

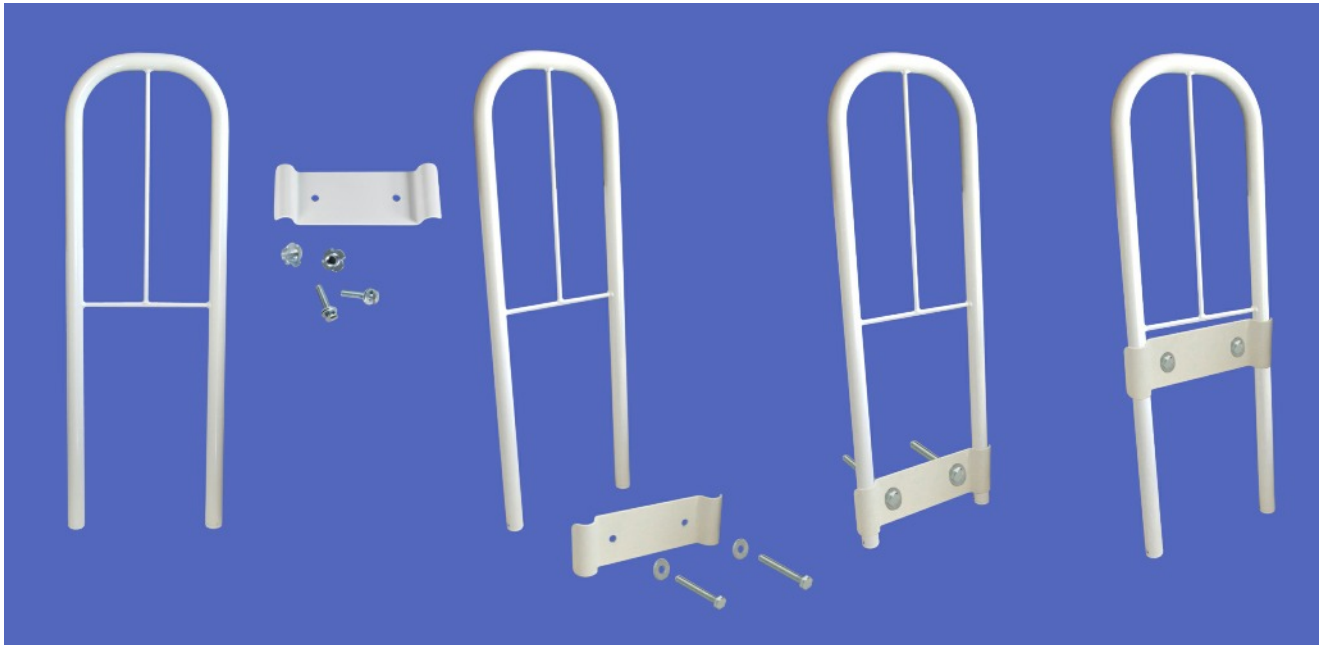
CLAMP-RAIL®

Universal Bed Lever / Side Grab Rail
designed for adjustable beds

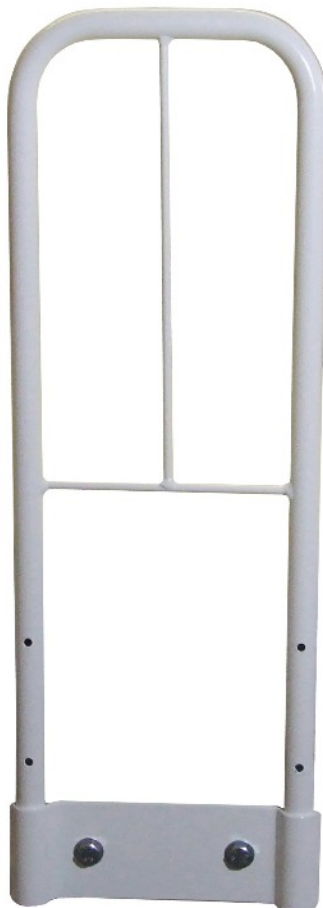
ORWOOD

MOBILITY MANUFACTURING
www.orwood.co.uk - www.rails-for-adjustable-beds.com

ASSEMBLY INSTRUCTIONS SHEET



9.25" / 235mm



27.25" /
690mm

3.25" /
80mm



▲ Kit includes U-rail, fixing plate, 2 x 10mm (50mm length) bolts, washers & 'T-Nuts', with plywood template / backing plate pre-drilled with 12mm holes which are aligned to holes in the metal fixing plate (see notes 4. and III.b)



◀ Variable height fitting: the rail can be fitted at any height within the clamp to suit user requirements

FITTING INSTRUCTIONS & TIPS FOR UNIVERSAL SIDE GRAB RAIL / BED LEVER

I. Fitting to adjustable beds generally:

IMPORTANT! - Bed Grab Rails are designed for adult users only.

1. Use of the Side Grab Rail relies on two bolt fixings, for which two drillings need to be made through the bed-side. Bolts pass through washers, the outer shaped fixing plate and into threaded 'T-Nut' housings inside the bed base; bolts are then tightened clamping the fixing plate against the U-shaped Side Grab Rail, locking it firmly in place against the side of the bed. The height of the rail may be adjusted by slackening off the bolts and sliding the rail up or down behind the fixing plate and then re-tightening.
2. The required positioning of the rail will almost invariably be towards the head end of the bed, corresponding to a position just to the headboard-side of a bed user when they are sitting on the edge of the bed, ready either to get into or out of bed - just next to where their thigh will be, and just headboard-side of the mechanical pivot-point of the head / upper-body section of a profiling adjustable bed (ie headboard-side of where the upper-body section of the bed bends). This is usually exactly where a bed user naturally requires support; positioning here also provides a useful practical guide to the bed user on where to 'aim' for before sitting down on the bed before raising legs and turning into bed / getting properly on to the bed surface. Such a position is however not always what the bed user wants or requires – check this before drilling and fixing!
3. Decide on the exact position for the Side Grab Rail. Use the plywood template to mark-up, through the bolt-holes, where drillings need to be made through the bed-side for the bolt fixings. Drill 12mm holes at the selected points (raise the moving head / upper body section parts of the motorised action out of the way while drilling, as necessary).
4. *Tip: the plywood template can be clamped firmly on to the bedside, for drilling to take place through the template holes directly into the bedside – this will ensure that any surface fabric upholstery does not get caught / pulled / torn by the drilling process, leaving two neat holes for the bolts.*



Raise action out of the way – clamp template – drill through template – nice clean holes for bolts!

5. Position 'T-nut' housings in the newly-drilled 12mm holes, teeth facing outwards from inside the bed base, and tap firmly into place with a hammer. The bolts attaching the rail will tighten into these threaded T-nut housings, sandwiching the shaped metal fixing plate, rail, and upholstered bed base together, 'locking' the rail in place in between. Two 10mm x 50mm length thread hex-head bolts are supplied with two large washers. Additional spacer washers can be added to effectively reduce the bolt length if this is found to be necessary when the assembly is tightened. Fixings should be checked from time to time to ensure they remain tight.

6. Bolt fixed Side Grab Rails / Bed Levers should only be fitted to a bedside which is sufficiently strong for the task. In all cases, the decision whether or not it is appropriate to fit a bed lever / side grab rail will ultimately be a matter exclusively for the person who is fitting the item - ORWOODS are not in a position either to evaluate other manufacturers' bed constructions or to assess an individual's personal characteristics and needs and accept no liability in this regard. Sections II and III consider further detail relating to strength of bed bases.

II. *Fitting to ORWOODS adjustable beds:*

ORWOODS beds are constructed with an upholstered box-frame base surround (depending on bed model specification, this base will be either strong laminated plywood or MDF/chip board) into which is inserted a motorised profiling mechanism - always with solid and inherently very strong 20mm thick laminated ply side outer-rails. From a strength point of view, the presence of the laminated ply side outer-rails on every bed make ORWOODS beds fundamentally suitable for the bolt-fixing of Side Grab Rails / Bed Levers.



The image left shows an ORWOODS mechanism being lowered into a bed base. The solid 20mm-thick single-piece laminated wooden outer-rail is clear to see at the edge of the mechanism; it is the part of the mechanism that will be touching the insides of the upholstered base surround when the mechanism is in place. For strength, the drillings / bolt-fixings go through the upholstered surround and the outer rail of the mechanism.

III. *Fitting to non-ORWOODS adjustable beds:*

Non-ORWOODS beds will almost certainly have an upholstered surround that is made of MDF / chipboard core; and very often there will not be any inherently strong 20mm-thick laminated ply mechanism outer-rail through which any fixing can be made (eg where the profiling mechanism is not removable, and mechanism parts are screw-fixed directly into the upholstered MDF/chip base surround).

a) **Where there is a strong ply laminated outer rail present for fixing through:**

Where there is a strong 20mm-thick laminated ply outer-rail, the position is obviously as with all ORWOODS beds described above: drilling and fixing through the upholstered bedside and the outer rail of the mechanism will provide a strong anchor point for the grab rail.

b) **Where there is no strong ply laminated outer rail present:**

Where there is no laminated ply outer rail and the upholstered bed base is either MDF or chipboard, drilling and bolt-fixing through an MDF/chipboard side on its own may well not be sufficiently strong for supporting the fitting of a Side Grab Rail. In order to improve the strength of fixing we recommend as follows:

- To eliminate the risk of bolts / T-nuts tearing holes through the MDF/chipboard bed side as a bed user pushes or pulls against the Side Grab Rail, the 20mm-thick plywood template provided in the fixing kit should be used as a backing plate strengthener: place inside the upholstered bed base surround, and tap the T-Nuts into place into the plywood backing plate (rather than directly into the inside of the bed base), bolts will then pass through the upholstered bed surround and the ply backing plate into the T-nuts.



Fixing through the ply template provided in the kit and using it as an additional strong backing plate adds tear-through prevention behind an MDF/chipboard side

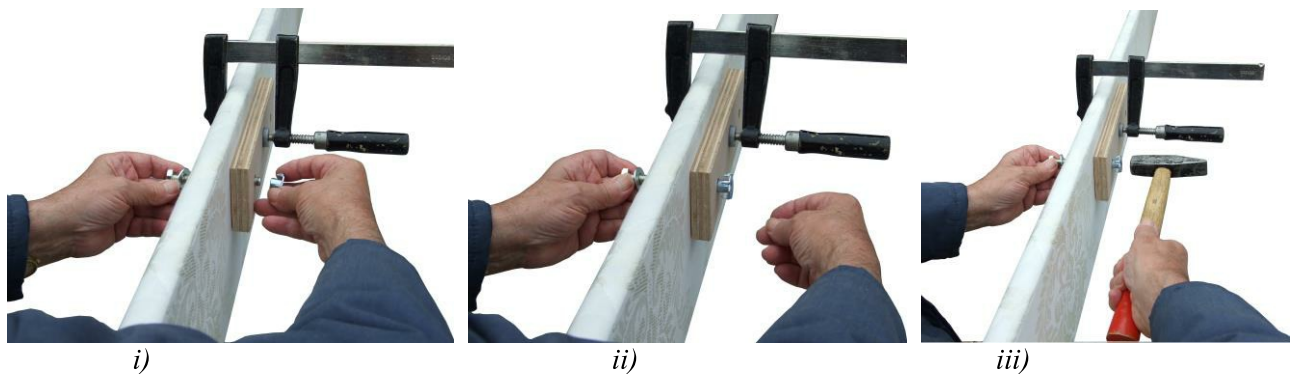


● **NOTE!** as well as fixing through the ply template piece to prevent tear-through of bolts, where there is no strong mechanism outer-rail available and the base surround is either MDF or chipboard core, care must also be taken to evaluate how far vertically down the sidewall of the upholstered base surround any fixing should be made: if a bed user leans / pulls and pushes against a rail fixed with bolts through holes which have been drilled too near the top edge of an MDF/chipboard base, there is a risk that the top edge of the base might break off.

A decision on the position for drilling bolt holes will depend upon considerations such as the MDF / chipboard quality, side thickness etc – and is a matter for the judgement of the person fitting the rail.

IV. Tips on working with T-Nuts – seating into side rails / backing plates:

When positioning T-nuts ready for tapping into place inside the bed base, a bolt can be inserted into the T-nut from outside the bed (without any fixing plate or grab rail present) and part-wound into the T-nut, so that the bolt can be held to position the T-nut which can then be tapped home accurately without any risk of catching fingers under the hammer! (bolt then to be removed, fixing plate and grab rail added, bolt re-inserted and finally tightened - 5 above).



- i) Insert bolt from outside base and offer T-Nut to thread
- ii) Turn T-Nut until wound part-on and pull bolt outwards to hold T-Nut in position
- iii) Tap the T-Nut home until flush / flat against laminated rail / ply template - backing plate surface

NOTE! if the bolt is to be used as a ‘place-holder’ in this way, ensure that the bolt is NOT wound-in so far that the end of the bolt protrudes through the nut when the nut is being tapped into place from inside the bed base: tapping must be against the flat T-nut face; if the end of the bolt is proud when tapping is carried out, tapping will damage the threads of the bolt and housing and prevent proper tightening of the bolts / fixing of the grab rail. T-nuts should be tapped home until completely flat against the surface being tapped into.

Further comment: if using the ply template as a backing reinforcement plate, the easiest method of tapping the T-Nut home into the ply is simply - after all drilling has taken place - to put the ply plate on a solid hard floor surface, eg a concrete slab, and knock the T-Nuts in – this is obviously not an option where the T-Nuts are going into a laminated ply side-rail which is part of a bed mechanism, or for example in carpeted locations where there is no such solid hard ground/flooring accessible nearby.