



# Installation Instructions

## Tools Needed to Complete Installation:

- Measuring Tape
- Wrench Set
- Pencil
- Phillips Head Screwdriver or Screwdriver Bits
- Level
- Circular Saw With Carbide Tip Multi-purpose Blade
- 2" Wood Blocks for Ease of Determining Height of Sections

The following instructions will guide you through the AC174 approved installation of your new *Illusions*® Vinyl Railing System™. Testing was performed to evaluate compliance with ICC-ES AC174, *Acceptance Criteria for Deck Board Span Ratings and Guardrail Systems (Guards and Handrails)* which is ICC-ES acceptance criteria for recognition of compliance with the following building codes:

- **ICC-ES AC174**
- **2006 International Residential Code (IRC)**
- **2006 International Building Code (IBC)**
- **1999 BOCA National Building Code**

This installation guide is a recommendation for meeting most code requirements. Always check your local building codes before starting a project and for determining the acceptable installation practices of your area. Read assembly instructions completely before beginning construction. Always wear protective goggles and gloves when installing a vinyl railing system.

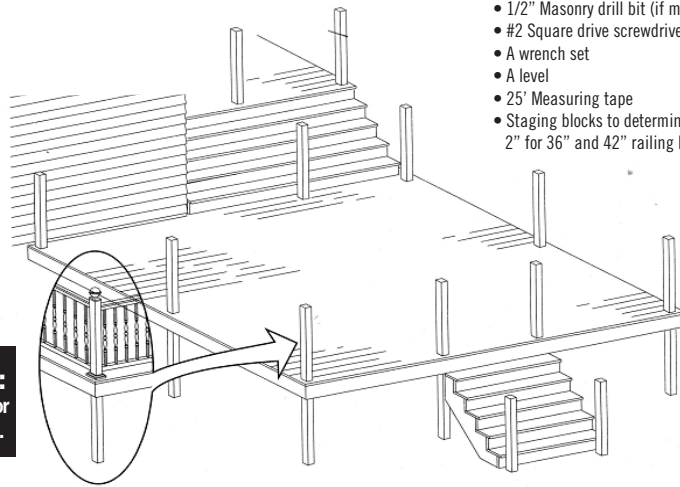
### IMPORTANT NOTE:

- **When installing brackets to post mounts, use 1 inch screws provided.**
- **When installing brackets to vinyl sleeved over wood, use 1-1/2 inch screws provided.**
- **When securing rails to brackets, use 3/4 inch screws provided for all applications.**



# Vinyl Post Sleeve Over Wood Posts

Typically, square 4" x 4" support posts are placed according to the length of railing desired and extend through the deck and then are cut to a height to receive the railing post. Square vinyl posts are then slid over the wooden posts, ready for railing sections to be installed.



### TOOLS NEEDED

- Cut off saw with fine tooth blade, and/or a
- Circular saw with a carbide tip multi-purpose blade
- Drill
- 1/2" Masonry drill bit (if mounting a post on concrete)
- #2 Square drive screwdrivers or screwdriver bits
- A wrench set
- A level
- 25' Measuring tape
- Staging blocks to determine the height of the railing; 2" for 36" and 42" railing heights

**IMPORTANT NOTE:**  
Installer must consult local code officials for compliance to building code requirements.



# Wood Post Mount Installation Instructions for VRPM436 and VRPM442 with VRPMHW

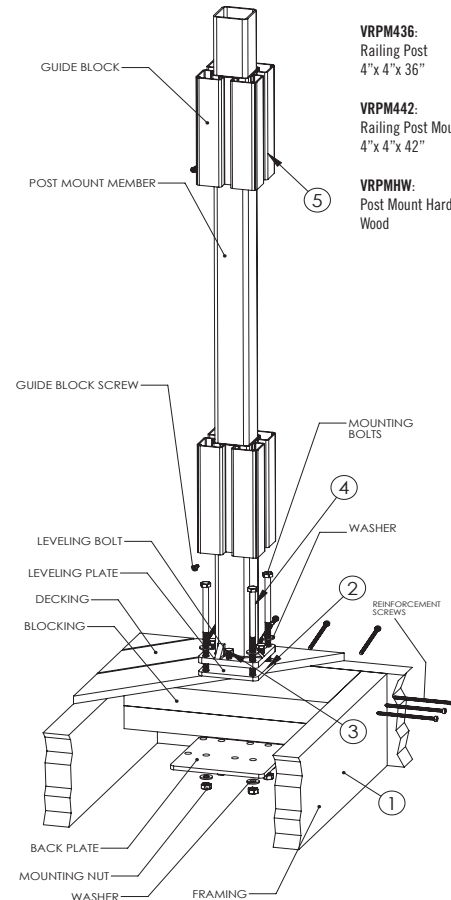
- STEP 1** - Lay out the location of the post.
- Install at least 3" of blocking under the mounting location. Securely attach the blocking using reinforcement screws.
- STEP 2** - Using the leveling plate as a template, mark the locations of the 4 mounting holes to be drilled.
- Drill 4 holes through the decking and blocking using a 3/8" diameter drill bit.
- STEP 3** - Install the 4 leveling bolts into the post mount member.
- Place the leveling plate on the decking surface and align over the (4) drilled holes.
  - Place the post mount member on top of the leveling plate and align the (4) holes.
  - Adjust the leveling screws to ensure the post mount member is level.
- STEP 4** - Install the 4 mounting bolts with washers as shown.
- On the underside, place the back plate over the exposed mounting bolts. (Use the centered holes for in-line applications and the offset holes for corner applications).
  - Secure the back plate by using the supplied mounting nuts and washers.
- STEP 5** - Install the two guide blocks onto the post mount member. They should be positioned so that the screws from the railing brackets will screw into the guide blocks.
- Once the proper heights are established, drill a 1/8" dia. hole through both the guide block and the post mount member. Install the supplied guide block screws to hold the guide blocks in place.
- STEP 6** - Install the post profile and rail brackets according to *Illusions* specifications.

### Product Descriptions:

**VRPM436:**  
Railing Post  
4" x 4" x 36"

**VRPM442:**  
Railing Post Mount  
4" x 4" x 42"

**VRPMHW:**  
Post Mount Hardware - Wood



**IMPORTANT NOTE:**  
Installer must consult local code officials for compliance to building code requirements.

# Concrete Post Mount Installation Instructions for VRPM436 and VRPM442 with VRPMHC

**STEP 1** - Lay out the location of the post.

**STEP 2** - Using the leveling plate as a template, mark the locations of the 4 mounting holes to be drilled.

- Drill 4 holes into the concrete using a 1/4" diameter masonry drill bit. The hole must be drilled to a minimum depth of 3-1/2".
- Clean out the holes of all dust and debris.

**STEP 3** - Install the 4 leveling bolts into the post mount member.

- Place the leveling plate on the concrete surface and align over the (4) drilled holes.
- Place the post mount member on top of the leveling plate and align the (4) holes.
- Adjust the leveling screws to ensure the post mount member is level.

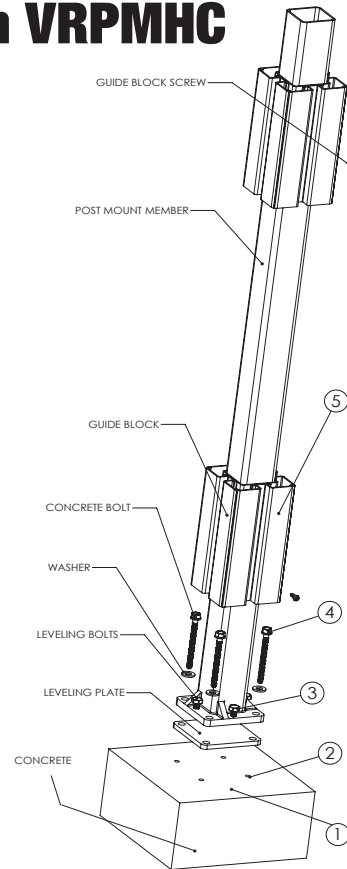
**STEP 4** - Install the 4 concrete bolts with washers as shown by applying downward pressure while turning in a clockwise direction.

- Continue to tighten the bolts until the heads are firmly seated. (Do not over tighten).

**STEP 5** - Install the two guide blocks onto the post mount member. They should be positioned so that the screws from the railing brackets will screw into the guide blocks.

- Once the proper heights are established, drill a 1/8" dia. hole through both the guide block and the post mount member. Install the supplied guide block screws to hold the guide blocks in place.

**STEP 6** - Install the post profile and rail brackets according to *Illusions*<sup>®</sup> specifications.



**Product Descriptions:**

**VRPM436:**  
Railing Post  
4" x 4" x 36"

**VRPM442:**  
Railing Post Mount  
4" x 4" x 42"

**VRPMHC:**  
Post Mount Hardware -  
Concrete

**IMPORTANT NOTE:**  
Installer must consult local code officials for compliance to building code requirements.

# Straight Railing Bracket System Install Instructions for VR235K and VR235TRK

**STEP 1** - Using four (4) of the provided VRSSK screws (1 inch screws for post mount applications and 1-1/2 inch screws for vinyl sleeve over wood post applications), install the lower mounting plate to the post. The Mounting Plates should be centered on the post and the resting flange should be at the required height from the deck which is 2 inches.

**STEP 2** - Repeat Step 1 for installation of upper Mounting Plate. The distance between the top of the post to the top of resting flange is 5-1/2 inches. Repeat steps 1 and 2 on opposite Post.

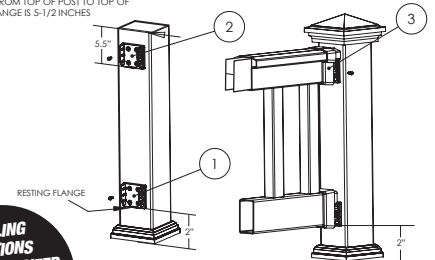
**STEP 3** - Slide the bracket covers onto the railing section. Install the pre-assembled railing section into the mounting plates. Making sure that the rails sit on the resting flanges.

**STEP 4** - Install two (2) of the supplied 3/4 inch side screws into each mounting plate (one on each side) using the best slot location making sure that the screws engage into the aluminum H-channel (Code#-AHC6/8) in the rail. The mounting plates are slotted to allow for thermal expansion and contraction.

**STEP 5** - Slide the covers towards the post until they snap onto the mounting plates. You will hear an audible "click."

**STEP 6** - Choose any decorative post cap and footblock styles.

CENTER THE BRACKETS ON THE POST. DISTANCE FROM TOP OF POST TO TOP OF RESTING FLANGE IS 5-1/2 INCHES



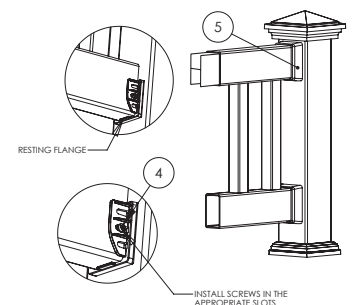
**RAILING SECTIONS COME PRE-SIZED TO ACCOUNT FOR BRACKET THICKNESS.**

THE BOTTOM EDGE OF THE RAIL WILL REST ON THIS FLANGE. THIS WILL BE THE DISTANCE THE BOTTOM RAIL MEASURES FROM THE DECK

**Product Descriptions:**

**VR235K:**  
2" x 3.5" Hand Rail Bracket Kit (4 Pc.)  
Also available in:  
Beige (VR235KBG)  
Gray (VR235KGY)

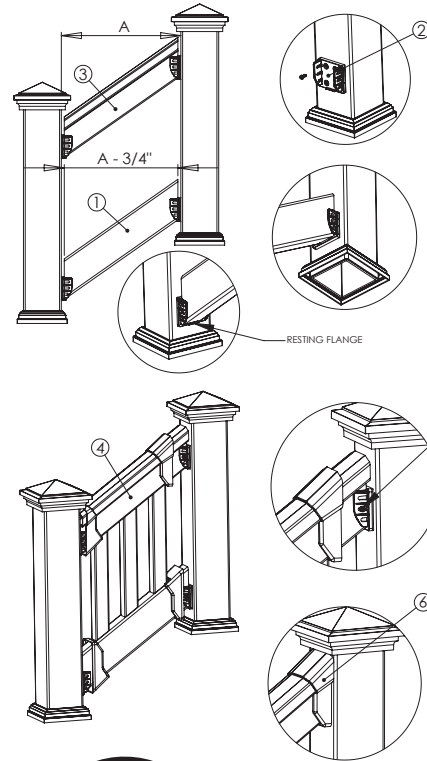
**VR235TRK:**  
T-Rail 2" x 3.5" Rail Bracket Kit (2 of ea.)  
Also Available in:  
Beige (VR235TRKBG)  
Gray (VR235TRKGY)





# Stair Railing Bracket Installation for VRS235K or VRSTRK

- STEP 1** - Cut top and bottom rail to desired length and angle to match the stair angle and the distance between the stair posts minus 3/8". Place a mounting bracket on each end of the rail, make sure the bottom rail sits on the resting flanges. Temporarily place into position at the desired distance above tread risers. The Mounting plates should be centered on the post and **the resting flange should be at the required height from the risers which is 2 inches.** Mark locations of the bottom of each mounting bracket and remove the section.
- STEP 2** - Using Four (4) of the provided VRSSK screws (1 inch screws for post mount applications and 1-1/2 inch screws for vinyl sleeve over wood post applications), install the lower mounting plate to the post. The Mounting plates should be centered on the post and aligned with the locations marked in Step 1.
- STEP 3** - Repeat step 1 and 2 for upper rail. **The distance between the top of the post to the top of resting flange is 5-1/2 inches.**
- STEP 4** - Slide the bracket covers onto the railing section. Install the pre-assembled Illusions® railing section into the mounting plates. Making sure that the rails sit on the resting flanges.
- STEP 5** - Install two (2) of the supplied 3/4 inch side screws into each mounting plate (one on each side) using the best slot location making sure that the screws engage into the aluminum H-channel (Code#-AHC6/8) in the rail. The mounting plates are slotted to allow for thermal expansion and contraction.
- STEP 6** - Slide the covers toward the post until they snap onto the mounting plates. You will hear an audible "click."
- STEP 7** - Choose any decorative post cap and footblock styles.



**RAILING SECTIONS COME PRE-SIZED TO ACCOUNT FOR BRACKET THICKNESS.**

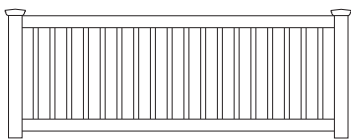
**Product Descriptions:**

**VRS235K:**  
2" x 3.5" Stair Rail Bracket Kit (4 Pc.)  
Also available in:  
Beige (VRS235KBG)  
Gray (VRS235KGY)

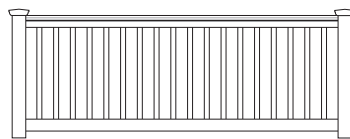
**VRSTRK:**  
T-Rail 2" x 3.5" Stair Rail Bracket Kit (2 of ea.)  
Also Available in:  
Beige (VRS235TRKBG)  
Gray (VRS235TRKGY)



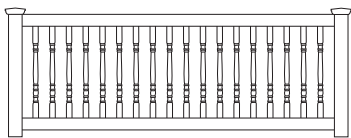
**QuickShip™**  
**Assembled Panels**  
**In Stock All The Time**



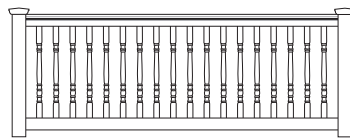
**VR6/8-3 - Traditional Pkt. 1.5" x 1.5", 2" x 3.5" Top and Bottom Rail, 6' or 8' Wide**



**VRT6/8-3 - Traditional Pkt. 1.5" x 1.5", T-Rail Top and 2" x 3.5" Bottom Rail, 6' or 8' Wide**



**VR6/8C-3 - Colonial Spindle Pkt., 2" x 3.5" Top and Bottom Rail, 6' or 8' Wide**



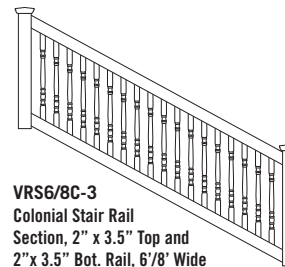
**VRT6/8C-3 - Colonial Spindle Pkt., T-Rail Top and 2" x 3.5" Bottom Rail, 6' or 8' Wide**



**VRS6/8-3 Traditional Stair Rail Section, 2" x 3.5" Top and 2" x 3.5" Bot. Rail, 6'/8' Wide**



**VRST6/8-3 Traditional Stair Rail Section, T-Rail Top and 2" x 3.5" Bot. Rail, 6'/8' Wide**



**VRS6/8C-3 Colonial Stair Rail Section, 2" x 3.5" Top and 2" x 3.5" Bot. Rail, 6'/8' Wide**



**VRST6/8C-3 Colonial Stair Rail Section, T-Rail Top and 2" x 3.5" Bot. Rail, 6'/8' Wide**

**Illusions® Vinyl Railing System™**

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