ALUMINIUM
PEAK® Balustrade

Installation Guide

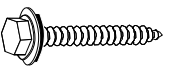
Tools & Materials Required

- Hacksaw or mitre saw with non-ferrous metal cutting blade
- Drill
- Drill bits: 3 mm, 4 mm, 5.5 mm, 6.5 mm
- Measuring tape
- 8 mm socket or spanner
- Phillips head #2 screwdriver bit
- Non-corrosive exterior silicone caulking
- Anchoring fasteners (not included - see table on page 4 & 5)

Supplied Fasteners

Self-drilling screw 

Flat head screw 

Coach screw 

Connector bolt 

Pan head screw 

See WARNING on inside panel

Available at BUNNINGS warehouse

peakbalustrade.com.au
peakbalustrade.co.nz

Dear Customer,

We would like to take a moment to say "thank you and congratulations" for choosing our products.
At Peak® your satisfaction is very important to us. That is why we work very hard to provide you with products of exceptional quality, value, and beauty. And that is also why we want to hear from you.

Please contact us with your comments or suggestions at:
support@peakproducts.com.au or
support@peakproducts.co.nz

Finally, we would like to remind you to always work safely. Then, take pride, relax with your family and experience years of enjoyment with Peak® products.

Sincerely,

Peak Products Corporation

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.

Peak Products Corporation shall not be liable for any loss or damage resulting from the improper installation or improper use of this product, subject to any contrary provision of the Australian Consumer Law in Australia or the Consumer Guarantees Act 1993 (NZ) in New Zealand.

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This installation guide is updated from time to time. Please refer to the latest version at **www.peakbalustrade.com.au** or **www.peakbalustrade.co.nz**.

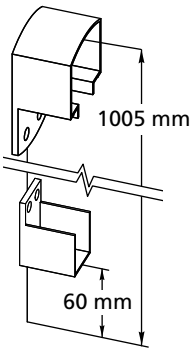
 PB_ii_V2c

IMPORTANT INFORMATION

- Maximum post spacing of 1.8 m.
- Complies* with: Australian/New Zealand Standard AS/NZS 1170.0:2002 Structural design actions
  * Conditions apply. For details visit: peakbalustrade.com.au/compliance or peakbalustrade.co.nz/compliance. Complete Peak® Aluminium Balustrade system required.
- Always understand and comply with your local building codes.
- To prevent timber splitting and rot, drill pilot holes and coat coach screw threads with non-corrosive exterior silicone caulking.
- Ensure that the opening between each of the following is less than 100 mm:
  - balusters - balusters and post - balusters and wall
  - glass panels - glass panel and post - glass panel and wall
  - balusters and glass panels

Wall Bracket

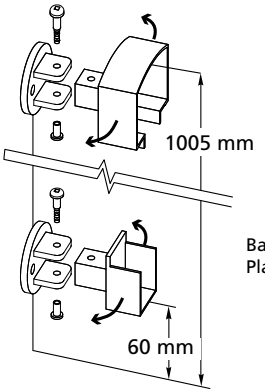
Balustrades can be attached to a wall using wall brackets.



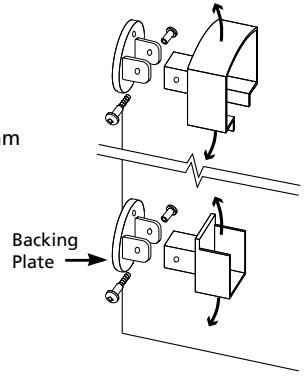
Universal Bracket

Universal Brackets (UBs) can be used for either horizontal angle or stair applications*. Mount backing plate accordingly.

Horizontal Angle Application



***Stair Application**



* Glass Panels & Sectional Glass cannot be used on stair applications.
Stair balusters are different from regular balusters.
Stair balusters must be used for stair applications.

Anchoring fasteners for Australia

WARNING Engineering design has determined appropriate fasteners for the attachment of the post base and wall bracket to concrete or timber structures designed by others.

While the types of material are defined in the table below, the ability of the supporting structure to provide adequate support to Peak® Aluminium Balustrade system and its fasteners must be independently verified for each installation.

To meet certain balustrade load requirements within AS/NZS 1170.1:2002, purchase the following fasteners. Building codes may vary. Always understand and comply with your local building codes. For further information visit: peakbalustrade.com.au/compliance

Fasteners for attaching post base and wall bracket to concrete:

Concrete	Fasteners Required		Minimum Embedment[1]		Minimum Edge Distance	
	Post Base	Wall Bracket	Post Base	Wall Bracket	Post Base	Wall Bracket
Minimum concrete strength 25 MPa	4 x Ramset™ WERCS Ankascrew™ anchor, M10 x 100 mm	4 x Ramset™ WERCS Ankascrew™ anchor, M6 x 50 mm	72 mm	39 mm	70 mm	50 mm
	4 x Ramset™ Ankascrew™ anchor, M10 x 100 mm	4 x Ramset™ Ankascrew™ anchor, M6 x 50 mm				

Fasteners for attaching post base and wall bracket to timber:

Timber	Fasteners Required	Fasteners Included	Minimum Embedment[1]		Minimum End and Edge Distance	
	Post Base	Wall Bracket	Post Base	Wall Bracket	Post Base	Wall Bracket
JD3 - e.g. Seasoned, Mixed Australian Hardwood	4 x M10 Coach Screw[2]	4 x M6 Coach Screw[2] or 4 x 14g Type 17 Screw[3]	100 mm	45 mm	End of Joist 50 mm	End of Stud 48 mm
JD3 - e.g. Unseasoned, Mixed Australian Hardwood	4 x M10 Coach Screw[2]	4 x M6 Coach Screw[2] or 4 x 14g Type 17 Screw[3]	125 mm	50 mm		
JD4 - e.g. Seasoned, Mixed Softwood Species	4 x M10 Coach Screw[2]	4 x M6 Coach Screw[2] or 4 x 14g Type 17 Screw[3]	145 mm	50 mm	Edge of Joist 40 mm	Edge of Stud 24 mm
J4 - e.g. Unseasoned, Pine, Radiata, Australia	4 x M10 Coach Screw[2]	4 x M6 Coach Screw[2] or 4 x 14g Type 17 Screw[3]	185 mm	60 mm		

[1] Depth of the threaded portion of the screw into the innermost member.
[2] Material of steel coach screws shall be given in AS/NZS 4291.1, for property classes 4.6 and 4.8.
[3] Material of 14g Type 17 screws shall be given in AS 3566.

Anchoring fasteners for New Zealand

WARNING Engineering design has determined appropriate fasteners for the attachment of the post base and wall bracket to concrete or timber structures designed by others.

While the types of material are defined in the table below, the ability of the supporting structure to provide adequate support to Peak® Aluminium Balustrade system and its fasteners must be independently verified for each installation.

To meet certain balustrade load requirements within AS/NZS 1170.1:2002, purchase the following fasteners. Building codes may vary. Always understand and comply with your local building codes. For further information visit: peakbalustrade.co.nz/compliance

Fasteners for attaching post base and wall bracket to concrete:

Concrete	Fasteners Required		Minimum Embedment[1]		Minimum Edge Distance	
	Post Base	Wall Bracket	Post Base	Wall Bracket	Post Base	Wall Bracket
Minimum concrete strength 25 MPa	4 x Ramset™ WERCS Ankascrew™ anchor, M10 x 100 mm	4 x Ramset™ WERCS Ankascrew™ anchor, M6 x 50 mm	72 mm	39 mm	70 mm	50 mm
	4 x Ramset™ Ankascrew™ anchor, M10 x 100 mm	4 x Ramset™ Ankascrew™ anchor, M6 x 50 mm				

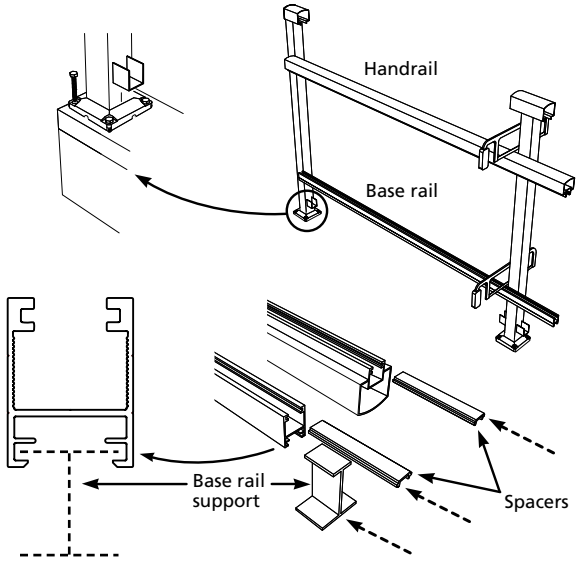
Fasteners for attaching post base and wall bracket to timber:

Timber	Fasteners Required	Fasteners Included	Minimum Embedment[1]		Minimum End and Edge Distance	
	Post Base	Wall Bracket	Post Base	Wall Bracket	Post Base	Wall Bracket
J1	4 x M10 Coach Screw[2]	4 x M6 Coach Screw[2] or 4 x 14g Type 17 Screw[3]	60 mm	40 mm	End of Joist 50 mm	End of Stud 60 mm
J2	4 x M10 Coach Screw[2]	4 x M6 Coach Screw[2] or 4 x 14g Type 17 Screw[3]	75 mm	40 mm		
J3	4 x M10 Coach Screw[2]	4 x M6 Coach Screw[2] or 4 x 14g Type 17 Screw[3]	100 mm	40 mm	Edge of Joist 40 mm	Edge of Stud 30 mm
J4 - e.g. Unseasoned, Pine, Radiata, Australia	4 x M10 Coach Screw[2]	4 x M6 Coach Screw[2] or 4 x 14g Type 17 Screw[3]	145 mm	40 mm		
J5 - e.g. Radiata Pine, Rimu, Douglas Fir, Larch	4 x M10 Coach Screw[2]	4 x M6 Coach Screw[2] or 4 x 14g Type 17 Screw[3]	215 mm	40 mm		

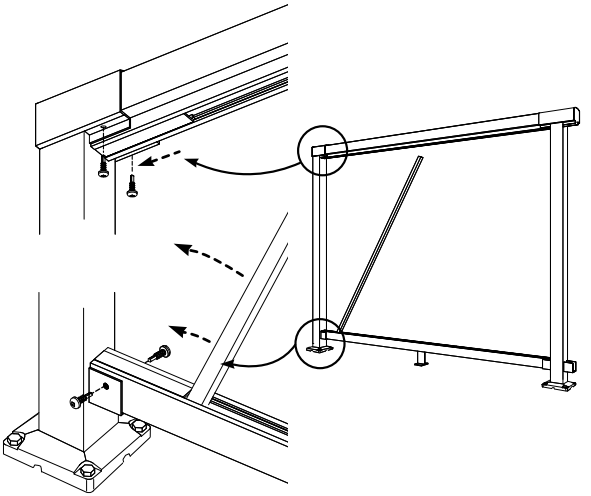
[1] Depth of the threaded portion of the screw into the innermost member.
[2] Material of steel coach screws shall be given in AS/NZS 4291.1, for property classes 4.6 and 4.8.
[3] Material of 14g Type 17 screws shall be given in AS 3566.

BALUSTER INSTALLATION

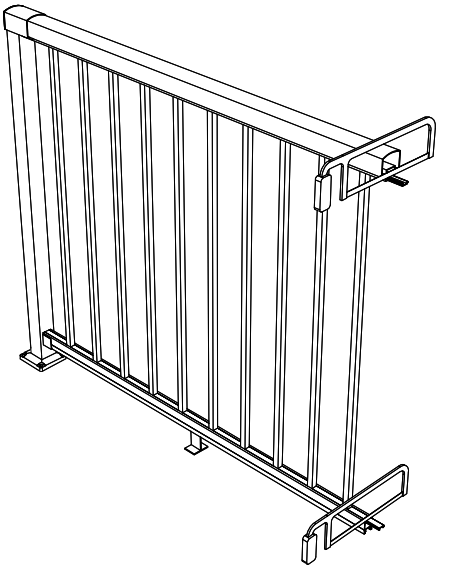
1 Measure and mark the position of all posts (space equally). Fasten the first post in place (see table on page 4 & 5). Ensure that the post is plumb. Temporarily position the second post. Do not secure it yet. Cut the hand and base rails to fit between the posts. Install the base rail support into the bottom channel of the base rail and install all but the last four spacers into each rail.



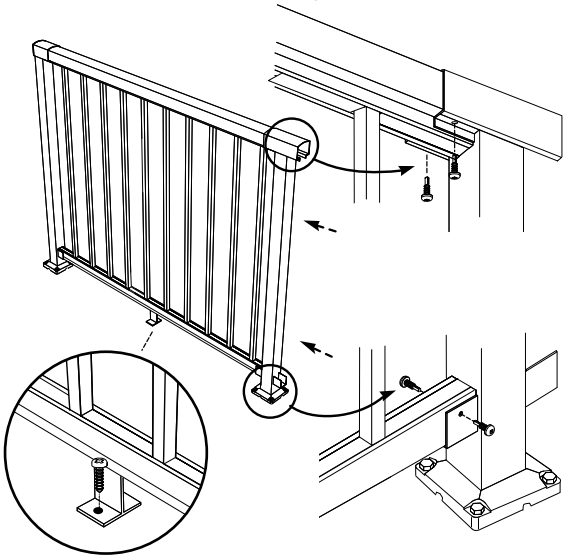
2 Insert the rails into the first post and secure these rails to this post with self-drilling screws. Use the second post as temporary support - do NOT secure the rails to the second post yet. Slide the first spacer in each rail against the first post. Insert a baluster into the base rail and swing the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



3 Remove the second post to install the last few balusters and spacers. Cut the last spacers flush with the ends of the rails. NOTE: to ensure equal baluster 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 (see table on page 4 & 5). 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.

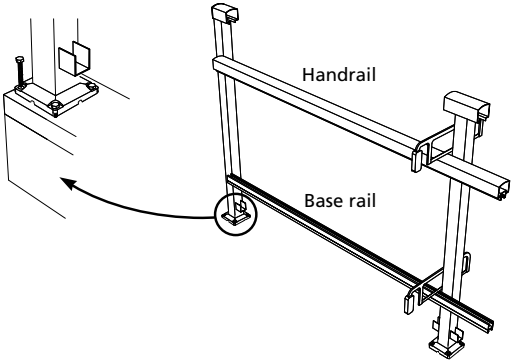


⚠IMPORTANT To ensure that the balusters remain engaged in the rails, you must install a base rail support for each balustrade section. To install the base rail support, insert it into the bottom channel of the base rail (as shown in Step 1), slide it to the centre position and secure it to deck surface using fasteners.

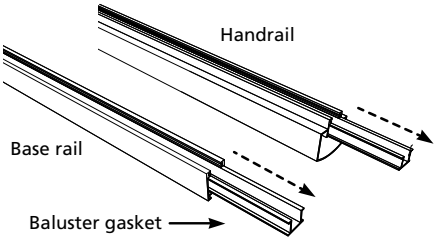
GLASS PANEL INSTALLATION

WARNING Always use two people to handle glass panels. Always lift a glass panel by its sides. Toughened 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 (space equally). Fasten the first post in place (see table on page 4 & 5). 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.

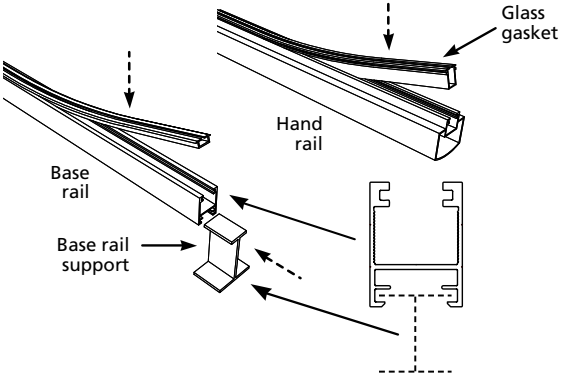


2 Remove the plastic baluster gaskets from both rails.



3 Cut the glass gaskets **(sold separately)** the same length as the rails and drill 3 mm 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.**



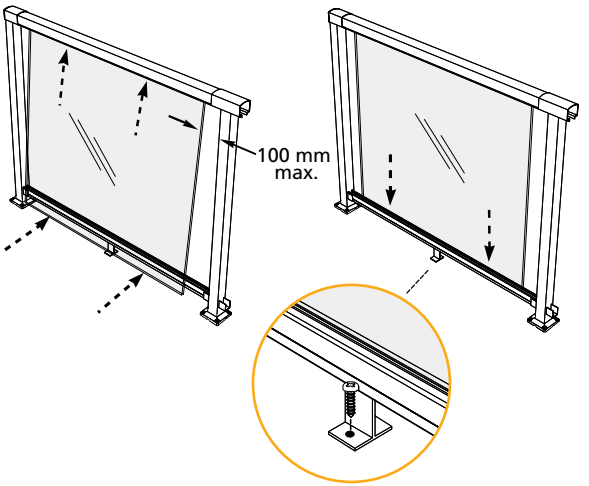
4 Insert the rails into the posts. Position and fasten the second post in place (see table on pg. 4 & 5). Ensure that the post is plumb. Secure the rails to the posts with self-drilling screws *(refer to Step 4 on pg. 7).*

IMPORTANT Ensure that both of 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.

Ensure that the glass is fully seated in the gaskets. Once fully seated, wash away excess soap with clean water.

Repeat Steps 1-4 for each remaining section.



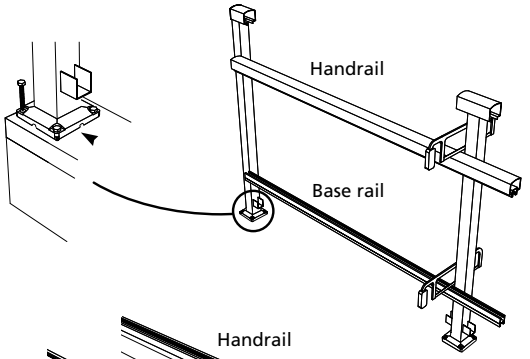
IMPORTANT To ensure that the glass panel remains engaged in the rails, you must install one base rail support for each balustrade section. To install the base rail support, insert it into the bottom channel of the base rail (as shown in Step 3), slide it to the centre position and secure it to deck surface using fasteners.

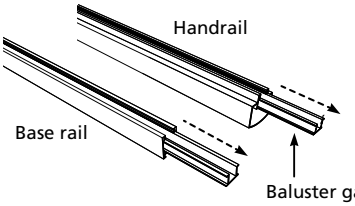
SECTIONAL GLASS INSTALLATION

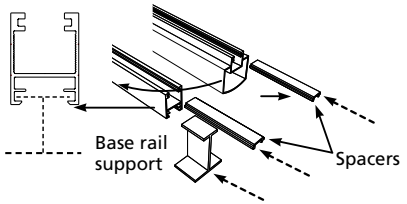
WARNING Always lift a glass panel by its sides. Toughened glass is extremely fragile – do not bump the edges. Always use protective gear including eyewear and gloves when handling glass panels.

IMPORTANT This kit was designed to fit in a 1.8 m balustrade section. If your section is shorter than 1.8 m, you will need to cut the spacers or remove glass panels accordingly. The opening between glass panels must never exceed 100 mm. The opening between a post and a glass panel must never exceed 100 mm.

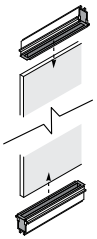
1 Measure and mark the position of all posts (space equally). Fasten the first post in place (see table on pg. 4 & 5). Ensure that the first post is plumb. Temporarily position the second post. Do not secure it yet. Cut the hand and base rails to fit between the posts. Install the base rail support into the bottom channel of the base rail. Insert a spacer into the handrail and another spacer into the base rail. Remove the baluster gaskets from both rails and install the base rail support into the bottom channel of the base rail.







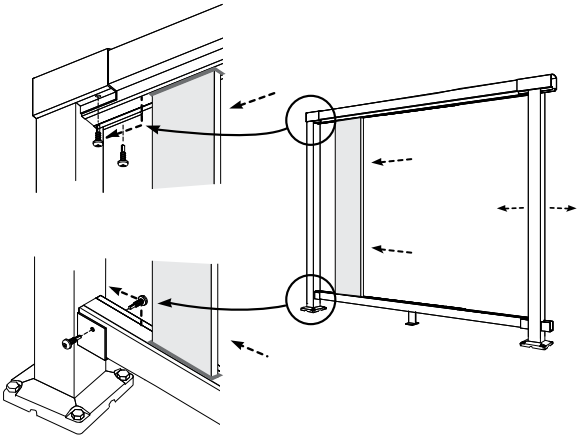
2 Attach the glass fittings to the top and bottom ends of each glass panel.



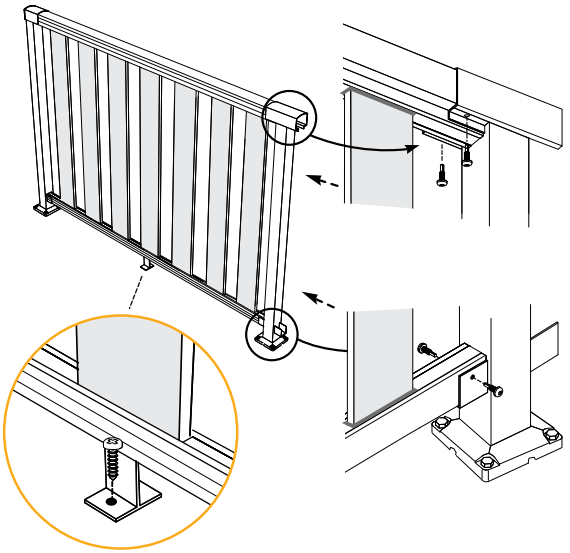
3 Insert the rails into the first post and secure these rails to this post with self-drilling screws. Use the second post as temporary support. Do not secure the rails to the second post yet.

Slide the spacer in each rail against the first post. Remove the second post and slide a glass panel (with fittings attached) into the rails until touching the spacers.

Slide the next pair of spacers and a glass panel 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 (see table on pg. 4 & 5). 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.



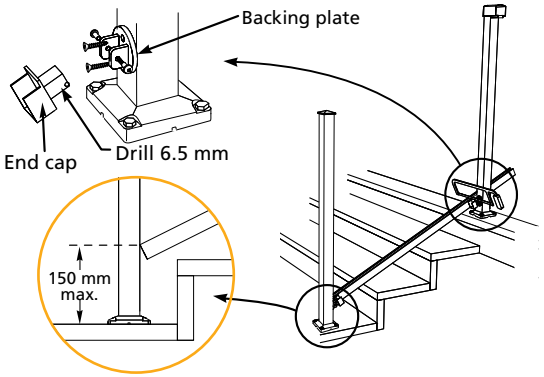
IMPORTANT **To ensure that the glass panels remain engaged in the rails, you must install a base rail support for each balustrade section. To install the base rail support, insert it into the bottom channel of the base rail (as shown in Step 1), slide it to the centre position and secure it to deck surface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

STAIR BALUSTER INSTALLATION

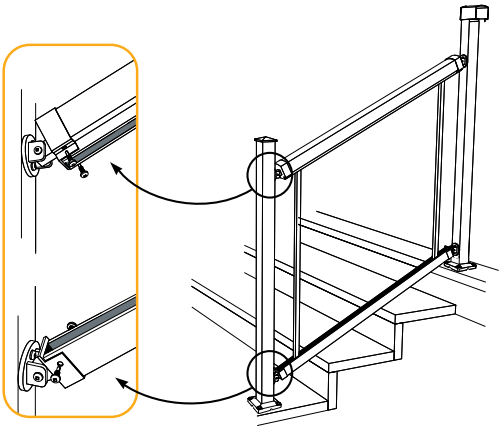
⚠ IMPORTANT Always understand and comply with your local building codes for handrail height, maximum opening below the base rail, and other specified requirements. **NOTE:** The stair balusters and spacers are different from the regular balusters and spacers. Glass Panels and Sectional Glass Panels cannot be used on stair applications. Stair balusters must be used for stair applications.

1 Use Universal Brackets (UBs) at each post. Drill 6.5 mm holes through the end caps and secure to the backing plates with UB bolts. Position the base rail at the required height above the nose of stair treads. Position posts to meet base rail less than 150 mm above base. Fasten the top post in place (see table on pg. 4 & 5). 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 UBs on the posts to align with the base rail. Remove the base rail and mark the locations of the UBs on the posts. Drill 5.5 mm pilot holes into the posts and use the flat head screws to attach bottom UBs 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 UBs onto the handrail. Use two **stair balusters** to position the handrail. Mark the locations of the UBs on the posts. Remove the handrail from position and the UBs from the handrail. Drill 5.5 mm pilot holes into the posts and use the flat head screws to attach the UBs to the posts. Temporarily move the bottom post to place the hand and base rails into the UBs. Secure the UBs to the rails at the bottom post only.



3 Place a baluster into both rails near the bottom post - ensure that the baluster is plumb and 100 mm or less from the post. Starting from the bottom end of each rail, measure and cut the **end spacers** then remove the baluster **(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 balusters and stair spacers (step 2 of baluster installation). Cut and install the last spacers flush with the ends of rails. The last baluster must also be 100 mm or less from the top post **(Fig. 3)**.

Fig.1

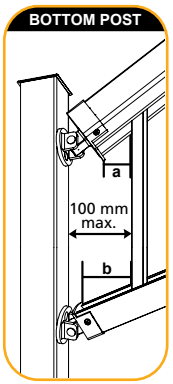


Fig.2

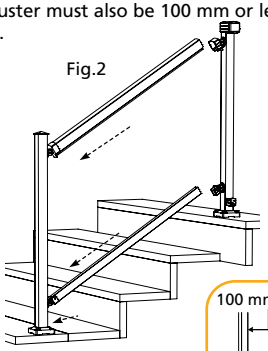
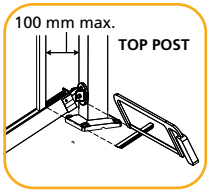
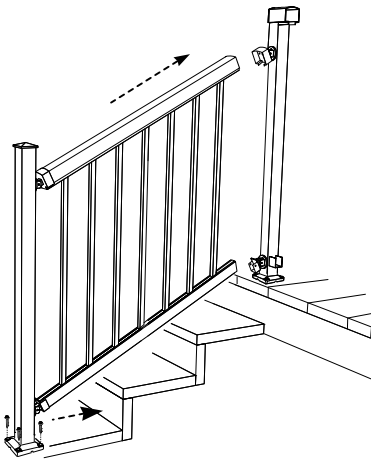


Fig.3



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 balusters and the posts.

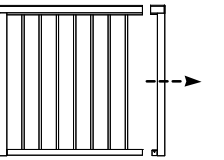
4 Place the bottom post back into position and ensure that the rails are fully inserted into the UBs at the top post. Secure the hand and base rails to the UBs at the top post using self-drilling screws as shown in step 2. Fasten the bottom post to the landing or last stair tread (see table on pg. 4 & 5) - ensure that the post is plumb.



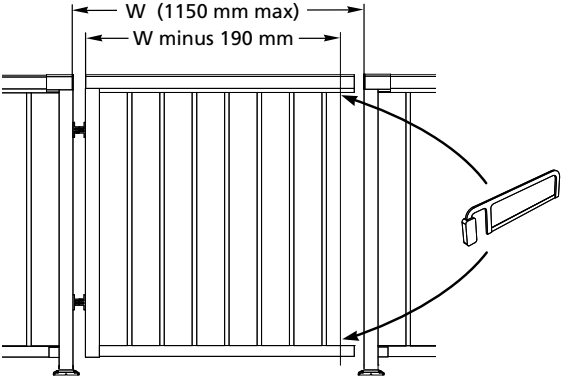
GATE INSTALLATION

1 Gate opening (W), must not exceed 1150 mm. Remove the latch side of the gate **(Fig. 1)**. Cut the top and bottom gate rails 190 mm shorter than the gate opening **(Fig. 2)**. Align the top rail of the gate with the handrails. Drill 4 mm pilot holes into the post and use coach screws to attach the gate hinges 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.