

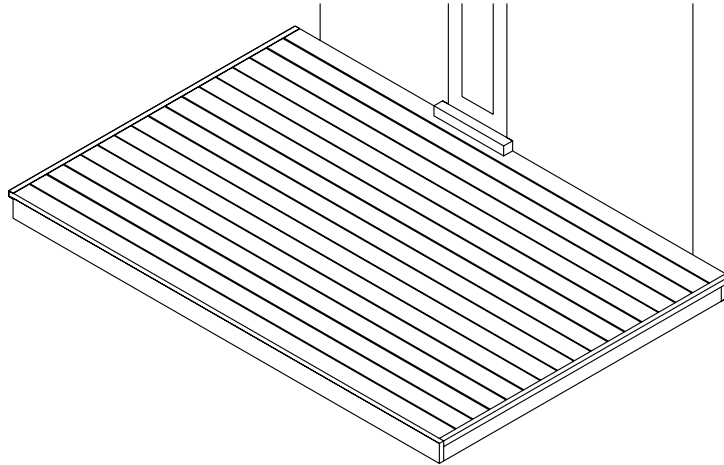
Dream Decking

Installation Guide

Classic Dream Deck Pg 2 - 11

Vy-grain Dream Deck Pg 12 - 13

Dream[®] *DECK*



Installation Guide

FOR

Dream[®] DECK - Classic Series 3000

Features & Benefits

- ✓ Aesthetically Appealing
- ✓ Durable & Maintenance-Free
(No Sanding, Staining or Painting)
- ✓ Mildew Resistant
- ✓ Slip-Resistant
- ✓ Fire-Resistant
- ✓ Replacement For
Old Wood Surfaces
- ✓ Anti-Squeak Strips
- ✓ Ultra-Violet Resistant
- ✓ Non-Toxic and Recyclable
- ✓ Splinter-Free
- ✓ Easy To Install
- ✓ No Exposed Nails or Screws

September 2004

✓ *Dream[®]Deck and Dream[®]Rail are in compliance with the
BOCA National Codes. See ICC Legacy report # 97-55*

Manufactured by
Thermal Industries, Inc.
a Division of Atrium

CONGRATULATIONS! You've selected a quality product manufactured to exacting performance and durability specifications. We welcome you to our DREAMSPACE® product line. . .products designed to improve the quality of your life.

Please read this Installation Guide before you begin your DREAM® DECK construction. This guide is written for the installer who has experience working with wood, aluminum and PVC. Installation training is available from the manufacturer.

Thermal Industries' DREAM® DECK Planks, Installation Tracks, End Caps, Stringer Caps, and H-Sections are manufactured from Polyvinyl Chloride (PVC) compounds and conform to ASTM Designation D1784.

Thermal Industries, Inc. has designed, manufactured and tested the DREAM® DECK Planks in compliance with National Building Codes and ASTM requirements. Thermal Industries and its designated agents do not assume any responsibility for DREAM® DECKS which are not installed per the Installation Guidelines contained herein or for DREAM® DECK component failure, excessive deflection, permanent deformation or other deficiencies due to poor workmanship and/or an inadequately designed or constructed substructure.

The designation DREAM® DECK is intended to include all elements that comprise the DREAM® DECK System including, but not limited to, Planks, Installation Tracks, End Caps, Stringer Caps and H-sections.

OTHER APPLICABLE DOCUMENTS:

- DREAM® STAIR System Installation Guide
- DREAM® RAIL System Installation Guide

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1. Before starting any deck construction, whether a completely new deck or a replacement, it is the responsibility of the homeowner to contact the local Building Department to determine applicable Code Requirements and also to obtain the necessary Building Permits for that area.
2. DREAM® DECK components are manufactured exclusively for exterior use. DREAM® DECK components shall not be used for other building elements or for any application for which they have not been designed.
3. DREAM® DECK planks require a suitable support structure. Good framing is important. Joists must be straight, square and level. Additional bridging and blocking should be used in accordance with good building practices to eliminate joist warpage, keep joists and rim joist straight, increase frame strength and to provide complete support to the wood posts.
4. For a DREAM® DECK installation which would be considered unique, such as multi-level or odd geometric shapes, the approval of a Registered Structural Engineer may be required to ensure structural adequacy of the steps, rails, posts and supporting structure.
5. For the installation of DREAM® DECK surfaces and/or railings to an existing or refurbished deck, the installer shall completely inspect the post supporting

substructure including joists, rim joists, bridging, hangers and brackets and replace all damaged, rotted, insect infested or structurally inadequate elements. If the installer is unable to judge the adequacy of the existing substructure, they should seek the opinion of a Registered Structural Engineer.

6. JOIST SPACING: DREAM® DECK 3000; A maximum of 24" on center for 90° to joist plank installation and 16" on center for 45° to joist plank installation.

Please Note: All joists on deck structure shall have bridging in between joists for proper sub-structure support.

7. Stair support stringers on new and refurbished installations shall be made from 2" x 12" pressure treated lumber. The effective depth below the tread rise notch shall be a minimum of 3-1/2". Stringer spacing shall not exceed 16" on center for DREAM® DECK 3000

8. All hardware shall be weather-resistant and ACQ compatible. Stainless Steel may be substituted but in no case shall unprotected hardware be utilized.

9. The DREAM® DECK installation utilizes material and assembly procedures similar to, and covered in, the DREAM® STAIR and DREAM® RAIL Installation Guides. The installer should review those two guides prior to starting the DREAM® DECK Installation.

EXPANSION / CONTRACTION TABLE

DREAM® DECK 3000

Expansion & Contraction Table

This table gives general guide lines for the amount of space to allow for expansion or contraction when using End Caps and H-Sections, or butting to a wall surface. **CAUTION:** *These amounts will change according to the installed temperature and plank size. Planks less than 20' will expand or contract less than what is expressed in the chart.*

The chart is referring to a 20' plank installed in four (4) different temperature ranges. The plank has an expansion screw (refer to pg. 7, para. 7) installed in the center, which splits the *overall* amount of the plank's expansion and contraction to either side of the screw. The chart refers to the typical spacing to leave for the plank inside the End Cap, H-Section, or wall surface when an expansion screw is installed.

DREAM DECK 3000 Expansion Table Based on a 20' Plank Anchored in the Center			
Installation Temperature	Temperature Change (Swing)	Expansion	Contraction
80 Degrees	Plus 20	1/8"	■
■ ■	Negative 80	■ ■	3/8"
60 Degrees	Plus 40	3/16"	■
■ ■	Negative 60	■ ■	1/4"
40 Degrees	Plus 60	1/4"	■ ■
■ ■	Negative 40	■ ■	3/16"
20 Degrees	Plus 80	3/8"	■ ■
■ ■	Negative 20	■ ■	1/8"

TOOLS

Carpenter's Pencil or Marker
Tape Measure
Chalk Line
4' Level
Square
Drop Cloth
Hammer
Rubber Mallet
Drill (Electric or Cordless)
Circular Saw with 150 Tooth Steel Blade
12" Chop Saw With 100 Tooth Carbide Tip Blade
10" Chop Saw With 80 Tooth Carbide Tip Blade
Jig Saw
9/16" Drill Bit
Magnetic Tip
Phillips Head Bit

FASTENERS (Not Included)

All hardware shall be weather-resistant and ACQ compatible. Stainless steel may be substituted, but in no case shall unprotected hardware be utilized.

Installation Track Screw: #6 x 1-5/8"
Weather-Resistant Bugle Head

Plank Anchor Screw: #6 x 1-5/8"
Weather-Resistant Bugle Head

End Cap Screw: #6 x 1"
Weather-Resistant Pan Head

MISCELLANEOUS ITEMS

Available Colors:

Planks: White, Earthtone & Gray
Railing: White, Earthtone
End Cap: White, Earthtone & Gray
Ribbed End Cap: White, Earthtone & Gray
Stringer Cap: White, Earthtone & Gray
H-Section: White, Earthtone & Gray

Plank and Installation Track Lengths:

12', 16' and 20'

End and Stringer Cap Lengths: 10' and 20'

H-Section lengths: 20'

Spacing Tool:

For 1/8" spacing between planks.
(Available at all Thermal Industries' branch locations.)

Dream® Deck Spacing Tool



Shim Stock:

As required, cedar wood shims.

Deck Spacing Chart:

See Page 9

SAFETY

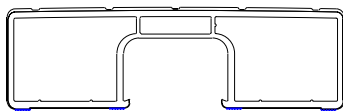
Safety Glasses and dust mask are recommended.
Follow manufacturer's recommended instruction for use of power tools.

BUILDING PERMITS/CODES

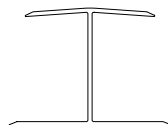
Local Building Permit & Code Compliance may be required and is the responsibility of the homeowner.

MATERIAL LIST - SERIES 3000

VINYL DECK PLANK
5-1/2" x 1-5/8"



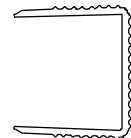
H-SECTION



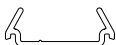
END CAP
1-5/8" x 1"



RIBBED END CAP
1-5/8" x 1-1/2"



INSTALLATION TRACK



STRINGER CAP
1-1/2" x 1"



PLANK LAYOUT & SPACING

1. Good planning along with a layout sketch to scale will facilitate the installation.
2. The recommended spacing between planks is 1/8". This allows water drainage while providing a smooth surface for deck furniture and walking. Refer to DREAM® DECK Spacing Chart. (See Page 10)
3. The DREAM® DECK 3000 plank may be cantilevered up to 3/4" overhang along its length. When this is done a screw through the opposite edge of the plank is required at each joist. (See figure #1)
4. The optimum plank layout is utilizing even spacing between each plank using an entire width of plank at the beginning and at the end. If the optimum layout is impossible to obtain because of deck dimensions, then consider the following options:

a) Add another wood member (3/4" to 1-1/2") to the rim joist and/or side joists to provide a slightly larger deck surface. Coordinate this with the rail, stair or any other protruding element

- b) The last plank against the housewall can be ripped along its length provided that the Installation Track cavity and one full outer cavity remain intact. The saw cut shall be toward the house with an End Cap at the house wall recommended to cover the cut edge. If the plank is ripped, as described above, and there are protrusions at the house wall such as pipes, electrical wires and conduits, then the reduced plank section must be fully supported at the location of each cut-out by the addition of bridging or blocking.

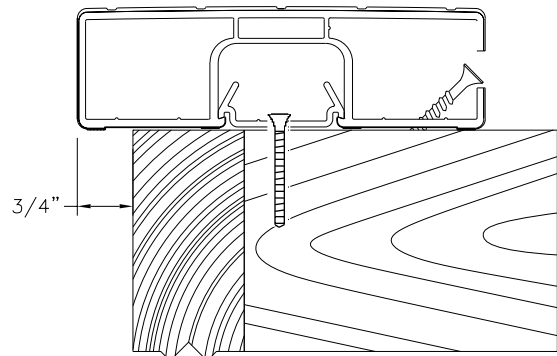


Figure 1

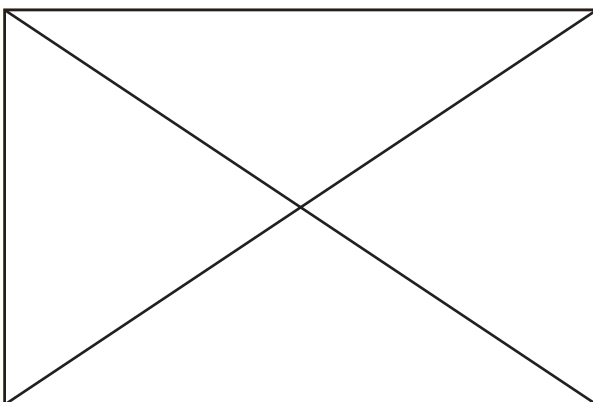
SUBSTRUCTURE

NEW CONSTRUCTION

Dream® Deck 3000

1. Place joists at 16" or 24" on center depending on the type of plank installation, angle and load capacity desired. (See Page 3, #6)
2. Joist size (example; 2 x 8 or 2 x 10) is to be per Building Code (or as designed by an Engineer) with bridging and blocking around all protrusions.

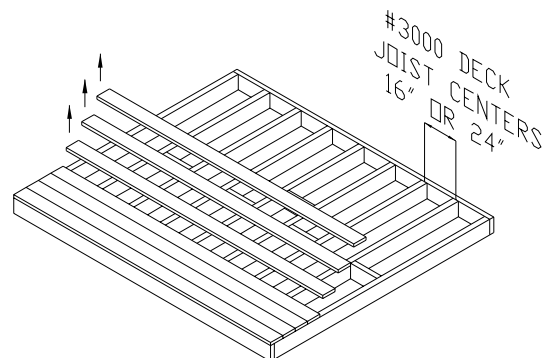
Note: Please see *General Instructions at the beginning of this guide for further information on the substructure.*



EXISTING STRUCTURE

Applying New Dream® Deck 3000 to an Existing Structure

1. Remove the old planks. Do not damage existing joists.
2. Inspect the substructure for stability, level, squareness and adequacy of the wood structure. (See Page 3, #3)
3. If substructure is not even across the joists (high and low spots are evident). Determine depth of low spot and size the shims necessary for installing the Installation Track so the Track is even across the joists.



1. The First Installation Track

Place the edge of the first installation track 1-15/16" from the outer edge of the deck or the house wall.

Note: If a plank overhang is needed for trimming Rim joists around the deck, the installation track can be installed up to 3/4" closer to the edge of the deck. This operation will change the location of the last plank by the same amount. (See Page 5; figure #1 Plank Layout & Spacing)

2. Installation Track Attachment

Attach one screw at each joist using #6 x 1-5/8" Weather resistant Bugle Head screw. The screw must be installed in the center of the Installation track and must be held firm to joists, do not overtighten. Extend the installation track at least 1-1/4" to 3" beyond the edge of the deck for proper Installation of the end cap. (See figure #2)

NOTE: If installing the deck planks on a 45 degree angle, the installation track must be cut on a 45 degree angle at the house ledger.

If using optional ribbed End Cap extend Installation Track at least 1 3/4" beyond the edge of the deck.

3. Snap-In the First Plank

Snap in the Plank by pressing down at each joist. **Check under the Plank to make sure the Installation Track is fully snapped into place between the joists.** If not, reach under the Plank and snap the Installation Track into the Plank cavity. (See figure #3)

4. Using The Dream® Deck Spacing tool

Place the Spacer Tool next to the previously installed Plank. Load five (5) Installation Tracks into the Spacer Tool. Attach Tracks to each joist with one (1) #6 x 1-5/8" weather-resistant screw. (See figure #4)

Note: All Screws Must Be ACQ Compatible!

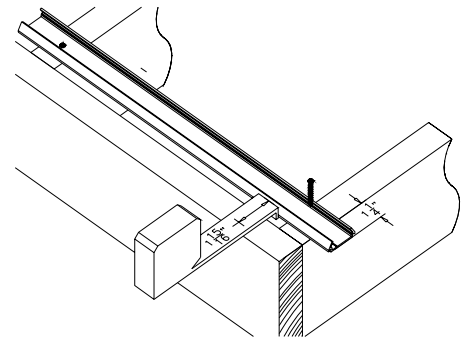


Figure 2

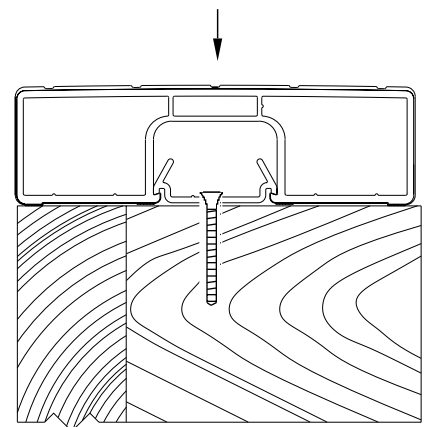


Figure 3

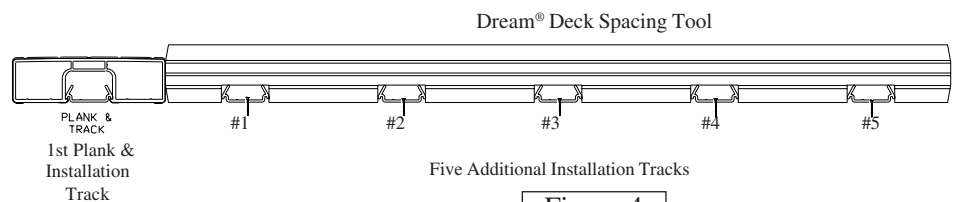


Figure 4

5. Continued Plank Installation

As the Installation tracks are positioned and secured into place, the planks should be snapped onto the Track. **Make sure the installation track is fully engaged with the plank.**

(See figure #5)

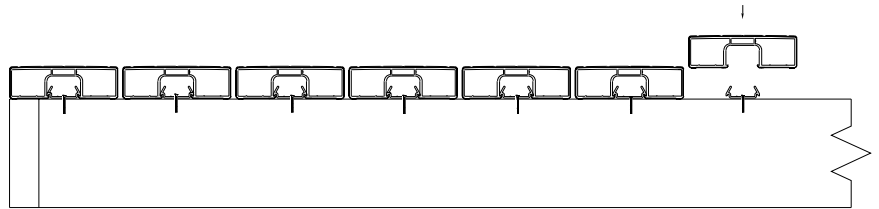


Figure 5

6. Gap Check

After completion of approximately 25%, 50%, and 75% of the Plank installation, check the remaining dimensions across the deck to the house wall for continued spacing accuracy. Slight adjustments in the spacing may be necessary to insure the Planks are installed parallel to the house wall.

(See figure #6)

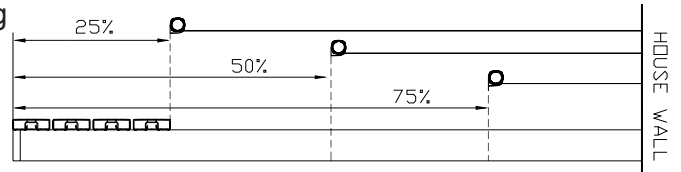


Figure 6

7. Plank Anchor & Thermal Expansion

To prevent the Plank from slipping relative to the Installation Track and to control thermal expansion, each Plank length shall have one #6 x 1-5/8" Plank Anchor Screw installed per this detail. The location of each Anchor Screw shall be as near to the Plank center as possible and shall be at the center of a joist. Drill 9/16" pilot hole on the side of the Plank.

(See figure #7)

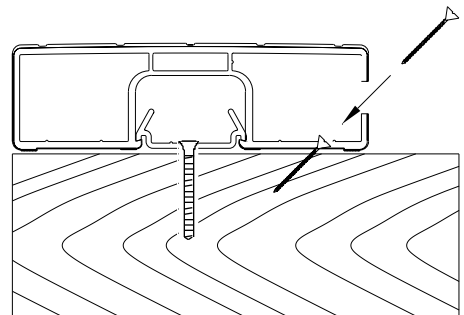


Figure 7

8. End Caps

Trim the overhanging Planks and Installation Tracks by first marking with a chalk line at 1-1/4" to 3" from the edge of the structure and cut with a circular saw.

Install the End Cap sections to all exposed Plank ends. One leg of the End Cap goes over the top of the Plank and the other leg is slipped under the Plank and Track. (See figure #8)

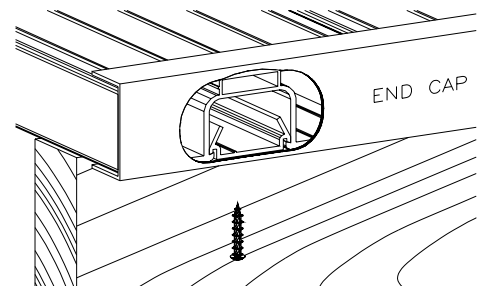


Figure 8
End View

Secure the End Cap with a #6 x 1" End Cap Screw through **each Installation Track, NOT THE PLANK.**

H-Section

9. Perpendicular Plank Installation

The H-Section must be installed over a double joist. Install the installation track on the side of the H-section with a 2-1/2" clearance from the inside wall. Clearance is needed for the plank to slide over the track and into the H-section. (See figure #9)

When possible, install plank first, and then slide H-Section tight up against and under plank and fasten to joist. Then install remaining planks.

When installing planks end to end using the H-Section, the Installation Track and the H-Section must be installed over a double joist. The anchor expansion screw is installed at the center of the plank. (See figure #10)

CAUTION: Space must be allowed for expansion and contraction when using End caps and H-Sections or butting to a wall surface. Refer to the expansion chart on page 3.

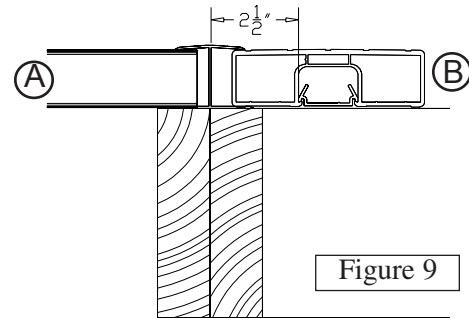


Figure 9

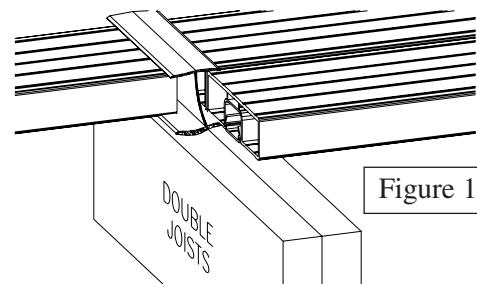


Figure 10

1. Measure and cut the post cover to desired length.

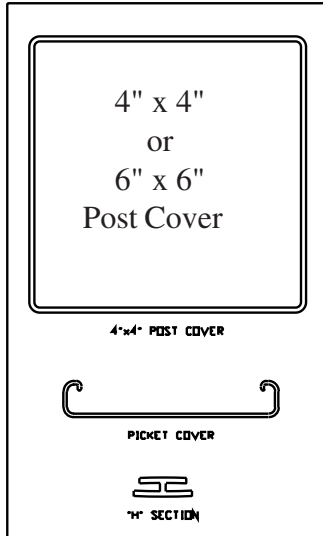


Figure #1

2. Cut the post cover down the center. Use a circular saw with a fine tooth blade. A center line and/or guide is suggested for neat, straight cut. (See Figure #2)

3. Pull apart the post cover at the cut using two pieces of picket spacer cap 6" to 8" long. (See Figure #3)

4. Wrap post cover around post while applying pressure to the opposite side of the cover. Work from top to bottom. (See Figure #4)

5. Install the H-Section with the wide side against the post. Place one side of the post cover completely inside the H-section from top to bottom. (See Figure #5)

6. Place the other side of the H-section into the post sleeve. (See Figure #6) Use a putty knife to work the sleeve inside the H-section from top to bottom.

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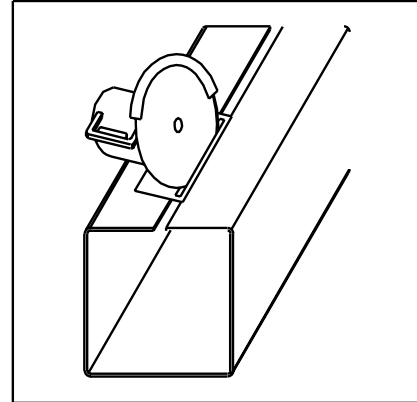


Figure #2

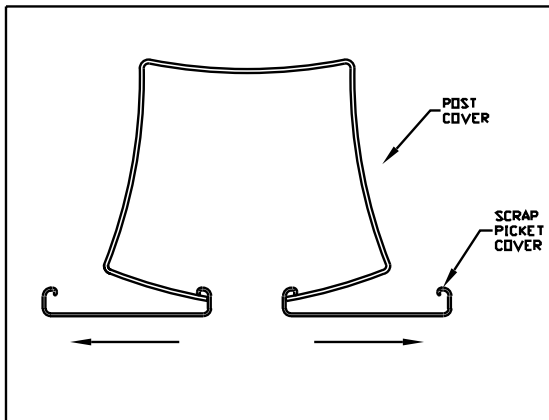


Figure #3

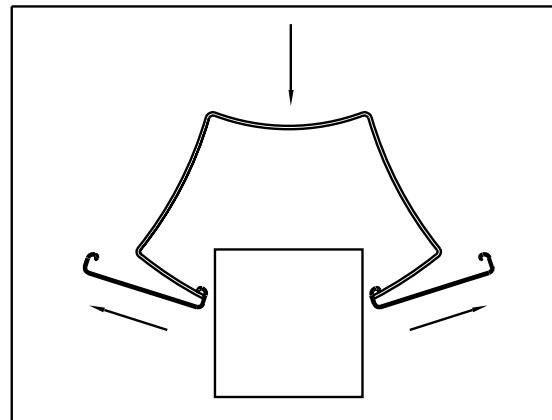


Figure #4

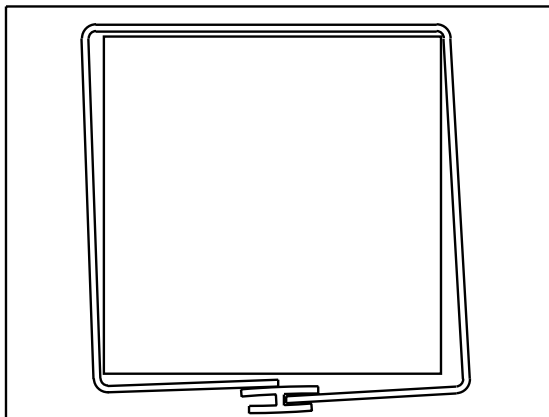


Figure #5

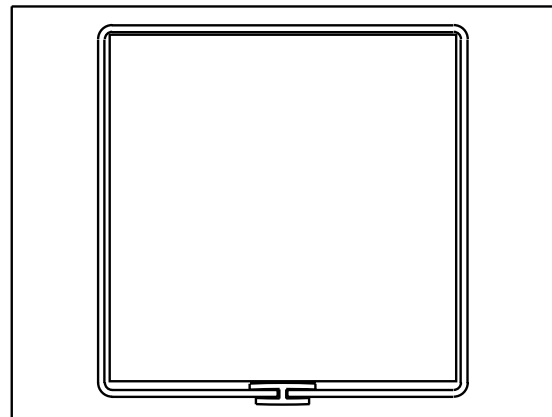
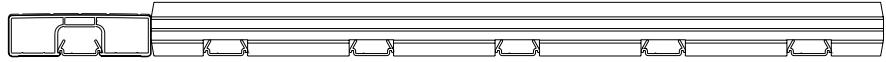


Figure #6

THERMAL INDUSTRIES, INC.

Dream® Deck
Maintenance-Free Vinyl Decks

This chart is designed to be used as a guide to determine material requirements. The chart is used by; 1) finding your deck's nominal size in the first column and, 2) the adjacent numbers in the next column contain the actual size of the deck and the number of planks needed to complete the deck. (See Figure 1, Dimension A) This chart is based on a 1/8" gap achieved by using the Dream® Deck Spacing Tool to lay out each Installation Track.



Dream® Deck Plank and Installation Track

Dream® Deck Spacing Tool

Dream® Deck Spacing Chart

General Information

- Vinyl plank and track lengths are 12', 16' and 20'.
- Available colors:
 White
 Earthtone
 Gray
- End caps are available in 10' and 20' lengths.
- H-Section is available in 20' lengths.
- This chart has +/- factor of 1/8"

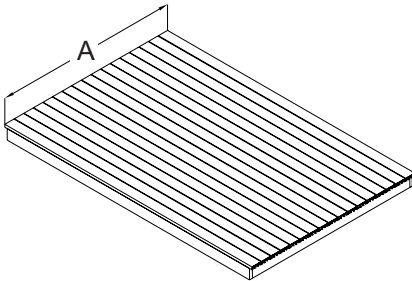
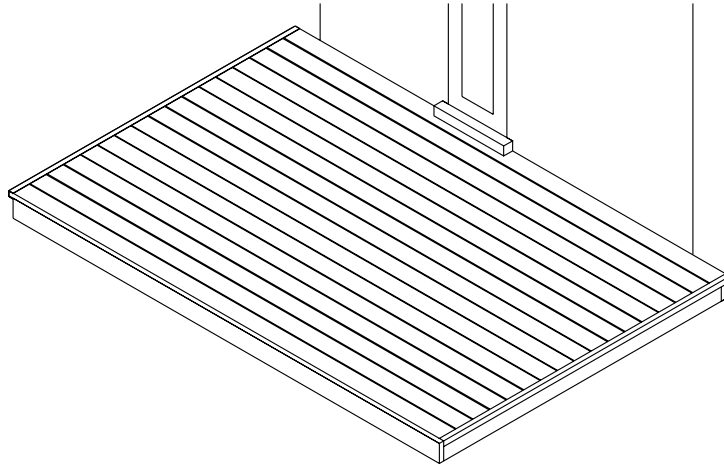


Figure 1

DECK SIZE	SPACING & PLANKS REQUIRED (actual size of deck) 1/8"
4 Feet (width/length) Number of Planks	50 1/2" 9
5 Feet (width/length) Number of Planks	61 3/4" 11
6 Feet (width/length) Number of Planks	73" 13
7 Feet (width/length) Number of Planks	84 1/4" 15
8 Feet (width/length) Number of Planks	95 1/2" 17
9 Feet (width/length) Number of Planks	106 3/4" 19
10 Feet (width/length) Number of Planks	118 21
11 Feet (width/length) Number of Planks	134 7/8" 24
12 Feet (width/length) Number of Planks	146 1/8" 26
13 Feet (width/length) Number of Planks	157 3/8" 28
14 Feet (width/length) Number of Planks	168 5/8" 30
15 Feet (width/length) Number of Planks	179 7/8" 32
16 Feet (width/length) Number of Planks	191 1/8" 34
17 Feet (width/length) Number of Planks	202 3/8" 36
18 Feet (width/length) Number of Planks	213 5/8" 38
19 Feet (width/length) Number of Planks	230 1/2" 41
20 Feet (width/length) Number of Planks	241 3/4" 43
21 Feet (width/length) Number of Planks	253" 45
22 Feet (width/length) Number of Planks	264 1/4" 47
23 Feet (width/length) Number of Planks	275 1/2" 49
24 Feet (width/length) Number of Planks	286 3/4" 51

Dream[®] *DECK*



Installation Guide

FOR

Dream[®] DECK - Vy-grain Series 4000

Features & Benefits

- ✓ Aesthetically Appealing
- ✓ Durable & Maintenance-Free
(No Sanding, Staining or Painting)
- ✓ Mildew Resistant
- ✓ Slip-Resistant
- ✓ Fire-Resistant
- ✓ Replacement For
Old Wood Surfaces
- ✓ Anti-Squeak Strips
- ✓ Ultra-Violet Resistant
- ✓ Non-Toxic and Recyclable
- ✓ Splinter-Free
- ✓ Easy To Install
- ✓ No Exposed Nails or Screws

September 2004

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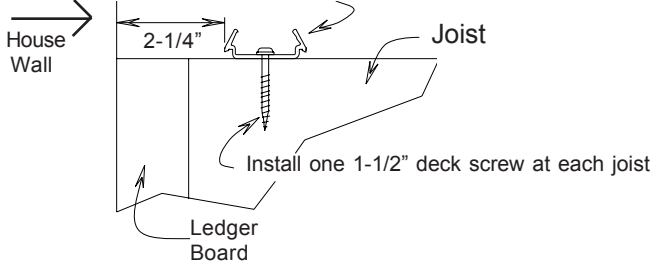
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THERMAL INDUSTRIES, INC.

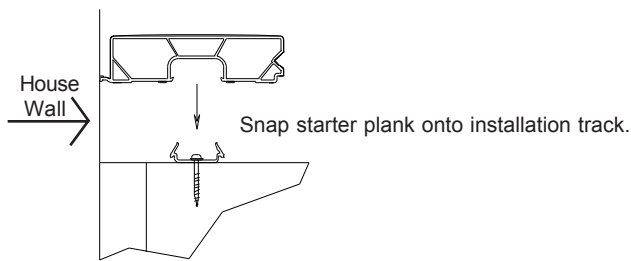
Dream®Deck 4000 Installation Instructions

Step 1. Install Starter Installation Track

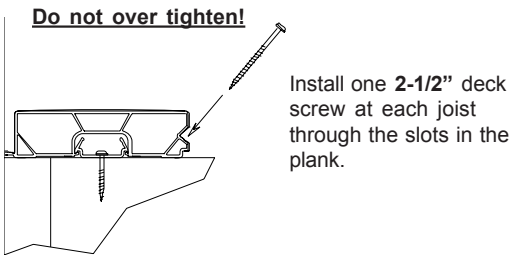
Attach the starter installation track 2-1/4" from the house wall for the first plank. Cut the track to the full length of the plank.



Step 2. Snap-In Starter Plank

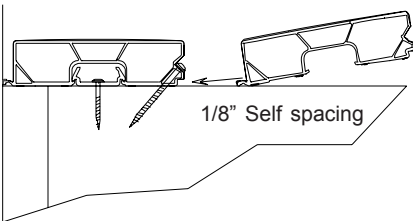


Step 3. Install Starter Plank



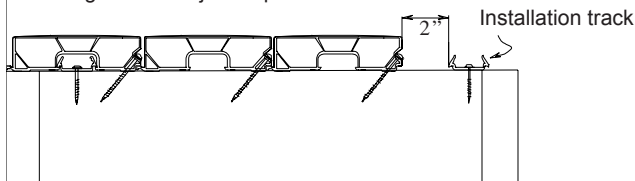
Step 4. Position Next Plank

Slide the tongue of the next plank under the groove of the starter plank. Be sure that the tongue bottoms out in the groove before installing screws through slots. Repeat this procedure until the last plank.



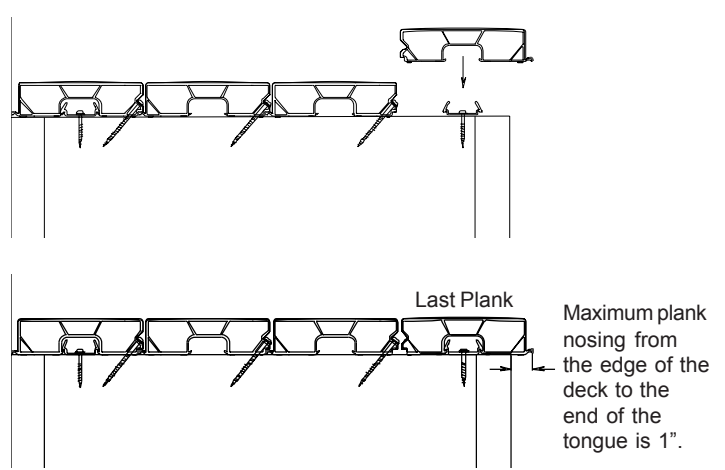
Step 5. Install Last Installation Track

Place the last plank's installation track 2" from the edge of the adjacent plank.



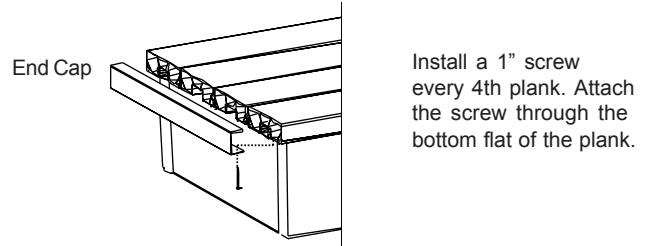
Step 6. Install Last Plank

Turn the last plank around with the tongue facing the outside of the deck and snap it onto the installation track.



Step 7. Install End-Cap

NOTE: Maximum Plank Overhang is 1-1/2"



EXPANSION / CONTRACTION TABLE

This table gives general guide lines for the amount of space to allow for expansion or contraction when using End Caps and H-Sections, or butting to a wall surface. **CAUTION: These amounts will change according to the installed temperature and plank size. Planks less than 20' will expand or contract less than what is expressed in the chart.**

The chart is referring to a 20' plank installed in four (4) different temperature ranges. The chart refers to the typical spacing to leave for the plank inside the End Cap, H-Section, or wall surface.

Installation Temperature	Temperature Change (Swing)	Expansion	Contraction
80 Degrees	Plus 20	1/8"	
	Negative 80		3/8"
60 Degrees	Plus 40	3/16"	
	Negative 60		1/4"
40 Degrees	Plus 60	1/4"	
	Negative 40		3/16"
20 Degrees	Plus 80	3/8"	
	Negative 20		1/8"

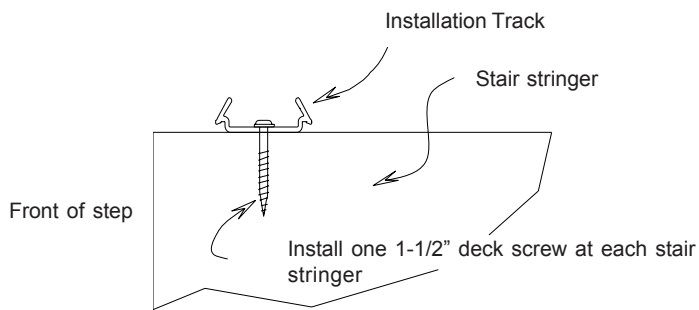
NOTE: Fastener Must Be ACQ Compatible

THERMAL INDUSTRIES, INC.

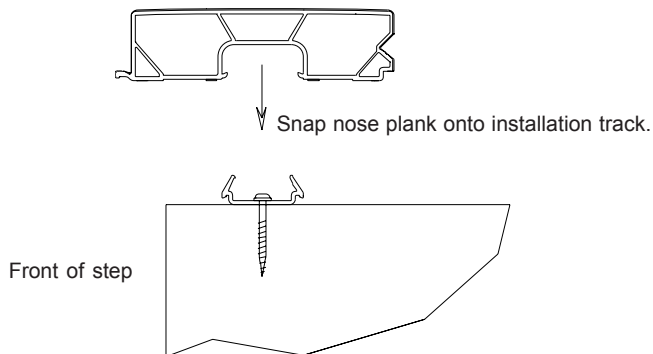
Dream®Deck 4000 - Stair Tread Installation Instructions

Step 1. Install Installation Track

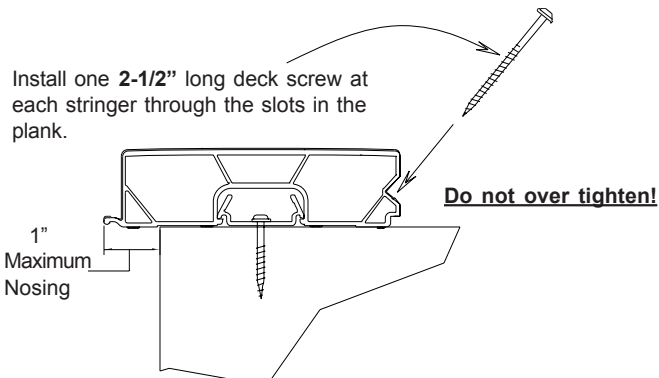
Install the installation track on the front of the stair stringer for the nose plank. Cut to the full length of the plank.



Step 2. Snap First Plank On Step

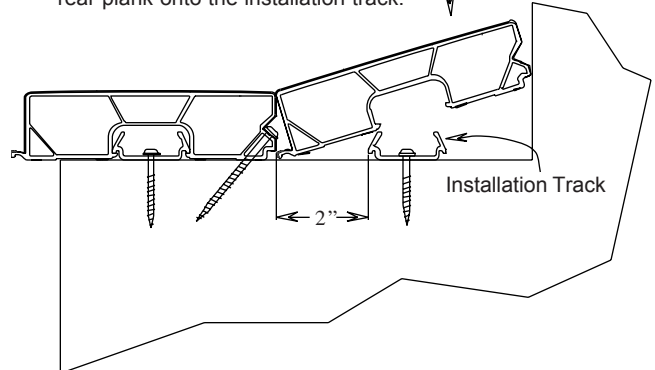


Step 3. Install Plank

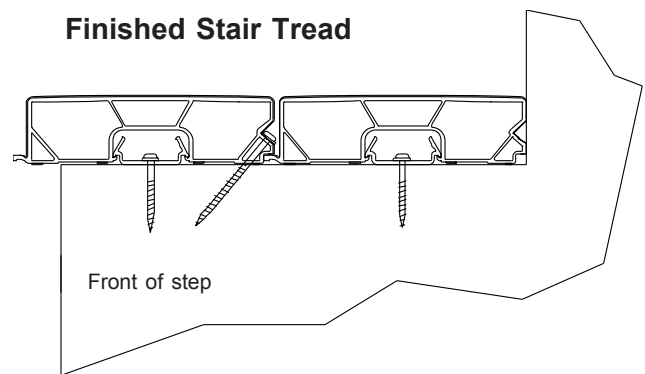


Step 4. Install Rear Installation Track And Plank

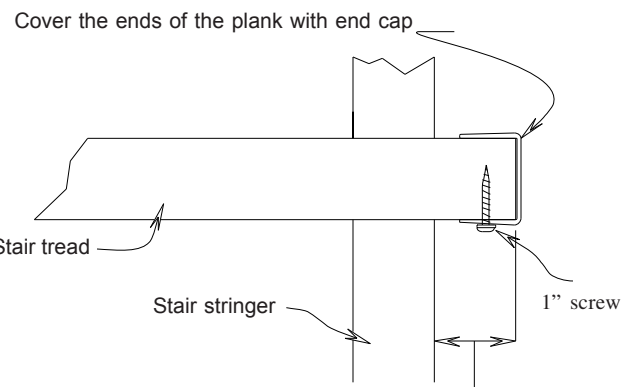
Install the rear installation track 2" away from the front plank. Snap the rear plank onto the installation track.



Finished Stair Tread



Step 5. Install End Cap On Ends Of Planks



NOTE: Maximum Plank Overhang is 1-1/2"

NOTE: Fastener Must Be ACQ Compatible