Clarity

Fitting Instructions

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Clarity fitting instructions

Clarity is a contemporary range of stair balustrade designed to inspire.

As a modular system Clarity provides the flexibility to blend components from across the range to create a stylish, bespoke staircase and a focal point for any home,using glass panels for striking effect.

Clarity has been designed not only for its quality and style, but also for its simplicity to install. All components have been independently tested to conform to UK building regulations, are design registered and patent pending.

Cheshire Mouldings **Clarity** stair balustrade is a UK and International Patent and Design Registration pending product, blending traditional turnings with modern materials. Hand and base rails are assembled traditionally, then using our unique glass brackets the innovatively shaped glass panels are held in place, with timber fillets to finish the installation off. These components once assembled form an innovative balustrade solution that can be adjusted to suit any staircase pitch between 38° & 45°.

Please Note;
Cheshire Mouldings **Clarity** is a factory pre finished system, therefore when handling and installing please take extra care in order to not damage the finish.

Please Check;
All components should be inspected BEFORE installation commences for any damage, as Cheshire Mouldings cannot be held responsible for any damage caused during installation.

Clarity is designed for use in domestic situations and will fit most closed stair cases with hand rail heights of 900mm on the rake and 900mm on the landings.

Clarity is manufactured to precise tolerances, however please be aware that timber is a natural product and some distortion, expansion and sometimes shrinkage can occur.

If your staircase measures more than 3.7m between inside newel faces, then you will require an Intermediate Newel Post. The Newel base cut off point will be 150mm, all other fitting instructions will apply.

Clarity fitting instructions

Existing Newel Bases

Important;
All newel bases must be cut off squarely in order for the newel posts to sit perfectly level.
Sand if required to achieve correct level, Once level they can be chamfered to improve the aesthetic.
Please note that the newel connectors do not allow for any height adjustment, so newels must be set at the correct height to achieve building regulations standards.

Clearview can be installed using the existing staircase newel bases.
If the existing newel bases are to be used, they must be positioned central to the stair string and front edge of the riser concerned, and must be a minimum of 81x81xmm square, if they measure less, the sides will have to be built up using suitable material.
They must also have enough material once cut, to achieve the dimensions shown plus the baserail height, remembering to cut the excess from the top of the newel base (Fig. 2 & 3).

Prior to cutting the newel bases down to the correct height, the clearview baserail must be temporarily fitted to the string.
First lie the baserail on top of the tread nosings and push it up against the newel bases, then mark the vertical lines and cut achieving a good finish (Fig. 1)

Rest the cut baserail on top of the string, temporarily fix it in place at this stage using tacks or double sided tape.

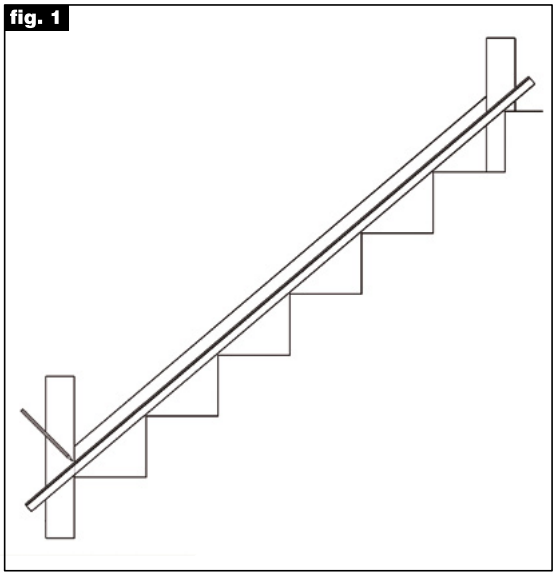
fig. 1

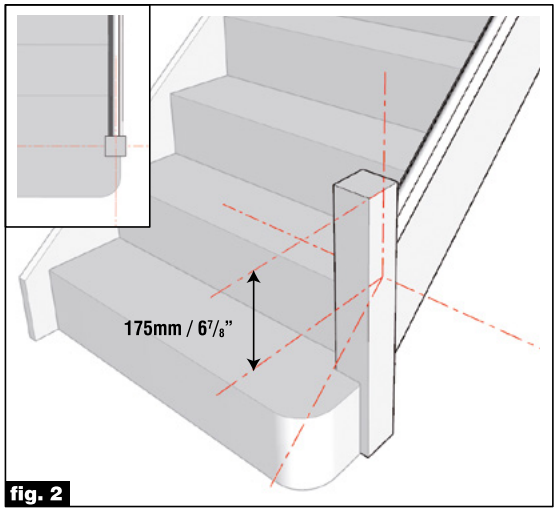

fig. 2

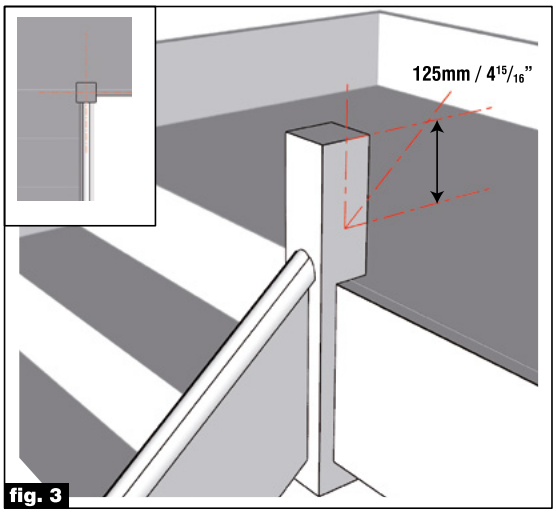

fig. 3

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Clarity fitting instructions

New Newel Bases

Important;
Before removing any existing Newel Bases, please check to ensure they are non-structural.
If fitting new newel bases, they must be installed centrally to the stair string and front edge of the riser concerned (fig. 2 & 3).
Prior to fitting to the string, please follow the following instructions to cut down the newel bases to the correct height, ensuring you cut any excess from the bottom of the newel base.

Bottom Newel Base

Using the top edge line of the baserail that you marked on the newel base prior to cutting, now draw a vertical line up through the centre point of the newel base, making sure to intersect the baserail line. Now measure up 175mm from the intersecting point and mark a horizontal line (fig. 2). Then finally measure the remaining distance to the top of the newel and remove this from the bottom of the newel.

Top Newel Base

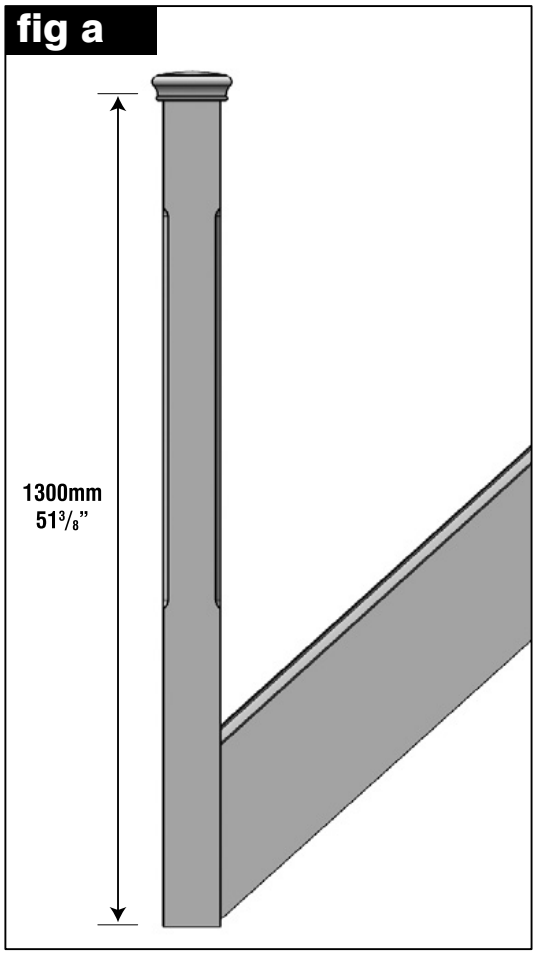
The top newel base should be marked out and cut in the same way as the bottom newel base, however the 175mm dimension should be replaced with 125mm (fig. a)

Newel Posts

Important;
Before you start, slide the spigot newel post into the newel base to make sure it fits snug. If the newel is too tight, the spigot on the bottom of the newel must be eased so it slides into the base, this is done by using sandpaper to reduce the taper on the spigot.
Please DO NOT try to force the newel post into the base.
All drilling operations should be accurate, straight and level.

For existing bases only, find the centre of the newel base top by drawing diagonal lines from corner to corner and using the intersecting point, from the top and centre of the newel base, drill a hole 50mm diameter x 100mm deep (using our 50mm spur drill) to take the newel spigot.
Repeat this step for the top newel assembly.
For one piece newel posts, fit the newel in the same way as a newel base, however make sure the newel post is cut down to a suitable height in order to accept the handrail.
Generally the bottom newel would be cut down to a length of 1300mm to give enough clearance for the handrail and newel cap.
Repeat for the top newel post. You can now fix the clarity baserail permanently to the string.

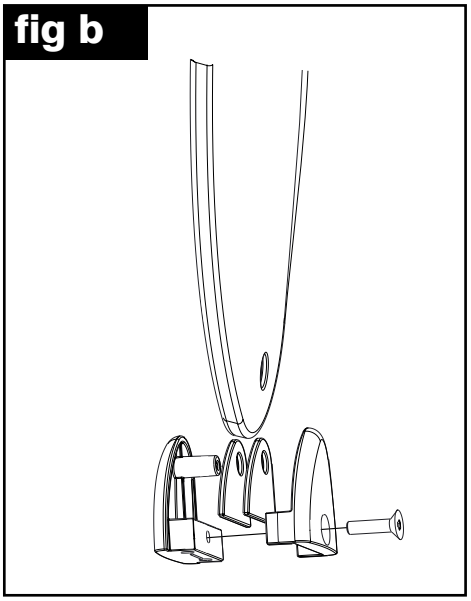
fig a



Clarity fitting instructions

Handrail Height & Glass Panel Assembly

fig b



Assembly of a glass panel is very simple,

Take one of the glass brackets and assemble as shown (see fig b)

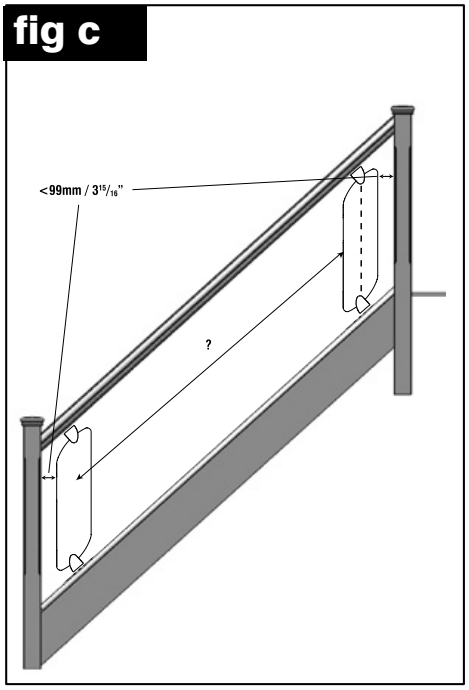
Note: That the curve of the bracket sits facing the curve of the glass panel please see fig 2 for a visual.

Using the fixings provided, take the other half of the bracket and temporarily secure in place on the opposite side of the glass panel, also making sure the rubber gasket is present. Repeat this at the other end of the glass panel, using another bracket.

With the glass panel and fixings in place hold the glass panel up to each newel post at the top, bottom and intermediate newel post (if required) of the staircase and locate the required height of the handrail by resting the handrail over the top of the glass panels. (this is a two man job)

Lay the handrail onto the glass panel brackets and mark the height onto the newel posts. (see fig c)

fig c



Glass Panel Assembly and Positioning

With the handrail and baserail fixed in place, you must now install a glass panel at the top and bottom of the staircase, plus either side of any intermediate newels you may have installed using the 99mm spacing as before (Fig. c).

Now in order to space the remainder of the glass panels evenly, measure the distance in mm between the centre points of any 2 panels/brackets already fitted.
Now divide this number by 385 and round up to the nearest whole number, then divide the original measurement by the whole number and this is your exact centre spacing measurement.
Always make sure the centre measurement is no more than 385mm.

Example - 1850mm between centre points of panels divided by 385mm = 4.80, rounded up to 5, then take the centre spaced measurement 1850mm divided by 5 = 370mm which is the exact spacing measurement for 4 more panels. (See fig c)

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Installing the handrail

Once the handrail has been cut to the required length and at the desired angle, measure and mark the centre of the handrail. It is critical these measurements are correct to ensure an accurate fit. Make a note of the 1/2 measurement of B. **See fig d**

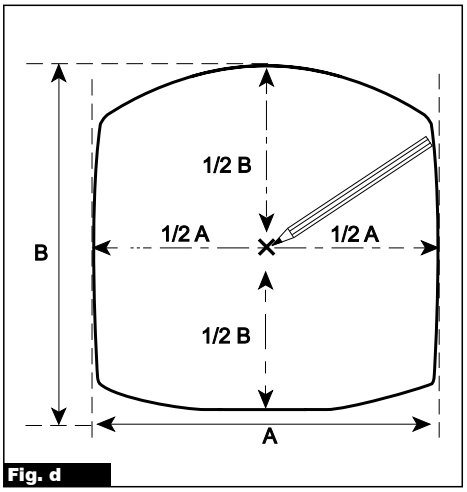

Fig. d

On your mark drill a ø12mm hole 10mm deep followed by a ø7.5mm pilot hole at 65mm deep (mark your drill piece with a piece of masking tape as before). **See fig e**

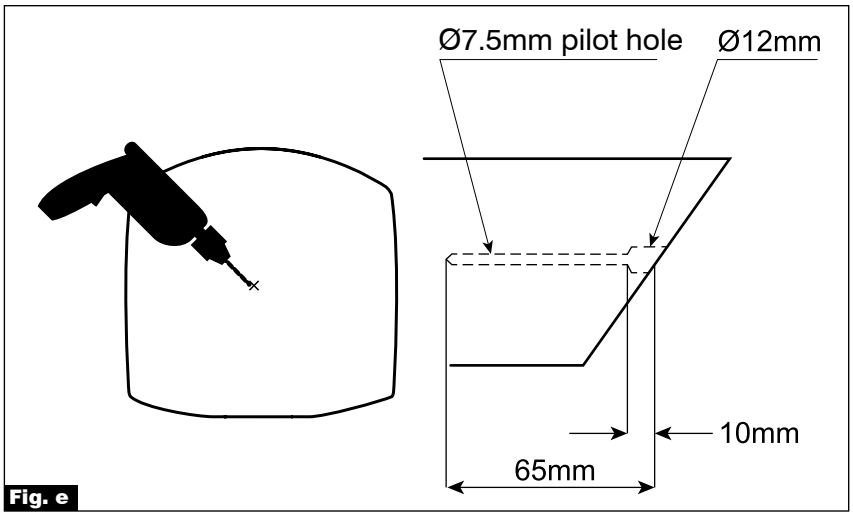

Fig. e

Clarity fitting instructions

Next you will need to measure and mark the points in which to drill into your newel post to allow your handrail to fit in place. See fig f

Firstly you will need to find measurement D on the front face on the newel (side of the newel joining to the handrail) to do this take your measurement from before (your handrail height (1/2 of B from Fig d) and measure down your newel post (from the mark where the top of your handrail will sit) to the same length and mark, continue this mark horizontally around your newel post onto the side facing into the stairs.

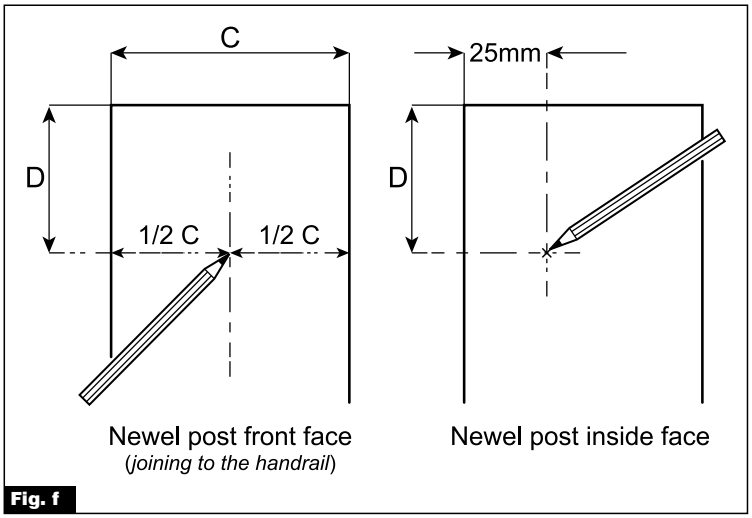

Fig. f

Now to find measurement C (this is the centre of the width of the newel) Mark this along the horizontal line just drawn.

Move to the side of the newel post facing into the stairs along your horizontal line measure 25mm from the edge of the newel (this is the edge that is joining to the handrail) and mark.

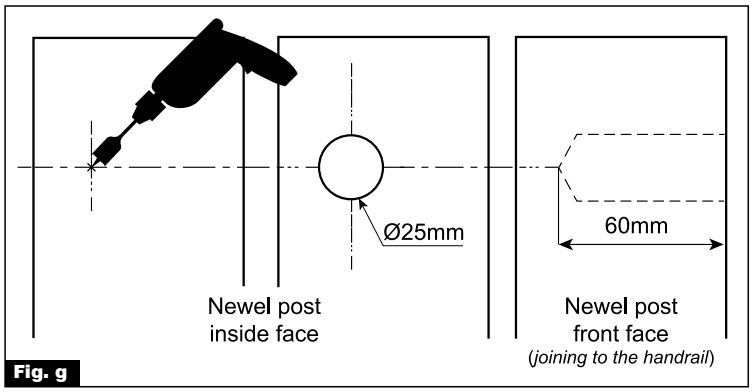

Fig. g

DRILLING NOTE: Take all Safety Precautions when drilling

First on your newel post on the side facing into the stairs on your mark take a ø25mm drill piece and drill a 60mm hole ensuring a straight level hole. (mark your drill piece with a piece of masking tape as before). See Fig g

Next on the front face joining the handrail on your mark drill a ø12mm hole which will intersect the larger hole you have just drilled. See Fig h (ensure holes are clear of debris).

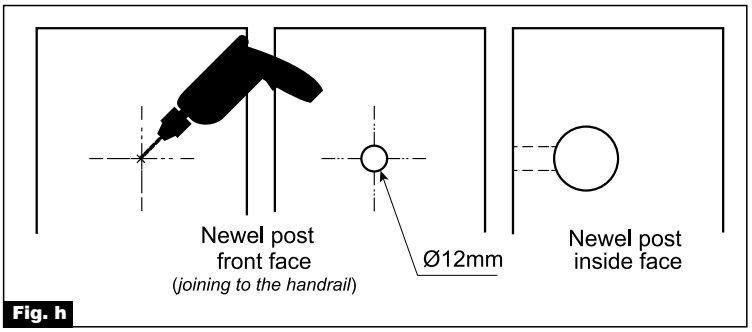

Fig. h

Repeat for the other end of your hand rail.

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Once both ends have been fitted with the universal fixing brackets you are ready to fix it to your newel post.

First of all take your hand rail with one of you at the top and one at the bottom, Slot the pivoting brackets in to the hole on both ends once the handrail is in place take your locking nuts and place into the hole facing into the stairs and hand tighten using a 5mm hex key. See Fig i

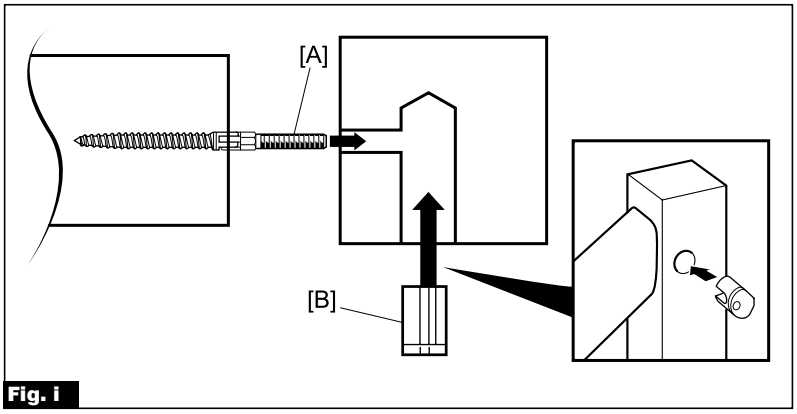


Fig. i

Finish of by gluing in your cover buttons in all sections of your newel posts and glue on your newel cap.

Remaining Glass Panel Assembly

With the handrail and baserail fixed in place, you must now install a glass panel at the top and bottom of the staircase, plus either side of any intermediate newels you may have installed using the 99mm spacing as before (Fig. j).

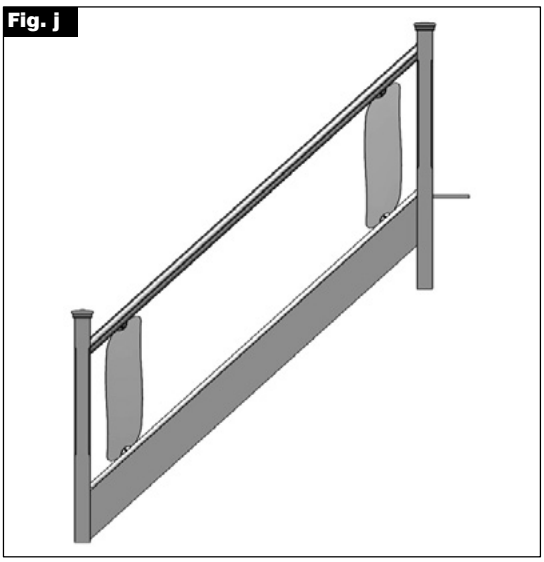


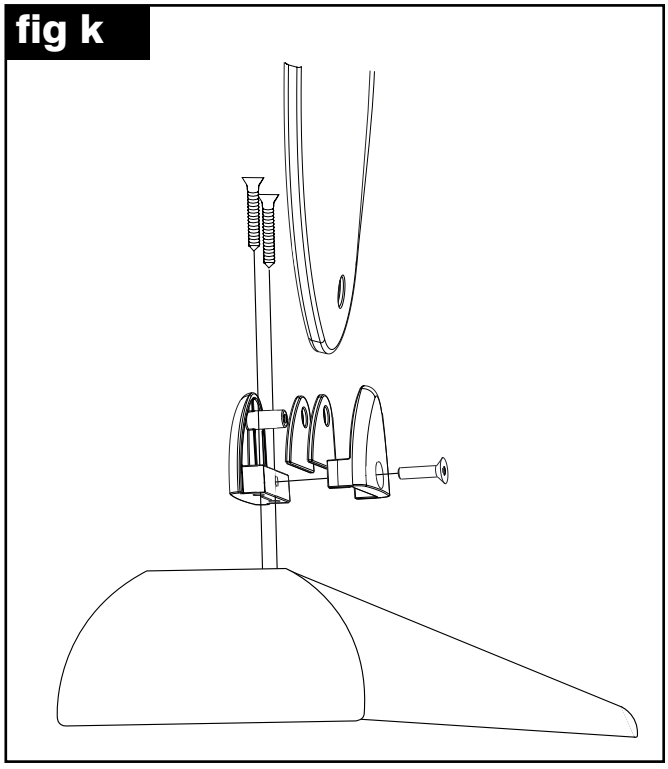
Fig. j

Now in order to space the remainder of the glass panels evenly, measure the distance in mm between the centre points of any 2 panels/brackets already fitted. Now divide this number by 385 and round up to the nearest whole number, then divide the original measurement by the whole number and this is your exact centre spacing measurement.
Always make sure the centre measurement is no more than 385mm, if it is you have calculated incorrectly and will need
one more panel installed to achieve the correct spacing.

Example - 1850mm between centre points of panels divided by 385mm = 4.80, rounded up to 5, then take the centre spaced measurement 1850mm divided by 5 = 370mm which is the exact spacing measurement for 4 more panels.

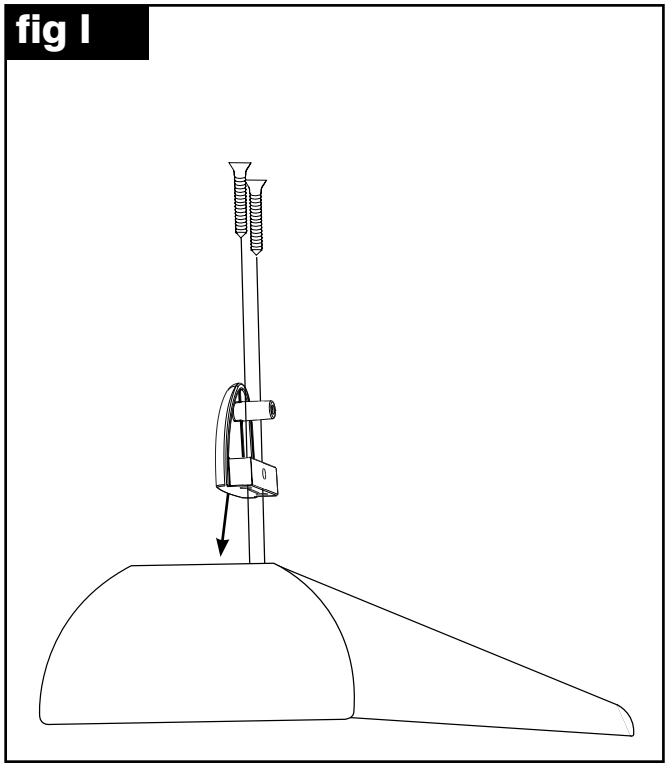
Clarity fitting instructions

fig k



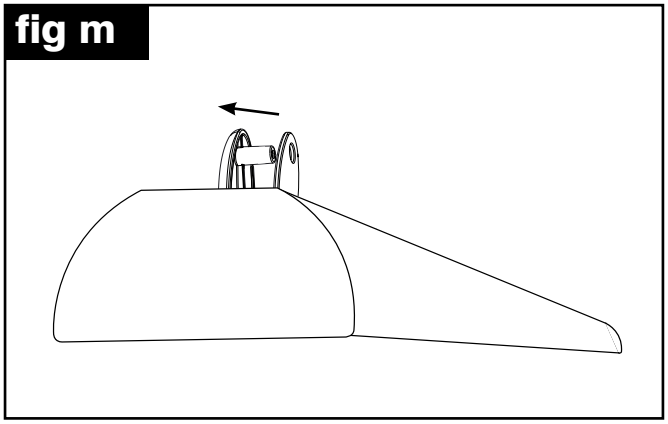
To fit your brackets to your handrail and baserails, you will need to fit these at the same time for each of your panels, an exploded view is above, but please see all steps for accurate and precise fittings.

fig l



To fit your brackets to your handrail and baserails, Take the section that screws to the rail this will have 2 screw holes in the top/bottom (depending on the way round you have it) and align the centre point of the bracket to the edge of the measurement (you have taken in the Glass Panel Assembly and Positioning section in fig l), mark the two holes and drill a pilot hole to 35mm deep and insert the screws provided.

fig m



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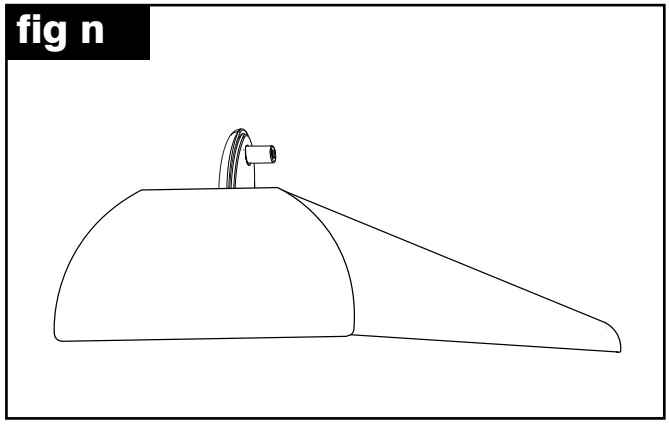
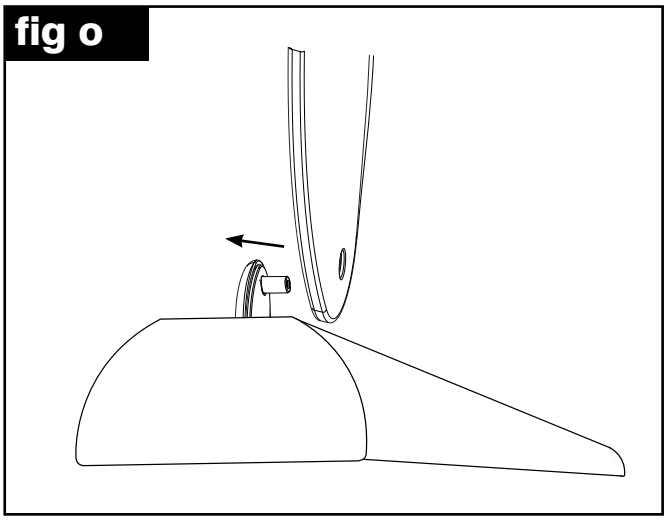


Slide your rubber gasket onto the bracket that you have fitted to your rail, ensuring that it is the correct way round.

Clarity fitting instructions

fig o



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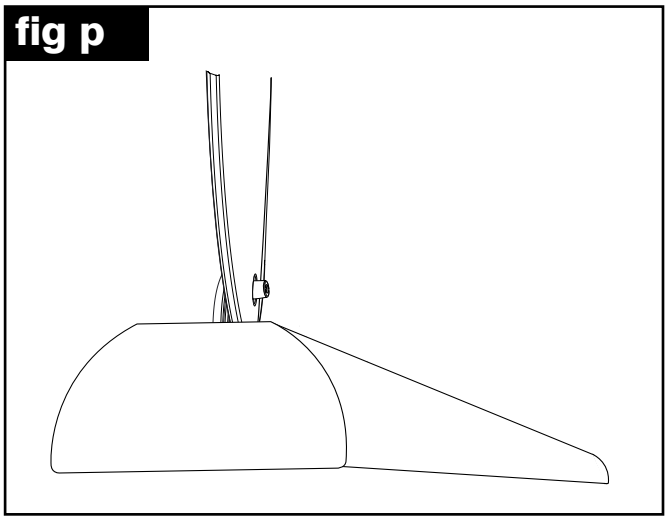
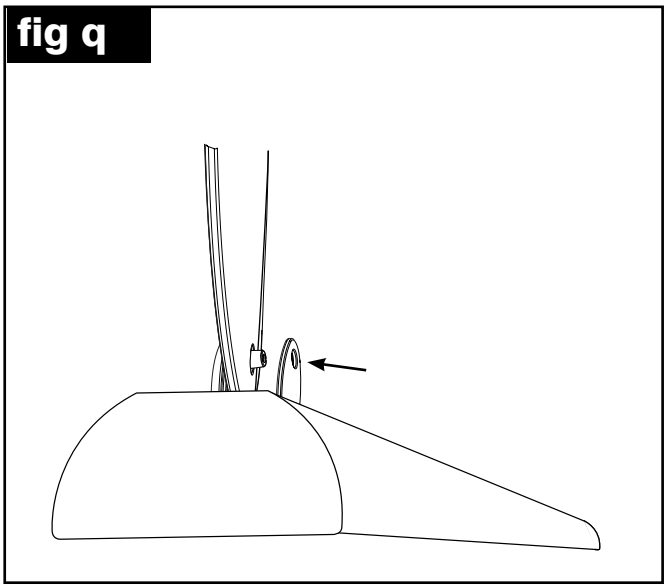


Take your glass panel and line it up over your two bracket and slide it up to sit flush next to your rubber gaskets on both the top and the baserail.

fig q



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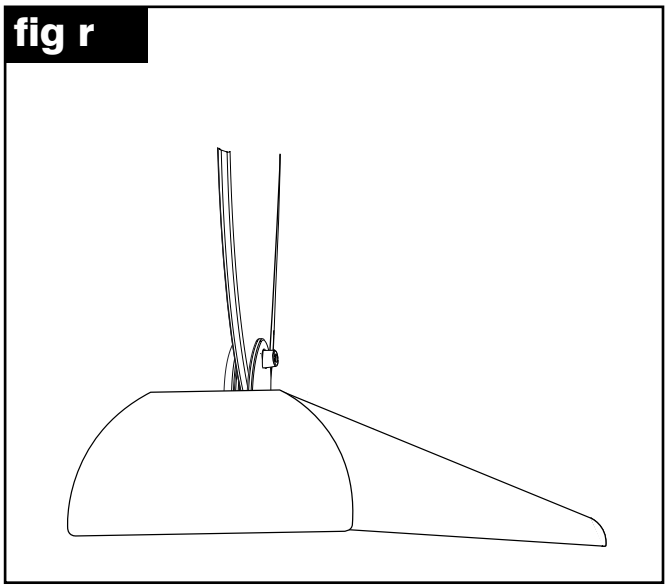
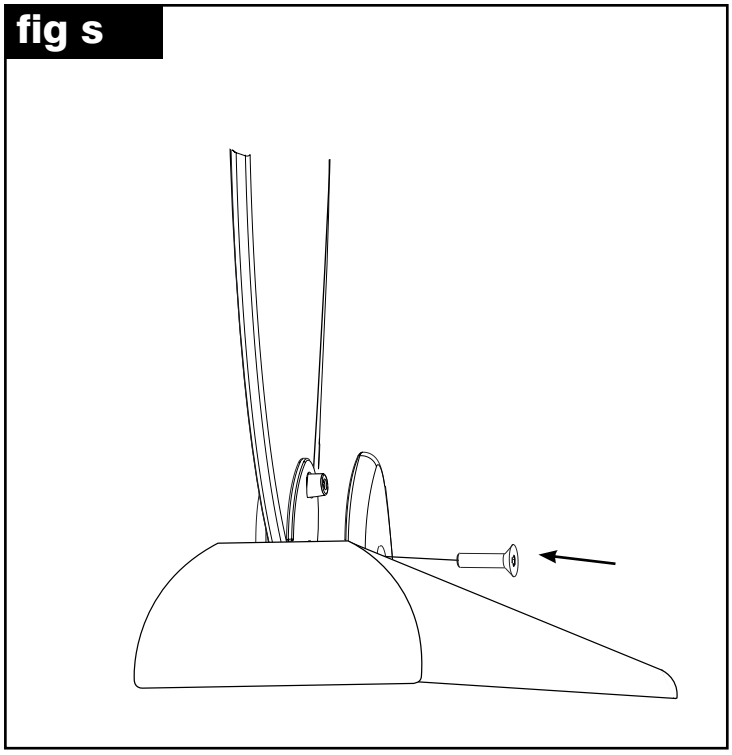


Slide your other rubber gasket onto the bracket ensuring that it is the correct way round and sit it flush to the glass panel.

Clarity fitting instructions

fig s



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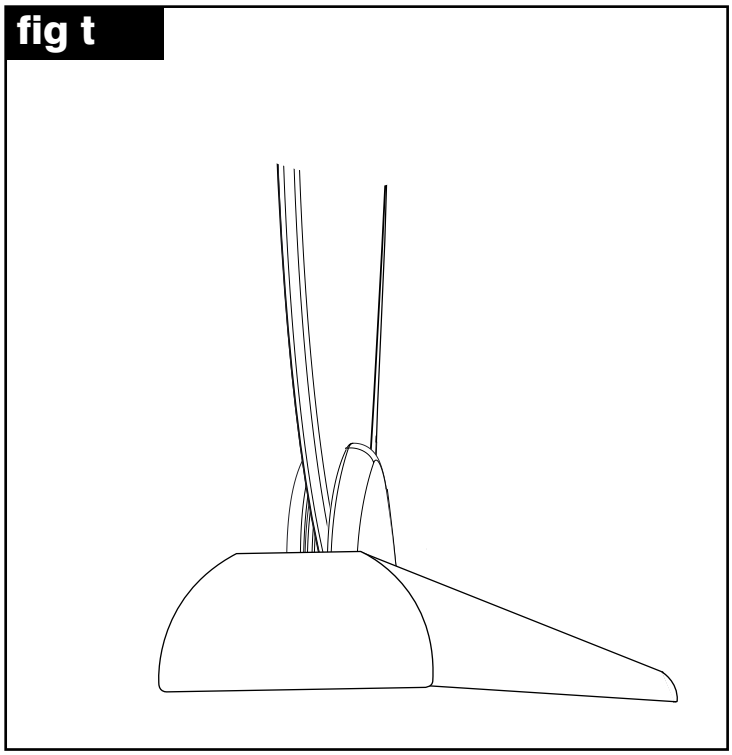
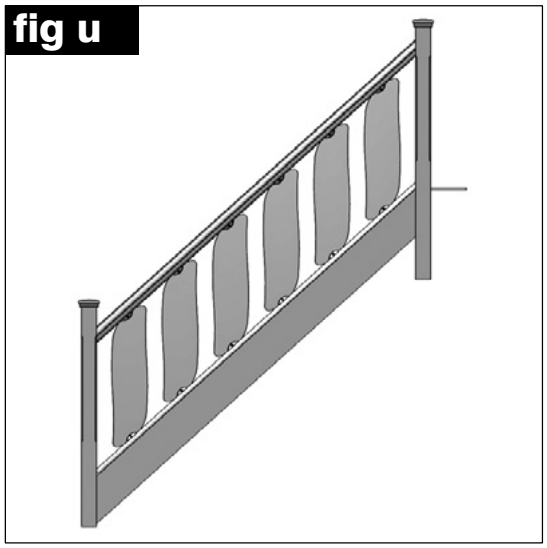


Take the fixing screw and insert it into the bracket on both brackets and tighten.
Once tightened your panel will be secure repeat these stages for each glass panel and bracket assembly.

fig u



For Landings ensure that the distance between panels is no more than 99mm and that each panel is vertically straight.