Evolutions Rail™
Contemporary Style
Installation Guide

TimberTech®

Less Work. More Life.

TimberTech Code Listings

Once a product is tested by an independent lab, an application and report is submitted to one of several agencies that provide listings for building products that meet the requirements of Acceptance Criteria 174 (AC 174) as set forth by the International Code Council Evaluation Service (ICC-ES). TimberTech currently has listings from the ICC-ES and Architectural Testing Inc. The following TimberTech reports on code compliance are available to download on www.timbertech.com.

For the most up-to-date code listings visit

www.timbertech.com/installation.

ATI Architectural Testing, Inc.
CCRR-0196 • Evolutions Rail

- Please read all instructions completely before starting any part of the installation.
- TimberTech Rail should be installed using the same good building principles used to install wood or composite railing and in accordance with the local building codes and the installation guidelines included below. TimberTech accepts no liability or responsibility for the improper installation of this product.
- TimberTech Rail may not be suitable for every application and it is the sole responsibility of the installer to be sure that TimberTech Rail is fit for the intended use. Since all installations are unique, it is also the installer's responsibility to determine specific requirements in regards to each Rail application.
- TimberTech recommends that all applications be reviewed by a licensed architect, engineer or local building official before installation. If you have any questions or need further assistance, please call TimberTech Customer Service at 1.800.307.7780 or visit our website at www. timbertech.com.
- TimberTech Railing is tested as a whole system and should be used that way. It is not intended to be used in conjunction with other railing systems or fasteners.
- The following Installation Guidelines are applicable for installation of TimberTech Evolutions Rail Contemporary Style railing.
- IMPORTANT: Make sure the DRIVE TOOL/DRILL is configured or set to use the SCREW setting when driving and/or tightening all FASTENERS.
- SAFETY: Always wear goggles when handling, cutting, drilling and fastening materials.
- Failure to install this product in accordance with applicable building codes and TimberTech's written Rail Install Guide may lead to personal injury, affect rail system performance and void the product warranty.

decking | **railing** | lighting | fastening

Installing Evolutions Rail™ Contemporary Style with Balusters

TimberTech
Less Work. More Life.

Visit www.timbertech.com/installation to view TimberTech installation videos.
Consult your local building codes for guard and handrail requirements.

Evolutions Rail™ Contemporary Rail Packs are available in 6' or 8' lengths.
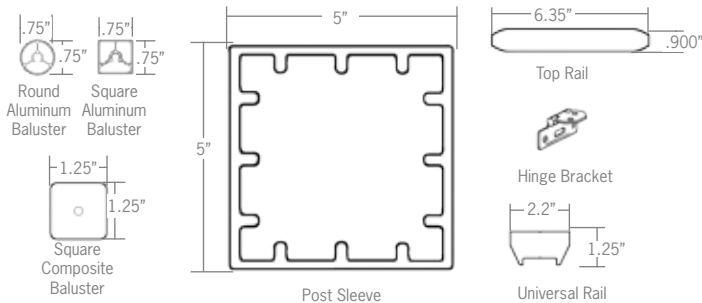
Measuring Your Railing Area

- Measurements are from center to center of the posts. Rails are produced to 6' and 8' to allow for finished end cuts and angles.

- Determine how many 6' or 8' Evolutions Rail sections you need and check to be sure you have all the components (and quantities) listed in the chart and shown to the right.

Important Information

⚠️

- Contemporary Style 6' and 8' rail packs are designed not to exceed 6' and 8' center of post to center of post, respectively.

- Cut slowly, using a fine tooth saw blade to avoid chipping.

- For 42" railing, use 8' Post Sleeves.

- Use 31" and 37" Aluminum Balusters for 36" and 42" railing heights

Component Dimensions

.75" .75"
.75" .75"
Round Aluminum Baluster | Square Aluminum Baluster

1.25"
1.25"
Square Composite Baluster

5"
5"
Post Sleeve

6.35"
.900"
Top Rail

Hinge Bracket

2.2"
1.25"
Universal Rail

Tools Required

- Miter Saw
- Drill
- Drill Bits: 9/64", 3/16", & 1/2"
- Tape Measure

Components Needed For Installing Contemporary Style Rail Section

Hardware included in Hardware Kits:	**Hardware Mounting Kit** 4 - Hinge Brackets 11- #10 x 2" Screws 8 - #10 x 7/8" Screws 4 - #10 x 1.5" Screws T25 Torx Driver Bit
Components available in Mix-and-Match Rail Systems	**Contemporary Rail Pack** 2 - Universal Rails Hardware Kit 8 - Top Rail Screws Foot Blocks - 2 in 6' Packs - 3 in 8' Packs
	Baluster Packs **Composite Baluster** - 13 in 6' kits - 18 in 8' Kits - 36" Kit - 30.25" Height - 42" Kit - 36.25" Height **Baluster Screws** - 26 for 6' Section - 36 for 8' Section **Aluminum Baluster** - 20 per Pack - 31"- 36" Height - 37" - 42" Height - 31" Stair - 36" Height Stair - 37" Stair - 42" Height Stair **Baluster Screws** - 20 #8 x 3" - 20 #8 x 2"
Additional Components Needed for Each System	2 - Post Sleeves 2- Post Skirts 1- Contemporary Top Rail End Coating Optional

Hinge Bracket (4)

Post Sleeve (2)

Post Skirt (2)

Top Rail (1)

Universal Rail (2)

Baluster
(18 in 8' Section)
(13 in 6' Section)

(Aluminum Balusters Require 20 Balusters per 8' Section)

Foot Block
(3 in 8' Section)
(2 in 6' Section)
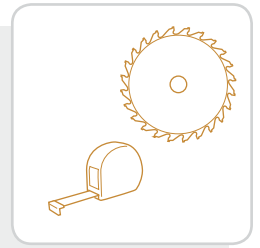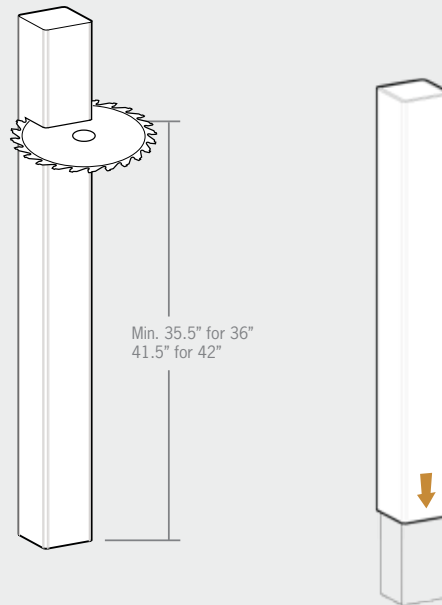
TimberTech®
Less Work. More Life.

1 CUT POSTS AND TEMPORARILY INSTALL POST SLEEVES

- **Posts must be positioned no more than 8' on center.**

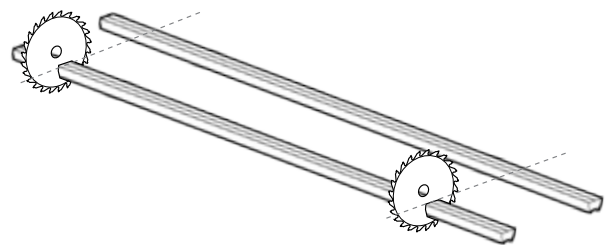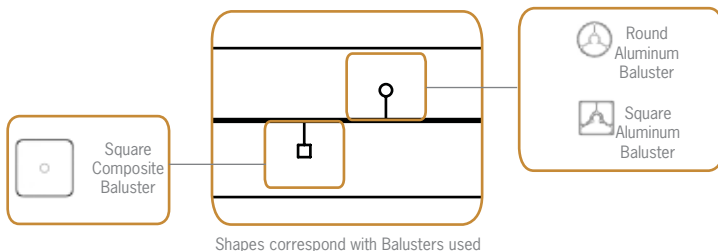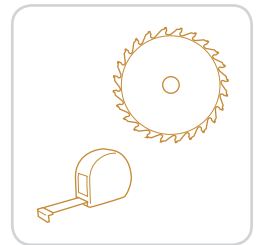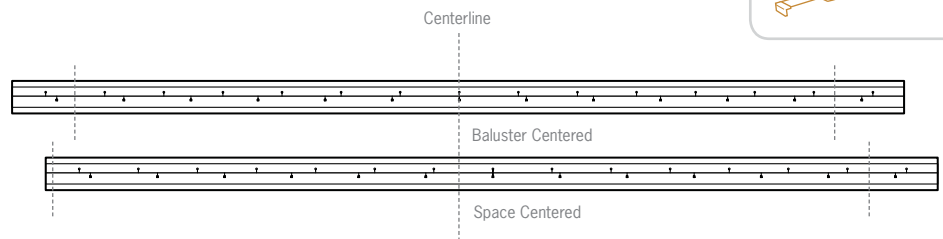- **Slide uncut Post Sleeve and Skirt over Post. Do not force.**

⚠ Do not cut Post Sleeves in this step.

Min. 35.5" for 36"
41.5" for 42"

2 PREPARE UNIVERSAL RAILS

- **Measure between posts and determine if the cut center of the Universal Rails will be a Baluster or space. (example given for Square Aluminum Balusters).**
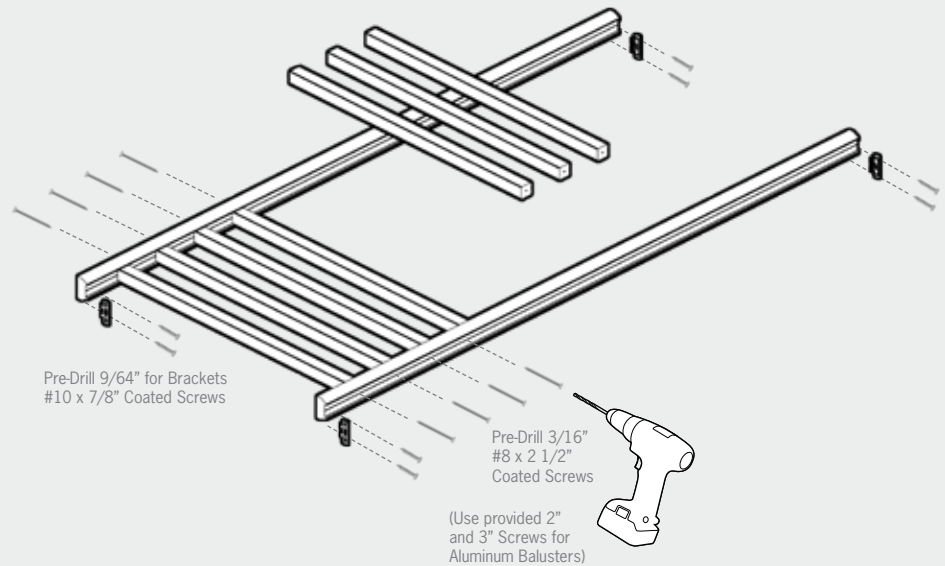
Centerline

Baluster Centered

Space Centered

Square Composite Baluster

Round Aluminum Baluster

Square Aluminum Baluster

Shapes correspond with Balusters used

⚠ Use the shape guides printed on the underside of the Universal Rail with the corresponding Baluster to determine where the Balusters will be placed, before cutting the Universal Rails. The spaces between the Baluster will be less than 4".

3 ATTACH BALUSTERS AND HINGE BRACKETS
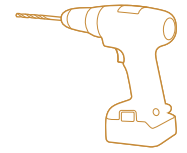
- **Attach Hinge Brackets to each side of both Universal Rails.**
- **Pre-drill at the center of each Baluster hole on each Universal Rail.**
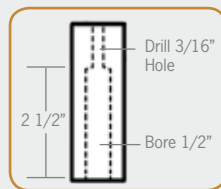- **Attach Balusters with screws to both Universal Rails.**

Pre-Drill 9/64" for Brackets
#10 x 7/8" Coated Screws

Pre-Drill 3/16"
#8 x 2 1/2"
Coated Screws

(Use provided 2"
and 3" Screws for
Aluminum Balusters)

4 ATTACH FOOT BLOCKS
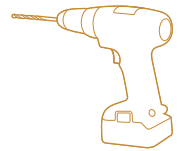
- **Counter-bore foot blocks.**
- **Place Foot Blocks about every 2'.**
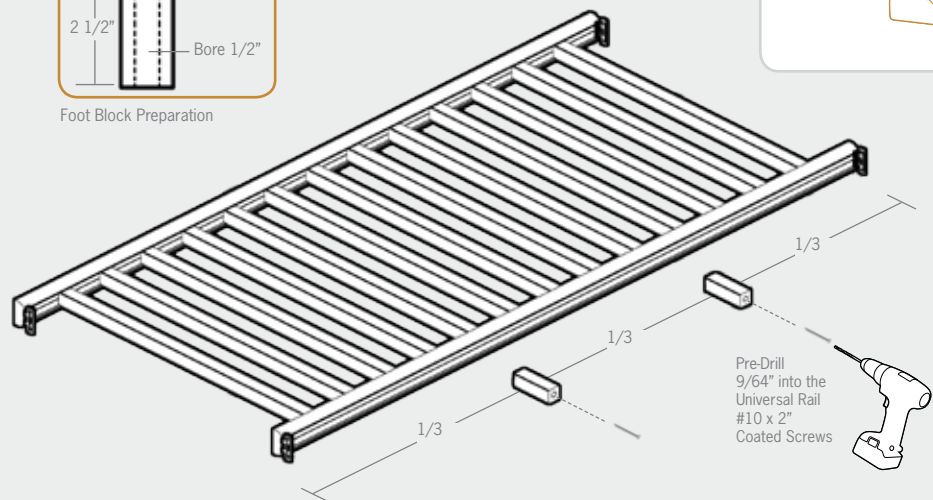
Drill 3/16"
Hole

2 1/2"

Bore 1/2"

Foot Block Preparation

1/3

1/3

1/3

Pre-Drill
9/64" into the
Universal Rail
#10 x 2"
Coated Screws

For sections up to 6': Place two Foot Blocks at 1/3 intervals on the rail

For sections 6' to 8': Space three Foot Blocks approximately at 1/4 intervals on the rail

5 MEASURE AND TRIM POST SLEEVES

- **Place rail assembly between the posts and allow the rail to rest on its foot blocks.**

> Post Sleeves should be flush with the Top Universal Rail.

- **Mark and trim Posts and Post Sleeves.**

- **Place the Post Sleeves and Skirts over the Posts.**
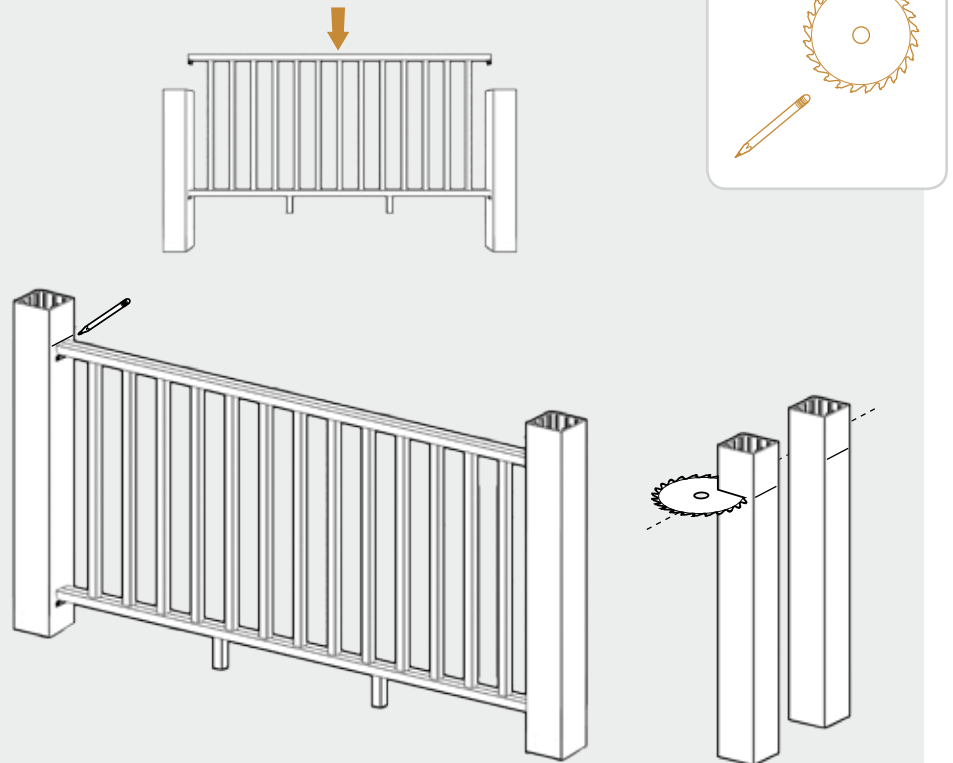
6 ATTACH RAILS TO POSTS

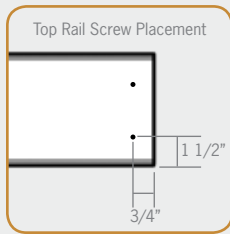- **Position rail assembly between Posts and secure.**

Pre-Drill 9/64"
#10 x 2"
Coated Screws
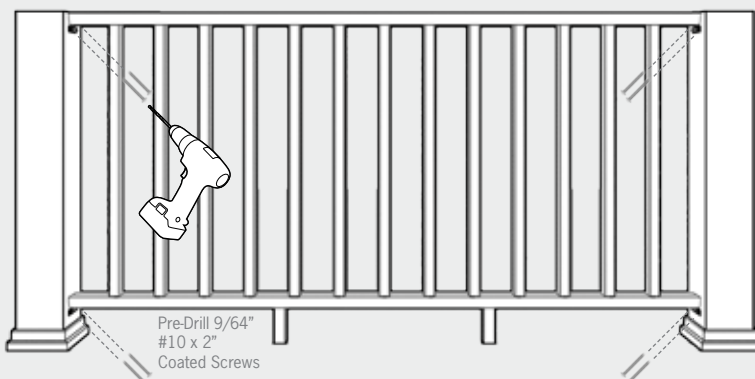
⚠ Screws are designed to go in at a slight angle.

7 INSTALL TOP RAIL

- **Use optional End Coating on exposed Top Rail ends.**

⚠ Do not pre-drill into 4x4.

Top Rail Screw Placement

1 1/2"

3/4"

Pre-Drill 3/16"
#8 x 2 1/2" Coated
Screws

2'

2'

Pre-Drill 3/16" through
Universal Rail
Pre-Drill 9/64" through hole
in Universal Rail up into
Top Rail

#10 x 1 1/2" Coated Screws
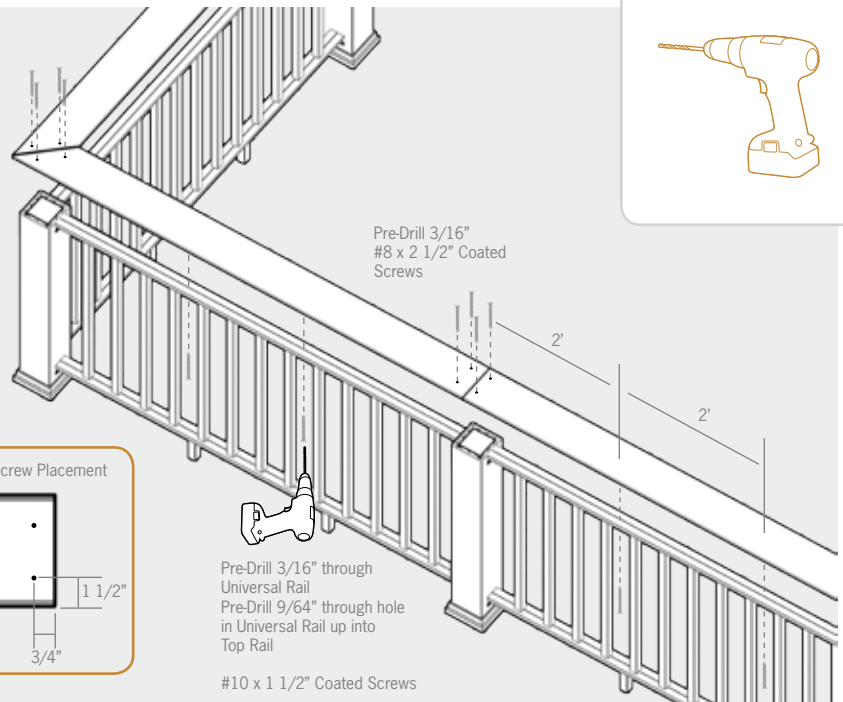
⚠ **If your rail has stair sections, start installing the cap at the stairs. Wait until all rail sections are complete before beginning Top Rail installation.**

1 CUT POSTS AND TEMPORARILY INSTALL POST SLEEVES

- **Posts must be positioned no more than 8' on center.**

- **Slide uncut Post Sleeve and Skirt over Post (do not force).**

Max of 8'

Min. 35.5" for 36"
41.5" for 42"
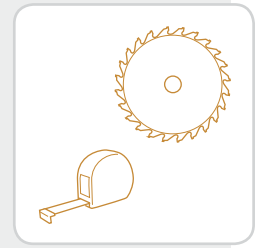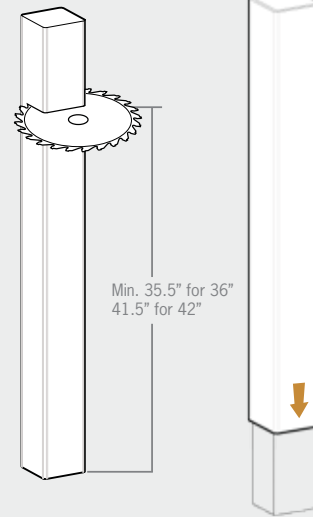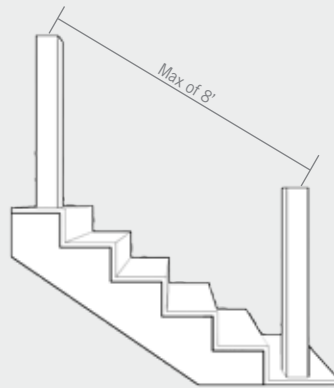
2 CUT UNIVERSAL RAILS

- **Rest Bottom Universal Rail on stairs and transfer the length and angle of the stairs onto the rail. This angle will be used throughout the entire installation.**

- **Cut Bottom and Top Universal Rail according to measurements.**
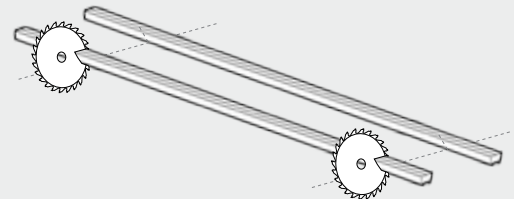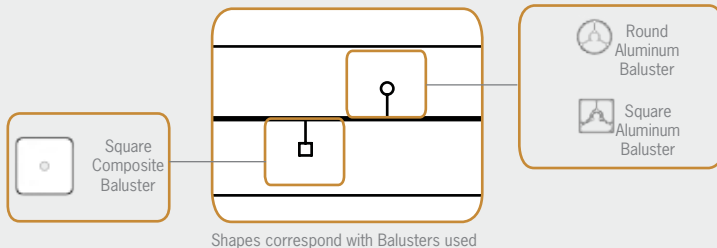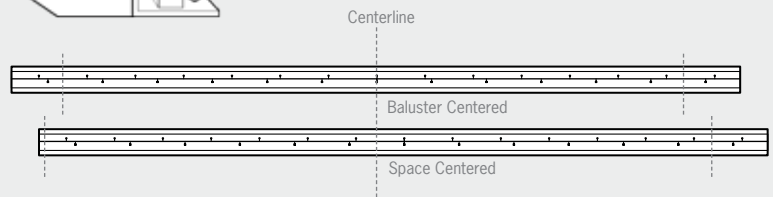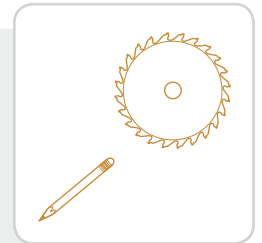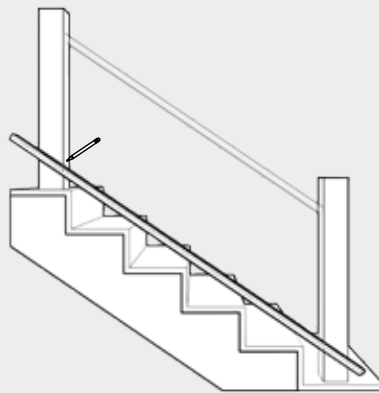
Centerline

Baluster Centered

Space Centered

Round Aluminum Baluster

Square Aluminum Baluster

Square Composite Baluster

Shapes correspond with Balusters used

⚠️ Use the shape guides printed on the underside of the Universal Rail with the corresponding Baluster to determine where the Balusters will be placed, before cutting the Universal Rails.

3 TRIM BALUSTERS

- **Trim all Balusters to rail angle and maximize length.**
- **Attach Hinge Brackets to both Universal Rails.**

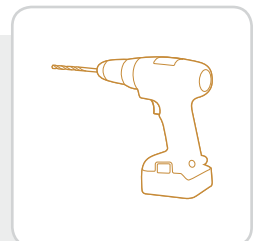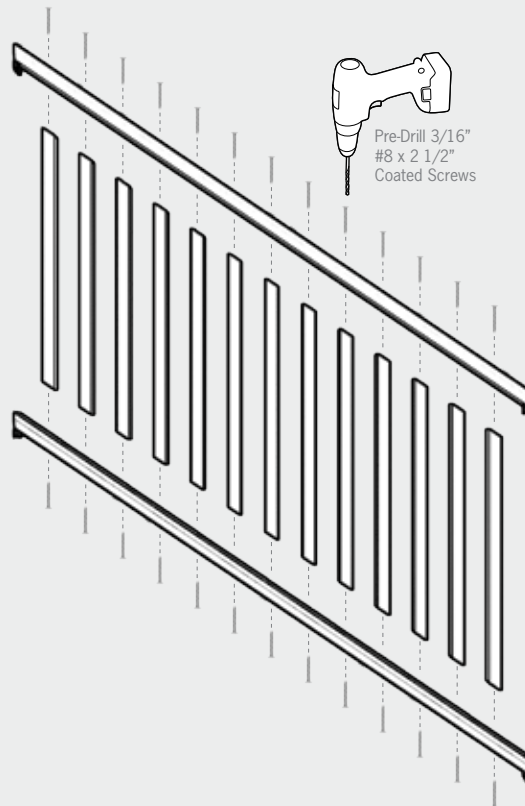⚠ Aluminum Stair Balusters are pre-cut to a stair angle and are not to be cut on the jobsite.

Pre-Drill 9/64"
#10 x 7/8"
Coated Screws
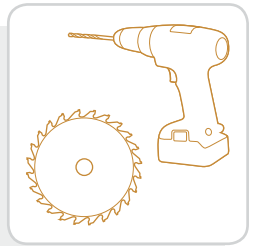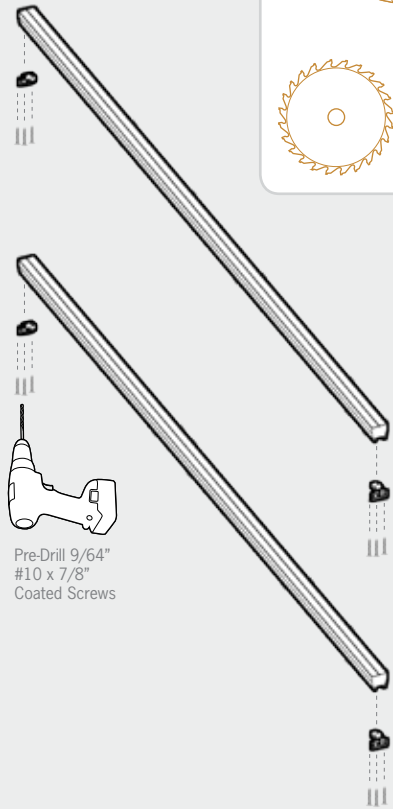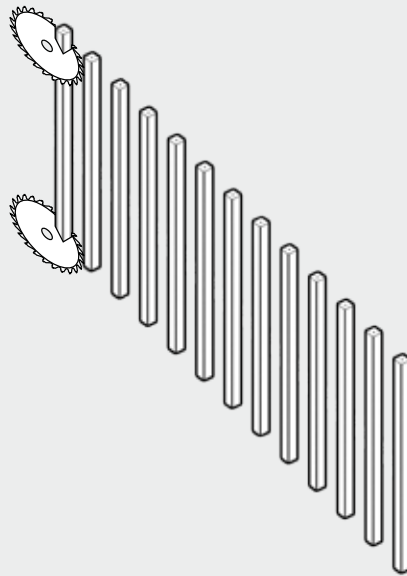
4 ASSEMBLE RAIL SECTION

- **Pre-drill at the center of each Baluster hole on the Universal Rails at the angle of stairs.**
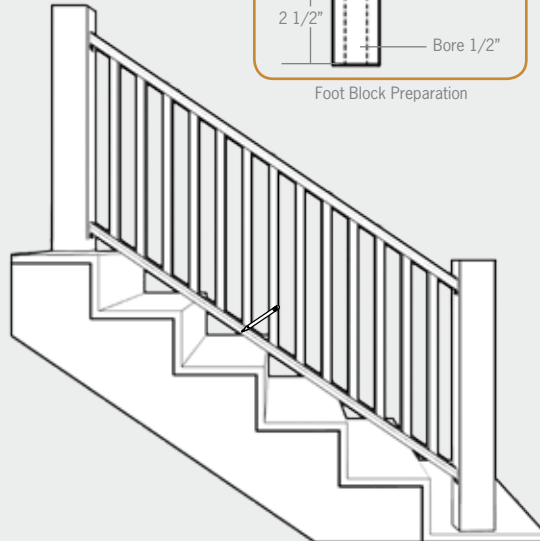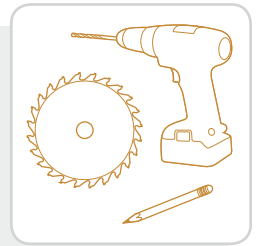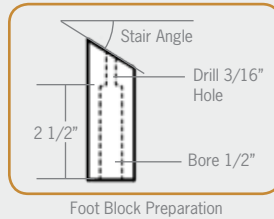- **Attach Balusters to both Universal Rails.**

Pre-Drill 3/16"
#8 x 2 1/2"
Coated Screws

(Use provided 2" and 3" Screws for Aluminum Balusters)

5 ATTACH FOOT BLOCKS

- **Foot Blocks should be placed about every 2'. Temporarily install infill assembly to help determine locations.**
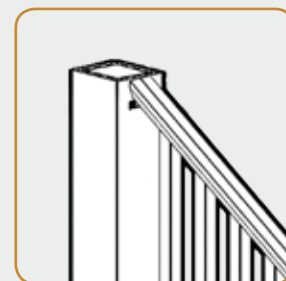
Stair Angle
Drill 3/16" Hole
2 1/2"
Bore 1/2"

Foot Block Preparation

Pre-Drill 9/64" into Universal Rail
#10 x 2" Coated Screws

For sections up to 6': Place two Foot Blocks at 1/3 intervals on the rail

For sections 6' to 8': Space three Foot Blocks approximately at 1/4 intervals on the rail

## 6 MEASURE AND TRIM TOP POST AND TOP POST SLEEVE

- **Temporarily place infill assembly in position.**
- **Mark the top of the Top Universal Rail.**
- **Remove Post Sleeve and trim to length, then Trim Post to same length.**
- **Replace Post Sleeve.**
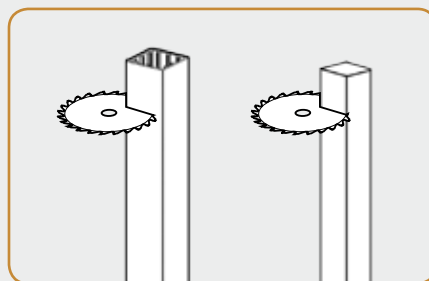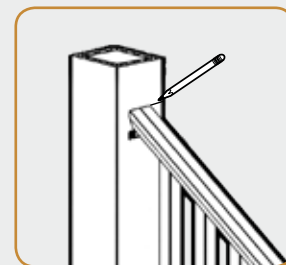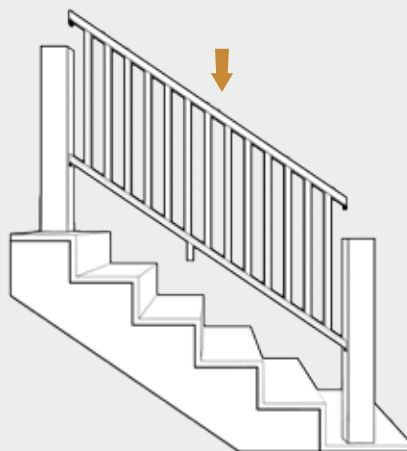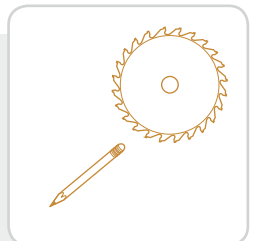
Post Sleeves should be flush with top Universal Rail.

7 MEASURE AND TRIM POST SLEEVES

- **Mark where Top Universal Rail meets Bottom Post Sleeve.**
- **Remove Post Sleeve and trim to stair angle. Replace Post Sleeve.**
- **Use Post Sleeve to mark the angle of cut on Post. Remove Post Sleeve.**
- **Using a straight edge, draw a line roughly 1/8" below previous mark on Post.**
- **Trim Post at lower line.**
- **Replace Post Sleeve.**
- **Replace both Post Skirts.**
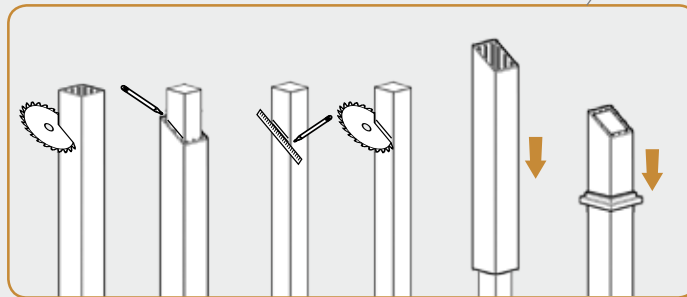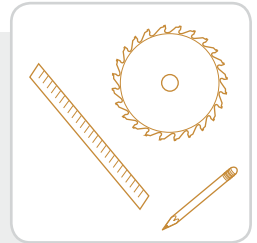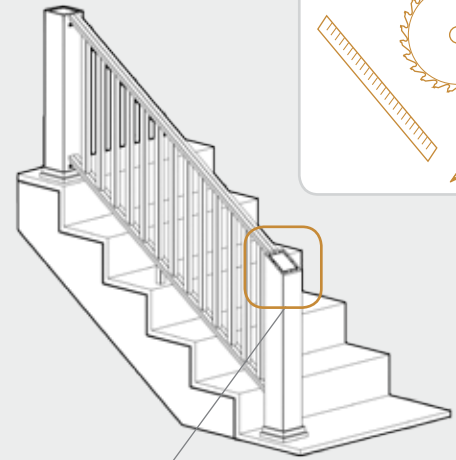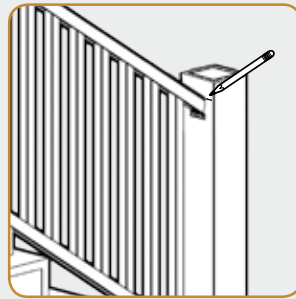
8 ATTACH RAILS TO POSTS

- **Position rail assembly between Posts.**

Screws are designed to go in at a slight angle.

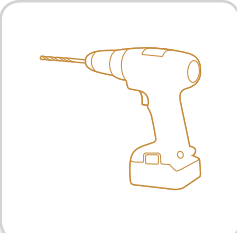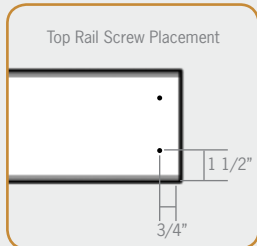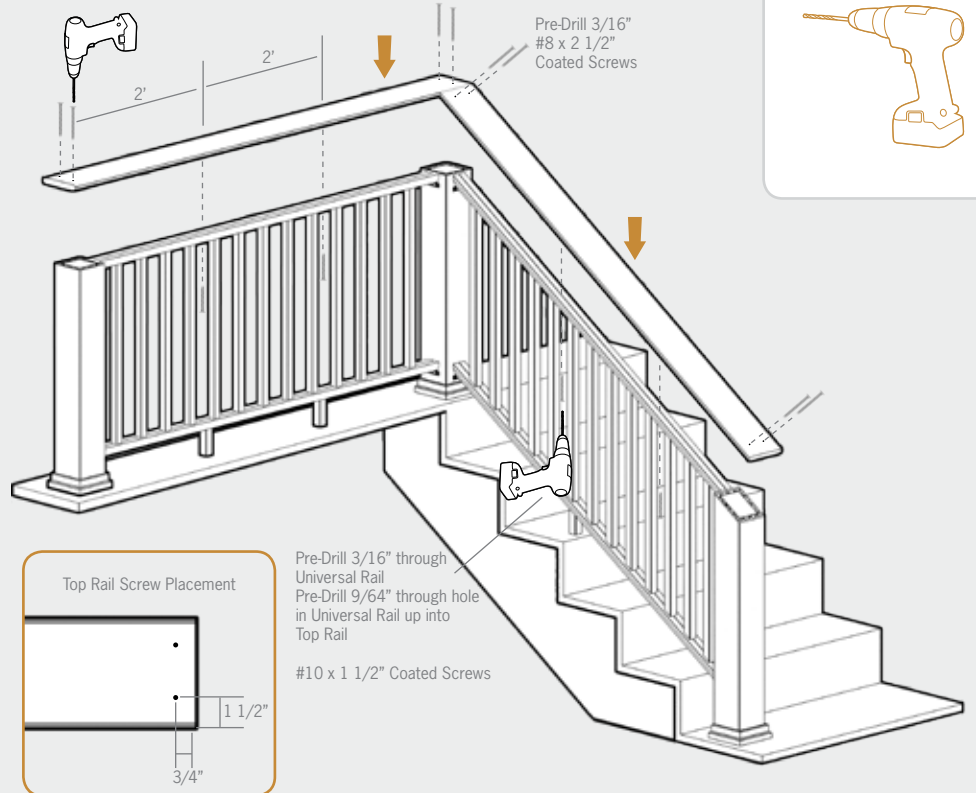Pre-Drill 9/64"
#10 x 2" Coated
Screws
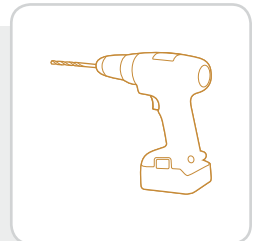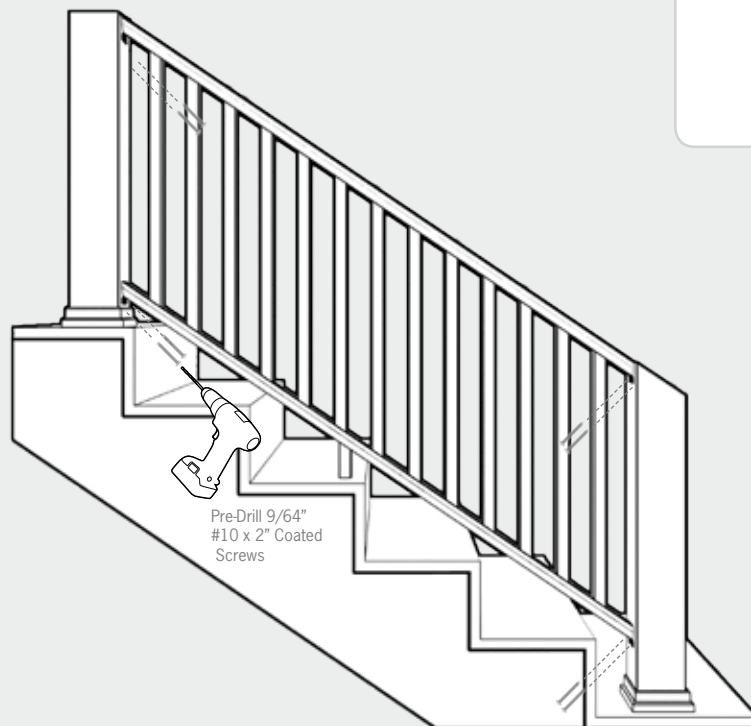
9 INSTALL TOP RAIL

- **Finish railing system by applying a TimberTech Contemporary Top Rail to the top of the rail assembly.**

- **Use optional End Coating on exposed Top Rail ends.**

⚠ Do not pre-drill 4x4.

2'

2'

Pre-Drill 3/16"
#8 x 2 1/2"
Coated Screws

Pre-Drill 3/16" through
Universal Rail
Pre-Drill 9/64" through hole
in Universal Rail up into
Top Rail

#10 x 1 1/2" Coated Screws

Top Rail Screw Placement

1 1/2"

3/4"

Evolutions Rail™
Contemporary Style
Installation Guide

Less Work. More Life.