the post. (REFER TO FIG.2e)
- Place the Bullnose onto the rim joist substructure with the middle leg against the inside of the rim joist. (REFER TO FIG.2f)
- Pre-drill a 3/16" hole through the Lower lip of the bullnose trim at the centre point of the board at a 45° angle. Install a single 2" screw through the Bullnose and into the middle joist to toe-screw the Bullnose to the substructure. Install a row of Ultracips along the inside edge of the Bullnose Trim on the remaining joists to secure the Bullnose to the substructure. (REFER TO FIG.2g)

3. INSTALL NEXT DECKBOARDS

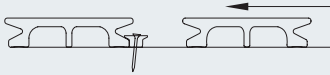
- Cut a deckboard to required length and lay the deckboard behind the Bullnose against the existing row of clip fasteners. Refer to the expansion/contraction section to determine the proper gap required for your installation.

Note: Cut all deck boards at the same temperature to ensure a consistent gap.

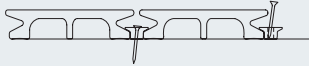
- Attach or toe screw the deck board to the joist with a single #8 x 2" deck screw in the approximate center of the board. Pre-drill 3/16" hole into the deck board's lower lip at a 45° angle prior to installing screw. (REFER TO FIG.3a)



INSTALLING DECK BOARDS:



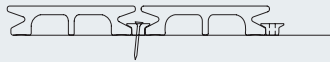
1. Push Deckboard into place using hand force only.



3. Drive screw through the Ultra Clip into joist. The top of the screw should be closer to the Deckboard, and the screw should be angled just enough to clear the edge of the Deckboard.



4. The Ultra Clip should remain pressed against Deckboard and head of screw should be just above top of Ultra Clip.



2. Place the Ultra Clip against side of Deckboard.



☒ Point of screw too far from Deckboard.



☒ Screw too high



☒ Screw angled too far from Deckboard



☒ Screw too deep



☒ Screw point should start closest to Deckboard and angled just enough to clear top edge of Deckboard.



☒ Screw just right

FIG.3b

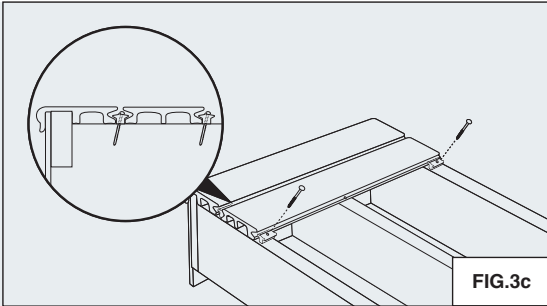


FIG.3c

- Do not use excessive force to push deck board into existing row of clip fasteners. Hand or leg force (or rubber mallet) is recommended. The use of board bending tools or "bowwrench" are not recommended as this may cause too much friction as they can easily apply excessive sideways force on the deck board.
- Install clip fasteners on all remaining joists. Installing a clip on the toe screwed joist is not required. (REFER TO FIG.3b + 3c)
- Repeat as required. (REFER TO FIG.3d)

Note: if installing two boards end-to-end, double joists are required and separate clip fasteners are required for each board. (REFER TO FIG.3e)

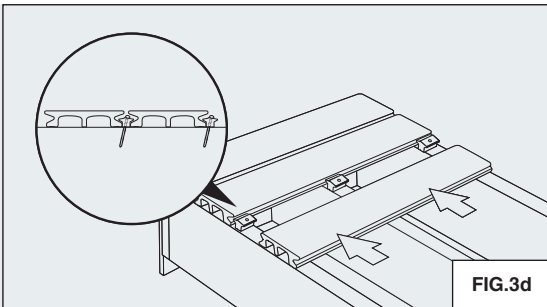


FIG.3d

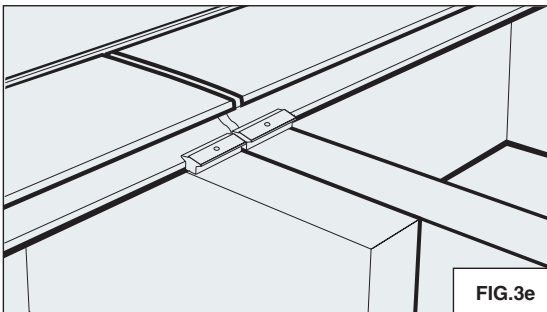


FIG.3e

ULTRA CLIP INSTALLATION TIPS

- The screw should be tightened only enough to fully seat the clip onto the joist. The head of the screw should not compress into the top of the clip, but should simply hold the clip down onto the joist.
- If using a cordless drill with a clutch, set the clutch to a low torque setting that will not deform the clip upon tightening of the screw. Overtightening the screw may prevent full insertion of the next deckboard.
- In certain instances where individual joists are low, leaving a gap between the underside of the deckboard and the joist, we recommend standing on the deckboard to press the deckboard flush against the joist while installing the clip. In extreme cases, shims may be recommended to level the joists before installing the clip.

4. INSTALL LAST DECKBOARD

- Insert edge of last deckboard under the remaining row of clips.
- In the event you are unable to fit a final row of clips against your substructure pre-drill and screw deck board into joist from top surface. Attach the deck board with screws spaced 36" apart. To avoid complications from expansion/contraction, slot all holes, except the center hole. (REFER TO FIG.4a)

Note: The final deck board may need to be ripped along its length in order to fit in the remaining space. If the entire leg is removed, install a support strip onto the joist to support the deck board.

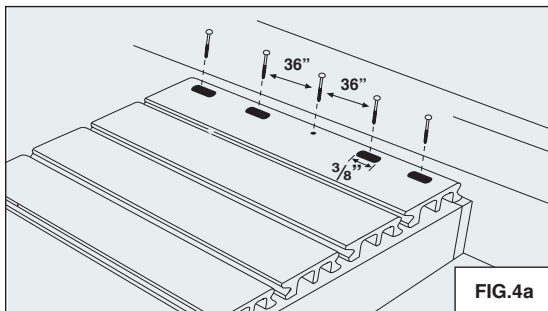


FIG.4a

5. INSTALL FASCIA CLADDING

- 9" or 12" Fascia cladding can be used to cover the rim joist and the sides of the deck. If bullnose trim is installed, the cladding is inserted under the lip of the bullnose trim.
- Cut fascia cladding to length, leaving proper gap for expansion and contraction as required.

IF USING 9" CLADDING

- Pre-drill holes in two grooves of the fascia cladding, spaced 18" apart. If the cladding is used under the bullnose lip, the holes may be spaced as wide as 36" apart. (REFER TO FIG.5a)
- Using a rotary tool with a spiral bit, enlarge the pre-drilled holes into slots, leaving the two holes in the center of the cladding unslotted. Be sure to cut generous slot lengths, especially near the ends of the cladding to avoid complications from contraction and expansion. Cutting slots of insufficient length may result in complications such as buckling of the cladding or breakage of screws. If necessary, use the expansion/contraction charts to look up the predicted expansion and contraction of your fascia cladding. (REFER TO FIG.5b)
- Install cladding onto deck with #8 deck screws (minimum 1 5/8" long). Begin with unslotted screws in the center of the cladding. Be sure to install the screws in the middle of the slots to allow for expansion and contraction. Do not over tighten screws. The screws should lightly hold the cladding against the structure and allow free expansion and contraction of the cladding.
- The cladding should contact the underside of the bullnose if installed under the bullnose. If the cladding is installed to cover the ends of the deck boards, then the cladding can be aligned with the top surface of the deck boards.
- If two pieces of cladding are installed end-to-end, an expansion gap must be left between the two pieces.

Note: To minimize gaps at the corners of the deck, shorter lengths of cladding (6' or less) are recommended where the cladding will meet at a corner.

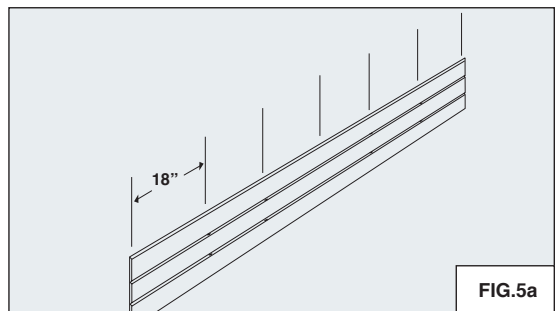


FIG.5a

ATTACH BULLNOSE TRIM TO RIM JOIST

- Pre-drill holes every 24" into the lower lip of the bullnose and through the fascia cladding. Using a rotary tool with a spiral bit, enlarge all pre-drilled holes in the bullnose lip, into slots to allow for expansion and contraction, especially near the ends of the bullnose length. If necessary, use the expansion and contraction table.
- Drive #8 x 2 deck screws into the bullnose lip. Tighten screws just until the head of the screw contacts the bullnose lip, and before the screw pulls the bullnose lip towards the joist.

IF USING 12" CLADDING

- Screw the Cladding Hangers into the rim joist with Deck screws (four #8 x 1½" screws per hanger). The top edge of the hangers should be located 6½" below the lower lip of the bullnose. Use one hanger for every 3-5 feet of cladding length. Install a single hanger wherever two cladding lengths will meet end-to-end so that the hanger is shared by the two cladding lengths. (REFER TO FIG.5c)

Note: Create a 6½" long spacer block or draw a chalk line to set the hanger location if installing many hangers.

- Insert the square edge of the fascia cladding into the space between the bullnose and the rim joist. Swing the lower edge of the fascia cladding towards the rim joist and drop the cladding onto the hanger so that the hook of the hanger fits into the groove on the cladding. (REFER TO FIG.5d)

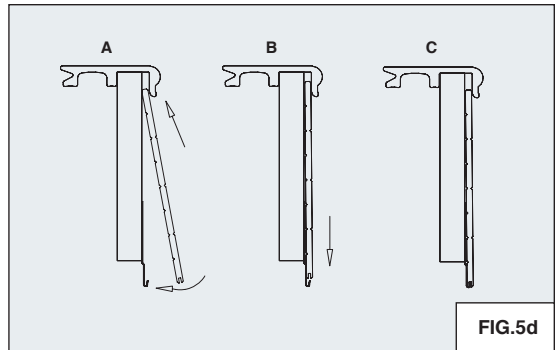


FIG.5d

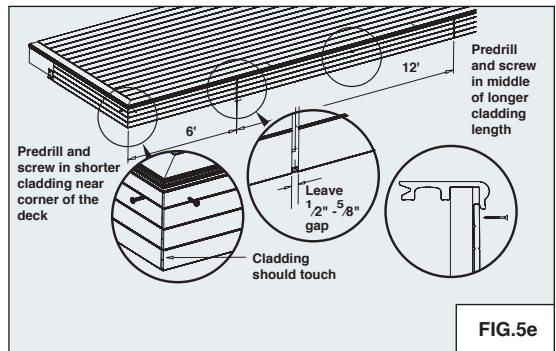


FIG.5e

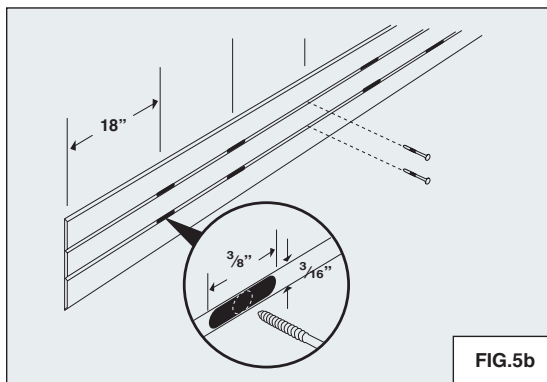


FIG.5b

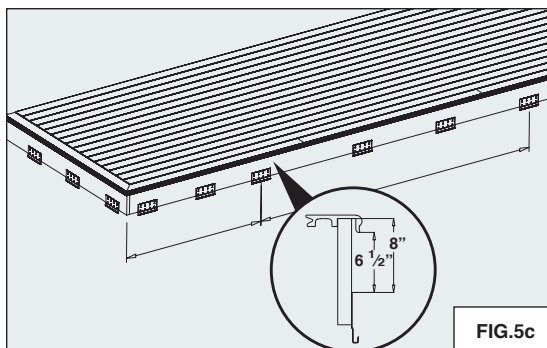


FIG.5c

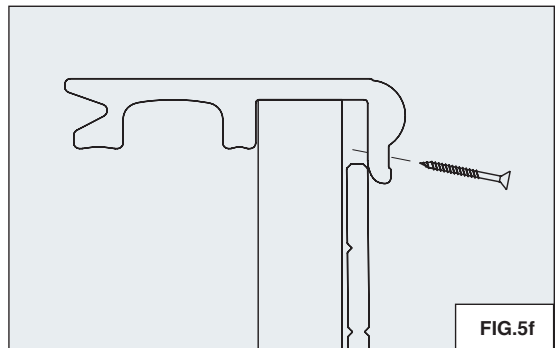


FIG.5f

- Pre-drill single ⅜" pilot holes in each length of cladding just under the bullnose lip as shown. The shorter cladding length at the corners of a deck should be predrilled a few inches away from the corner, while the longer cladding lengths in the middle of the deck should be predrilled in the middle of the length. Secure the cladding to the structure with single 1½" screws. The cladding at the corner of the deck should touch, leaving no gap. Expansion gaps between adjacent lengths of cladding are required as shown. (REFER TO FIG.5e)

Note: If the outside temperature is at or near 25°C (80°F) or above, leave a ½" gap. If the outside temperature is closer to 0°C (30°F), leave a ⅝" gap.

Note: If an Aura® Railing will be installed over the bullnose, this step is NOT required. This step is only required if the bullnose does NOT have an Eon® Railing installed above.

- Pre-drill pilot holes every 24" into the lower lip of the bullnose. Using a rotary tool with a spiral bit, enlarge all pre-drilled holes into slots to allow for expansion and contraction, especially near the ends of the bullnose length. Pre-drill the pilot holes at a upwards angle to avoid screwing into the cladding (REFER TO FIG.5f). Drive #8 x 2" Deck screws into the bullnose lip, tightening until the head of the screw just contacts the bullnose lip. DO NOT OVER TIGHTEN. (REFER TO FIG.5f & 5g)

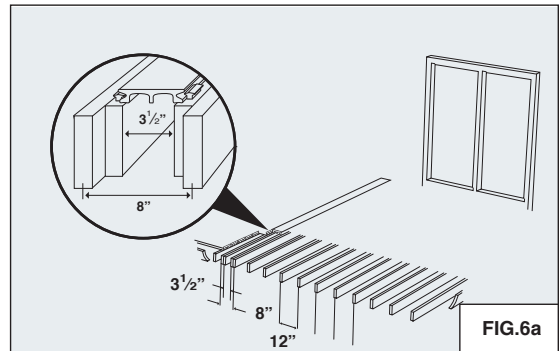


FIG.6a

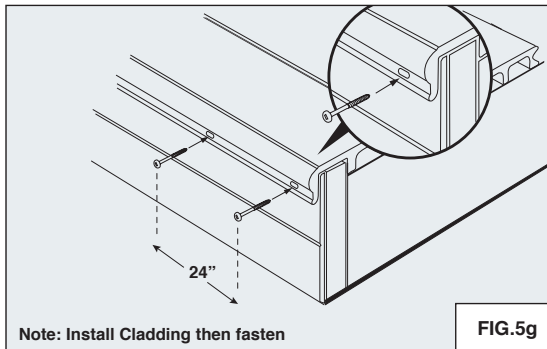


FIG.5g

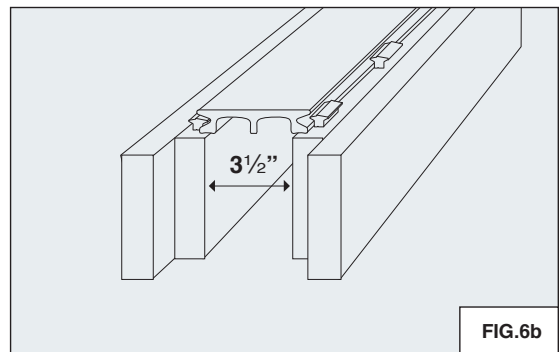


FIG.6b

6. BREAKER BOARD INSTALLATION

- A breaker board is a single Aura deck board that runs perpendicular to the decking. (REFER TO FIG.6a & 6b)
- A breaker board is recommended when the expected gap between two deck boards installed end-to-end will be large. This large gap will occur more often in larger decks where long lengths of deck boards butt end-to-end.
- For example, if a 40' long deck uses 20' deck boards that are installed end-to-end, both boards will contract in colder temperatures and may leave a large gap. By installing a breaker board in between these two deck boards, the large gap will be divided into two smaller gaps on both sides of the breaker board.
- Install two double joist thicknesses, spaced 3 1/2" apart, to support the breaker board and the ends of the deck boards.
- Install breaker board first, with clips on both sides. Toe screw the breaker board in the middle with a single screw.
- Install perpendicular decking next. Toe screw each board in the middle with a single screw. To achieve the smallest possible gaps with the breaker board, the center leg on the ends of the perpendicular deck boards can be removed with a handsaw and chisel to slide over the Ultra-clip. Remove a maximum of 1" of the center leg from the end of the deck board. (REFER TO FIG.6c). As an alternative, the Ultra-Clip can be trimmed down with a hand saw to fit between the foot and the center leg of the board. (REFER TO FIG.6d)

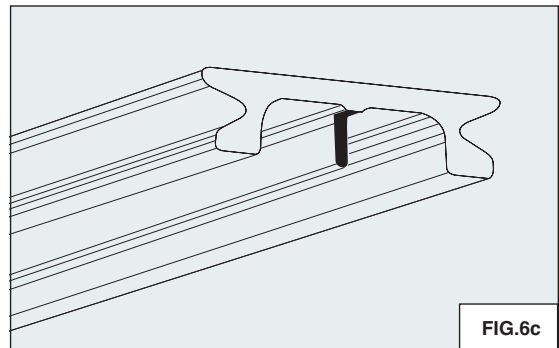


FIG.6c

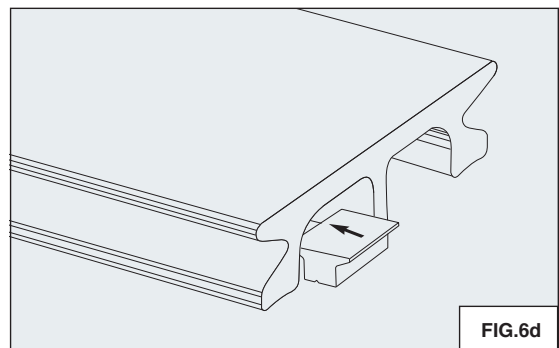
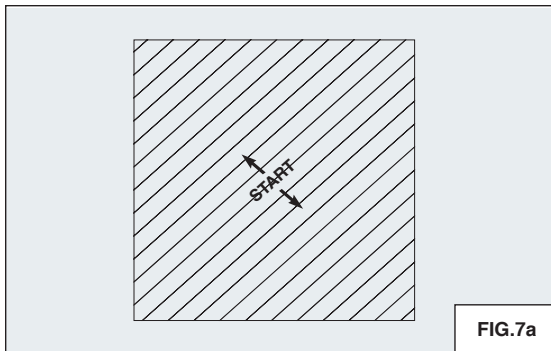
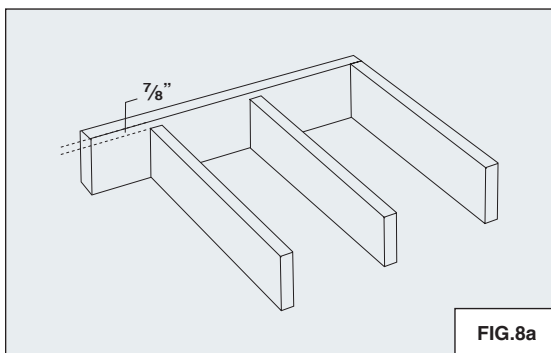


FIG.6d



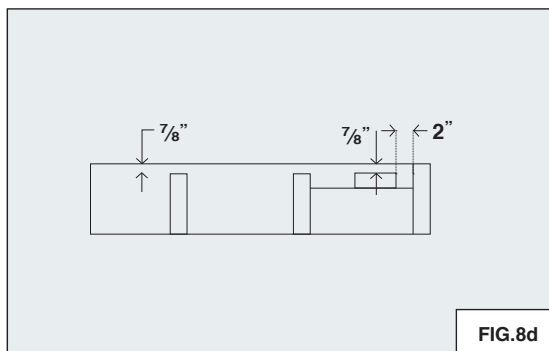
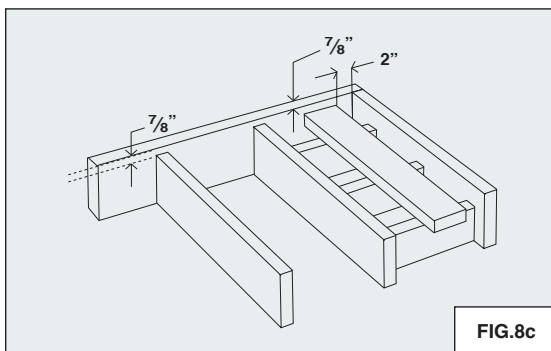
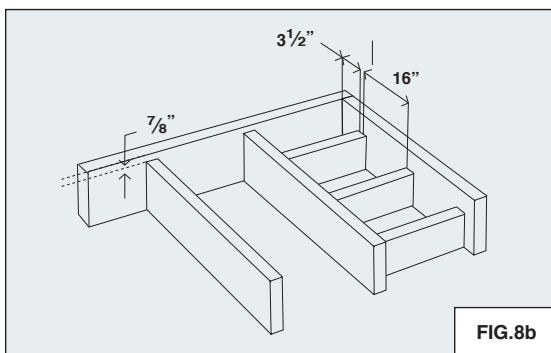
7. DIAGONAL DECKING

- Aura meets or exceeds industry standards for 12" on center joist installation for diagonal decking. For enhanced feel and performance, Aura recommends 10" on center joist installation (diagonal installation).
 - Since longer deckboards expand and contract more than shorter deckboards, please note that the gaps between the ends of longer deckboards and the fascia cladding will vary more than the gaps between the ends of shorter deckboards and the cladding.
 - In order to install diagonal decking, we recommend installing the longest deckboards first, followed by the shorter deckboards working towards the corners.
- (REFER TO FIG. 7a)



8. INSTALLING BULLNOSE ON ALL SIDES OF A DECK (PICTURE-FRAMING)

- In order to install trim around the entire perimeter of the deck, additional bracing will be required to support the bullnose that runs perpendicular to the deck boards.
- Raise the rim joist and outer joists by $\frac{7}{8}$ " to support the bullnose. (REFER TO FIG. 8a)
- Add bracing and 2" x 4" lumber to the deck where the bullnose runs parallel to the joists. For dimensions REFER TO FIG. 8b, 8c, & 8d. The 2" x 4" must be level with the inner joists, and $\frac{7}{8}$ " lower than the outer joist.
- Install bullnose trim on rim joist and outer joists first before installing decking. (REFER TO FIG. 8e)
- Cut decking to the exact desired length, leaving gaps for expansion/contraction. The ends of the deckboards will rest on the flat 2" x 4". (REFER TO FIG. 8f)
- Some ends of the deckboards may interfere with the clips holding the perpendicular bullnose. In order to achieve the smallest gaps possible between the ends of the deckboards and the perpendicular bullnose, install or reposition the clips holding the perpendicular bullnose to meet the middle of the deckboards and cut back the middle leg of the deckboard ends that will meet the clips by about $\frac{3}{8}$ ". Be sure to consider expansion of the deckboard. (REFER TO FIG. 8c) Trim only enough of the deckboard center leg to provide adequate clearance for the clip.



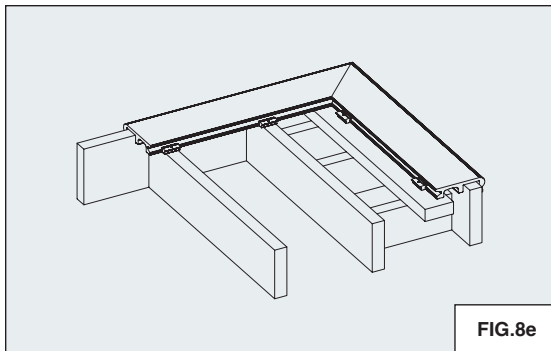


FIG.8e

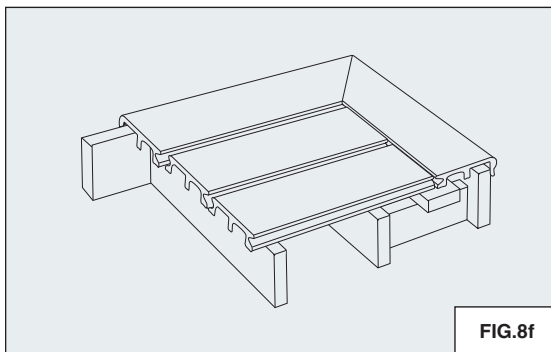


FIG.8f

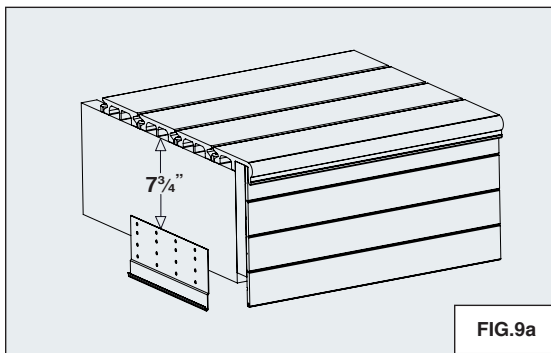


FIG.9a

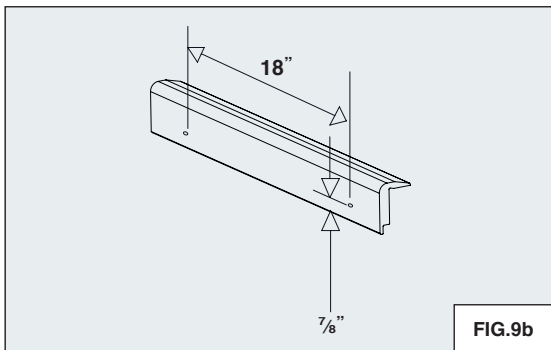


FIG.9b

9. INSTALLING L-TRIM (OPTIONAL)

Installing L-Trim with 12" Fascia Cladding

- For installations with 12" fascia cladding, install the Cladding Hangers first. Screw the Cladding Hangers to the joist with four #8 x 1½" screws. The top edge of the Cladding Hangers should be installed 7 ¾" below the top of the joists. (REFER TO FIG.9a)
- Pre-drill the L-Trim with holes located 7/8" from the bottom edge, spaced 18" apart. Slot any holes as required to allow for expansion/contraction. (REFER TO FIG.9b & 9d)
- Place the 12" fascia cladding into the cladding hanger and install the L-Trim over the cladding and onto the deck with #8x2" screws. The L-Trim should rest on top of the deckboards and hold the cladding in place. (REFER TO FIG.9c & 9d)
- Fasten fascia cladding to lumber with screws as required. Pre-drill and slot holes in fascia cladding as required to allow for expansion/contraction.

Installing L-Trim with 9" Fascia Cladding

- For installations with 9" fascia cladding, the 9" cladding can be installed after the L-Trim is installed.
- Pre-drill the L-Trim with holes located 7/8" from the bottom edge, spaced 18" apart. Slot any holes as required to allow for expansion/contraction. (REFER TO FIG.9b)
- Install the L-Trim onto the deck with #8x2" screws. The L-Trim should rest on top of the deckboards and flush with the lumber joist.
- Insert the upper edge of the fascia cladding under the L-Trim and fasten cladding to lumber with screws as required. Pre-drill and slot holes in fascia cladding as required to allow for expansion/contraction. (REFER TO FIG.9e)

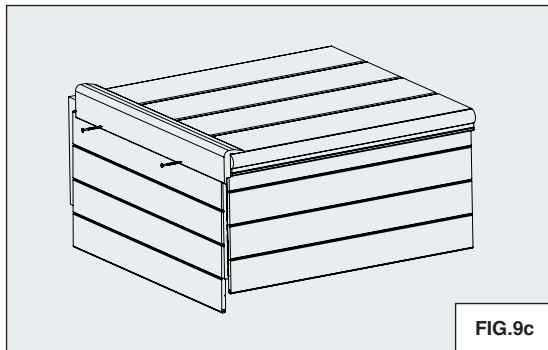


FIG.9c

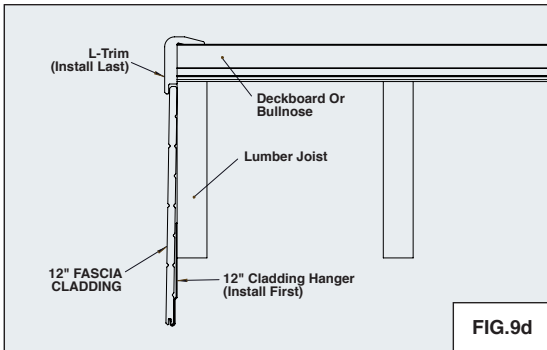


FIG.9d

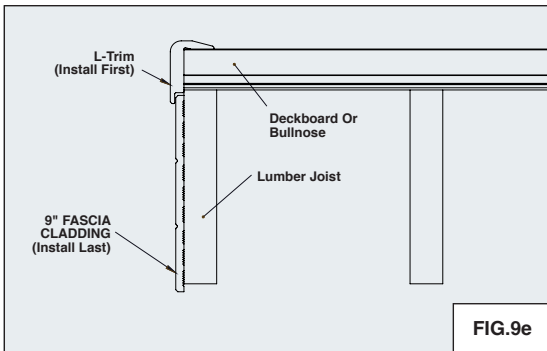


FIG.9e

10.INSTALLING STAIRS

- Install stair risers directly onto the rim joist, and not onto the fascia cladding.
- In addition to the stair risers, Aura stairs will require an additional support block (2" x 6" or 2" x 8") on every step height of the riser.
- Recommended riser spacing is 12" on center.
- Recommended step length (run): 11³/₈" (which fits one full deck board plus bullnose).
- Consult local building code for recommended step height. Example below shows a 6⁵/₈" step height, which uses a full 2" x 8" support lumber.

RISER CONSTRUCTION

Note: The recommended is reduced from 11³/₈" to 9⁷/₈" to accommodate the thickness of the deck's rim joist. The height of the bottom step is reduced by the deck board thickness (1¹/₄") to make the height of the bottom step from ground the same as the step heights on the stairs. Consult local building code for recommended step height.

(REFER TO FIG.10a)

INSTALL RISER

- Install stringer directly to rim joist of deck lumber, not to the fascia cladding. Attach support (2" x 6" or 2" x 8") across risers with #8 deck screws. The top edge of the support lumber must extend ⁷/₈" above riser to support the bullnose. (REFER TO FIG.10b)

INSTALL CLIPS AGAINST SUPPORT LUMBER

- Install clips directly against support lumber. (REFER TO FIG.10c)

INSTALL DECK BOARD AND SECOND CLIP

- Push deck board against first row of clips and install next row of clips. Use single #8 x 2" deck screw to toe screw deck board to middle riser. (REFER TO FIG.10c)

INSTALL FASCIA CLADDING

- Trim the fascia cladding width to extend from top of support lumber to top of Ultra-Clip. The top edge of the cladding must not extend above the support lumber.
- Pre-drill three 3/16" holes near the top edge of the cladding.
- Attach cladding to the support lumber with three #8 x 1⁵/₈" deck screws along the top edge. These screws will be hidden after the bullnose is installed. Use on 1⁵/₈" screws or shorter to prevent the screws from coming out the other side of the support lumber and interfering with the bullnose. (REFER TO FIG.10d)

INSTALL BULLNOSE STAIR BOARD

- Cut bullnose to length and fit under last row of clips. Snap bullnose into place over support lumber and fascia cladding. (REFER TO FIG.10e)
- Pre-drill ³/₁₆" holes every 24" into the lower lip of the bullnose and through the fascia cladding. Slot all holes ³/₈" in the bullnose lip to allow for expansion and contraction. (REFER TO FIG.10e)

COVERING STAIR TREAD ENDS

- In some instances, the ends of the stair tread can be covered with Aura fascia cladding to achieve an attractive finished look or to meet building code requirements for stairs.
- A full width of Aura fascia cladding can be attached to the stair stringers to cover the open triangular space created by the step width and height. To achieve the same appearance on both sides of the stringer cladding, two pieces of cladding, placed back-to-back, can be attached to the stringer. Alternatively, a solid lumber stringer can be attached to the stringer, and be covered with the fascia cladding. Trimming an extra width of cladding may be required to achieve full coverage of the stinger width. Slot all holes ³/₈" before attaching with #8 deck screws. (REFER TO FIG.10f)
- Cladding can also be cut into short lengths and installed horizontally or vertically to match the stringer outline. Consult local building codes for allowable spaces under stair railings. (REFER TO FIG.10g)

STAIRS:

Recommended Stringer Dimensions

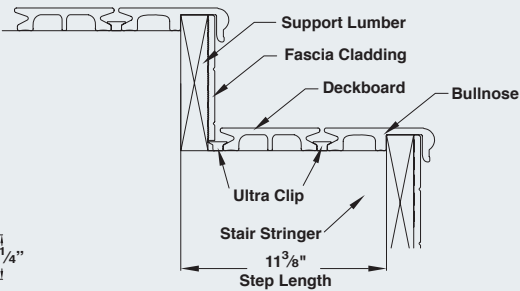
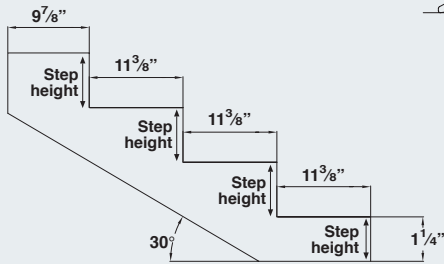


FIG.10a

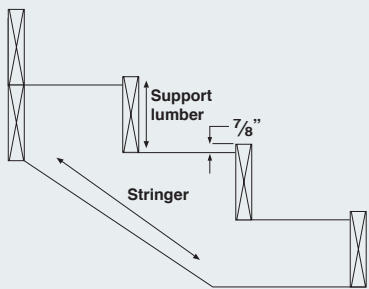


FIG.10b

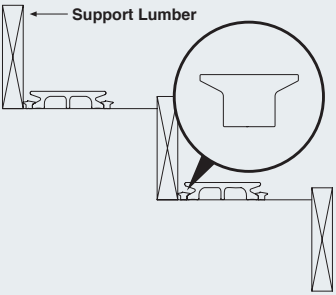


FIG.10c

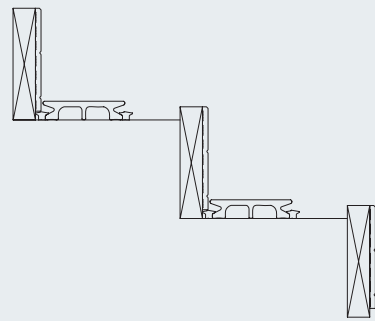


FIG.10d

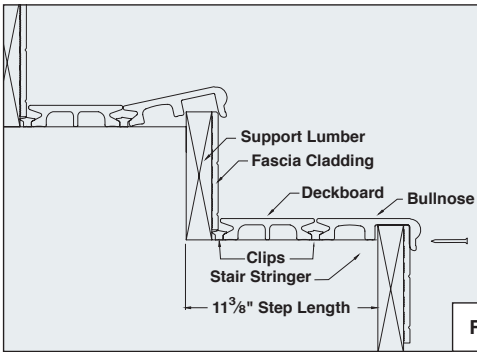


FIG.10e

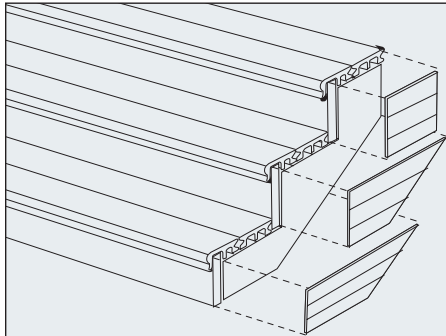


FIG.10f

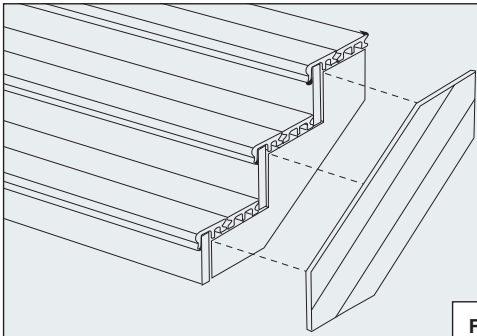


FIG.10g

HOW TO CARE FOR YOUR AURA DECK

- **DO NOT** use petroleum based products on Aura boards. i.e. sun tanning lotion, bug spray or bubble solution.
- Use only natural fiber mats. Do not use rubber backed mats.
- Regular cleaning can be done by spraying down the deck with a garden hose. Squeegee excess water off afterwards to avoid hard water marks.
- For a more thorough cleaning use a mop and a mild dish detergent to clean the deck. Give the deck a good rinse and squeegee away excess water to avoid soap build up.
- A plastic shovel should be used to remove snow (do not use a metal shovel, as it may gouge the deck).
- A straw broom can be used to remove a light dusting of snow.
- Fine grain sand and salt can be used to remove ice. As well, ice melt products such as Calcium Chloride can be used.
- Although Aura is harder than a comparable wood surface, it is not indestructible and can be scratched by pets, furniture, rocks, etc. Surface
- Scratches from normal wear and tear will become less noticeable as Aura weathers to a matte finish in the first year. However, minor scratches or abrasions may be repaired by gently rubbing the affected area with fine steel wool or extremely fine grit (600) sandpaper, then buffing with a clean cloth.
- Heavier scratches may be filled using a common furniture scratch repair pencil available at most home building centers in a color that closely matches your Aura cladding. Examples include products like "Paint Pal Putty Pencil" and Minwax® – Blend-Fil® Pencil. Severe scratches or abrasions may be treated with color-matched water-based outdoor wood stain. Please practice these techniques on an Aura sample piece before attempting repairs to your finished product!
- **Note:** The above are registered trademarks and/or copyrighted products. Gracious Living is not endorsing or recommending these products. Gracious Living is only making reference to products that we know are readily available to the consumer.

11.REMOVAL/REPLACEMENT METHOD #1

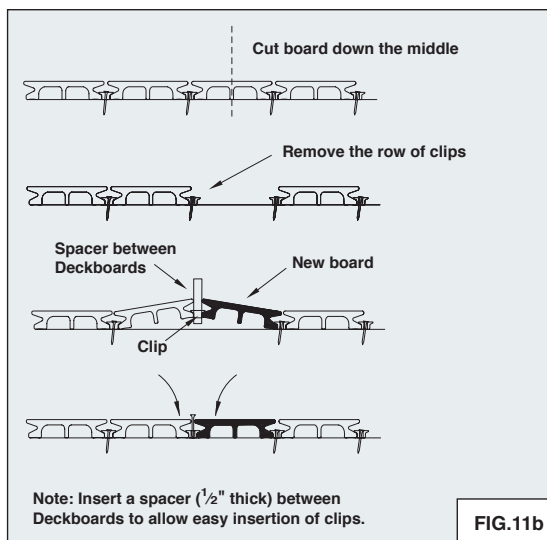
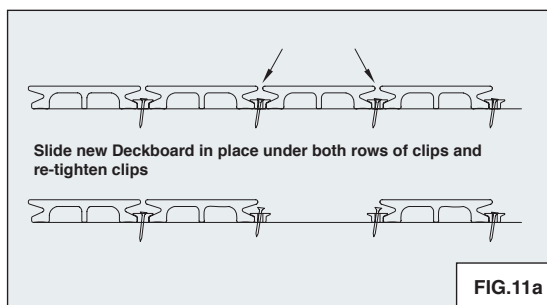
- Loosen clips on both sides and remove damaged Deckboard by cutting down the middle of the Deckboard with a circular saw or jigsaw. Remove the remaining halves of the Deckboard. A crowbar may be required to remove the half with the toe screw. Do not remove screws or clips.
- The $\frac{1}{4}$ " spacing created by the Ultra-Clip allows for a screwdriver to be inserted between boards to loosen the screws. This allows for the removal and replacement of a single deckboard after the deck is complete.

(REFER TO FIG. 11a)

REMOVAL/REPLACEMENT METHOD #2

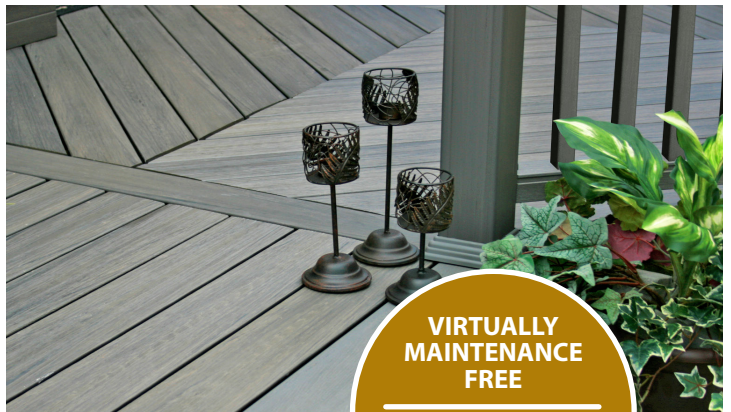
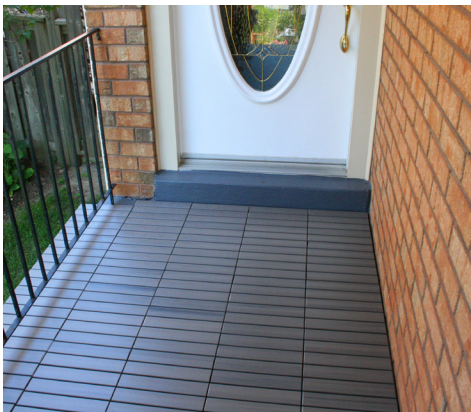
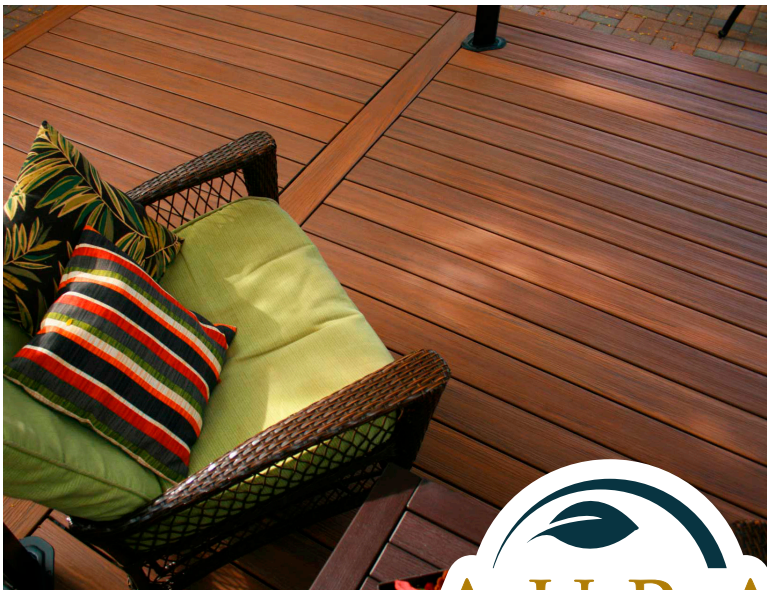
(To be used when METHOD #1 is not possible)

- Remove damaged Deckboard by cutting down the middle of the Deckboard with a circular saw or jigsaw. Remove the remaining halves of the Deckboard. A crowbar may be required to remove the half with the toe screw.
- Tilt existing board and new board up and insert the original clips back into the space between the boards. Position the clips directly over each joist.
- Press Deckboards down towards joists. Install screw into clips through the deckboard gap. (REFER TO FIG. 11b)



NOTES:

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



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AURA DECKING 25 YEAR LIMITED WARRANTY CERTIFICATE

COVERING YOUR PURCHASE OF EON®

Gracious Living Innovations Inc. ('GLI') warrants its Aura Decking and Railing products to be free from defects in material or workmanship on a pro-rated basis, for a period of twenty-five (25) years from the date that the original consumer purchases the product from an authorized GLI vendor. Specifically, GLI warrants to the original purchaser of Aura that the product, when purchased and installed i) as a residential decking system with railings or ii) for other similar residential applications as identified in the GLI point of sale material provided by the vendor, that such product is: a) rot and water resistant, b) free from damage by fungal decay or termites, c) free from checking, splintering or splitting and d) free from defects in material and workmanship for the period beginning on the date that the Aura Product is purchased and continuing for twenty-five (25) years as long as the original purchaser owns the property on which the Aura product is used for one of the purposes described above.

WARRANTY PROCESS

GLI will replace, at its own expense, any Aura product that is defective, provided it has been used for one of the above named applications. To be eligible for this warranty, the original purchaser must send to GLI at 151 Courtney Park Drive West, Mississauga, Ontario, Canada, L5W 1Y5, the original invoice or proof of purchase of the product and the defective product or proof that the product is defective within 30 days from when the original purchaser became aware of the defect. GLI will assume the cost of delivering the replacement material to the purchaser if found to be defective but will not assume the cost of installation or re-installation.

WARRANTY LIMITATIONS

This Limited Warranty sets forth GLI's only warranty obligation with respect to its Aura products and specifically stands in the place of all other warranties, oral or written or express or implied.

The warranty shall not cover and GLI shall not be responsible for costs and expenses incurred with respect to the removal of defective Aura products or the installation of replacement materials including, but not limited to, labour and freight.

GLI makes no warranty concerning the merchantability of its product or as to the fitness of the product for a particular use that may be provided by the Uniform Commercial Code or any other comparable state or provincial statute other than the warranty described herein the certificate. GLI shall not be liable for incidental, special, consequential or other similar damages arising from the breach of this warranty. In particular, the liability of GLI, if any, and the purchaser's sole remedy for damages for any claim of any kind whatsoever, regardless of legal theory and whether arising in tort or contract, shall not be greater than the actual purchase price of the product with respect to which such claim was made.

This Warranty shall not apply to defects that occur through normal wear and tear or through the weathering of the product. This warranty does not cover products that have not been paid for in full, problems caused by improper storage, handling, installation, finishing, use, modification, or maintenance; acts of God; accidents, products subjected to conditions outside their design limitations; minor imperfections that do not affect the product's structural integrity, minor variations in color, normal wear or discoloration of finish; problem caused by mechanical damage or abrasion; damage caused by acid rain, salt spray, or other corrosive elements; problems caused by high humidity (condensation and frost) or variations in wood grain.

Further, the Warranty will not apply to mistreatment or negligence in the use of the product. GLI shall not be responsible for defects to the products, which occur through improper storage or handling of the product prior to installation. GLI shall not be responsible for defects to the product caused by improper installation or modification if such installation or modification came about because the installer failed to follow the instructions found in the point of sale material provided to the dealer by GLI.

Some states or provinces do not allow the exclusion or limitation of incidental or consequential damages so that the limitation or exclusion referring to these in this warranty may not apply. This warranty gives you specific legal rights and you may also have other rights that vary from state to state and from province to province.

This warranty shall only be applicable and enforceable in Canada and in the United States of America.

PRO-RATED WARRANTY SCHEDULE

Years Since Purchase	Percent Defective Material covered
Year 1-5	100%
Year 6-7	80%
Year 8-9	60%
Year 10-11	40%
Year 12-13	30%
Year 14-16	20%
Year 17-20	10%
Year 21-25	5%



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