

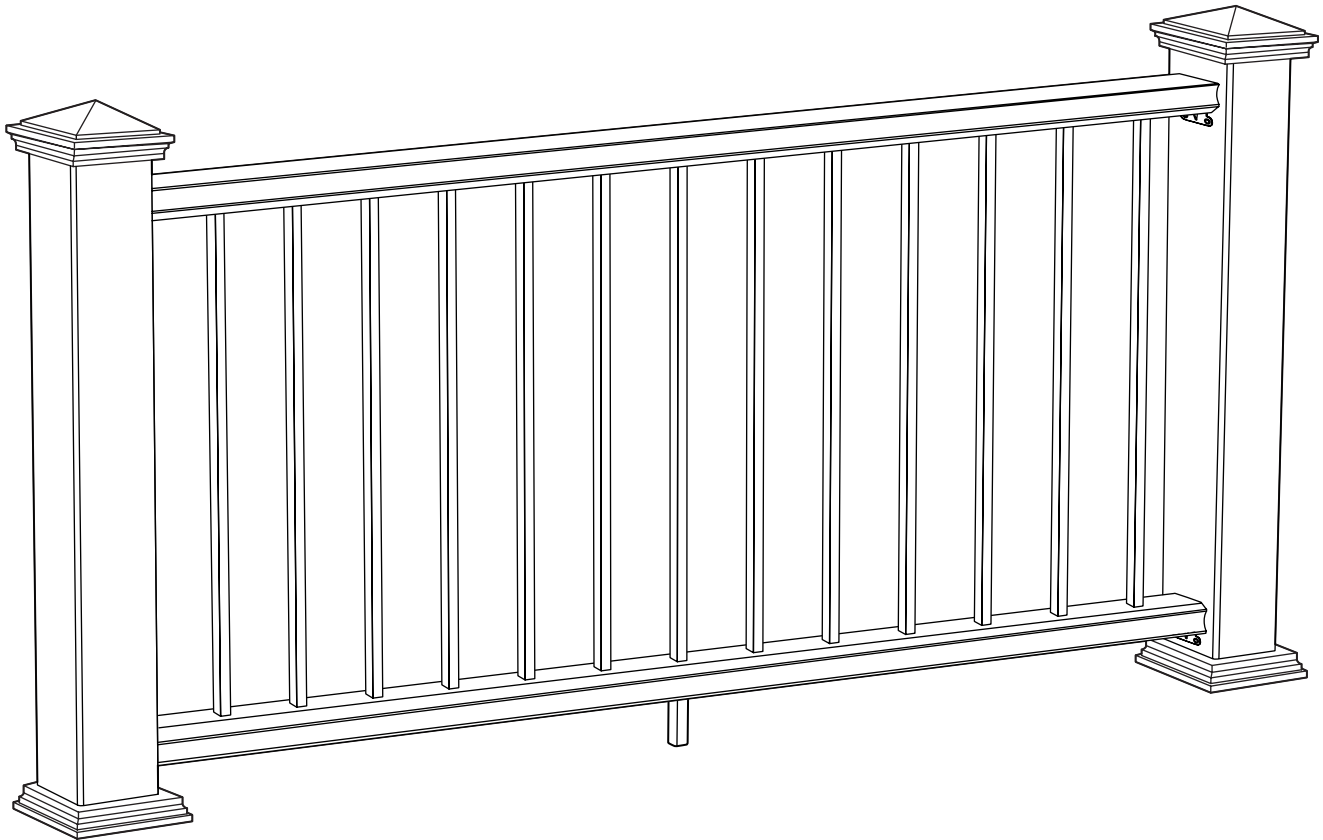
# fiberon®

## Brio™

Composite Railing

### 6- and 8-ft. for Square Balusters

#### INSTALLATION MANUAL



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***THANK YOU***

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# Post Sleeve Surface Mount with Wood Insert Installation Instructions

Instrucciones de instalación del montaje en superficie con inserto de madera para cubierta de postes

Directives d'installation du support de montage en surface pour revêtement de poteau avec poteau en bois



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## Required Tools and Supplies:

For wood installation:

- 4 - galvanized 5/16 in. x 5 in. hex bolts
- 4 - 5/16 in. galvanized nuts
- 3 to 6- #8 x 1 in. flat-head screws

For concrete installation:

- 3 to 6- #8 x 1 in. flat-head screws

Kit Includes:

- 1 - surface mount bracket
- 1 - 4 in. x 4 in. wood post
- 4 - 1/4 in. x 3 in. Wedge-Bolt™ anchors
- 4 - 5/16 in. fender washers

Español

## Herramientas y materiales necesarios:

Para instalación en madera:

- 4 - pernos hexagonales galvanizados de 5/16" x 5" (8 mm x 12.7 cm)
- 4 - tuercas galvanizadas de 5/16" (8 mm)
- 3 a 6 tornillos #8 x 1" (2.5 cm) de cabeza plana

Para instalación en concreto:

- 3 a 6 tornillos #8 x 1" (2.5 cm) de cabeza plana

El kit incluye:

- 1 - Soporte de montaje en superficie
- 1 - Poste de madera de 4" x 4" (10 x 10 cm)
- 4 - anclajes Wedge-Bolt™ de 1/4" x 3" (6.4mm x 7.6 mm)
- 4 - arandelas anchas de 5/16" (8 mm)

Français

## Outils et accessoires requis :

Pour l'installation sur bois :

- 4 - boulons galvanisés à tête hexagonale de 8 mm x 12,7 cm
- 4 - écrous galvanisés de 8 mm
- 3 à 6- vis à tête plate no 8 de 2,5 cm

Pour l'installation sur béton :

- 3 à 6- vis à tête plate no 8 de 2,5 cm

La trousse comprend :

- 1 - support de montage en surface
- 1 - poteau de bois de 10 cm x 10 cm
- 4 - ancrages Wedge-Bolt™ de 6,4 mm x 7,6 cm
- 4 - rondelles larges de 8 mm

Fiberon Composite Railing systems are designed to work with a number of different decking materials and surfaces. Before initiating any project, obtain a copy of your local building codes and understand them thoroughly. Local building code requirements will always supersede any and all suggested procedures and measurements in the following installation guideline.

*Note: The Surface Mount Bracket is designed to be securely mounted to a deck structure that meets all applicable codes. The illustrations used in this guideline may not be appropriate in all jurisdictions where the product is sold. To ensure proper fastening, it is recommended that the wood or concrete be a minimum of 4 inches thick underneath the mount unless otherwise specified by local building codes. For more detailed instructions, visit us at [fiberondecking.com](http://fiberondecking.com).*

**Español:** Los sistemas de barandillas compuestas de Fiberon están diseñados para combinarse con una variedad de diferentes materiales de entablados y superficies. Antes de iniciar un proyecto, obtenga una copia de los códigos de construcción de su localidad y enténdalos bien. Los requerimientos del código de construcción local siempre prevalecen sobre cualquier y todos los procedimientos y medidas que sugerimos en la guía de instalación siguiente.

**Nota:** El soporte de montaje en superficie está diseñado para montarse de manera segura en una estructura de entablado que cumpla todos los códigos correspondientes. Es posible que las ilustraciones que se utilizan en esta guía no sean adecuadas en todas las jurisdicciones donde se venda el producto. Para asegurar una sujeción apropiada, se recomienda que el grosor mínimo de la madera o el concreto sea de 4" (10 cm) por debajo del montaje, a menos que las especificaciones de los códigos locales de construcción difieran. Para obtener instrucciones más detalladas ingrese a [fiberondecking.com](http://fiberondecking.com).

**Français:** Les systèmes de rampes en composite Fiberon sont conçus pour être installés sur différents matériaux et surfaces de terrasse. Avant de commencer tout projet, procurez-vous une copie des codes du bâtiment locaux et comprenez-les bien. Les exigences du code du bâtiment local auront toujours priorité sur les procédures et les mesures suggérées dans les directives d'installation qui suivent.

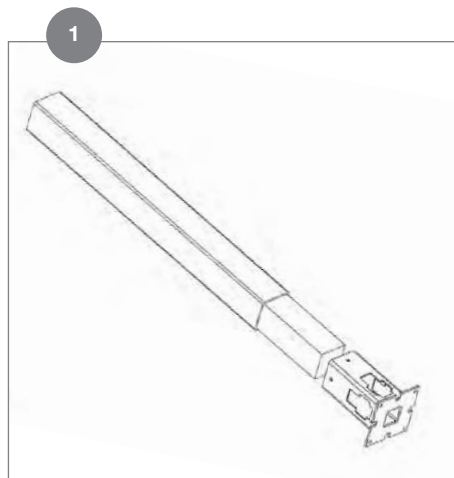
**Remarque :** Le support de montage en surface est conçu pour être monté solidement à une structure de terrasse qui respecte tous les codes applicables. Les illustrations utilisées dans les présentes directives peuvent ne pas être appropriées dans certaines régions où le produit est vendu. Pour s'assurer que le support est bien fixé, il est recommandé que l'épaisseur du bois ou du béton soit d'un minimum de 10 cm (4 po) en dessous, à moins d'indication contraire par les codes de bâtiment locaux. Pour des directives plus détaillées, visitez notre site [fiberondecking.com](http://fiberondecking.com).

The most recent installation instructions can be found on our website. Please visit [fiberondecking.com](http://fiberondecking.com) or call Consumer and Technical Support at 800-573-8841.

Las instrucciones de instalación más recientes están disponibles en nuestro sitio de Internet. Visite el sitio [fiberondecking.com](http://fiberondecking.com) o llame al Departamento de servicio al consumidor y respaldo técnico al 1-800-573-8841.

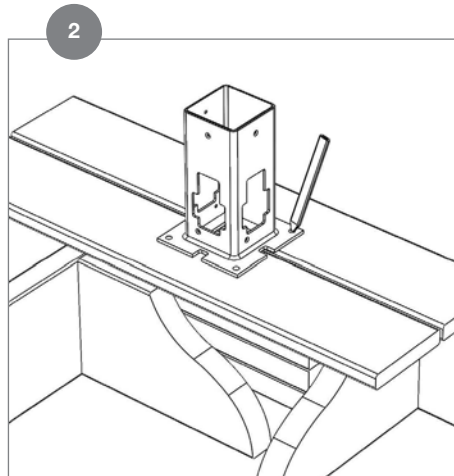
Les directives d'installation les plus récentes sont disponibles sur notre site Web. Visitez l'adresse [fiberondecking.com](http://fiberondecking.com) ou téléphonez au centre de soutien et de service à la clientèle au 1 800 573-8841.

## For wood installation:

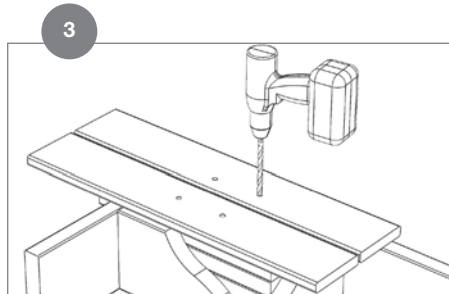


Determine the desired location(s) and finished height of the post sleeve from the deck surface. Trim the post sleeve to the required length.

Trim the non-routed end of the 4-in. x 4-in. wood post insert if required. The wood post insert is typically 1-in. to 2-in. shorter than the post sleeve length.

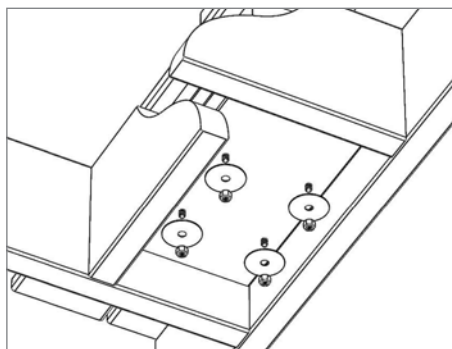
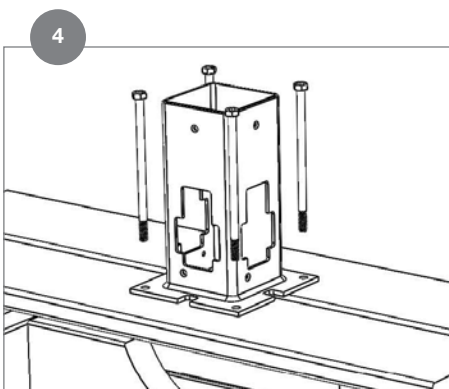


Use the base of the mount as a template and mark the four corner holes on the deck surface. If necessary, mark inside the square of the bracket on the deck surface to create a drainage hole.



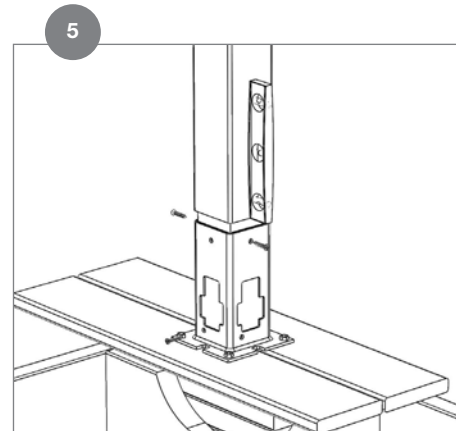
Drill four 3/8-in. holes at the marked locations, drilling through the deck board and the reinforcement boards. If necessary, drill a 3/8-in. drainage hole in square through deck board and reinforcement boards for drainage.

Align the mount holes over the drilled holes.



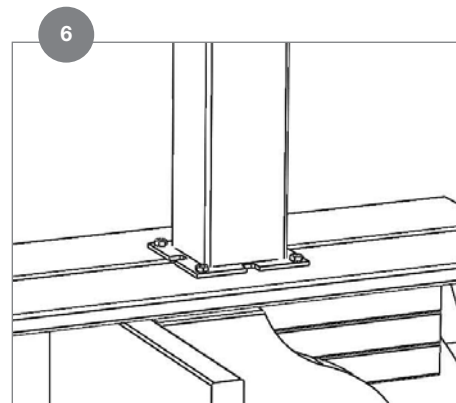
Insert 5/16-in. x 5-in. galvanized hex bolts through the bracket holes into the drilled holes and attach a washer and nut to each bolt (galvanized bolts and nuts, not included) under the deck.

Only hand tighten nuts at this time.



Insert the routed end of the 4-in. x 4-in. wood post insert into the mount, and check for level and plumb.

If necessary, place a shim under the mount to make the post plumb and true. If the wood post insert is loose within the mounting bracket, secure the wood post insert with three #8 x 1-in. flat-head screws (not included) on three sides of the mount through the pre-punched holes. Tighten and secure the four bolts underneath the reinforcement boards with the 5/16-in. fender washer (included in kit) and 5/16-in. galvanized hex nuts (not included). Do not overtighten.



Slide the post sleeve (not included with mount) over the 4-in. x 4-in. wood post insert until it contacts the base of the mount.

*Note: If using post skirts, make sure to slide post skirt over the post sleeve before installing the bottom rail.*

# Post Sleeve Surface Mount with Wood Insert Installation Instructions

## For concrete installation:

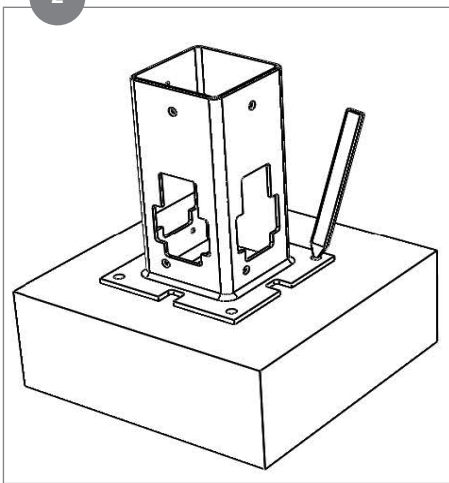
1



Determine the desired location(s) and finished height of the post sleeve from the deck surface. Trim the post sleeve to the required length.

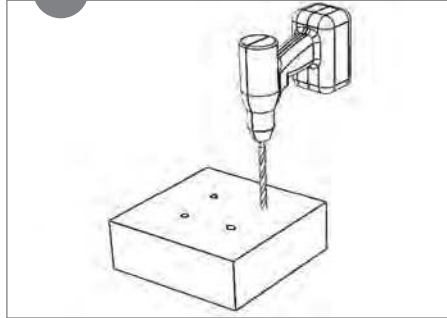
Trim the non-routed end of the 4-in. x 4-in. wood post insert if required. The wood post insert is typically 1-in. to 2-in. shorter than the post sleeve length.

2



Use the base of the mount as a template and mark the four corner holes for the concrete fastener Wedge-Bolt Anchors (included in kit).

3

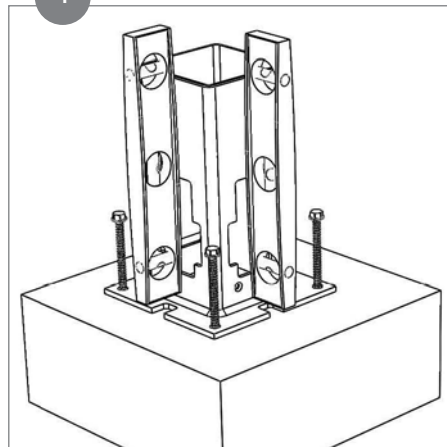


Using a 1/4-in. masonry drill bit, drill the holes into the concrete base to a depth of at least 1/2-in. deeper than the length of the 1/4-in. x 3-in. Wedge-Bolt Anchors.

Ensure the holes are clean of dust and debris prior to inserting bolts.

Align the mount holes over the drilled holes.

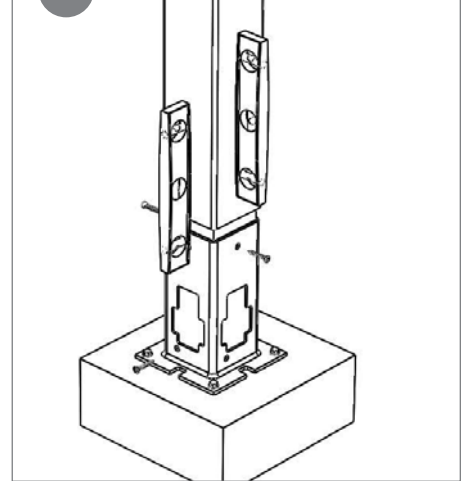
4



Fasten mount to concrete as required by applicable building codes. Insert the four concrete Wedge-Bolt Anchors into the corner holes of the mount. Begin tightening the anchor bolts by rotating clockwise and applying pressure downward towards the mount base. This will engage the first few threads as the anchor bolt begins to advance. Continue tightening until the head of the anchor bolt is firmly seated against the post mount base.

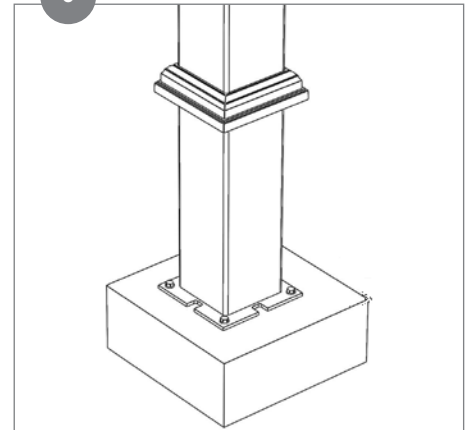
Repeat for the remaining fasteners ensuring the base stays plumb and true.

5



Insert the routed end of the 4-in. x 4-in. wood post insert into the mount, and check for level and plumb. If necessary, place a shim under the mount to make the post plumb and true. If the wood post insert is loose within the mounting bracket, secure the wood post insert with three #8 x 1-in. flat-head screws (not included) on three sides of the mount through the pre-punched holes.

6

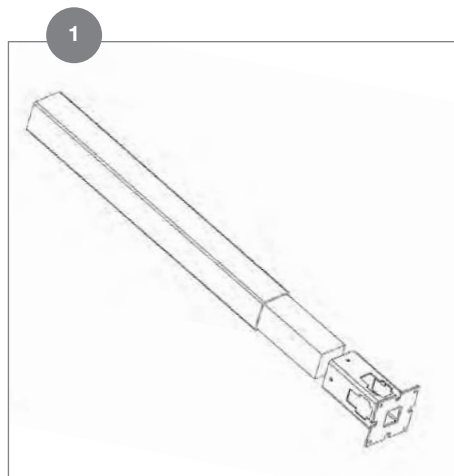


Slide the post sleeve (not included with mount) over the 4 in. x 4 in. wood post insert until it contacts the base of the mount.

*Note: If using post skirts, make sure to slide post skirt over the post sleeve before installing the bottom rail.*

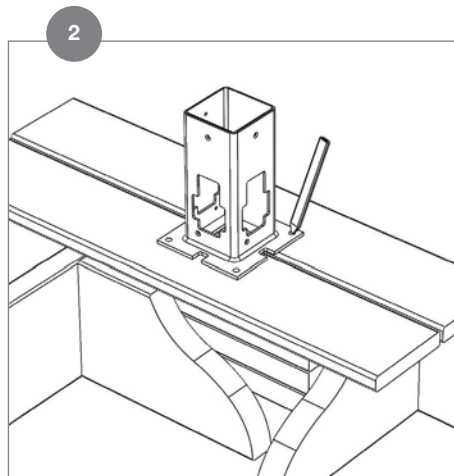
## Instrucciones de instalación del montaje en superficie con inserto de madera para cubierta de postes

### Para instalación en madera:

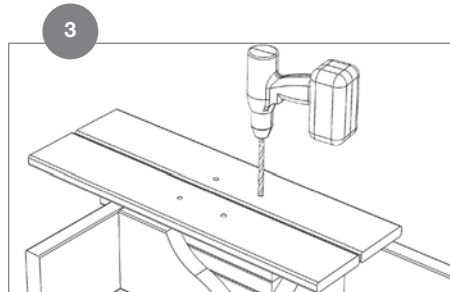


Determine la posición deseada y la altura acabada de la cubierta de poste desde la superficie del entablado. Corte la cubierta de poste a la longitud requerida.

De ser necesario, corte el extremo no ranurado del inserto de poste de madera de 4" x 4" (10 cm x 10 cm). Por lo general, la longitud del inserto de poste de madera es de 1 a 2" (2.5 cm a 5 cm) menor que la longitud de la cubierta de poste.

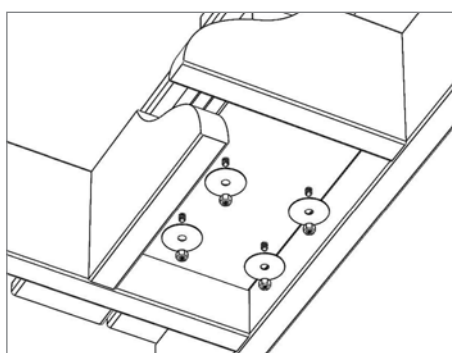
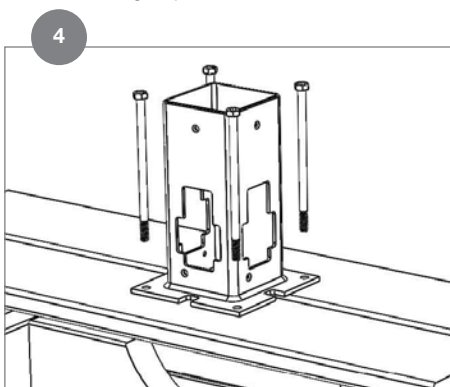


Use la base del montaje como plantilla y marque los cuatro hoyos de las esquinas en la superficie del entablado. De ser necesario, marque el interior del cuadrado del soporte en la superficie del entablado para crear un hoyo de drenaje.



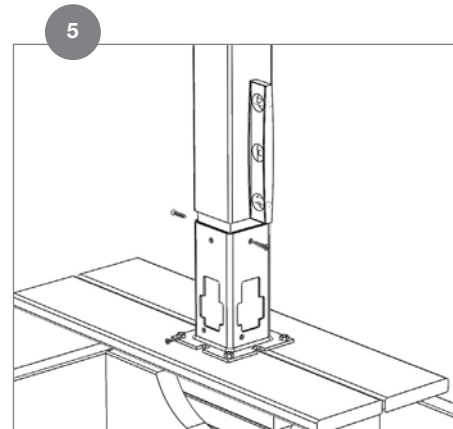
Perfore cuatro hoyos de 3/8" (1 cm) en las posiciones marcadas, perforando las tablas del entablado y las de refuerzo. De ser necesario, perfore un hoyo de drenaje de 3/8" (1 cm) en escuadra a través del entablado y las tablas de refuerzo para el drenaje.

Coloque los hoyos de montaje alineados sobre los hoyos perforados.



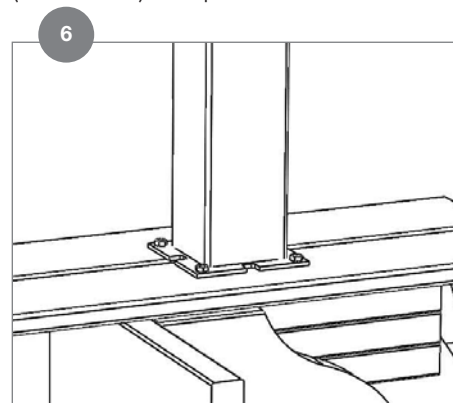
Inserte los pernos hexagonales galvanizados de 5/16" x 5" (8 mm x 12.7 cm) a través de los hoyos del soporte y en los hoyos perforados y coloque una arandela y tuerca en cada perno (los pernos galvanizados y las tuercas no se incluyen) por debajo del entablado.

Solo apriete las tuercas a mano por el momento.



Inserte el extremo ranurado del inserto de poste de madera de 4" x 4" (10 cm x 10 cm) en el montaje y compruebe la nivelación y la plomada.

De ser necesario, coloque una cuña debajo del montaje para que el poste esté a plomo y nivelado. Si el inserto de poste de madera está suelto en el soporte de montaje, asegúrelo con tres tornillos de cabeza plana #8 x 1" (2.5 cm) (no incluidos) en tres costados del montaje a través de los hoyos pre-perforados. Apriete y fije los cuatro pernos debajo de las tablas de refuerzo con las arandelas anchas de 5/16" (8 mm) (incluidas en el kit) y las tuercas hexagonales galvanizadas de 5/16" (8 mm) (no incluidas). No apriete en exceso.

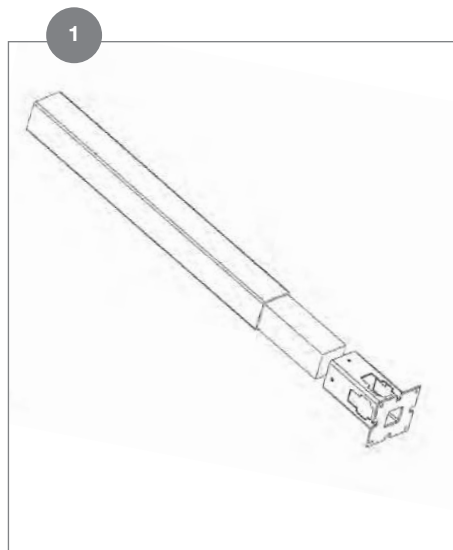


Deslice la cubierta de poste (no incluida con el montaje) sobre el inserto de poste de madera de 4" x 4" (10 cm x 10 cm) hasta que haga contacto con la base del montaje.

*Nota: Si utiliza faldones para postes, asegúrese de deslizar el faldón sobre la cubierta de poste antes de instalar el travesaño inferior.*

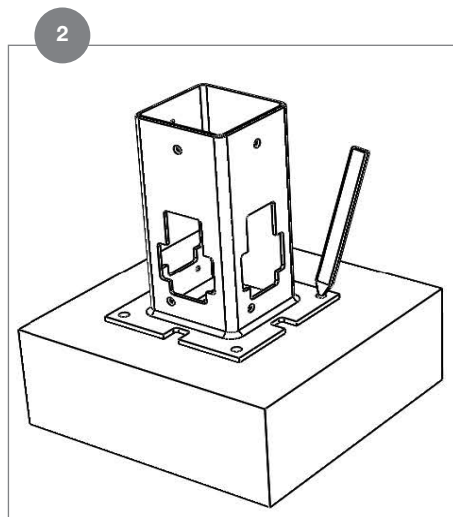
## Instrucciones de instalación del montaje en superficie con inserto de madera para cubierta de postes - Español

### Para instalación en concreto:

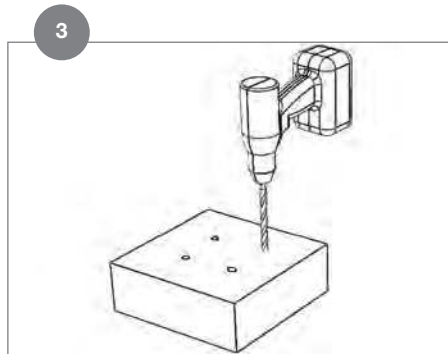


Determine la posición deseada y la altura acabada de la cubierta de poste desde la superficie del entablado. Corte la cubierta de poste a la longitud requerida.

De ser necesario, corte el extremo no ranurado del inserto de poste de madera de 4" x 4" (10 cm x 10 cm). Por lo general, la longitud del inserto de poste de madera es de 1 a 2" (2.5 cm a 5 cm) menor que la longitud de la cubierta de poste.



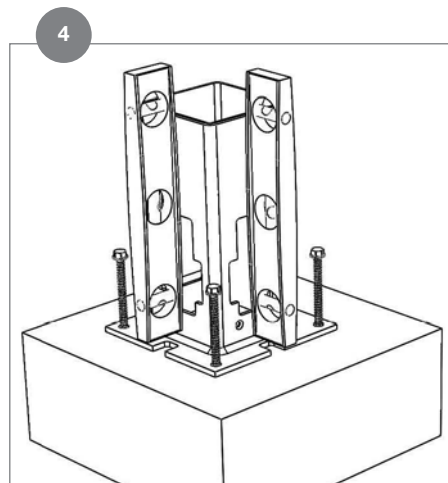
Use la base del montaje como plantilla y marque los cuatro hoyos de las esquinas para los anclajes Wedge-Bolt para concreto (incluidos en el kit).



Con una broca para concreto de 1/4" (6.4 mm) perforo los hoyos en la base de concreto a una profundidad de al menos 1/2" (1.25 cm), que sea mayor que la longitud de los anclajes Wedge-Bolt de 1/4" x 3" (6.4 mm x 7.6 cm).

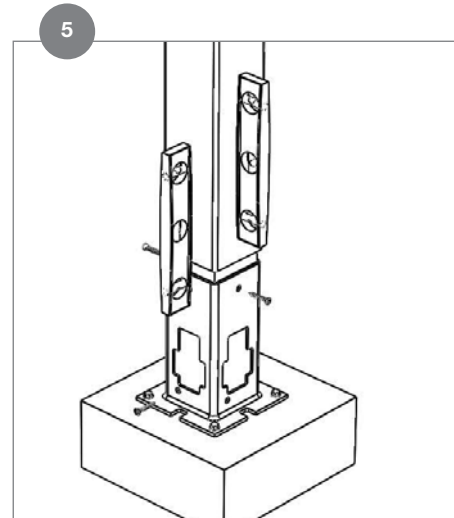
Asegure que los hoyos no tengan polvo ni residuos antes de insertar los pernos.

Coloque los hoyos de montaje alineados sobre los hoyos perforados.

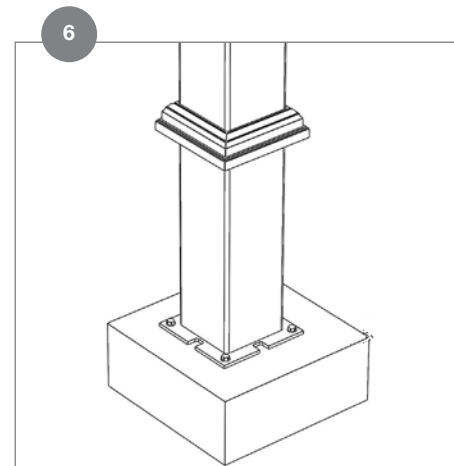


Fije el montaje al concreto según los códigos de construcción correspondientes. Inserte los cuatro anclajes Wedge-Bolt para concreto en los hoyos de las esquinas del montaje. Comience a apretar los pernos de anclaje girándolos en dirección de las manecillas del reloj y aplicando presión descendente hacia la base. La rosca penetrará a medida que el perno de anclaje comienza a avanzar. Continúe apretando hasta que la cabeza del perno de anclaje esté firmemente asentada contra la base del montaje del poste.

Repita para el resto de los sujetadores, asegurándose de que la base siempre esté alineada y a plomo.



Inserte el extremo ranurado del inserto de poste de madera de 4" x 4" (10 cm x 10 cm) en el montaje y compruebe la nivelación y la plomada. De ser necesario, coloque una cuña debajo del montaje para que el poste esté a plomo y nivelado. Si el inserto de poste de madera está suelto en el soporte de montaje, asegúrelo con tres tornillos de cabeza plana #8 x 1" (2.5 cm) (no incluidos) en tres costados del montaje a través de los hoyos pre-perforados.

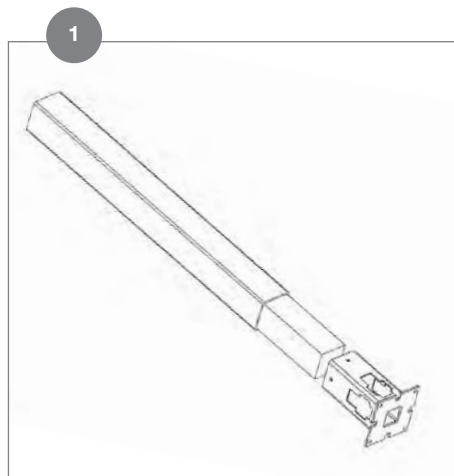


Deslice la cubierta de poste (no incluida con el montaje) sobre el inserto de poste de madera de 4" x 4" (10 cm x 10 cm) hasta que haga contacto con la base del montaje.

*Nota: Si utiliza faldones para postes, asegúrese de deslizar el faldón sobre la cubierta de poste antes de instalar el travesaño inferior.*

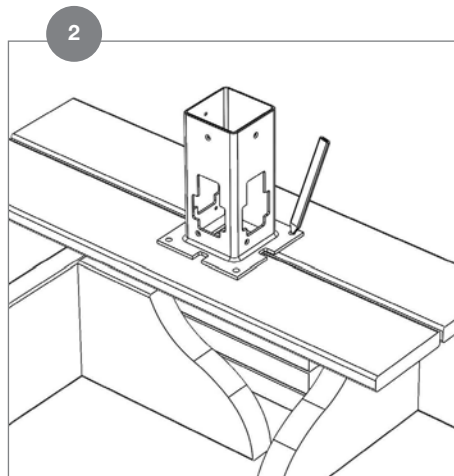
## Directives d'installation du support de montage en surface pour revêtement de poteau avec poteau en bois - Français

### Pour l'installation sur bois :

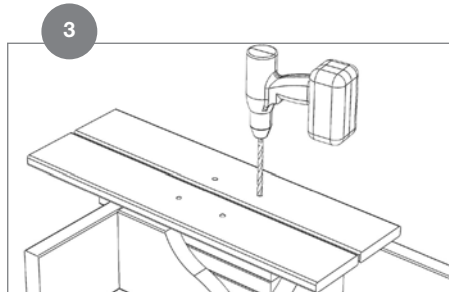


Déterminez le ou les emplacements souhaités et la hauteur finie du revêtement de poteau à partir de la surface de la terrasse. Coupez le revêtement de poteau à la longueur requise.

Si nécessaire, coupez l'extrémité non fraisée du poteau de bois de 10 x 10 cm. Le poteau de bois inséré est habituellement plus court de 2,5 à 5 cm que le revêtement de poteau.

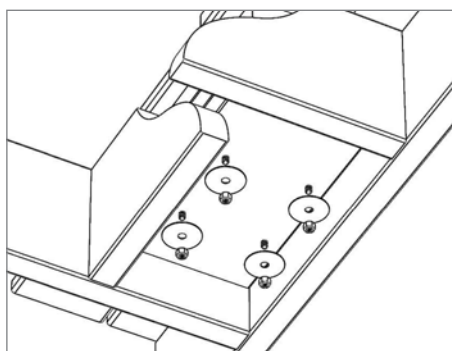
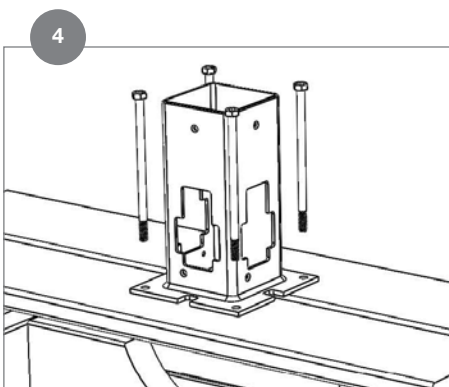


Utilisez la base du support en tant que gabarit et marquez les quatre trous de coin sur la surface de la terrasse. Au besoin, tracez l'intérieur du carré du support sur la surface de la terrasse pour créer un trou de drainage.



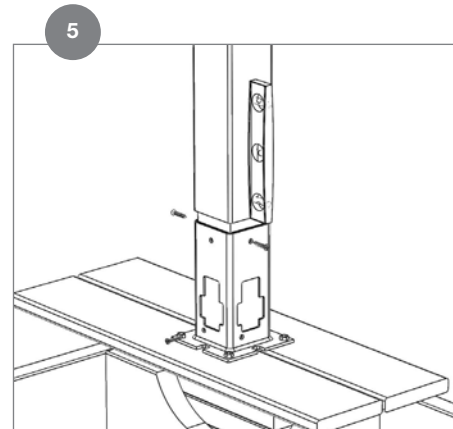
Percez quatre trous de 1 cm aux marques tracées, en perçant au travers la planche de terrasse et les planches de renforcement. Au besoin, percez un trou de drainage de 1 cm dans le carré tracé à travers la planche de terrasse et les planches de renforcement.

Alignez les trous du support avec les trous percés.



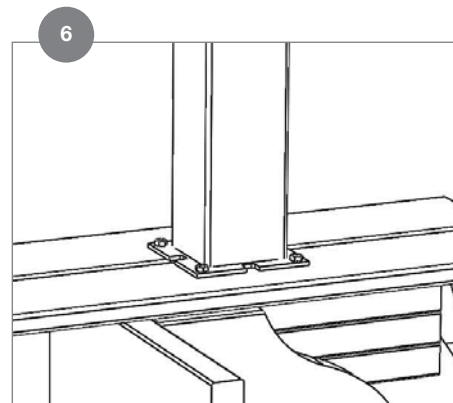
Insérez les boulons galvanisés à tête hexagonale de 8 mm x 12,7 cm au travers des trous du support et les trous percés, puis fixez une rondelle et un écrou à chaque boulon (boulons et écrous galvanisés, non inclus) sous la terrasse.

Serrez les écrous à la main à cette étape.



Insérez l'extrémité fraisée du poteau en bois de 10 x 10 cm dans le support, puis vérifiez le niveau et l'aplomb.

Au besoin, placez une cale sous le support de montage afin que le poteau soit d'aplomb. Si le poteau de bois inséré est instable/desserré dans le support de montage, fixez le poteau de bois à l'aide de trois vis à tête plate no 8 de 2,5 cm (non incluses) sur trois côtés du support dans les trous pré-perçés. Serrez fermement les quatre boulons sous les planches de renforcement avec les rondelles larges de 8 mm (incluses dans la trousse) et les écrous galvanisés de 8 mm (non inclus). Ne pas serrer plus que nécessaire.

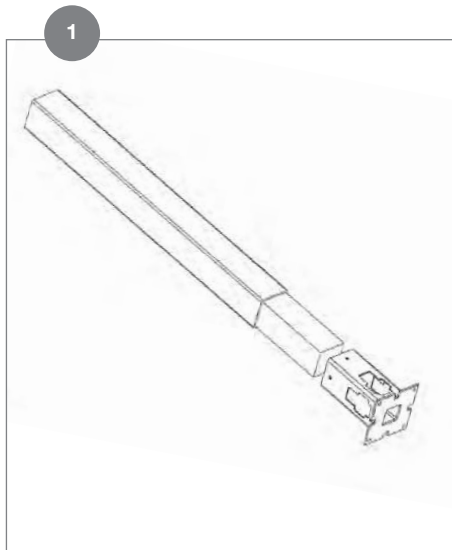


Glissez le revêtement de poteau (non compris avec le support) par-dessus le poteau de bois de 10 x 10 cm jusqu'à ce qu'il entre en contact avec la base du support.

*Remarque : Si des cache-bases de poteau sont utilisés, assurez-vous de glisser ceux-ci par-dessus le revêtement de poteau avant d'installer la rampe inférieure.*

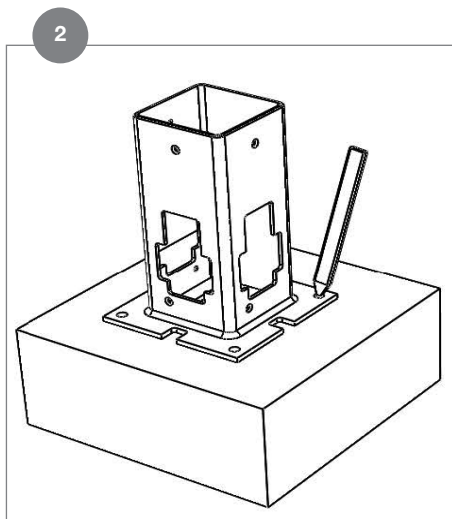
## Directives d'installation du support de montage en surface pour revêtement de poteau avec poteau en bois - Français

Pour l'installation sur béton :

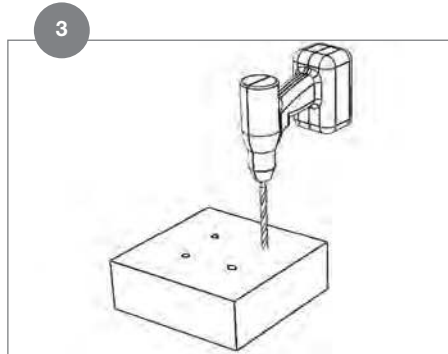


Déterminez le ou les emplacements souhaités et la hauteur finie du revêtement de poteau à partir de la surface de la terrasse. Coupez le revêtement de poteau à la longueur requise.

Si nécessaire, coupez l'extrémité non fraisée du poteau de bois de 10 x 10 cm. Le poteau de bois inséré est habituellement plus court de 2,5 à 5 cm que le revêtement de poteau.



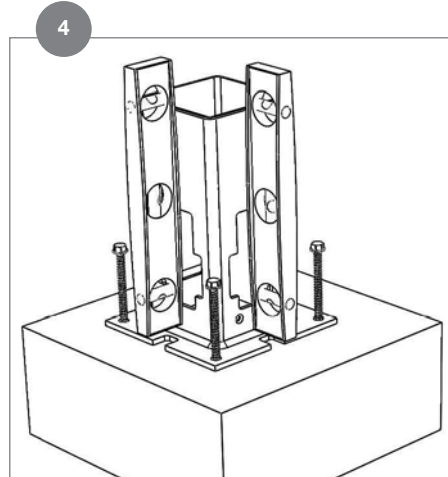
Utilisez la base du support en tant que gabarit et marquez les quatre trous de coin pour les ancrages Wedge-Bolt (inclus dans la trousse).



À l'aide d'un foret de maçonnerie de 6,4 mm, percez les trous dans la base de béton jusqu'à au moins 1,25 cm plus profond que la longueur des ancrages Wedge-Bolt de 6,4 mm x 7,6 cm.

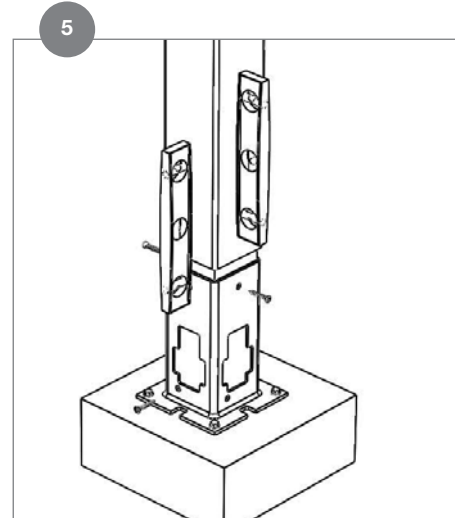
Assurez-vous qu'il n'y a pas de poussière ni de débris dans les trous avant d'insérer les boulons.

Alignez les trous du support avec les trous percés.

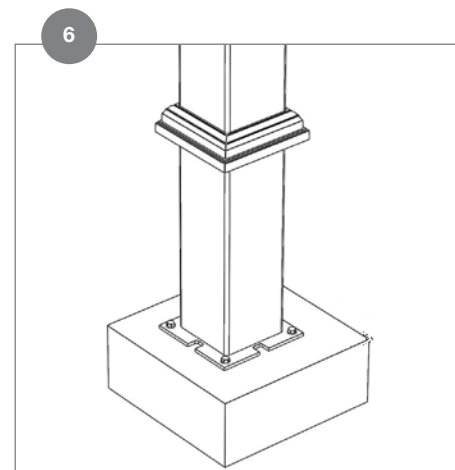


Serrez le support au béton comme le prescrivent les codes de bâtiment applicables. Insérez les quatre ancrages Wedge-Bolt dans les trous de coin du support de montage. Commencez à serrer les boulons dans les ancrages en tournant dans le sens horaire et en appliquant une pression vers le bas sur la base du support. Ceci engagera le filetage alors que le boulon commence à s'insérer dans l'ancrage. Continuez à serrer jusqu'à ce que la tête du boulon repose fermement contre la base du support de poteau.

Répétez pour les autres fixations, en vous assurant que la base reste d'aplomb et solide.



Insérez l'extrémité fraisée du poteau en bois de 10 x 10 cm dans le support, puis vérifiez le niveau et l'aplomb. Au besoin, placez une cale sous le support de montage afin que le poteau soit d'aplomb. Si le poteau de bois inséré est instable/desserré dans le support de montage, fixez le poteau de bois à l'aide de trois vis à tête plate no 8 de 2,5 cm (non incluses) sur trois côtés du support dans les trous pré-perçés.



Glissez le revêtement de poteau (non inclus avec le support) par-dessus le poteau de bois de 10 x 10 cm jusqu'à ce qu'il entre en contact avec la base du support.

*Remarque : Si des cache-bases de poteau sont utilisés, assurez-vous de glisser ceux-ci par-dessus le revêtement de poteau avant d'installer la rampe inférieure.*



# Table of Contents


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# Safety Information

Read and understand this entire manual before you begin the installation of your railing.

 **WARNING:** Use extreme caution when using power tools.

 **IMPORTANT:** Please consult local zoning laws in regards to load requirements and bottom space requirements for rails. All supporting structures must be in accordance with applicable building codes. Neighborhood associations and/or historic districts may regulate size, type, placement and ability of railing. Apply for permits if required by local authorities and codes. Ensure compliance prior to installation. Local building code requirements will always supersede any and all suggested procedures and measurements in the following installation. The following installation instructions are intended as a general guideline based on common building practices used in railing installation.

# Warranty

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## 25-YEAR PERFORMANCE LIMITED WARRANTY

### WHAT IS COVERED

This railing product is covered under a Limited Residential Warranty to protect against checking, splitting, decay, rot and splintering.

### WHAT IS NOT COVERED

In no event will the manufacturer be liable for any direct, indirect, incidental, special, consequential, punitive, exemplary, statutory, special, or other, damages based upon the manufacturer products or manufacturer fasteners or resulting, directly or indirectly, from any defect in the manufacturer products or fasteners, including but not limited to damage to, diminution in value of and/or loss of use or enjoyment of, any property or part thereof, whether based on contract, tort, strict liability, statute, regulation or otherwise, even if the manufacturer is expressly advised about the possibility of such damages. Some states do not allow the exclusion or limitation of incidental or consequential damages in certain circumstances, so the above limitation may not apply to you.

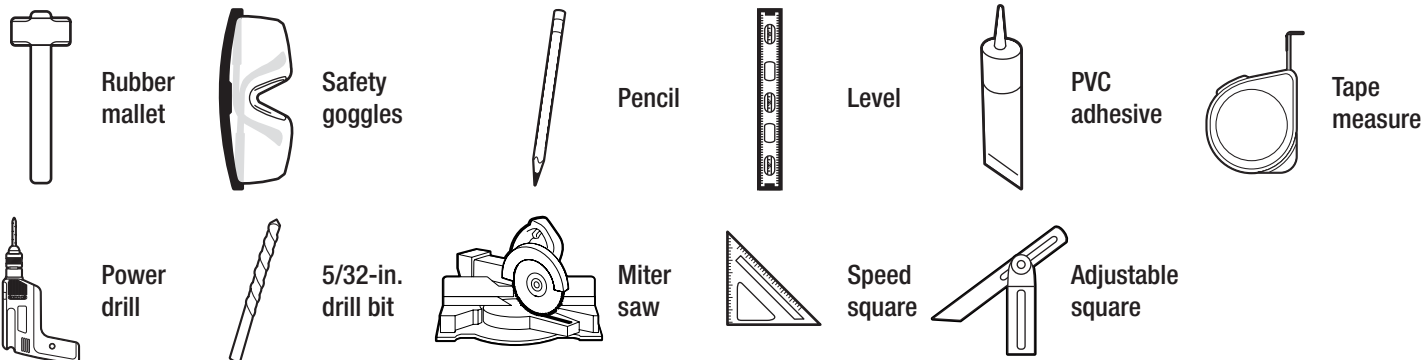
In addition, this Limited Warranty does not cover and the manufacturer shall not be liable for any installation, removal or reinstallation costs. The manufacturer does not warrant against and is not responsible for, and no express or implied warranty shall be deemed to cover, any condition attributable to: (1) improper installation of products and/or failure to abide by the manufacturer's written instructions and any applicable laws or building codes, including but not limited to improper structural support, fastening, ventilation or gapping; (2) use of the manufacturer's products beyond normal use or in an application not recommended or permitted by the manufacturer's written instructions and applicable laws and building codes; (3) movement, distortion, collapse or settling of the ground or the supporting structure on which the manufacturer's products are installed; (4) Defects in or failure arising from decking structure resulting from water caused by improper installation, workmanship, maintenance or repair; (5) any Act of God (including but not limited to flooding, hurricane, tornado, wind, earthquake, lightning, hail, etc.); (6) discoloration, fading, spotting or staining from or caused, in whole or in part, by mold, mildew, other fungal growth, organic materials, metallic oxides or particles (including but not limited to rust or corrosion of any fasteners), dirt, other atmospheric or environmental pollutants, foreign substances such as grease or oil, chemicals (including but not limited to those found in cleaners), or normal weathering (defined as natural efflorescence, exposure to sunlight, weather and atmospheric conditions which causes any colored surface to gradually fade, flake, chalk, or accumulate dirt or stains); (7) damage resulting from casualty, fire or exposure to heat sources such as cooking devices or retro-reflective surfaces; (8) the application of paints, stains, surface treatments or other chemical substances including but not limited to cleaners or pesticides; (9) fading, flaking or other deterioration of any paints, stains or other coatings placed on the manufacturer's products; (10) climate change, environmental conditions, static electricity or any cause beyond the control of the manufacturer; (11) variations or changes in color of the manufacturer's products; (12) improper handling, maintenance, storage, abuse or neglect of the manufacturer's products by Purchaser or others; (13) ordinary wear and tear; (14) impact from objects; or (15) any fasteners not supplied or approved by the manufacturer.

No warranty is given with respect to any fasteners other than the fasteners produced by the manufacturer. Other fasteners, whether approved fasteners or otherwise, are subject to only the warranties provided by the manufacturer of the fastener and Purchaser's sole warranty and remedy is with that manufacturer.

Contact the Customer Service Team at 1-800-573-8841 or visit [FIBERONDECKING.COM](http://FIBERONDECKING.COM).

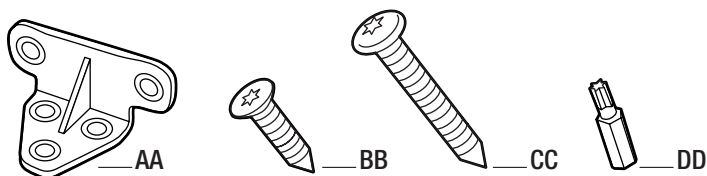
# Pre-Installation

## TOOLS REQUIRED



## RAILING HARDWARE KIT

**NOTE:** Hardware not shown to actual size.



Part	Description	Quantity (per kit)
AA	Railing bracket	4
BB	#10 x 1-in. screw	12
CC	#10 x 2-in. screw	8
DD	Driver bit	1

## ANGLE BRACKET HARDWARE KIT (OPTIONAL)

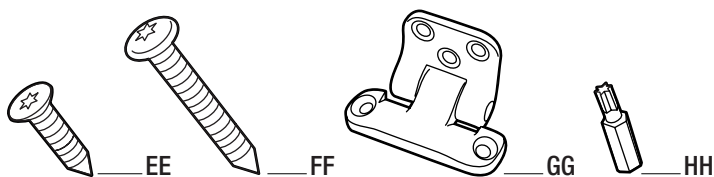
**NOTE:** Hardware not shown to actual size.



Part	Description	Quantity (per kit)
II	#10 x 1-in. screw	12
JJ	#10 x 2-in. screw	8
KK	Angle bracket	4
LL	Driver bit	1

## STAIR RAILING HARDWARE KIT

**NOTE:** Hardware not shown to actual size.



Part	Description	Quantity (per kit)
EE	#10 x 1-in. screw	12
FF	#10 x 2-in. screw	8
GG	Stair rail bracket	4
HH	Driver bit	1

# Pre-Installation (continued)

## PRIOR TO INSTALLING THE RAILING



**IMPORTANT:** Please read and follow the instructions in this section before you begin installation of your railing products.



**NOTE:** Rail and baluster lengths will vary slightly due to manufacturing processes. Make sure rails and balusters are cut properly to correct length, and with hole pattern centered between posts before securing.



**NOTE:** For best results, cut post sleeves with a carbide-tipped blade, minimum 32-tooth.

- If using post-sleeve moulding, slide the post down into the cove moulding prior to securing any railings (Fig. 1).

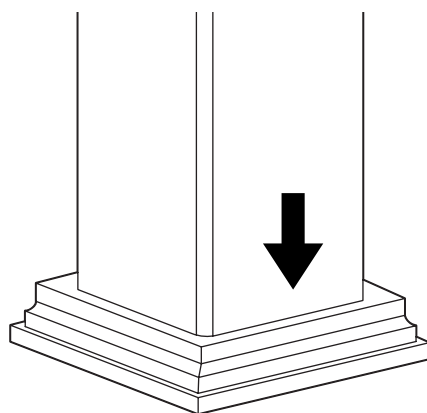


Fig. 1

- Measure the inside distance between properly installed, plumb posts. See Fig. 2 for Line and Stair Railings.

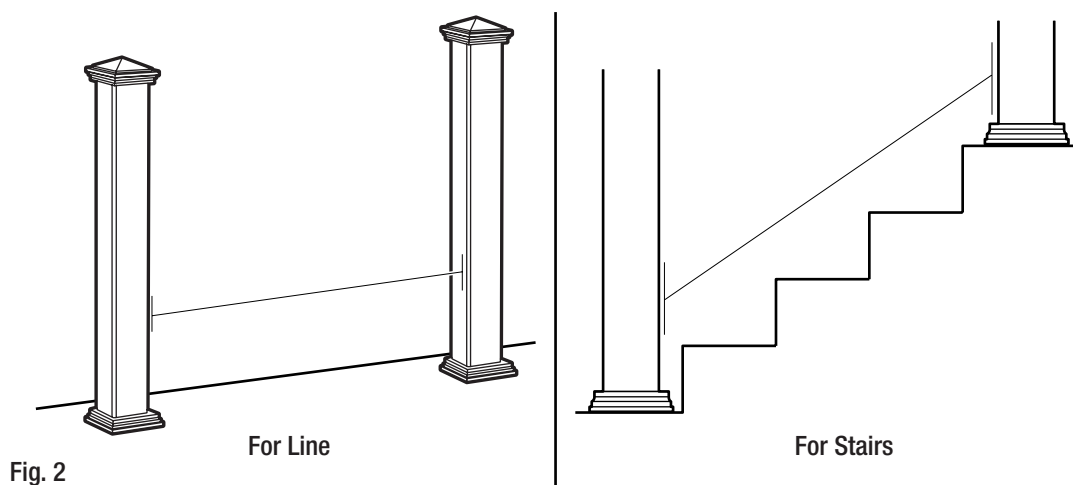


Fig. 2

## Pre-Installation (continued)

- Transfer the measurement to the top rail, making sure that the distance from the end of the rail to the first baluster slot is equal on both ends of the rail. The minimum distance from a post to first baluster slot is 1-1/2-in. for clearance from the brackets. (See Fig. 3)

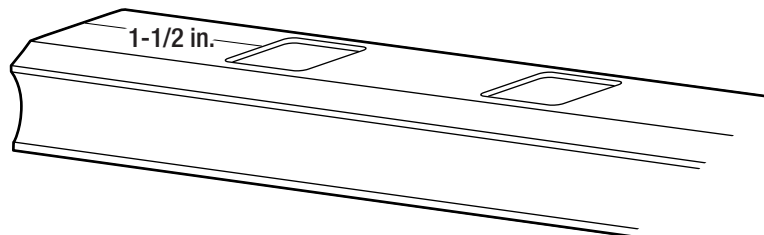


Fig. 3

- Place the rails together so that the top and bottom baluster slots are aligned. Mark the bottom rail for the inside distance between the posts (see Fig. 4). Cut the top and bottom rails to fit tightly between the posts.

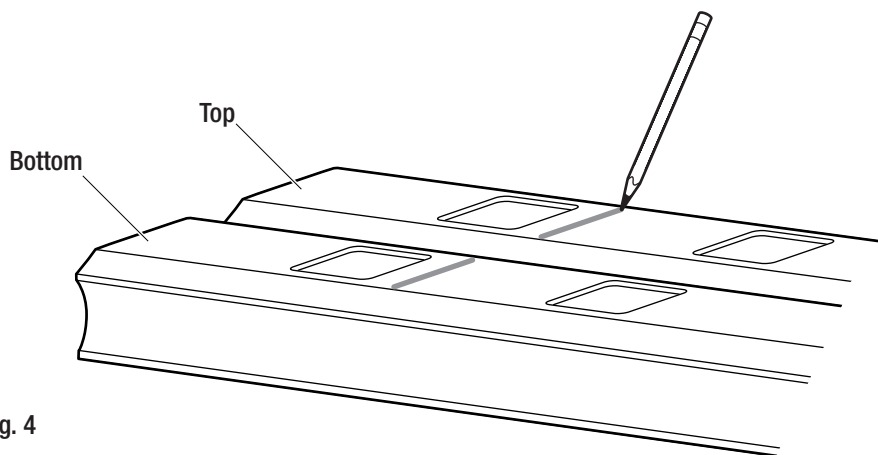
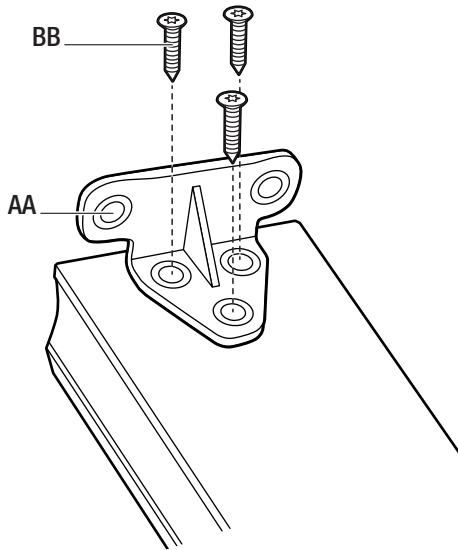


Fig. 4

# Line Rail Installation

## 1 Preparing the bottom rail

- Position railing brackets (AA) 1/32-in. to 1/16-in. from the ends of the bottom rail and mark the hole locations. Ensure the railing brackets (AA) are installed on the opposite side from the baluster holes.
- Pre-drill holes using a 5/32-in. bit and then attach the railing brackets (AA) to the bottom rail using 1-in. screws (BB). DO NOT OVERTIGHTEN THE SCREWS.

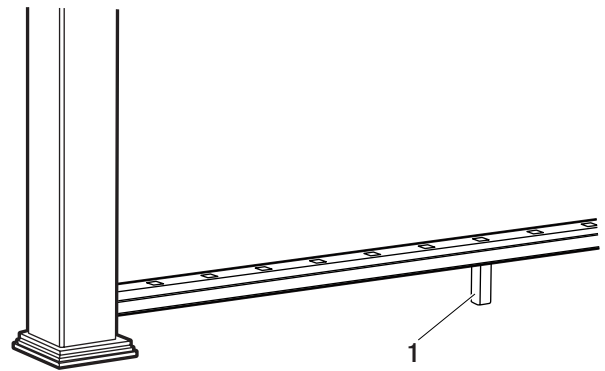


## 2 Attaching crush blocks

- When installing a rail section, use PVC adhesive to glue one crush block (1) to the bottom of the bottom rail. Position the crush block (1) at the mid point of the rail length to support the rail in a level position.



**NOTE:** Two crush blocks are required for any length longer than the 67-in. rail section.



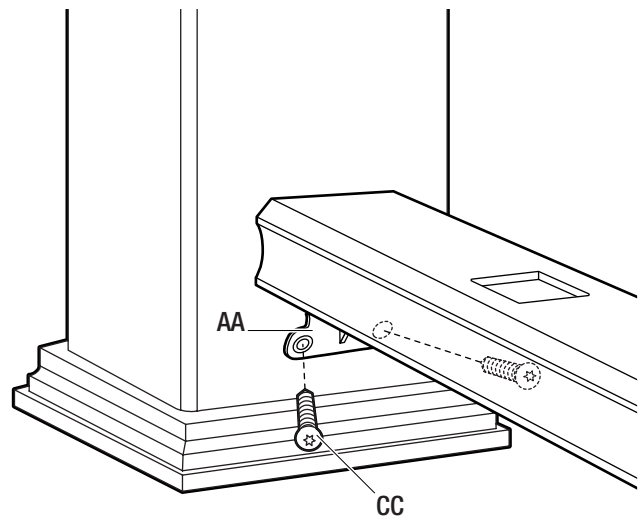
## 3 Installing the bottom rail

- Completely lower the rail into place between the posts and check to make sure it is level.
- Once the lower rail is level, mark the railing bracket (AA) hole locations. Remove the rail before pre-drilling the holes.
- Pre-drill the holes with a 5/32-in. bit, angling slightly inward to allow for clearance from the rail once repositioned for securing.



**NOTE:** Using extended drill bits is recommended to prevent damage to the rail, and allow a more perpendicular driving angle.

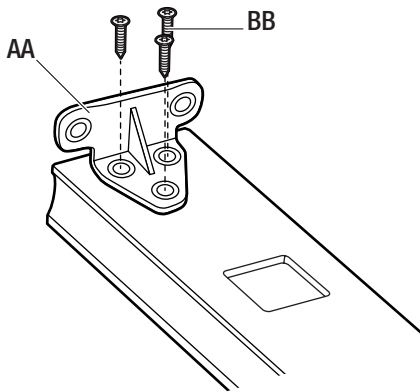
- Secure the bottom railing in place using the 2-in. screws (CC). DO NOT OVERTIGHTEN THE SCREWS.



## Line Rail Installation (continued)

### 4 Preparing the top rail

- Position the railing brackets (AA) 1/32-in. – 1/16-in. from the ends of the top rail and mark the hole locations. Ensure railing brackets are installed on the side of the top rail with the baluster holes.
- Pre-drill holes using a 5/32-in. bit and then attach the railing brackets (AA) to the top rail using 1-in. screws (BB). **DO NOT OVERTIGHTEN THE SCREWS.**

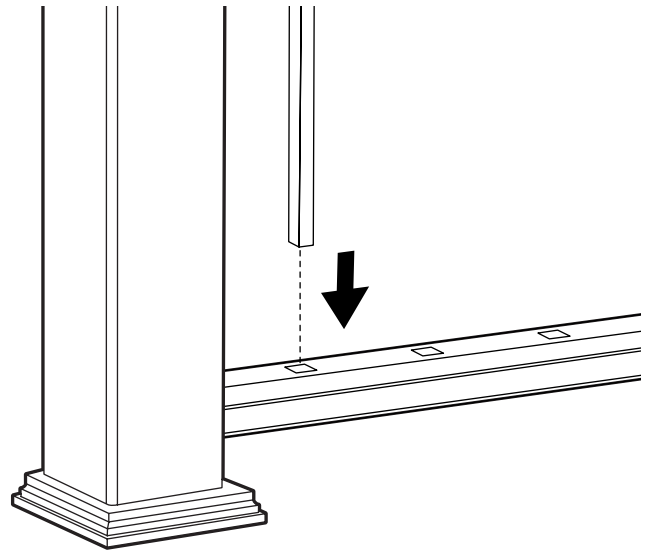


### 5 Inserting balusters

- Insert a baluster into the first and last baluster holes in the bottom rail.

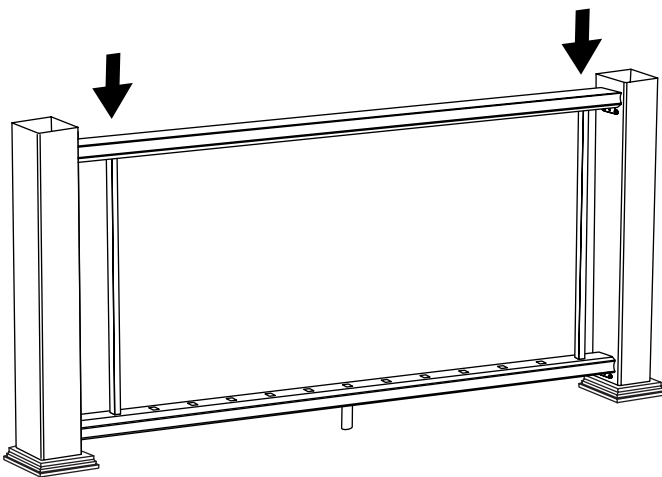


**NOTE:** Baluster length may vary slightly. Make sure all balusters are cut to the correct length.



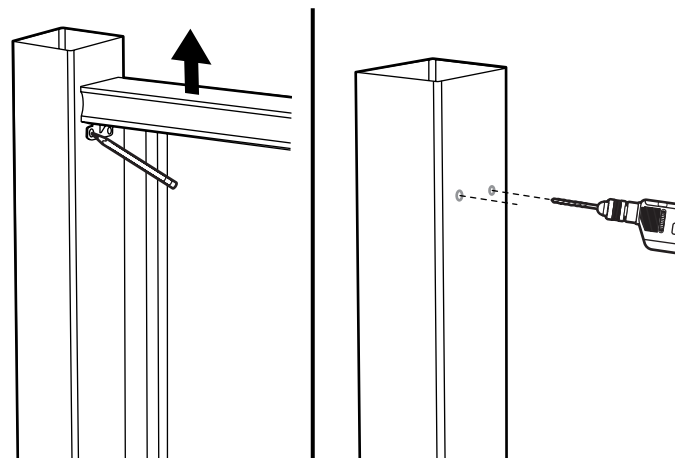
### 6 Positioning the top rail

- Carefully position the top rail between the posts and lower onto the two balusters. Ensure you fully seat the balusters into the top rail.
- Check the top rail and ensure it is level.



### 7 Marking and drilling top rail holes

- Mark the location of the bracket holes.
- Remove the top rail and balusters. Pre-drill the holes with a 5/32-in. bit, angling slightly inward to allow for clearance from the rail once repositioned for securing.



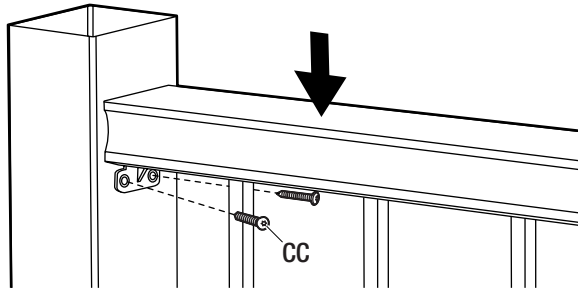
## Line Rail Installation (continued)

### 8 Installing the balusters and top rail

- Insert all balusters into the bottom rail. Reposition the top rail over the balusters, and lower into place between the posts. After the top rail is fully seated, secure using 2-in. screws (CC). DO NOT OVERTIGHTEN THE SCREWS.

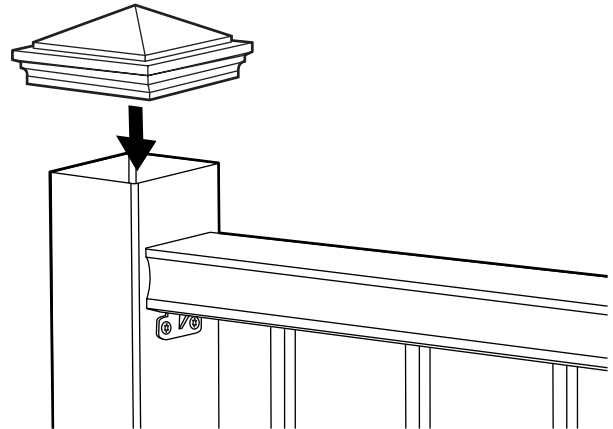


**NOTE:** Using extended drill bits is recommended to prevent damage to the rail, and allow a more perpendicular driving angle.



### 9 Installing the post caps

- Complete the installation by installing the post cap in place. You can use a quality exterior adhesive in order to do this, but note that you will not be able to remove the cap at a later time once it is glued.



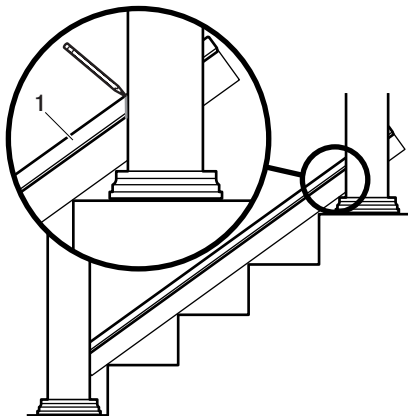
## Stair Railing Installation

### SPECIAL NOTES ON STAIR RAILING

The stair systems are designed for the typical angles created by an approximate 7-in. rise/11-in. run with allowance for accepted variation in components. The Brio™ stair system allows for a 30-34 degree stair angle. Building codes are very specific on allowable angles and widths. It is very important to consult with your local building code officials and plan your stair layout accordingly. Ensure that you leave adequate space for graspable hand rail if applicable. "Dry fitting" intermediate post placement will result in easier and better looking installations and may avoid placement of post mounting brackets in areas where screws cannot attach to the guardrail.

### 1 Determining the angle for the railing

- Using a 2 x 4 over the steps to create a consistent angle, place the bottom rail (1) over the 2 x 4 and mark the end angles for the bottom rail.

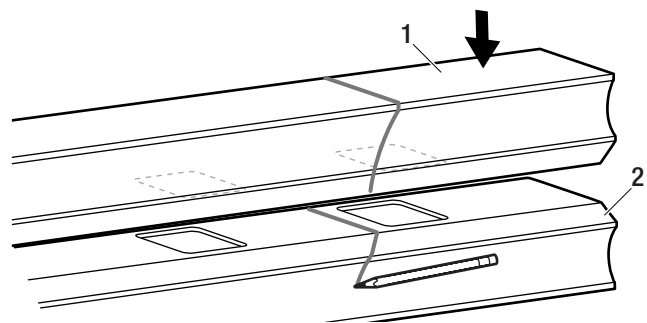


### 2 Marking the angles

- Align the top rail (1) on top of the bottom rail (2), ensuring the baluster holes are facing each other. Then mark the angle of the bottom rail to the top rail.



**NOTE:** Make sure that when the holes are aligned, the stair angle is continuous across both pieces. The minimum distance from post to first baluster slot is 1-1/2-in. for clearance from the brackets.

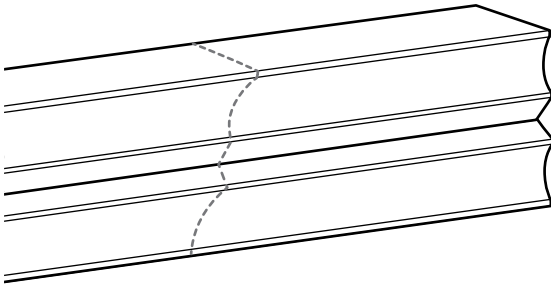




## Stair Railing Installation (continued)

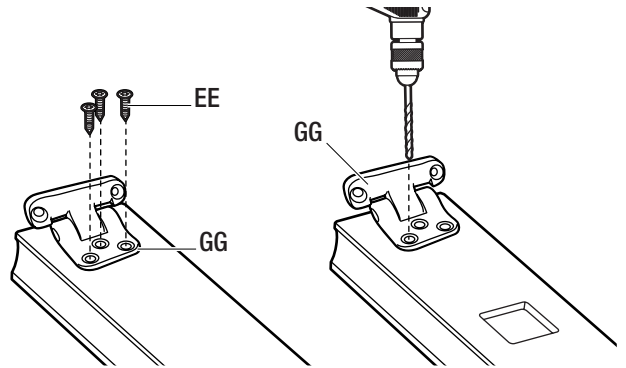
### 3 Cutting the rail angles

- Cut the top and bottom rails at the marked angles to fit tightly between the posts.
- Transfer the stair angle to the crush block and cut to the desired length (consult your local building official for the proper spacing between the stair tread and the railing).



### 4 Attaching brackets to the rails

- Place brackets (GG) on each end of the bottom rail (side without baluster holes). Place brackets on each end of the top rail (baluster hole side). Leave 1/32-in.-1/16-in. space from the cut edge of the rail. Mark all bracket hole locations and then drill holes using a 5/32-in. bit.
- Secure all brackets using the 1-in. screws (EE).

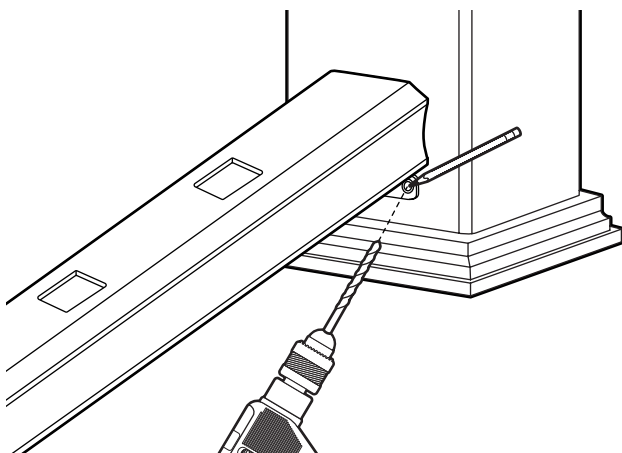


### 5 Preparing the bottom rail installation

- Place the bottom rail between the posts. Using the bracket as a guide, mark the location of the holes on the posts. Remove the rail before pre-drilling the holes.
- Pre-drill the holes with a 5/32-in. bit, angling slightly inward to allow for clearance from the rail once repositioned for securing.

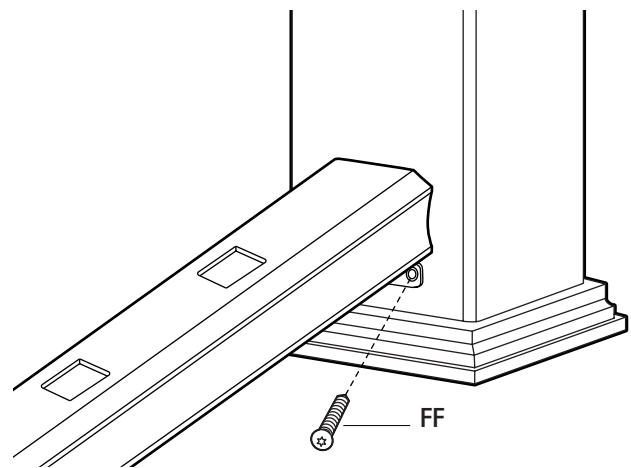


**NOTE:** Using extended drill bits is recommended to prevent damage to the rail, and allow a more perpendicular driving angle.



### 6 Installing the bottom rail

- Place the crush block on the stair tread surface midway between the posts and glue to the bottom of the bottom rail.
- Secure the bottom rail to the post at both ends using the 2-in. screws (FF). **DO NOT OVERTIGHTEN THE SCREWS.**



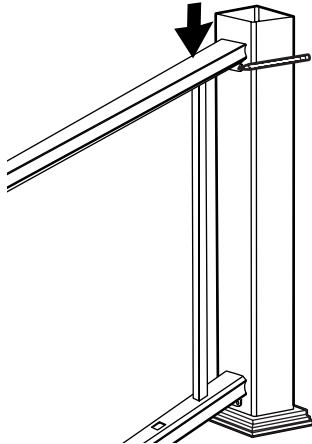
## Stair Railing Installation (continued)

### 7 Positioning the top rail



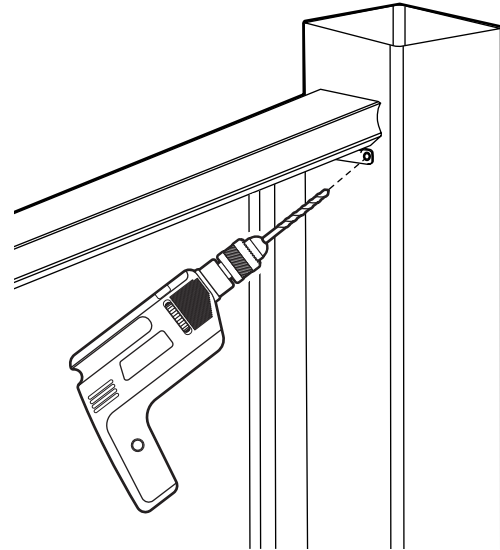
**NOTE:** Baluster length may vary slightly. Make sure all balusters are cut to the correct length.

- Insert a baluster into the first and last holes in the bottom rail. Carefully position the top rail over the balusters. Lower until the balusters are fully inserted.
- With the top rail fully seated, and using the top bracket as a guide, mark the location of the holes. Remove the rail before pre-drilling the holes.



### 8 Drilling the top rail holes

- Pre-drill the holes with a 5/32-in. bit, angling slightly inward to allow for clearance from the rail once repositioned for securing.

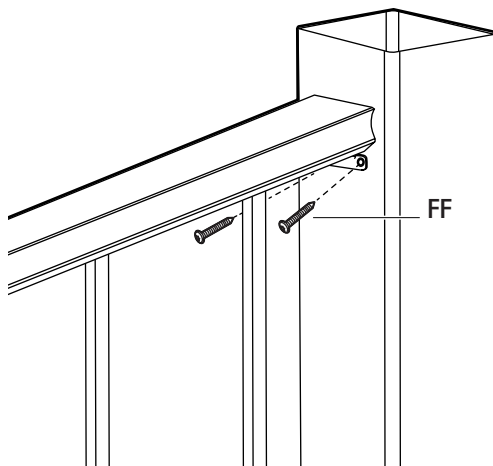


### 9 Installing the top rail

- Fully insert all balusters and secure the top railing using the 2-in. screws (FF).

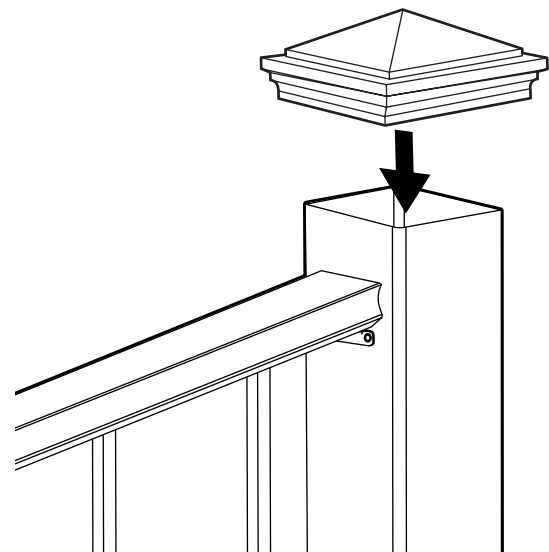


**NOTE:** Using extended drill bits is recommended to prevent damage to the rail, and allow a more perpendicular driving angle.



### 10 Installing the caps

- Complete the installation by installing the post cap in place. You can use a quality exterior adhesive in order to do this, but note that you will not be able to remove the cap at a later time once it is glued.



# Angle Bracket Installation

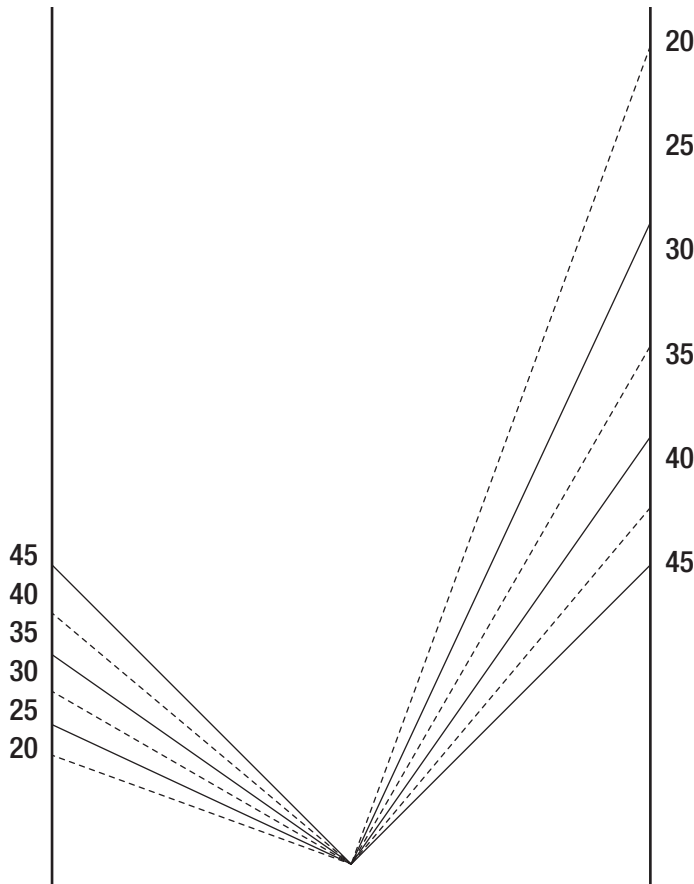
## 1 Determining the angle of installation

**NOTE:** Not for stair applications.  
Rails up to 20° may be mounted to the post face by using the In-Line "L" bracket.  
Cut rails at the appropriate angle to fit tight against post.  
Cutting rails greater than 20° will result in a rail that does not fully fit on the post. Angles greater than 20° require the use of the angle bracket. (Sold separately.)



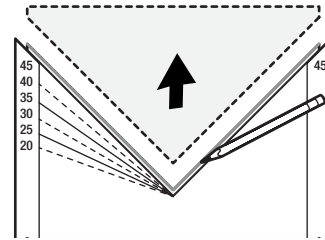
**NOTE:** The minimum distance from post corner to the first baluster hole is 1-1/2-in.

- Determine the angle of your installation using the supplied template and cut the template out along the appropriate marked lines (you may want to photocopy the template as a backup prior to cutting).
- Position the template on the non-routed, underside surface of the bottom rail. Mark the proper cutting angle. Template will be reversed from the top rail.
- Ensure baluster holes are equidistant from the end of rail to ensure proper vertical alignment of balusters.



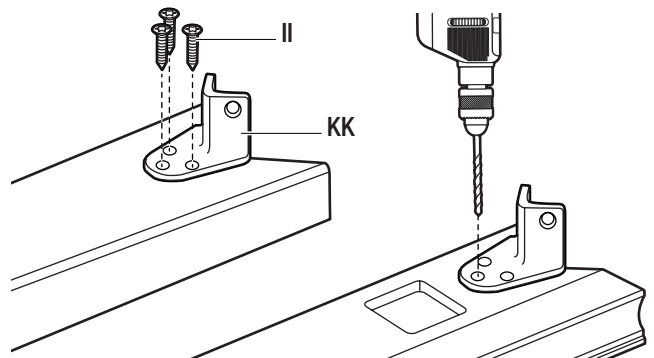
## 2 Making the angle cuts

- Make the angle cuts in the top and bottom rails.



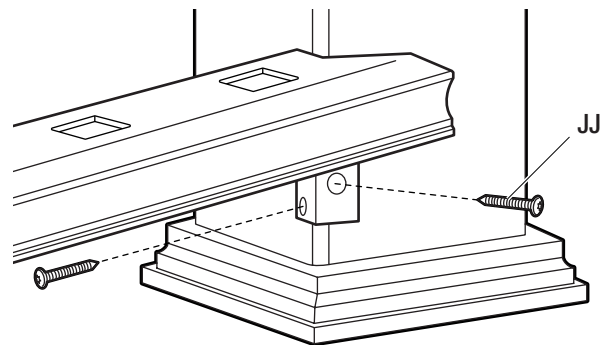
## 3 Installing the angle brackets

- Align the angle bracket (KK) with the cut in each rail. Inset the bracket 1/16-in. from the rail's end.
- Mark the three screw hole locations on both ends of each rail and pre-drill the holes using a 5/32-in. bit.
- Secure the brackets with the 1-in. screws (II). **DO NOT OVERTIGHTEN THE SCREWS.**

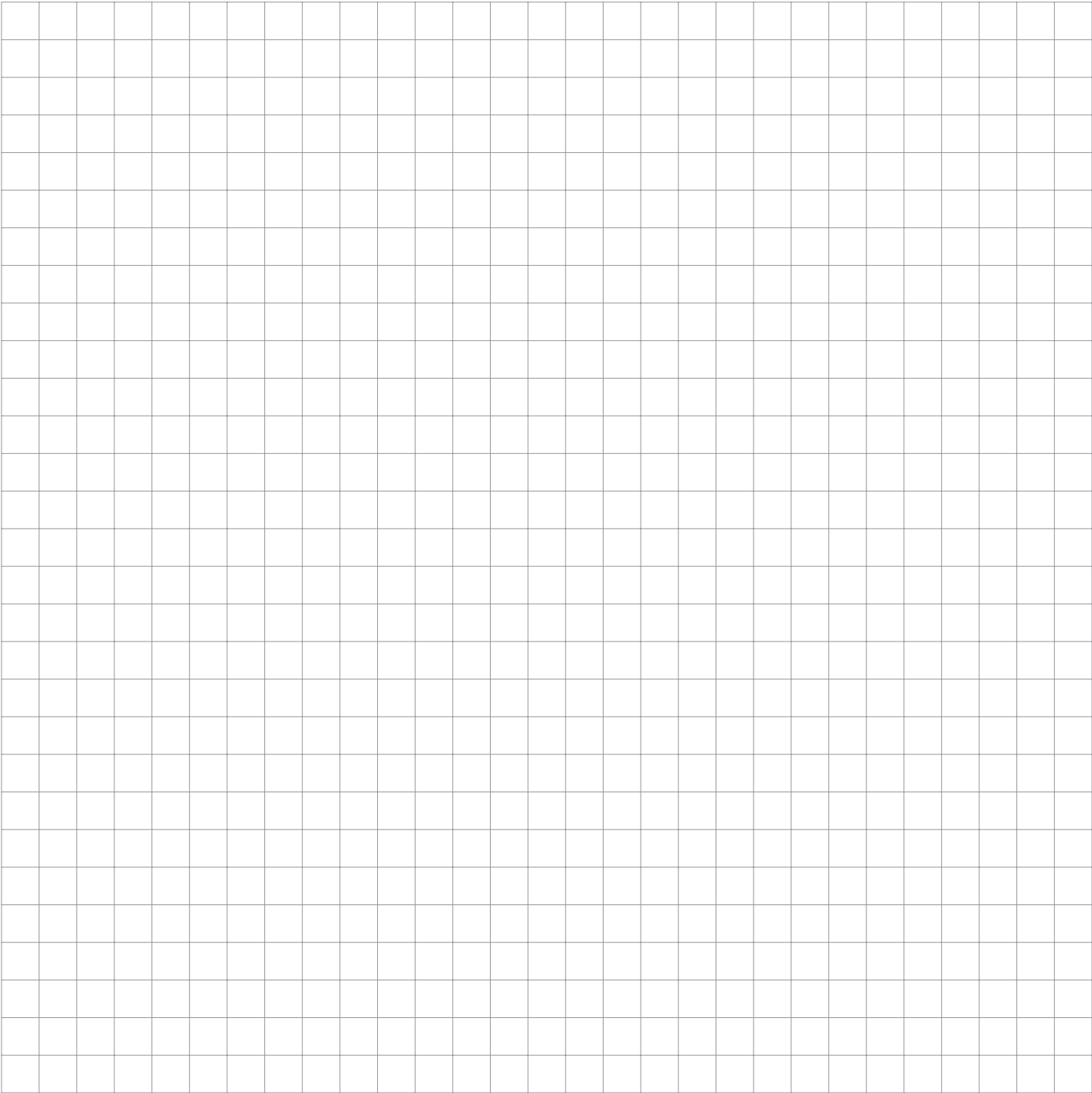


## 4 Installing the bottom rail

- Secure the bottom rail to the posts using the 2-in. screws (JJ).
- Follow Steps 5 through 9 in the line rail instructions.



# Design Grid





Questions, problems, missing parts? Before returning to the store,  
call Fiberon Customer Service  
8 a.m. - 5 p.m., EST, Monday - Friday

**1-800-573-8841**

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Retain this manual for future use.