

# Installation Guide



**Canadian Version**



## Tools & Materials Needed

- Hacksaw or metal cutting saw
- Drill
- Drill bits: 1/8", 5/32", 3/16", 7/32", 1/4"
- 3/8" socket or wrench
- Phillips screwdriver
- Measuring tape
- Non-corrosive exterior silicone caulking
- Post Anchoring Fasteners (see page 5)

## Supplied Fasteners



Self-drilling screw



Phillips screw



Lag bolt



Universal Connector  
(UC) bolt



Pan head screw

See **WARNING** on page 2

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**P.O. Box 96060**

**Richmond, B.C. Canada V7A 5J4**

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**⚠WARNING** No representation or warranty is given that your particular application of these products complies with relevant building codes or that the fasteners provided or used are appropriate for your application. Consult with professionals and local building officials before beginning work: (i) to ensure compliance with relevant building codes for your application and for your proposed use of fasteners; (ii) to ensure the integrity of the structural components in connection with which these products are to be used; (iii) to identify appropriate safety gear that is to be used during installation such as a safety harness when working above ground; (iv) to ensure that the work area is free from utilities, services and hazards; and (v) to clarify any instructions or warnings that may not be clear. Work in a safe manner wearing protective gear such as gloves, eyewear, headwear, footwear and clothing. When using tools comply with operation manuals and instructions. Metal and glass may have sharp edges and could fragment or splinter during or as a result of handling or cutting. Do not use these products in connection with any substance that is or may be harmful or corrosive to the products. Inspect and maintain these products and the structural components that they are used in connection with on a regular basis, using professionals when appropriate. These instructions have been prepared for certain standard residential applications. Obtain professional advice for any non-standard or non-residential application.

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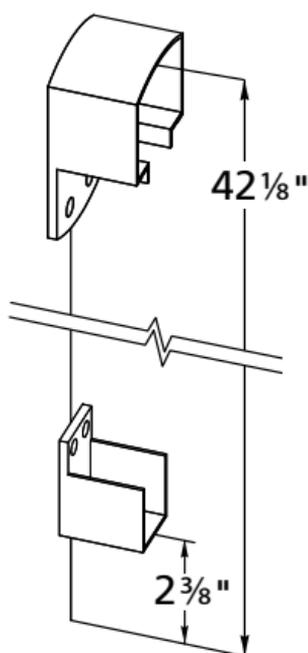
This installation guide is updated occasionally.  
Please refer to the latest version at [www.railblazers.ca](http://www.railblazers.ca)

# IMPORTANT INFORMATION

- Read this Installation Guide in its entirety including all warnings and important information before beginning work.
- Maximum post spacing of 6' for Residential\* use.  
\*Guards within dwelling units and exterior guards serving not more than two dwelling units.
- For commercial use including multi-residential housing, please call Peak Customer Service at 1-877-883-PEAK (7325) or email: [cservice@peakproducts.com](mailto:cservice@peakproducts.com)
- Always understand and comply with your local building codes‡  
‡Conditions apply. For details visit: [www.railblazers.ca/compliance](http://www.railblazers.ca/compliance)
- To prevent wood splitting and rot, drill pilot holes (see page 5) and coat fastener screw threads with non-corrosive exterior silicone caulking. Ensure that the posts are plumb.
- Ensure that the opening between each of the following is less than 3 <sup>15</sup>/<sub>16</sub>" :
  - pickets
  - pickets and posts
  - pickets and walls
  - pickets and glass panels
  - glass panels
  - glass panels and posts
  - glass panels and walls

## Wall Mount Brackets

Railings can be attached to a wall using wall mount brackets.

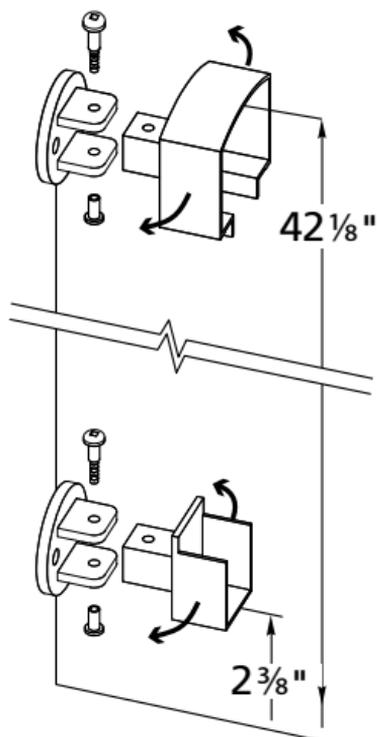


## Universal Connectors

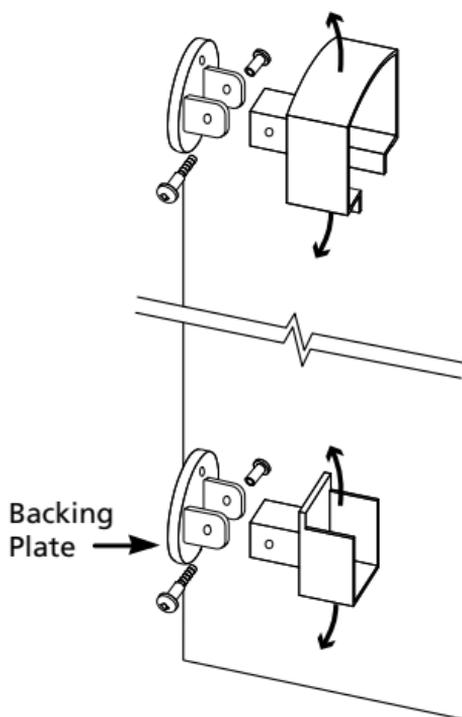
Universal Connectors (UCs) can be used for either Horizontal Angle or Stair Applications\*.

Mount backing plate accordingly.

### Horizontal Angle Application



### Stair Application\*



\* Glass panels cannot be used on stair applications. Pickets must be used for stair applications.

## Anchoring Fasteners

For typical single-family detached houses, engineering design and testing has determined appropriate fasteners for the attachment of the post base and wall mount bracket to certain wood or concrete structures. Building codes may vary. Always understand and comply with your local building codes. For further information visit: [www.railblazers.ca/compliance](http://www.railblazers.ca/compliance)

For commercial use including multi-residential housing, please call Peak Customer Service at 1-877-883-PEAK (7325) or email: [cservice@peakproducts.com](mailto:cservice@peakproducts.com)

Typical post base fasteners for WOOD Applications				
Deck Structure	Fasteners Required	Minimum Embedment <sup>1</sup>	Minimum Edge Distance	Pilot Hole
New SPF Lumber	4 x 3/8" x 6" RSS™ Rugged Structural Screw	3"	3/4"	not required
	1 x RailBlazers® Post Attachment Kit		1"	1/4"

Typical post base fasteners for CONCRETE Applications				
Deck Structure	Fasteners Required	Minimum Embedment <sup>1</sup>	Minimum Edge Distance	Pilot Hole
Concrete 20 MPa (3000 psi) minimum strength	4 x 1/4" x 4 1/2" Hilti Kwik Bolt® 3	3"	1 3/8"	1/4"

Typical wall mount bracket fasteners for WOOD Applications				
Deck Structure	Fasteners Included	Minimum Embedment <sup>1</sup>	Minimum Edge Distance	Pilot Hole
New SPF Lumber	4 x 1/4" x 2" Lag Bolt	1"	3/8"	5/32"

Typical wall mount bracket fasteners for CONCRETE Applications				
Deck Structure	Fasteners Required	Minimum Embedment <sup>1</sup>	Minimum Edge Distance	Pilot Hole
Concrete 20 MPa (3000 psi) minimum strength	4 x 1/4" x 3 1/4" Hilti Kwik Bolt® 3	2"	1 3/8"	1/4"

<sup>1</sup> Depth of the threaded portion of the screw into the supporting structure.

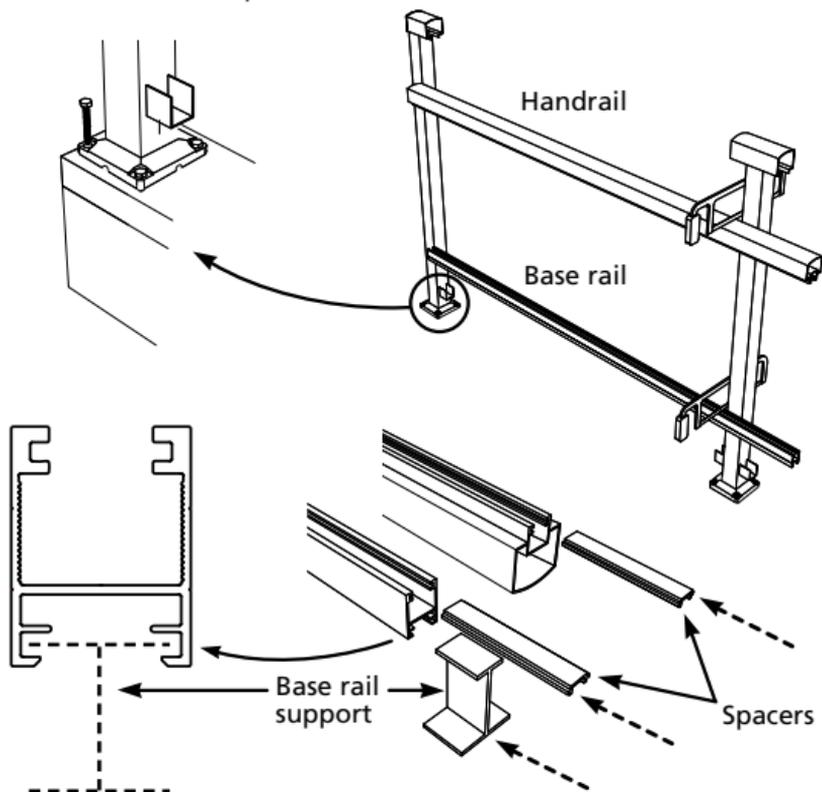
# PICKET INSTALLATION

Pickets & Spacers (including Stair Pickets & Spacers) are designed for **Residential**<sup>1</sup> use only. Wide Pickets & Spacers (including Wide Stair Pickets & Spacers) are designed for **Residential**<sup>1</sup> or **Commercial**<sup>2</sup> use.

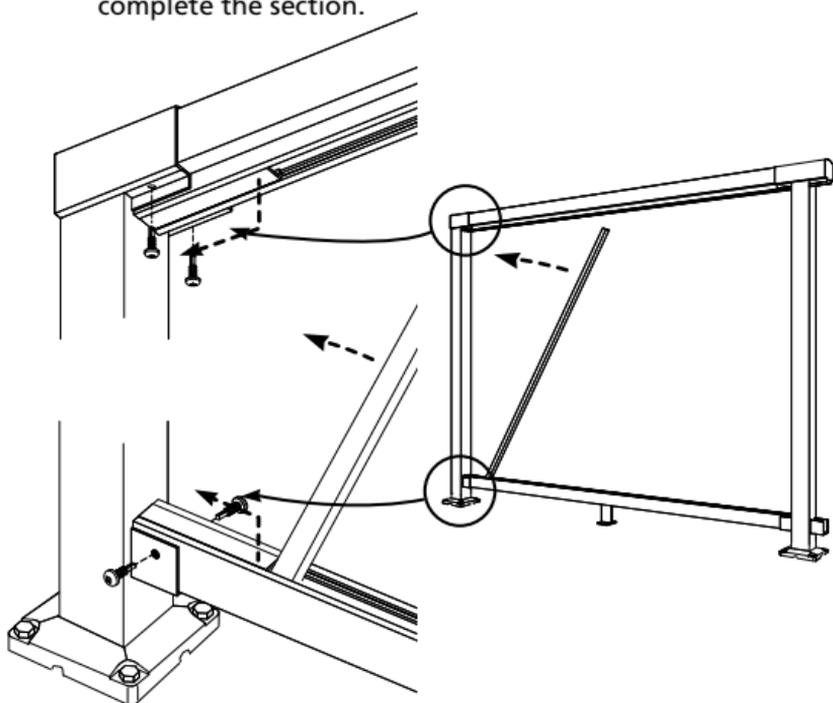
<sup>1</sup> Guards within dwelling units and exterior guards serving not more than two dwelling units.

<sup>2</sup> For more information, please call Peak Customer Service at 1-877-883-PEAK (7325) or email: [cservice@peakproducts.com](mailto:cservice@peakproducts.com).

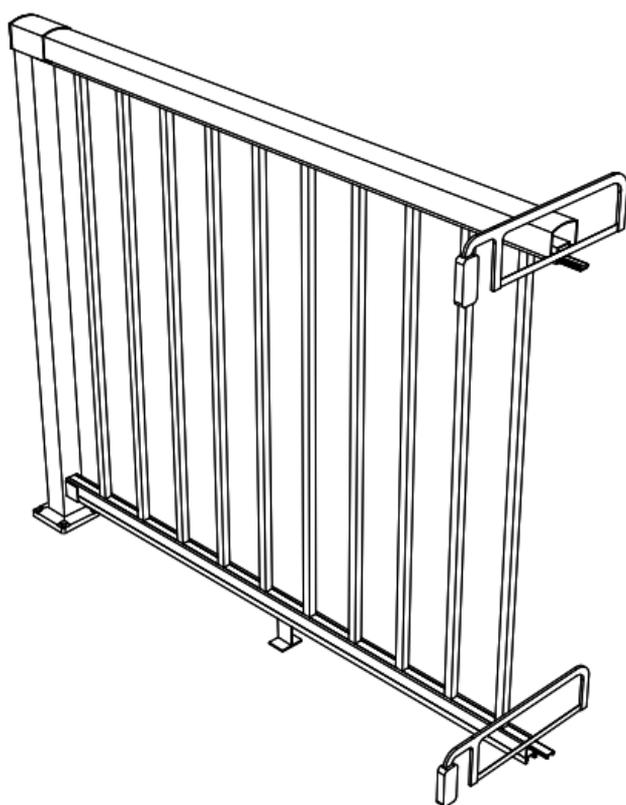
- 1** Measure and mark the position of all posts and space equally. Fasten the end post in place - ensure that the post is plumb. Temporarily position the second post - do NOT secure it yet. Cut the hand and base rails to fit between the posts. Install the base rail support(s) into the bottom channel of the base rail and install all but the last four spacers into each rail.



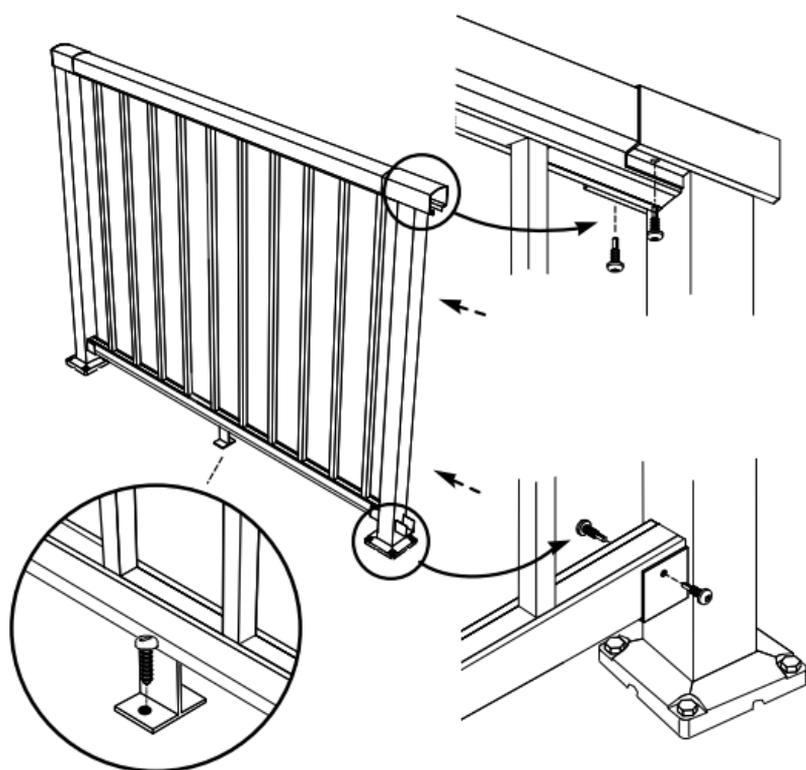
- 2** Insert the rails into the first post and secure these rails to this post with self-drilling screws. Use the second post as temporary support - do NOT secure the rails to the second post yet. Slide the first spacer in each rail against the first post. Insert a picket into the base rail and swing the top of the picket into the handrail as shown below. Repeat to complete the section.



- 3** Remove the temporary post to install the last few pickets and spacers. Cut the last spacers flush with the ends of the rails. NOTE: to ensure equal picket spacing at each post, cut the first and the last spacers in the hand and base rails to equal lengths.



- 4** Insert the rails into the second post. Position and fasten the second post in place - ensure that the post is plumb. Secure the rails to the second post with self-drilling screws. Repeat Steps 1-4 for each remaining section.



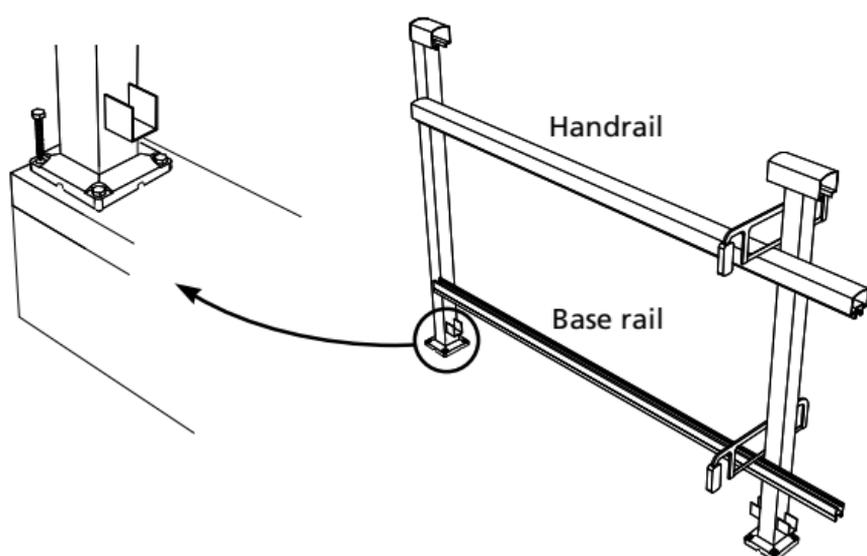
#### **IMPORTANT**

To ensure that the pickets remain engaged in the rails, you must install one or more base rail support(s) for each railing section. To install the base rail support, insert it into the bottom channel of the base rail (as shown in Step 1), slide it to the centre position and secure it to deck surface using fasteners.

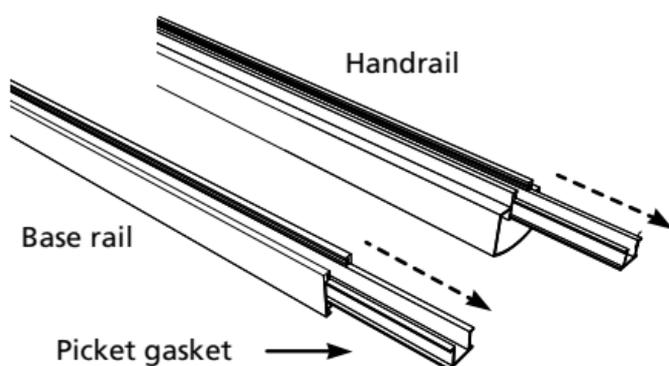
# GLASS PANEL (18" wide or greater) INSTALLATION

**⚠WARNING** Always use two people to handle glass panels. Always lift a glass panel by its sides. Tempered glass is extremely fragile – do not bump the edges. Always use protective gear including eyewear and gloves when handling glass panels.

- 1** Measure and mark the position of all posts and space equally. Fasten the end post in place - ensure the post is plumb. Temporarily position the second post - do NOT secure it yet. Cut the hand and base rails to fit between the posts.

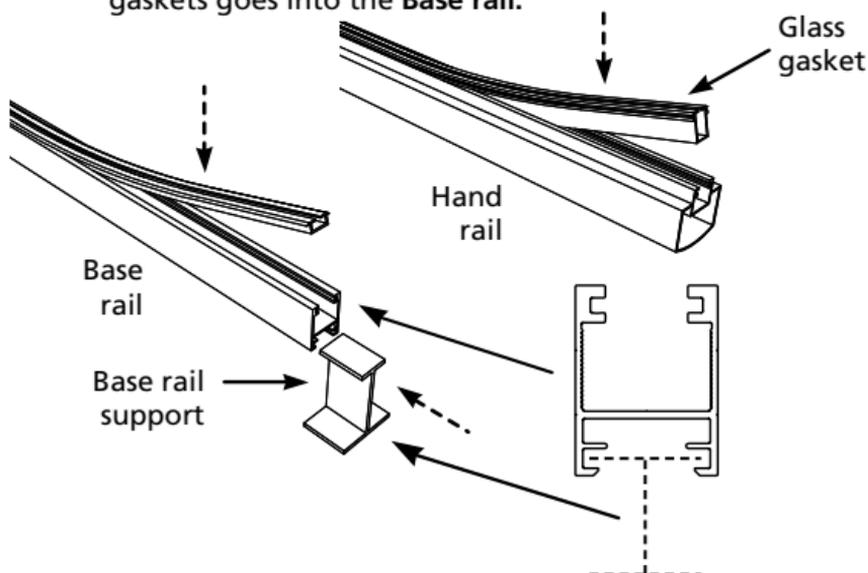


- 2** Remove the plastic picket gaskets from both rails.



**3** Cut the glass gaskets the same length as the rails and drill 1/8" holes into the base rail glass gasket for water drainage. Press the glass gaskets into the rails and install the base rail support into the bottom channel of the base rail.

**IMPORTANT:** The smaller of the two glass gaskets goes into the Base rail.

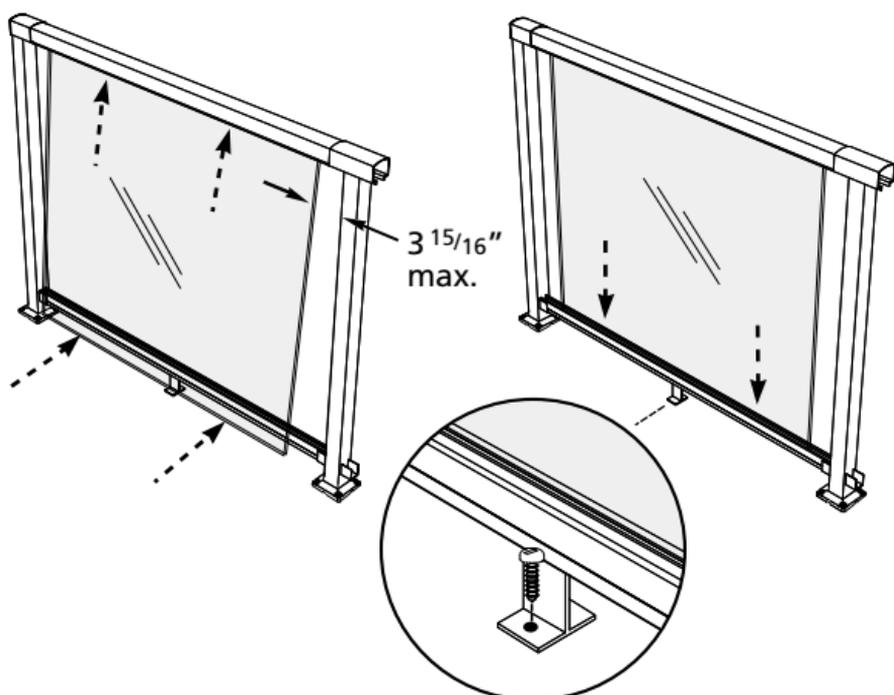


**4** Insert the rails into the posts. Position and fasten the second post in place - ensure that the post is plumb. Secure the rails to the posts with self-drilling screws. (Refer to Step 4 on Page 5.)

**IMPORTANT:** Ensure that the glass gaskets and the top and bottom edges of the glass panel are well lubricated with liquid soap before installing the glass panel. Install the glass panel by inserting it into the handrail gasket then lowering it into the base rail gasket.

**IMPORTANT:** Ensure that the glass is fully seated in the gaskets. Wash away excess soap with clean water.

Repeat Steps 1-4 for each remaining section.



### IMPORTANT

To ensure that the glass panel remains engaged in the rails, you must install one base rail support for each railing section.

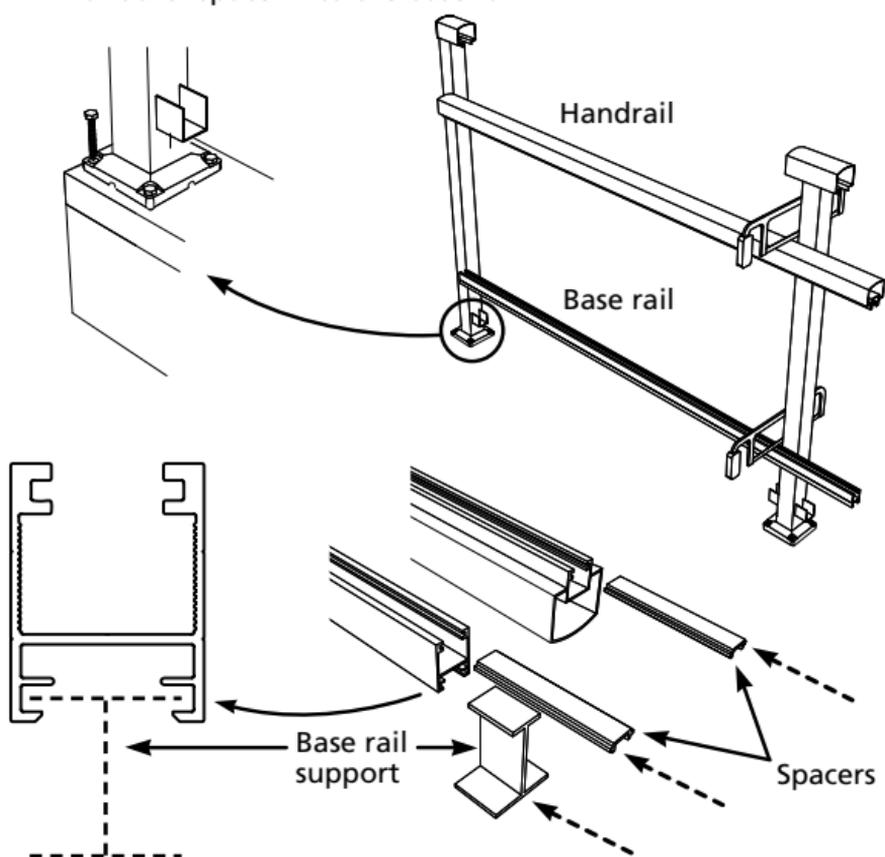
To install the base rail support, insert it into the bottom channel of the base rail (as shown in step 3), slide it to the centre position and secure it to deck surface using fasteners.

# 6" GLASS PANEL KIT INSTALLATION

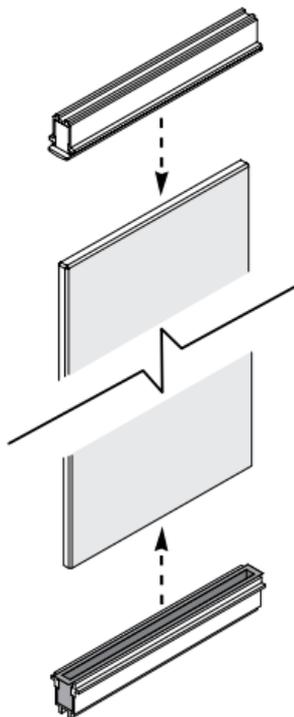
**IMPORTANT NOTICE:** This kit was designed to fit into a 6' railing section. If your railing is shorter than 6', you will need to cut the spacers or remove the glass panel(s) accordingly. The opening between the individual glass panels must never exceed  $3\frac{15}{16}$ ". The opening between a post and a glass panel must never exceed  $3\frac{15}{16}$ ".

**⚠WARNING** Always lift a glass panel by its sides. Tempered glass is extremely fragile – do not bump the edges. Always use protective gear including eyewear and gloves when handling glass panels.

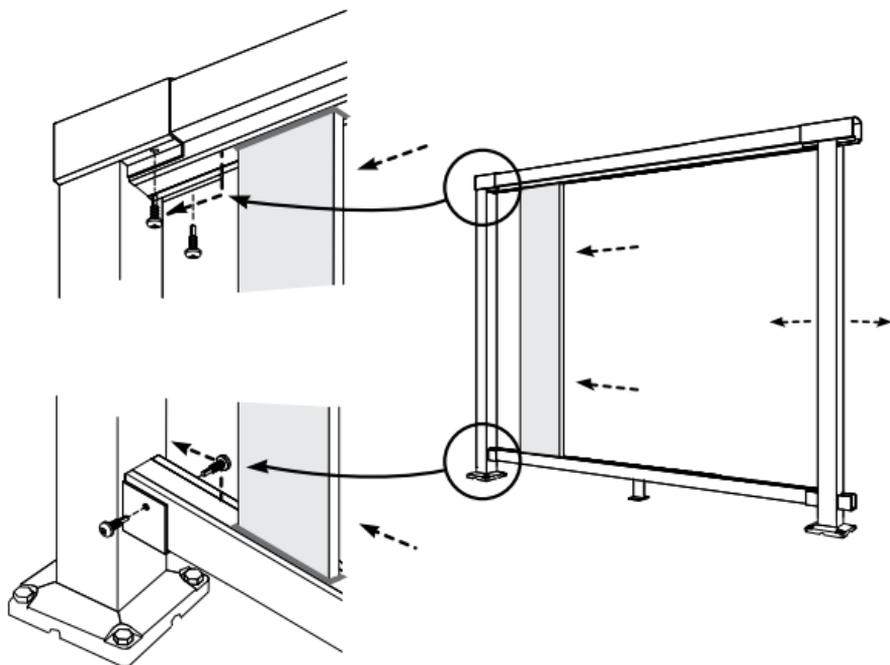
- 1** Measure and mark the position of all posts and space equally. Fasten the end post in place - ensure that the post is plumb. Temporarily position the second post - do NOT secure it yet. Cut the hand and base rails to fit between the posts. Install the base rail support into the bottom channel of the base rail. Insert a spacer into the handrail and another spacer into the base rail.



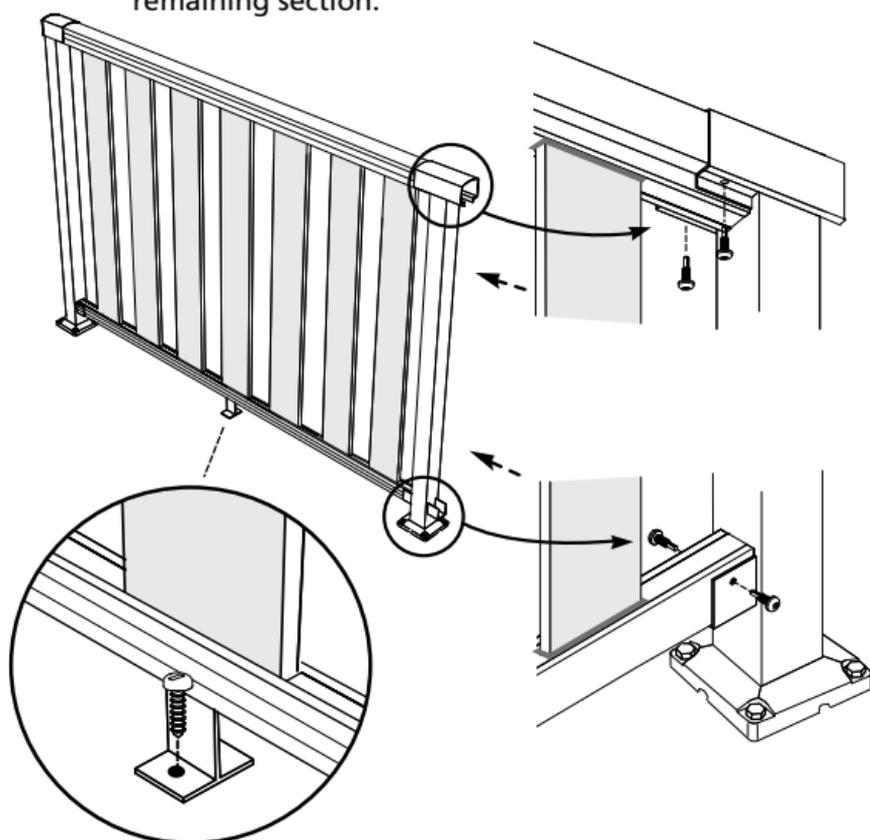
- 2** Attach the glass fittings to the top and bottom ends of each glass panel.



- 3** Insert the rails into the first post and secure these rails to this post with self-drilling screws. Use the second post as temporary support - do NOT secure the rails to the second post yet. Slide the spacer in each rail against the first post. Remove the temporary support post and slide a glass panel (with fittings attached) into the rails until touching the spacers. Slide the next pair of spacers into the hand and base rails. Repeat to complete the section.



- 4** Insert the rails into the second post. Position and fasten the second post in place - ensure that the post is plumb. Secure the rails to the second post with self-drilling screws. Repeat Steps 1-4 for each remaining section.



#### **IMPORTANT**

To ensure that the glass panels remain engaged in the rails, you must install one or more base rail support(s) for each railing section. To install the base rail support, insert it into the bottom channel of the base rail (as shown in Step 1), slide it to the centre position and secure it to deck surface using fasteners.

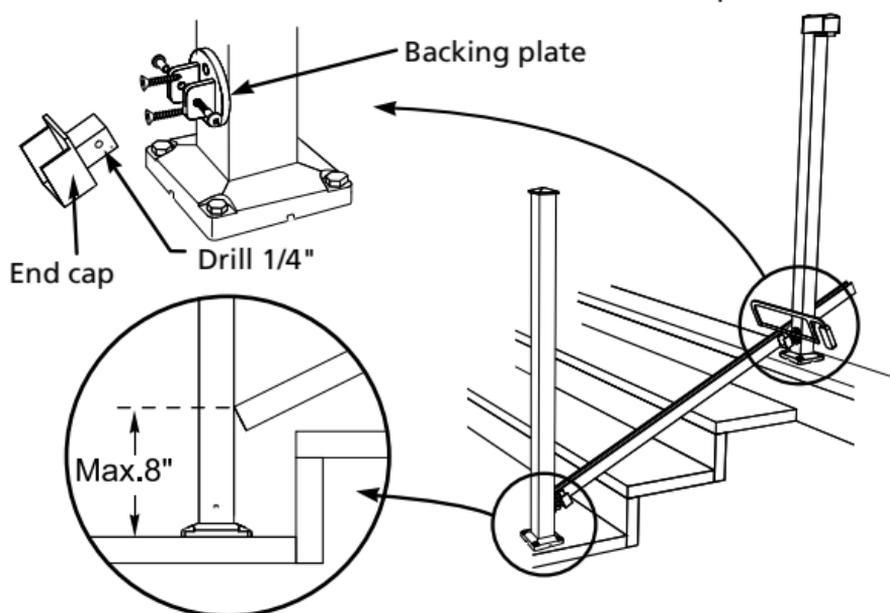
# STAIR RAILING INSTALLATION

Follow all applicable building codes for the stair post placement and heights of the rails above the nose of the stair treads. **NOTE:** The stair pickets and spacers are different from the regular pickets and spacers. Glass panels cannot be used on the stair applications. Pickets must be used for the stair applications.

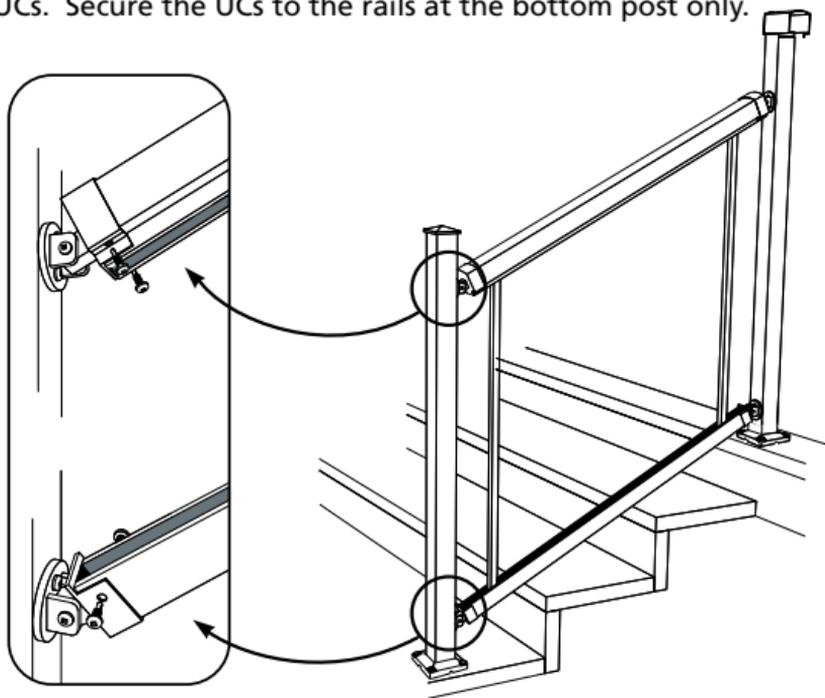
- 1 Use Universal Connectors (UCs) at each post. Drill 1/4" holes through the end caps and secure to the backing plates with UC bolts. Position the base rail at the required height above the nose of stair treads.

Position posts to meet base rail less than 8" above base. Fasten the top post to the deck - ensure that the post is plumb. Position and mark the location of the bottom post on landing or on the last stair tread - do NOT secure yet.

With the base rail still in position, place the UCs on the posts to align with the base rail. Remove the base rail and mark the locations of the UCs on the posts. Drill 7/32" pilot holes into the posts and use the flat head screws to attach bottom UCs to the posts. Measure and cut the base rail to fit between the end caps.



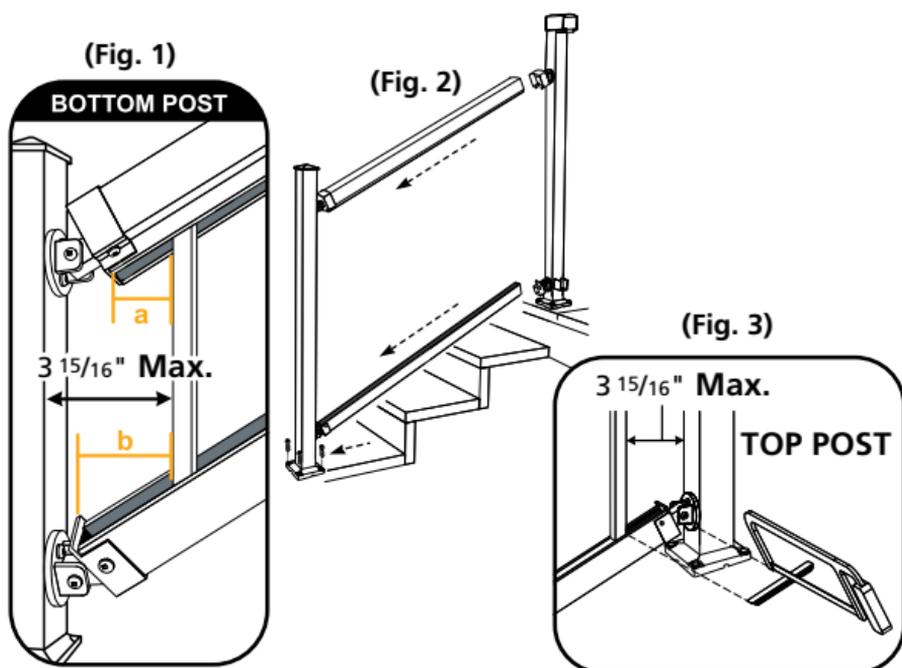
- 2 Cut the handrail to the same length as the base rail and fit the UCs onto the handrail. Use two **stair pickets** to position the handrail. Mark the locations of the UCs on the posts. Remove the handrail from position and the UCs from the handrail. Drill 7/32" pilot holes into the posts and use the flat head screws to attach the UCs to the posts. Temporarily move the bottom post to place the hand and base rails into the UCs. Secure the UCs to the rails at the bottom post only.



**3** Place a picket into both rails near the bottom post - ensure that the picket is plumb and  $3 \frac{15}{16}$ " or less from the post. Starting from the bottom post, measure and cut the **end spacers** then remove the picket (**Fig. 1**).

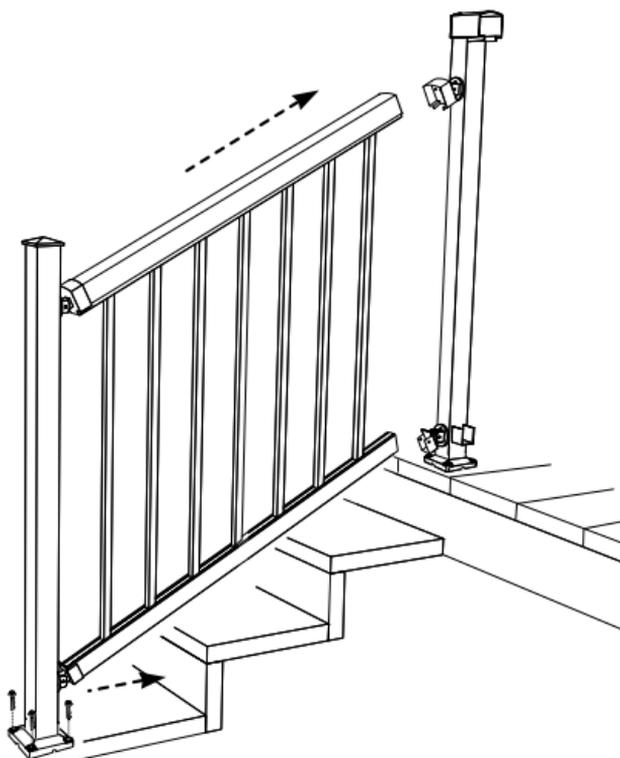
**NOTE:** At the bottom post, end spacer "a" will be shorter than end spacer "b".

Temporarily move the bottom post and rails away from the top post (**Fig. 2**). Install the end spacers followed by pickets and stair spacers (step 2 of Picket Railing Installation). Cut and install the last spacers flush with the ends of rails. The last picket must also be  $3 \frac{15}{16}$ " or less from the top post (**Fig. 3**).



**PRO TIP:** To ensure equal spacing at each post, cut the first and last spacers in the hand and base rails to a length that ensures equal spacing between the end pickets and the posts.

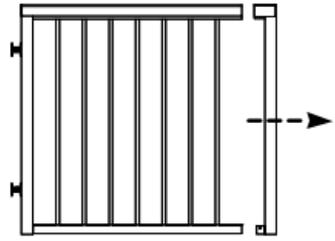
**4** Place the bottom post back into position and ensure that the rails are fully inserted into the UCs at the top post. Secure the hand and base rails to the UCs at the top post as shown in step 2. Fasten the bottom post to the landing or last stair tread - ensure that the post is plumb.



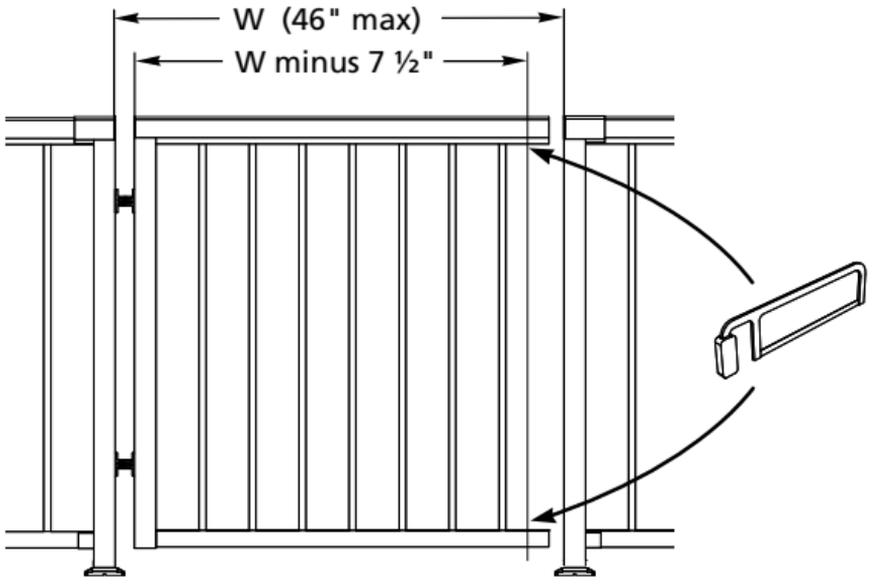
# GATE INSTALLATION

- 1** Gate opening (W), must not exceed 46". Remove the latch side of the gate (Fig. 1). Cut the top and bottom gate rails 7 1/2" shorter than the gate opening (Fig. 2). Align the top rail of the gate with the handrails. Drill 3/16" pilot holes into the post and lag bolt the gate to the post.

(Fig. 1)



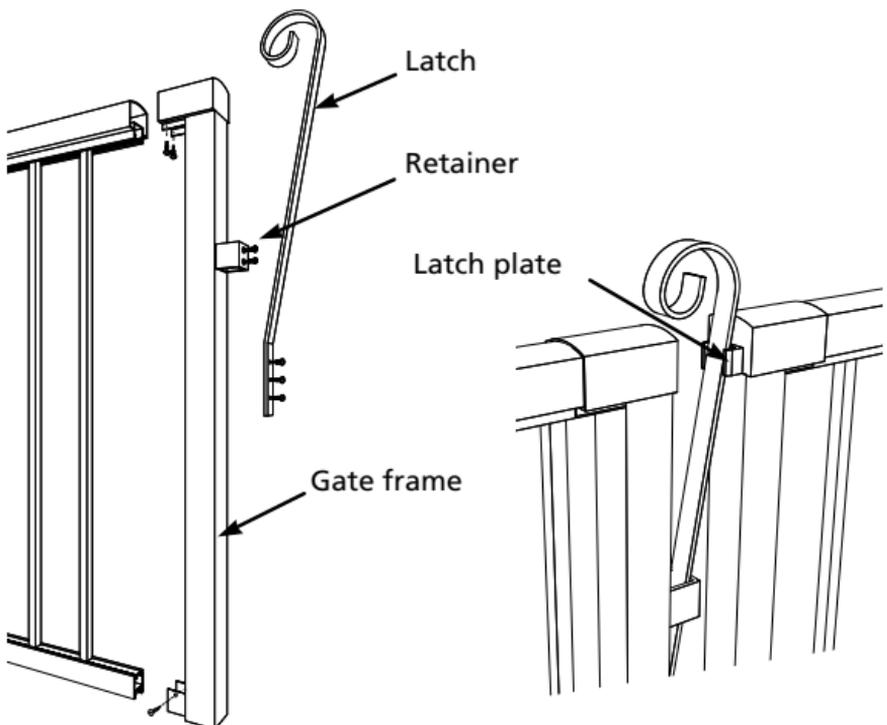
(Fig. 2)



## 2

Use self-drilling screws for these steps:

- Secure the retainer to the gate frame at marked position.
- Insert the latch **through the retainer** and secure to the gate frame at marked position.
- Secure the latch side of the gate frame to the top and bottom gate rails.
- Secure the latch plate.



## Notes

## Notes