



ORIGINAL RAIL™

INSTALLATION INSTRUCTIONS

- Level Rail.....2
- Stair Rail.....7

ICC-ES Evaluation Report No. ESR-1849



Need a little help installing your railing?
www.rdirail.com/support/installation-videos.html



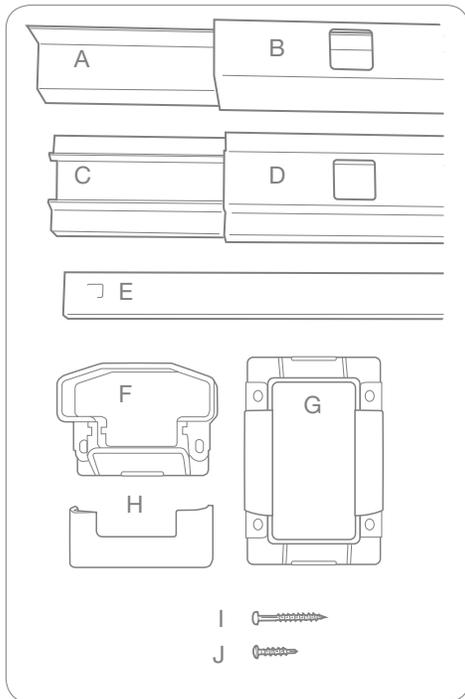
LEVEL RAIL

Warning: Always wear safety goggles.

RDI has obtained an ICC evaluation report on the International Building Code® and the International Residential Codes®. For a full report, see ICC-ES Evaluation Report No. ESR-1849 at www.icc-es.org.

COMPONENT LIST:

Check the kit to ensure all components are included.



- A) Aluminum Bottom Rail Stiffener – 1
- B) Vinyl Bottom Rail – 1
- C) Aluminum Top Rail Stiffener – 1
- D) Vinyl Top Rail – 1
- E) Balusters – (see chart below)
- F) Top Mounting Bracket – 2
- G) Bottom Mounting Bracket – 2
- H) Snap on Bracket Covers – 6
- I) Rail Mounting Screws – 12
- J) Rail Mounting Set Screws – 4

TOOLS NEEDED:

- Safety goggles
- Tape measure
- Pencil
- Level
- Power screwdriver/drill
- Power saw
- Straight edge/ruler/triangle

RAIL LENGTH	SQUARE BALUSTERS PER KIT	TURNUED BALUSTERS PER KIT	ROUND BALUSTERS PER KIT	GLASS BALUSTERS NEEDED PER KIT
4' Kit	9	9	10	6
6' Kit	14	14	15	9
8' Kit	19	19	20	12
10' Kit	24	24	26	15

1.

Prepare all posts and mounting surfaces before installation.

2.

Establish the height of the lower rail using blocks for the desired bottom space.

Place the bottom rail across the opening where it is to be installed (Fig. 1).

Tip: Standard Original Rail measures 36" in height with a 2" space below the bottom rail. Use 2" blocks to establish bottom rail height.

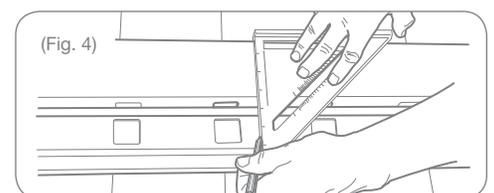
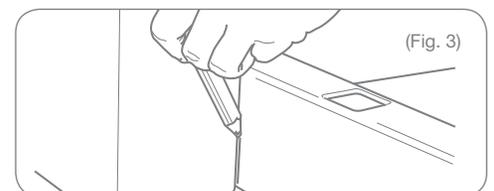
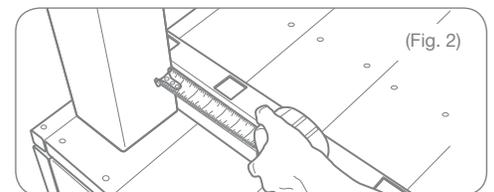
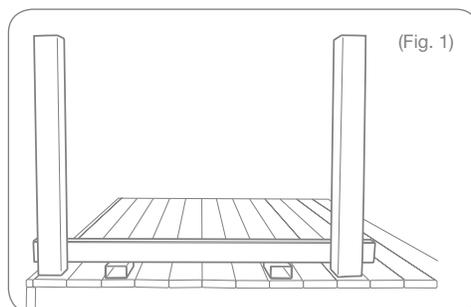
3.

Measure from the mounting surface to the first baluster hole on each end (Fig. 2) and adjust until these dimensions are equal.

Trace the post onto the bottom rail and mark 1/8" short at each end to allow for expansion (Fig. 3).

Tip: If all of your mounting surfaces are plumb, transfer your measurements and baluster layout from the bottom rail to the top rail (Fig. 4).

NOTE: A minimum of 1 1/4" from the edge of the first baluster to the end of the rail is necessary to accommodate the mounting brackets.



LEVEL RAIL CONTINUED

4.

Cut each end of the rail at the measurement determined in Step 3 (Fig. 5).

Tip: If using a power saw, a carbide tip blade of at least 60 teeth is recommended.

Place a bottom mounting bracket on each end of the bottom rail with the flat side facing the rail ends (Fig. 6).

5.

Place rail with brackets between posts as shown in Figure 7.

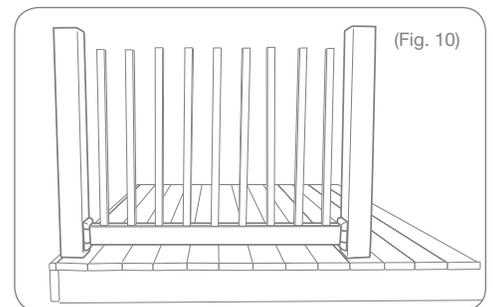
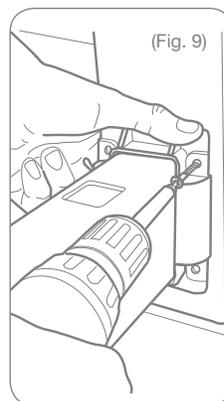
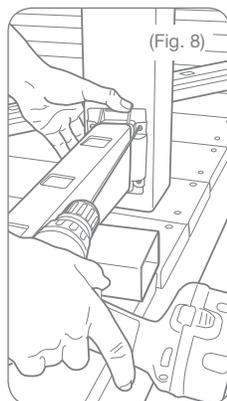
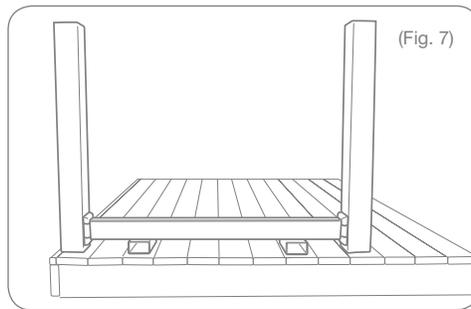
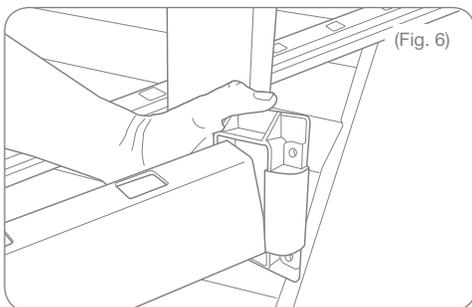
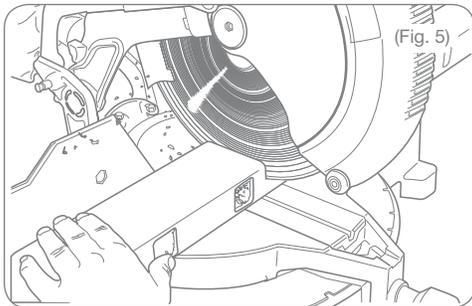
Pre-drill the holes (Fig. 8) for the mounting brackets to avoid stripping the stainless steel screws and secure in place using the rail mounting screws (item I) from component list (Fig. 9).

NOTE: The looped part of the aluminum P-channel must be facing away (down) from the baluster holes while the flat side of the P-channel must be facing the outside of the deck when mounted.

6.

Insert a baluster into each routed hole of the bottom rail (Fig. 10).

NOTE: Each kit with vinyl balusters contains 2 tabbed balusters; space them evenly into each section.



7.

Cut the top rail following the same procedure that you used in steps 3 and 4 for the bottom rail.

8.

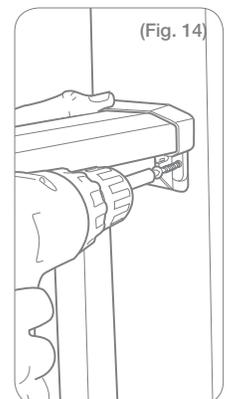
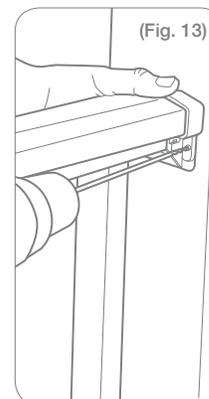
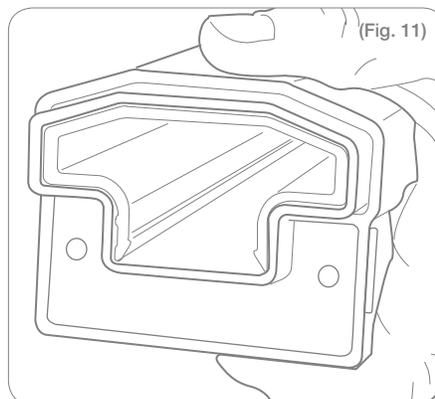
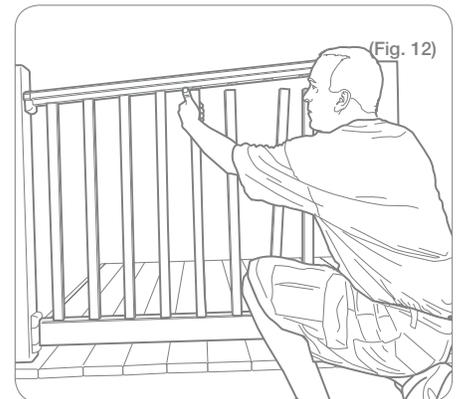
Place a T-shaped top mounting bracket (item F) on each end of the top rail, with the flat side facing the mounting surface.

Make sure that the aluminum T-channel is flush with the end of the vinyl top rail (Fig. 11).

9.

Beginning at one end of the rail section, (Fig. 12) insert each baluster installed in Step 6 into the corresponding baluster hole into the top rail.

To allow for baluster expansion, raise the top rail approximately 1/8". Pre-drill the holes (Fig. 13) for the mounting brackets to avoid stripping the stainless steel screws and secure in place using supplied screws (I) (Fig. 14).



LEVEL RAIL CONTINUED

10.

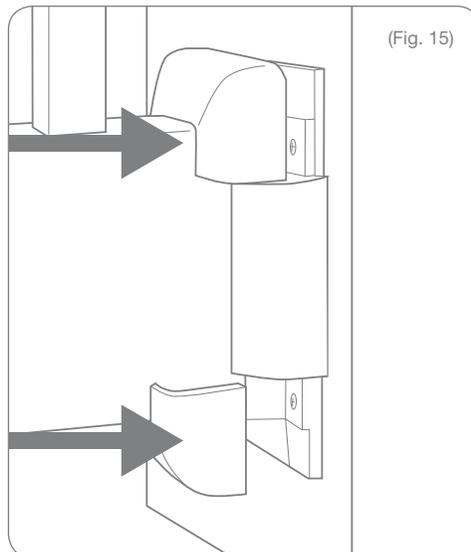
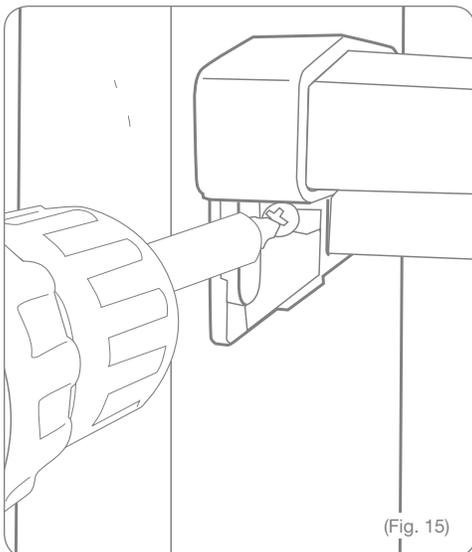
Secure the top rail to mounting brackets using supplied set screws (J) as shown in Figure 15.

Repeat Steps 1 through 10 for each rail section.

11.

Check entire installation for accuracy before snapping snap on bracket covers (H) for top and bottom brackets (Fig. 16) into place.

NOTE: Bracket covers press-fit onto the brackets perpendicular to the post; they cannot be slid into place.





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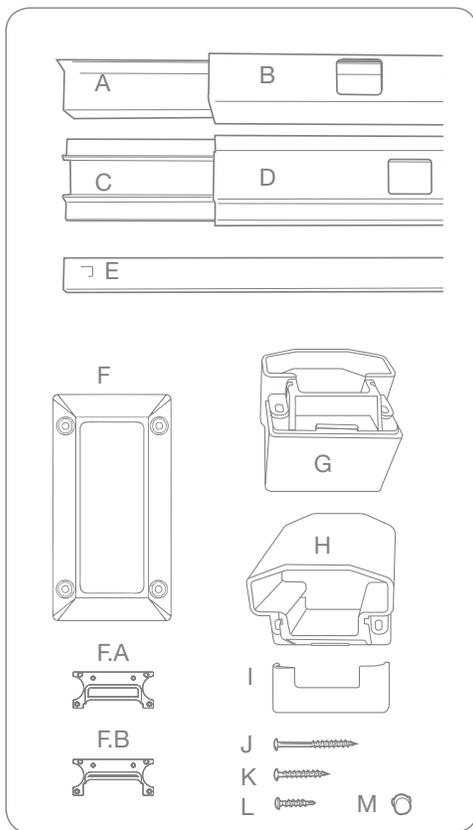
STAIR RAIL

Warning: Always wear safety goggles.

Endurance Original Rail stair brackets do not need to be cut, and work at angles between 32° and 38°.

COMPONENT LIST:

Check the kit to ensure all components are included.



- A) Aluminum Bottom Rail Stiffener – 1
- B) Vinyl Bottom Rail – 1
- C) Aluminum Top Rail Stiffener – 1
- D) Vinyl Top Rail – 1
- E) Balusters – (See chart below)
- F) Bottom Rail Mounting Bracket – 2
 - F.A) Low Angle Bracket Insert – 2
 - F.B) High Angle Bracket Insert – 2
- G) Top Rail Bottom Mounting Bracket – 1
- H) Top Rail Top Mounting Bracket – 1
- I) Snap on Bracket Covers – 2
- J) Top Rail Mounting Screws, 3" length – 4
- K) Bottom Rail Mounting Screws, 2" length – 8
- L) Top Rail Set Screws, 1" length – 4
- M) Press-in Plugs – 8

TOOLS NEEDED:

- Safety goggles
- Tape measure
- Pencil
- Level
- Power screwdriver/drill
- Power saw

KIT LENGTH	SQUARE BALUSTERS PER KIT	TURNED BALUSTERS PER KIT	ROUND BALUSTERS PER KIT	GLASS BALUSTERS PER KIT
6'	12	12	14	7
8'	16	16	19	10

Endurance

		RUN in inches									
		9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0	
RISE in inches	6.0	32	32	31	30	29	28	27	26	25	
	6.5	36	34	33	32	31	29	28	27	27	
	7.0	38	36	35	34	32	31	30	29	28	
	7.5	40	38	37	36	34	33	32	31	30	
	8.0	42	40	39	37	36	35	34	33	32	
	8.5	43	42	40	39	38	36	35	34	33	

STAIR RAIL CONTINUED

1.

Prepare all posts and mounting surfaces before installation.

2.

Temporarily secure a plank on the noses of the stairs between the posts onto which you are installing the stair rail. (Fig. 1) The thickness of the plank will determine the space between the stairs and the bottom rail.

Place the bottom rail, baluster holes facing up, on the plank with the sticker reading "This end at top..." at the top post (Fig. 2).

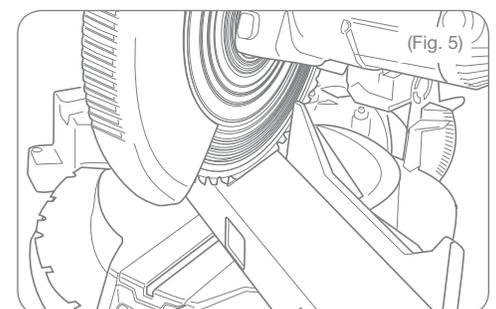
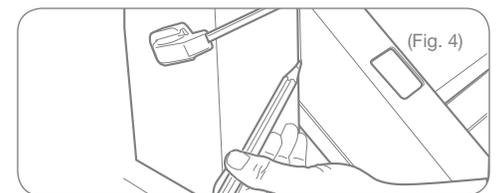
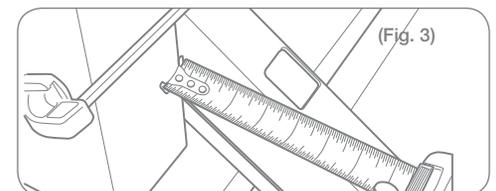
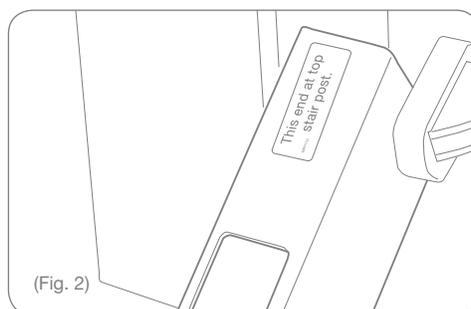
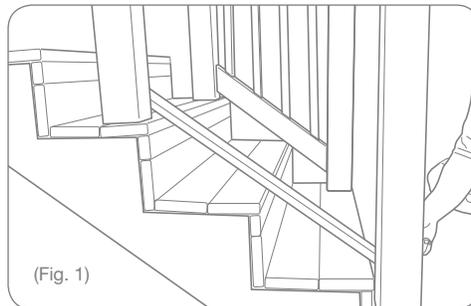
Slide the rail up or down until the baluster hole spacing is even on each end (Fig. 3).

Trace the post onto the rail and mark $\frac{1}{8}$ " short at each end to allow for expansion (Fig. 4).

Now cut the rail to fit (Fig. 5).

NOTE: A minimum of $2\frac{3}{8}$ " from the edge of the first baluster to the end of the rail is necessary to accommodate the mounting brackets.

Tip: If using a power saw, a carbide tip blade of at least 60 teeth is recommended.



3.

If installing at an angle between 35 and 38 degrees, snap a small insert (F.B) into each bottom bracket (Fig. 6).

If installing at an angle between 32 and 34 degrees, lower snap a large insert (F.A) into each bottom bracket (Fig. 7).

4.

Orient the bracket being used at the top of the stair with the insert placed inside the bottom of the bracket and the bracket being used at the stair bottom with the insert at the top of the bracket (Fig. 8).

Slide the brackets onto the rail with the bracket's flat side facing the rail ends. Set rail in place and pre-drill at all holes in the mounting brackets to avoid stripping the stainless steel screws (Fig. 9) and secure in place using item K from component list (Fig. 10).

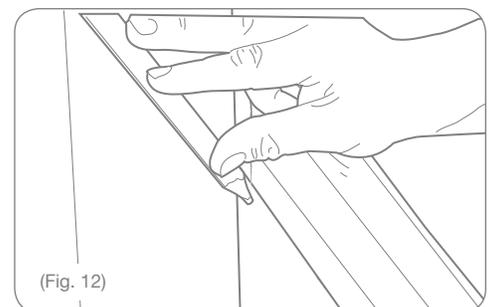
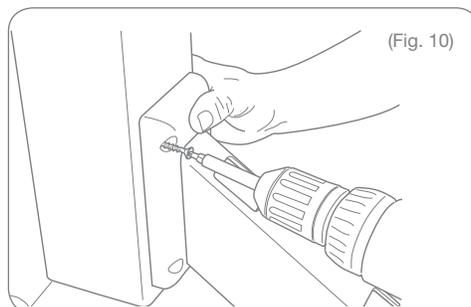
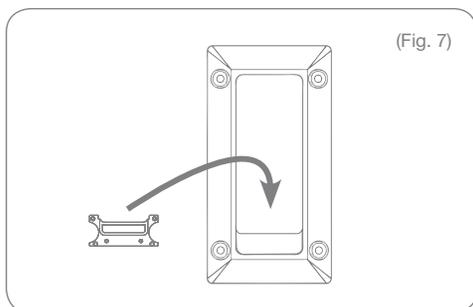
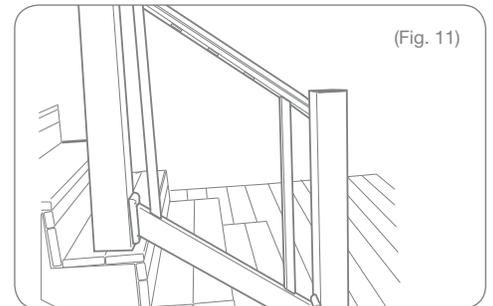
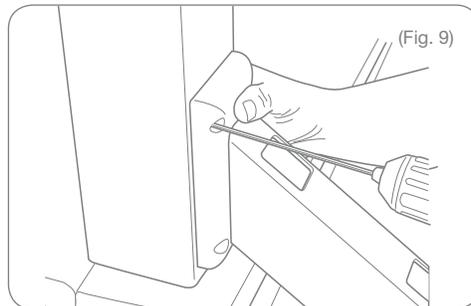
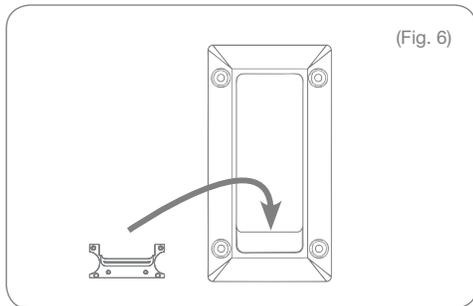
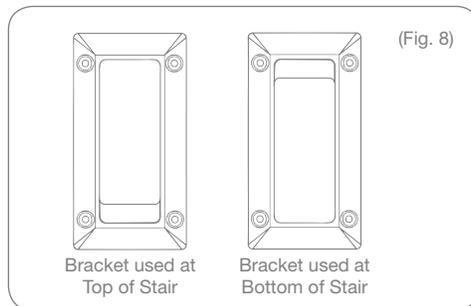
NOTE: The looped part of the aluminum P-channel must be facing away (down) from the baluster holes; the flat side of the P-channel must be facing the outside of the deck when mounted.

5.

Insert a baluster into each of the first and last baluster holes of the bottom rail, and set the top rail in place by inserting them into the corresponding holes (Fig. 11).

Place the top rail inside of the posts to measure accurately. Adjust for plumb.

Trace the posts onto the rail and mark $\frac{1}{8}$ " short to allow for expansion (Fig. 12).



STAIR RAIL CONTINUED

6.

Cut the top rail to fit (Fig. 13).

7.

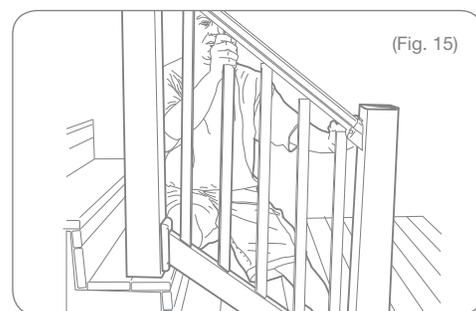
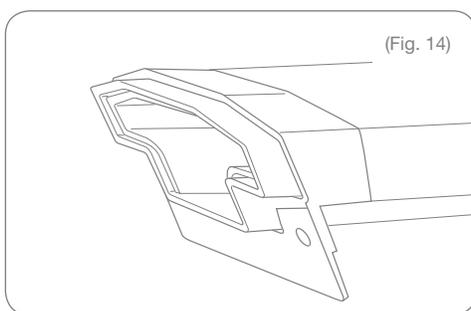
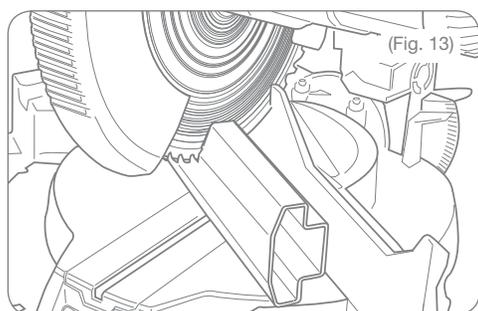
Slide a top rail mounting bracket in place with flat side facing the mounting post. Top stair mounting bracket (H) should be at top of the stair and bottom stair mounting bracket (G) should be at the bottom (Fig. 14).

8.

Insert a baluster into each rout of the bottom rail.

NOTE: Each kit with vinyl balusters contains 2 tabbed balusters; space them evenly into each section.

Set the top rail in place by inserting the first baluster (at the upper post) in the corresponding rout of the top rail, and work toward the bottom (Fig. 15).



9.

To allow for baluster expansion, raise the top rail approximately $\frac{1}{8}$ ". Pre-drill the holes for the mounting brackets to avoid stripping the stainless steel screws (Fig. 16).

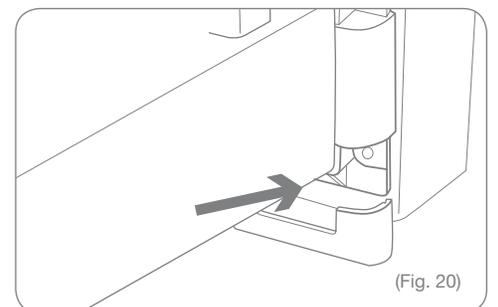
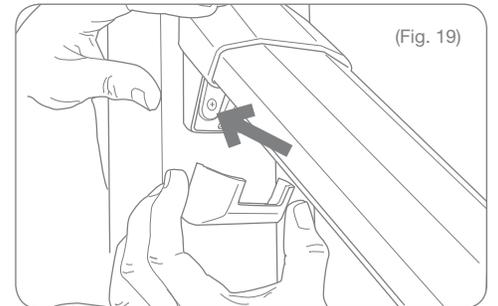
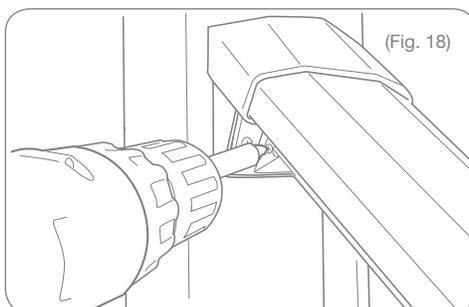
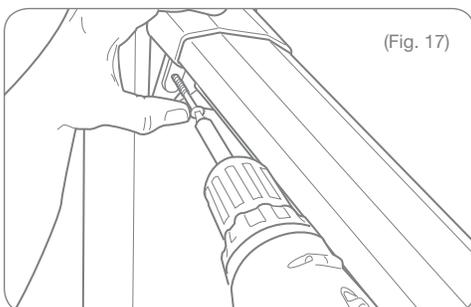
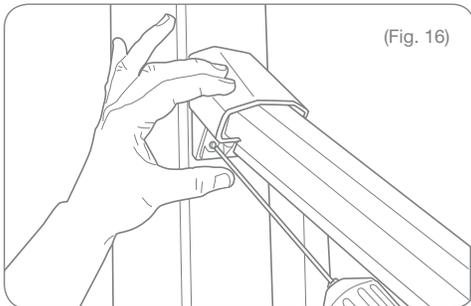
Secure top rails in place using provided top rail mounting screws (J) into both sides of each bracket at the top and bottom post (Fig. 17).

10.

Secure top railing to brackets using provided set screws (L) as shown in figure 18.

11.

Check entire installation for accuracy before snapping snap on bracket covers (Fig. 19) into place, and inserting the button plugs into the bottom brackets (Fig. 20).



WARRANTY

Railing Dynamics, Inc. (“RDI”) warrants to the original consumer/purchaser (the “Purchaser”) of RDI’s rigid vinyl and Resalite™ railing and accessory products (the “Product”) that they will remain free from material defects in workmanship and materials and will not peel, rot, rust or suffer structural damage from weather influences, fungal decay or wood-boring insects, subject to the following limitations, exclusions and conditions for the time periods defined below:

1. Warranty periods below are from the date of the original purchase of the Product:
 - a. Lifetime for individual homeowners for their residence (where product was originally installed)
 - b. 20 years – for commercial or governmental use
 - c. All colors other than white – 20 years for individual home owners for their residences and commercial and governmental use
2. This Warranty covers the Product only if it is purchased and used exclusively in North America.
3. This Warranty may be transferred one time, within five years from the date of original purchase of the Product, to a subsequent buyer of the property upon which the Product was originally installed. As a condition to the effectiveness of any such transfer, the transferee must send written notice to RDI (at the address above) of the transfer, together with sufficient information for RDI to determine that the transfer is valid in accordance with the terms of this Warranty, within 30 days of the purported transfer. No other transfer or assignment of this Warranty will be valid, and any purported transfer or assignment of rights under this Warranty will void this Warranty.
4. To make a claim under this Warranty, the Purchaser must send to RDI, at its address provided, written during the warranty period, a reasonably detailed written notice of any defect, damage or other failure of the Product within a reasonable time after discovery of the basis for the claim. RDI may require proof of purchase, the product serial number, a clear photograph of the defective part(s) and actual part(s) themselves. If RDI determines that the Purchaser has a valid claim under this Warranty, RDI, at its option, will either: (i) ship to the Purchaser (at his/her address stated in the Warranty Registration Form) a replacement for the part(s) subject to the warranty claim, free of charge to the Purchaser (but the replacement part may vary in color or finish as a result of weathering or normal discoloration of the original Product or changes in RDI’s offerings of colors/finishes); (ii) will repair or restore the part(s) subject to the warranty claim, free of charge to the Purchaser, provided the Purchaser provides all reasonable cooperation; or (iii) send payment to the Purchaser of the portion of the purchase price paid by the Purchaser to RDI for the part(s) subject to the warranty claim. This paragraph provides the Purchaser’s exclusive remedy under this Warranty. Under no circumstances will RDI be liable for any installation, removal or reinstallation of the Product or any part, or for any labor, loss of time, maintenance or inconvenience.
5. This Warranty does not cover normal weathering effects or normal discoloration of surfaces due to exposure to ultraviolet light (e.g., sunlight) or extremes of temperature or pressure. This Warranty does not cover defects, damage or other failure resulting from or relating to the impact of any foreign object, hail, high winds, flood, earthquake, lightning or other weather disturbance, fire, act of God, pollutant, chemical, waste, hazardous material or other cause beyond RDI’s control.
6. THIS WARRANTY DOES NOT APPLY TO, AND UNDER NO CIRCUMSTANCES WILL RDI BE LIABLE FOR, ANY DEFECT, DAMAGE OR FAILURE RESULTING FROM OR RELATING TO ANY MISUSE, ABUSE, NEGLIGENCE, FAULTY OR IMPROPER INSTALLATION OR FAILURE TO ADHERE TO ANY INSTRUCTION OR RECOMMENDATION IN RDI’S INSTALLATION INSTRUCTIONS INCLUDED WITH THE PRODUCT (THE “INSTALLATION INSTRUCTIONS”). THIS WARRANTY WILL BE VOID AS TO ANY SURFACE OF THE PRODUCT COVERED WITH GREASE, OIL, ACID OR ANY OTHER FOREIGN MATTER, EXCEPT AS RECOMMENDED IN THE INSTALLATION INSTRUCTIONS. THIS WARRANTY WILL BE VOID IF ANY PART OF THE PRODUCT IS ALTERED OR IF ANY STRUCTURAL PART OR COMPONENT NOT SUPPLIED BY RDI IS USED IN CONJUNCTION WITH THE PRODUCT, OTHER THAN APPROPRIATE USE OF DECK JOISTS OR OTHER SUPPORT STRUCTURES IN ACCORDANCE WITH THE INSTALLATION INSTRUCTIONS. THIS WARRANTY WILL NOT COVER ANY CONSEQUENCE OF ANY DEFECT IN, DAMAGE TO OR OTHER FAILURE OF ANY DECK JOISTS OR OTHER SUPPORT STRUCTURES (OR ANY COMPONENT THEREOF). THIS WARRANTY WILL BE VOID IF THE PRODUCT IS USED IN VIOLATION OF ANY APPLICABLE BUILDING CODE, ZONING ORDINANCE, FIRE MARSHAL’S ORDER OR ANY OTHER LAW, REGULATION, ORDER, STANDARD, GUIDELINE OR RECOMMENDATION OF A GOVERNMENTAL OR JUDICIAL BODY.
7. RDI DOES NOT WARRANT SLIP RESISTANCE OF THE PRODUCT. RDI WILL HAVE NO LIABILITY FOR ANY SLIP OR FALL ON OR FROM THE PRODUCT. UNDER NO CIRCUMSTANCES WILL RDI BE LIABLE FOR ANY PROPERTY DAMAGE, BODILY INJURY OR DEATH.
8. UNDER NO CIRCUMSTANCES WILL RDI BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, EXEMPLARY OR PUNITIVE DAMAGES, AND IN NO EVENT WILL RDI’S LIABILITY RELATING TO ANY PRODUCT OR PART EXCEED THE PURCHASE PRICE PAID BY THE PURCHASER TO RDI FOR SUCH PRODUCT OR PART. Some states do not allow the exclusion or limitation of consequential or incidental damages, so the preceding sentence may not apply to the Purchaser in such states.
9. Except as expressly set forth in this Warranty, all purchasers of the Product will be purchasing the Product “AS IS AND WITH ALL FAULTS” and without any representation, warranty, promise, guaranty or other assurance of any kind, express, implied or statutory. Except as expressly set forth in this Warranty, RDI HEREBY EXPRESSLY DISCLAIMS ANY REPRESENTATION, WARRANTY, PROMISE, GUARANTY OR OTHER ASSURANCE OF ANY KIND, EXPRESS OR IMPLIED, ORAL OR WRITTEN, STATUTORY OR OTHERWISE, RELATING TO THE PRODUCT, INCLUDING BUT NOT LIMITED TO AS TO MERCHANTABILITY, FITNESS FOR ANY PURPOSE (OTHER THAN USES EXPRESSLY DIRECTED OR RECOMMENDED IN THE INSTALLATION INSTRUCTIONS), QUALITY, RELIABILITY, WORKMANSHIP, MATERIALS, ABSENCE OF DEFECTS (LATENT OR PATENT), ABSENCE OF DANGEROUS CONDITIONS, CORRESPONDENCE TO ANY DESCRIPTION OR THE LIKE. NO DISTRIBUTOR, DEALER OR OTHER PERSON IS AUTHORIZED BY RDI TO CHANGE THIS WARRANTY OR TO MAKE ANY ADDITIONAL REPRESENTATION, WARRANTY, PROMISE, GUARANTY OR OTHER ASSURANCE ON BEHALF OF RDI RELATING TO THE PRODUCT.

To begin your warranty coverage, fill out the form to the right and mail to:

**Railing Dynamics, Inc.
135 Steelmanville Road
Egg Harbor Township, NJ 08234**

OR

Register online at: www.rdirail.com/warranty

HOMEOWNER'S REGISTRATION

REGISTER ONLINE AT: WWW.RDIRAIL.COM/WARRANTY OR FILL OUT & MAIL THIS FORM TO REGISTER PRODUCT WARRANTY

Complete only one registration per installation or product. For multiple product purchases, complete one warranty card and list the serial numbers for remaining products. **PLEASE COMPLETE YOUR REGISTRATION WITHIN THIRTY (30) DAYS OF PURCHASE.**

PLEASE PRINT

Name of Customer: _____

Address: _____

City: _____ State: _____ Zip: _____

E-mail: _____

Name of Supplier: _____ City: _____

Date of Purchase: / / Date of Installation: / /

Customer Signature _____ Date _____

Product Line

- Titan Pro Endurance Transform RDI Metal Works Excalibur
 RDI Metal Works Avalon Vinyl Hand Rail Aluminum Hand Rail Spartan Rail (Canada)

Product Color

- White or Satin White Earth Sahara Black or Satin Black Bronze Ironstone Wheat Caramel

Did you install this product yourself?

- Yes No If no, who was your installer? _____

Where is this product installed?

- Home Business Front porch Back porch/deck

What type of post was used for this installation?

- Vinyl sleeve over wood Vinyl sleeve over structural post Metal post Wooden post

What kind of deck is your railing installed on?

- Wood Composite Concrete If wood or composite, what color? _____

How did you hear about RDI?

- Store Salesperson Display Trade Show Magazine Web Referral Other _____

What sources of information did you use to choose our product?

- Brochure Sales Person Web Site Display Other _____

Please rate the quality of your experience with the:

- Instructions Clear and easy to follow Understandable Difficult and Confusing
Installation Simple Somewhat easy, but glad I had instructions Felt like I was trying to build a space shuttle

Please list any other suggestions or ideas for RDI's products and services:

Please list all product serial numbers:

Need a little help installing your railing?
www.rdirail.com/support/installation-videos.html



RAILING DYNAMICS, INC.
FOR HOME, FOR LIFE®

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