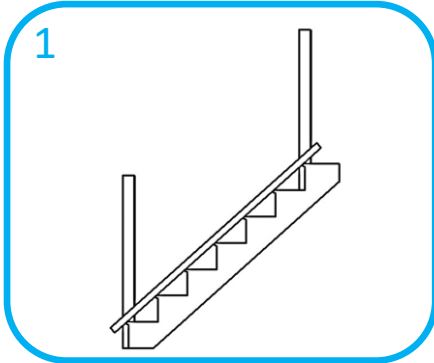
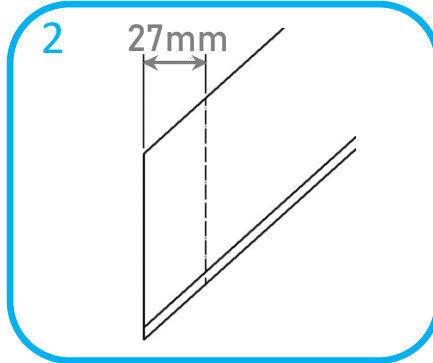


## Glass Panel Rail System with Slimline Connectors

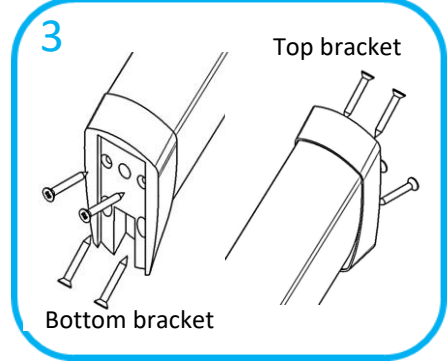
## Stairs



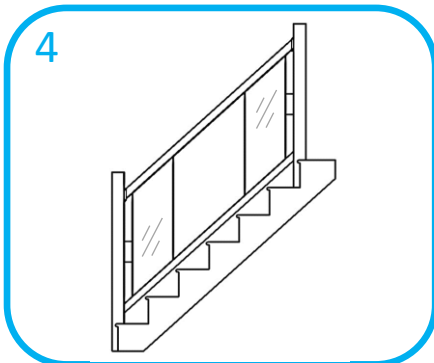
1 Place base rail on stair nosing and offer up to newel posts. Mark and cut to length. Fix base rail to top of string by drilling clearance hole through bottom of base rail groove and secure with suitable screws, ensuring the screw heads are sunk below groove face



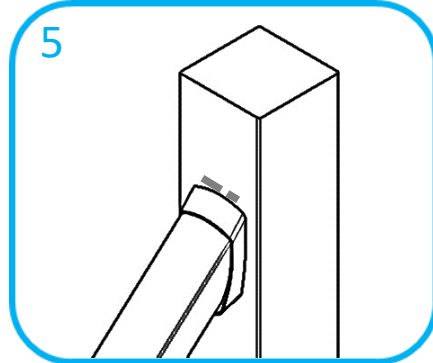
2 Place handrail on stair nosing and offer to newel posts. Mark locations then reduce length by 27mm to accommodate handrail brackets



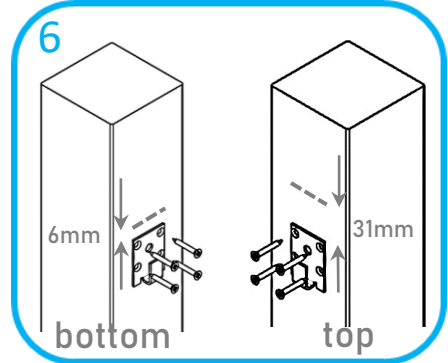
3 Offer bottom bracket onto handrail end ensuring top of handrail is up against top of bracket face. Drill pilot holes through screw holes and secure using screws supplied. Repeat to install top bracket on other end



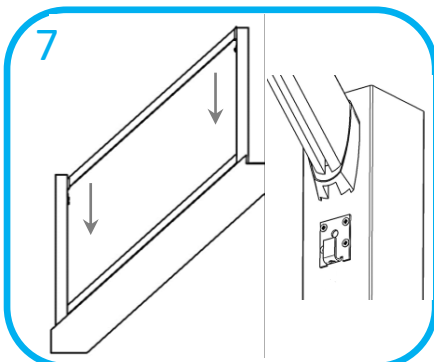
4 To establish handrail location, place a rake glass panel in base rail groove at bottom and top of stairs, using a timber off cut to create a gap between panel and post. Use spirit level to ensure panels are vertical. Offer handrail assembly over panel tops. This is best done with 2 people



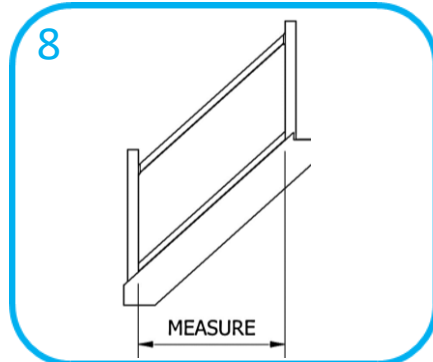
5 With handrail fully down onto top of glass panels, mark locations of bracket tops on top and bottom newel post faces. Remove rail and panels



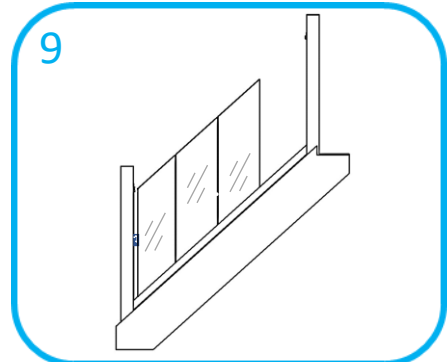
6 Measure down 6mm from mark on bottom post and mark. Offer top of fixing hook to mark, ensuring it is central to newel face, drill pilot holes through screw holes and fix using screws supplied. For top newel, measure down 31mm from top bracket mark and secure fixing hook as previous



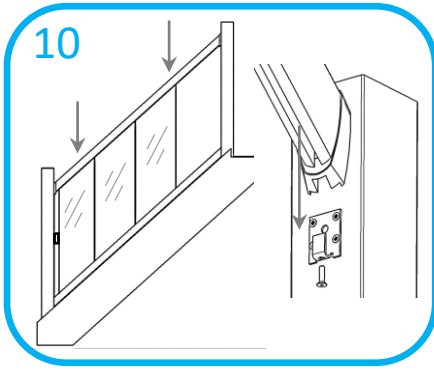
7 Check handrail fit by offering handrail assembly between newel posts and onto fixing hooks. Handrail should be parallel to base rail



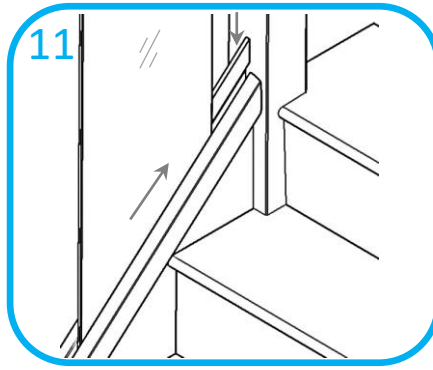
8 To work out how many panels are required, measure horizontal distance between posts. Measure width of panel and add 50mm. Divide horizontal distance by panel width + 50mm. Round figure down to next whole number.  
**Example** – horiz distance 1242mm, panel 300mm+50mm = 350mm.  $1242/350 = 3.54$ , rounded down to 3 (panels)



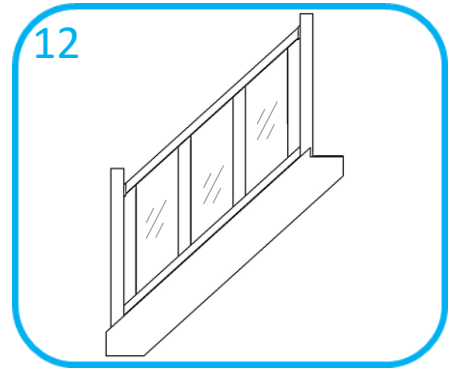
9  $3 \text{ panels} \times 300\text{mm} = 900\text{mm}$ . Subtract this from  $1242\text{mm} = 342\text{mm}$ .  $3 \text{ panels will have } 4 \text{ gaps so } 342\text{mm}/4 = 85.5\text{mm gaps}$ . Maximum gap allowed is 99mm. With panel quantities and gaps established, remove handrail assembly. Run bead of clear silicon into bottom rail groove and offer panels into groove resting them against offcut at bottom post. Place piece of cardboard between each panel for protection



Run bead of clear silicon in handrail groove. Carefully offer handrail assembly between posts and over top of glass panels until the brackets click into fixing hooks. Lock brackets in place on underside of bracket using bolts supplied

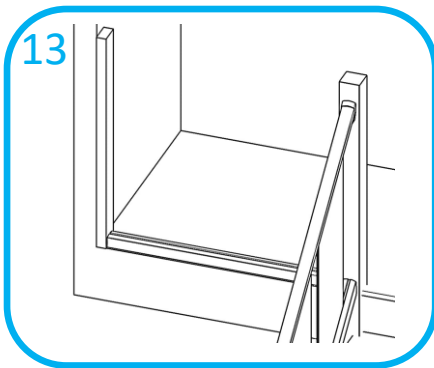


Working from top post down, take handrail and base rail fillets which have been cut to suit the gap. Fit into groove using glue and screwing through (you will need to drill clearance holes through fillet) or use nail gun with suitable size nails. Push panel to fillet ends, check vertical and fix next pair of fillets

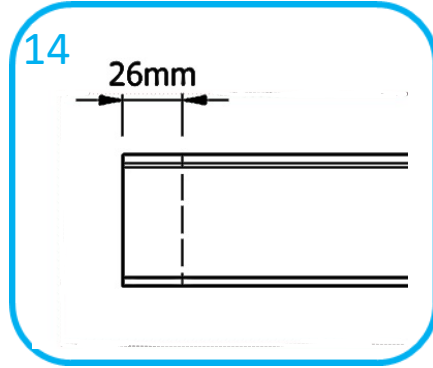


Repeat down the stairs until all panels and fillets have been fixed. Fill any screw/nail holes with filler and sand smooth.

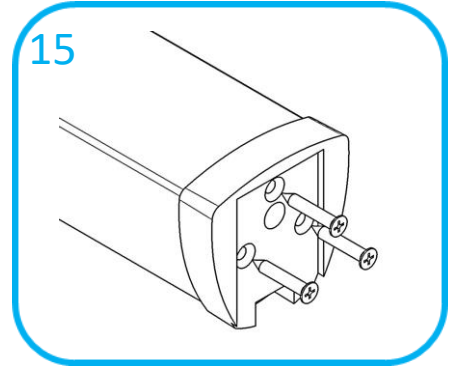
## Landing



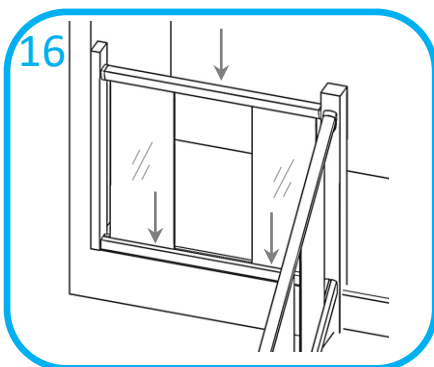
Install half newel post to wall at same height as post at top of stairs. Measure between posts and cut and fix base rail to floor, ensuring screw heads are below groove face



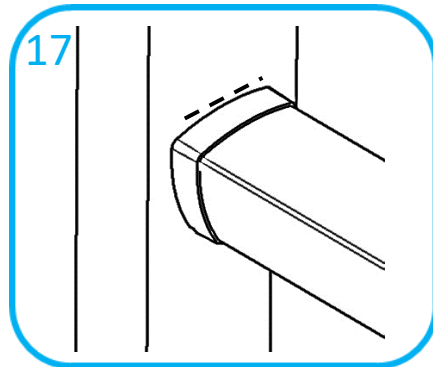
Measure and mark handrail. Reduce length by 26mm to accommodate brackets. *NB on a return landing, measure and mark the handrail and mitre both rail ends. Glue and dowel the mitred ends then cut 13mm off both open ends*



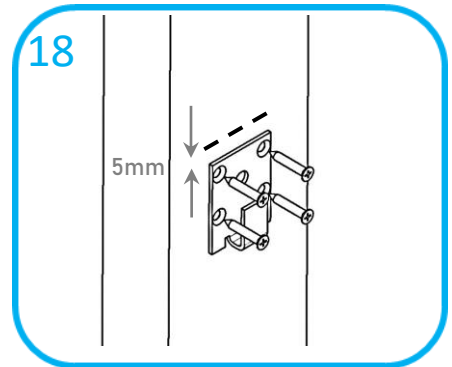
Offer landing brackets to each end of the handrail, drill pilot holes and fix using screws supplied



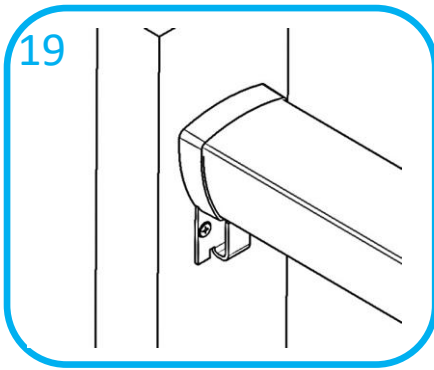
To establish handrail location, place 2 landing panels in base rail groove at each end of the landing run. Offer landing handrail assembly between posts and over top of panels until fully down. This is best done with 2 people



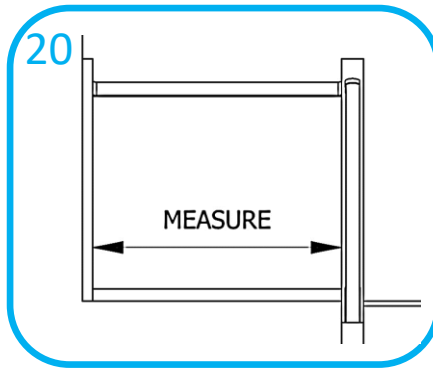
With handrail fully down onto panel tops, mark the location of the bracket tops onto both newel posts. Remove rail and panels



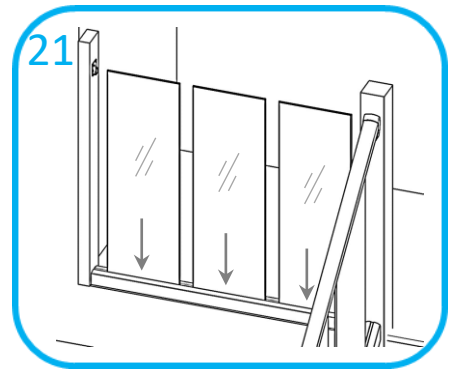
Measure down 5mm from mark on both posts and mark. Offer top of fixing hook to mark, ensuring it is central to newel face, drill pilot holes through screw holes and fix using screws supplied. Repeat for both posts



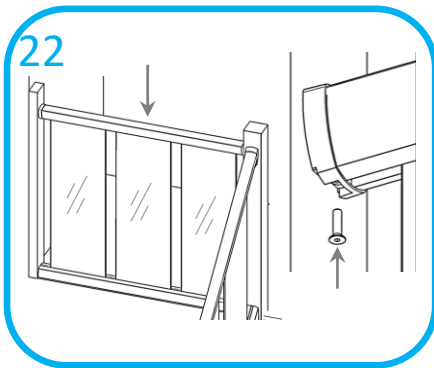
19 Check handrail fit by offering handrail assembly between newel posts and onto fixing hooks. Handrail should be parallel to base rail.



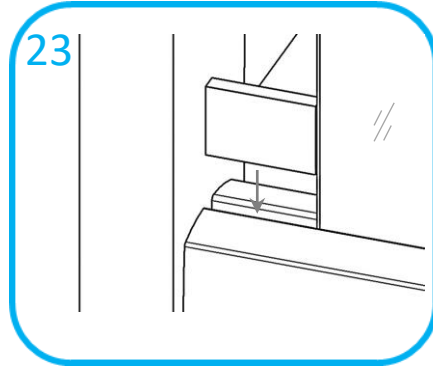
20 Measure distance between landing newel posts. To work out panel quantities and spacings, follow procedure highlighted in Figs 8 & 9. for the stairs



21 Remove handrail. Run bead of clear silicon along base rail groove and offer glass panels into groove



22 Run bead of clear silicon along handrail groove. Carefully offer handrail assembly between posts and over top of glass panels until the brackets click into fixing hooks. Lock brackets in place on underside of bracket using bolts supplied



23 Working from one side, take handrail and base rail fillets which have been cut to suit the gap. Fit into groove using glue and screwing through (you will need to drill clearance holes through fillet) or use nail gun with suitable size nails. Push panel to fillet ends, check vertical and fix next pair of fillets. Fill any screw/nail holes with filler and sand smooth.

## System info

- Suitable for pitches 40 – 43 degrees
- Max centres between stair posts is 3600mm
- Max centres between landing posts is 2400mm
- Min handrail height is 900mm for stairs and landing
- No gaps greater than 99mm allowed within the balustrade
- For domestic installs only