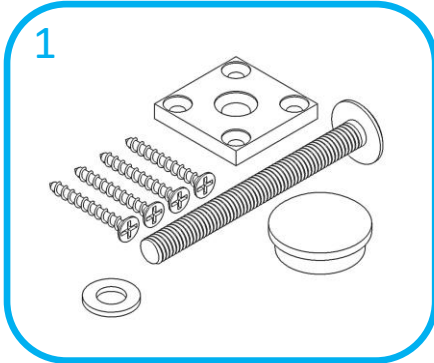


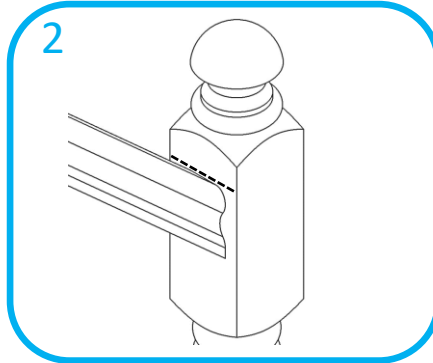
Rail to Newel Fitting Kit

FITTING INSTRUCTIONS – Rail to Newel Fitting Kit

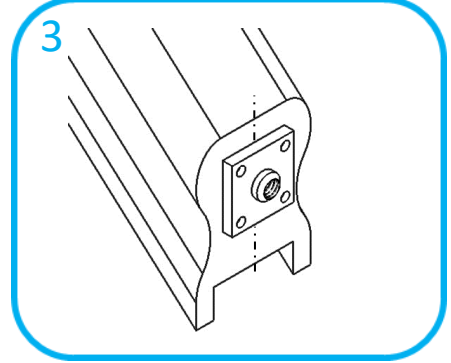
Stairs...



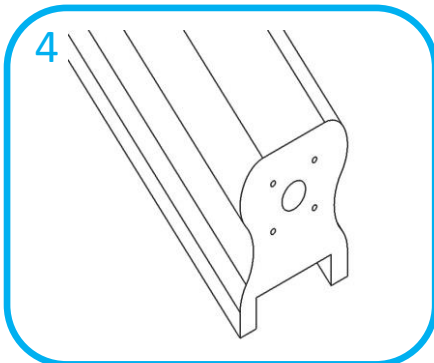
1
Please check all the parts are present and correct



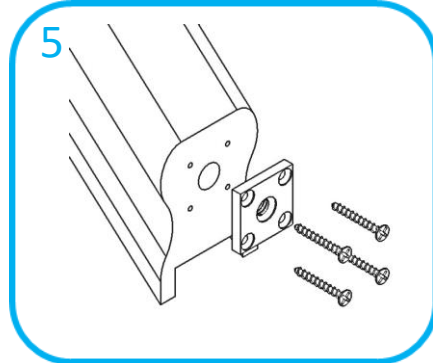
2
After handrail has been cut to length, place between stair newels at required height and mark top of handrail locations on both bottom and top newels. Please note – top of handrail must be set at least 900mm high (above pitch line)



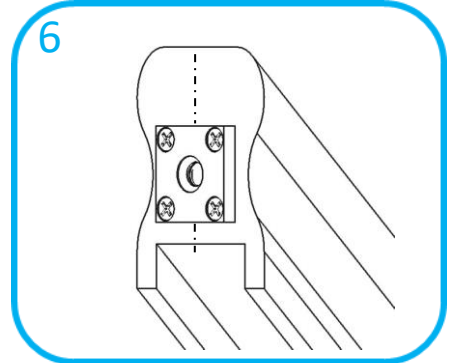
3
Place fixing insert plate on cut face at bottom of rail so it is central and positioned to the upper half of the face so there is plenty of material for the fixings. Mark through 4 x screw hole and centre hole locations onto rail face



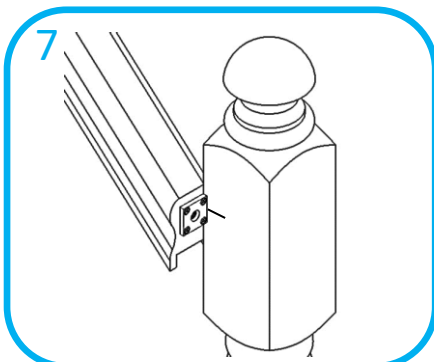
4
Use a 2mm drill bit to pilot drill the 4 x screw holes to a depth of 25mm. For the centre hole, use a 13mm drill bit to a depth of 14mm



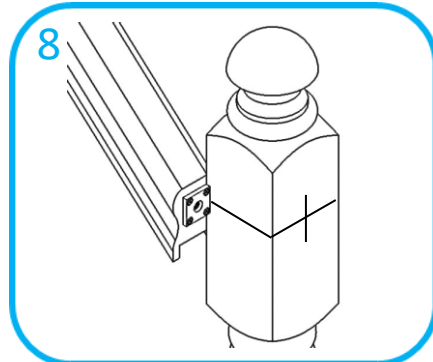
5
Offer fixing insert plate to rail face so the threaded centre boss locates within 13mm hole. Line up screw holes with pilot holes. Using the screws supplied, fix to rail end.



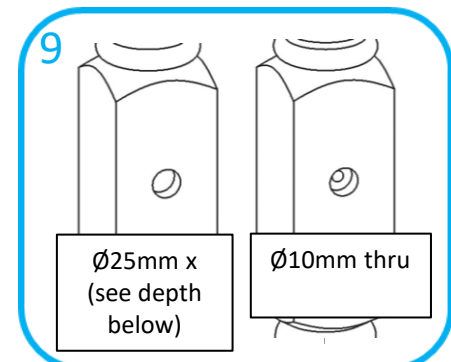
6
Repeat steps for top cut face but this time place the fixing insert plate to the bottom half of the face



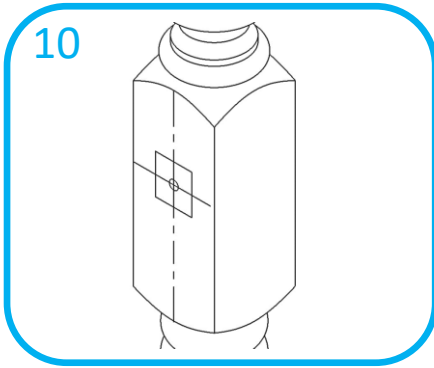
7
Place handrail between stair newels with insert plates pushed up to side face of newels. Check that the top of the handrail is aligned with height location marks set out in Fig 2. Mark mid point of insert plate onto side face of newels



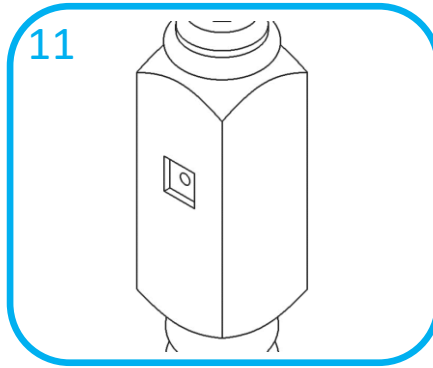
8
Using a square, project line along side face of newels then across front face. Measure and mark centre of newel face.



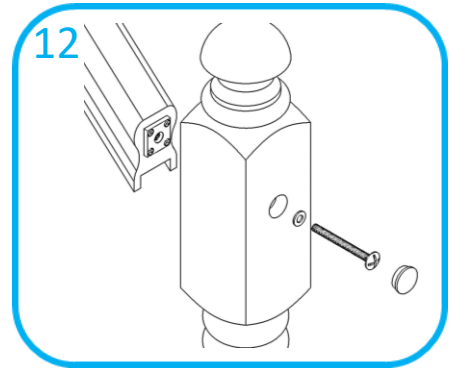
9
Using a Ø25mm flat bit, drill a hole to a depth of 23mm for 90mm square newels or 15mm depth if using 82mm square newels. Next, drill a Ø10mm hole through, ensuring that the drill is kept level and straight.



Where the $\text{\O}10\text{mm}$ hole exits on the rail face of the newel, draw centrelines across hole location and offset these lines by 16.5mm to create a square 33mm x 33mm central to the hole

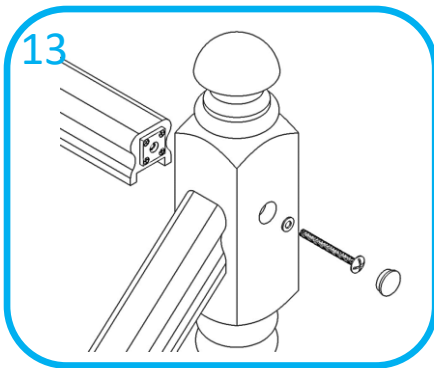


Using a sharp chisel, cut out the 33mm square to a depth of 6mm. Repeat actions for top newel

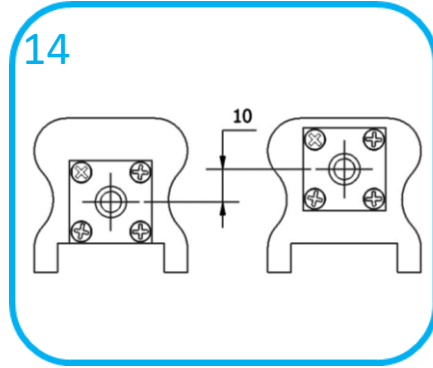


Apply some PVA glue to rail faces. Offer rail between newels so insert plates locate into recesses in newel face. Offer bolt and washer through hole and tighten to secure rail to newel. Apply some PVA glue to cover cap and gently tap into hole to hide bolt head.

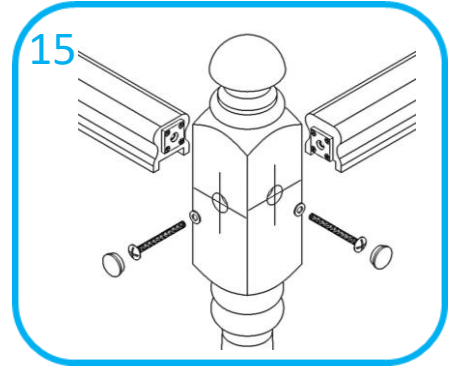
Landing...



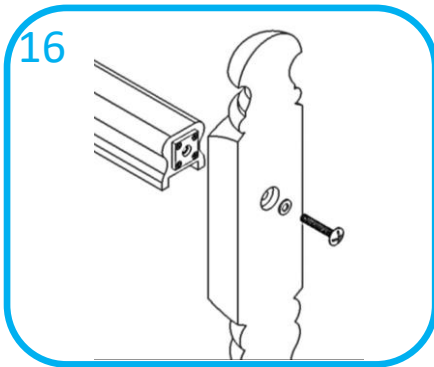
For landings, measure and cut all handrails to length. Mark handrail top positions on all newel faces (900mm high minimum). Follow same procedure as used on stairs for marking and drilling fixing holes on newels.



For situations where the landing has a corner newel, position insert plates on cut ends of handrails so one is positioned near the top of cut face and one is positioned near bottom of cut face so they are staggered 10mm minimum



Offer handrail with plate inserts to side of corner newel so tops of handrails are aligned with height location marks. Follow same procedure used on stairs for marking and drilling fixing holes on newel. Fix rail to newel using bolt and washer



To return to wall using a half newel, mark the newel as previous. Drill a $\text{\O}25\text{mm}$ counterbore in back of half newel to a depth of 10mm then a $\text{\O}10\text{mm}$ hole through. Cut the bolt to length so when it is inserted into the hole, it projects approx. 10mm through. Secure rail to newel then fix half newel to wall. Fill any screw holes with filler or use flush pellets to hide screw heads.