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UK Soundproofing Specialists for the Home



## Genie Clip Direct-to-wall Instructions

### Summary instructions

When creating a genie clip direct to wall structure you are going to screw the genie clips direct to the party wall. If existing plaster or paper is there this can be left in place. Pre-drill holes at prescribed centres as indicated below in this document. You should use conventional plastic raw plugs and 50mm screws. Each Clip is designed to carry up to 15kg in load so don't worry about very large screws.

The bars should be fitted to the clips starting around 100mm from the floor and at centre's of maximum 600mm. Clips should be spaced at no more than 1000 mm centre's on the bars. Where two bars join make sure a clip is near the join. Joining bars can be nested together and screwed together to keep firm.

Once bars are in place the mineral wool provided should be fitted around such that no spaces are left across the wall.

Plasterboards are screwed to the Furring pieces. Plasterboards should be joined on the furring channel face and should not overhang by more than 100mm. The perimeter should be sealed with acoustic mastic provided. Much more detailed instructions are provided below.

### Genie Clip Wall Installation Instructions

When creating a Genie Clip wall ideally the stud structure your create should be independent of the existing wall you are soundproofing. Even if you only create a gap of just a few millimetres this will create a much better soundproofing structure. Where you are upgrading a stud wall and cannot create the separation just follow the instructions as below. The performance of the resulting structure will still be very good.

## Step 1 create the stud wall (Out of wood)

First create the stud structure in usually 50 or 75mm timber or metal. In the case of a timber structure this is simply achieved by setting head and base plates. For a simple instructional video on how to build a timber stud wall see the following video. There is a step by step guide below if you want to print this guide out if you need help making a stud wall. <http://www.youtube.com/watch?v=OjDLX8MGsxU> or shorter <http://www.youtube.com/watch?v=FbNI2pLYvhg>

Or:

## Step 1 Creating the stud wall out of Metal we can supply the necessary metal.

See Instructions at the bottom of the page

## Step 2.

Line the Stud work with mineral wool bats of suitable thickness such that the mineral wool is friction fitted snug into place.

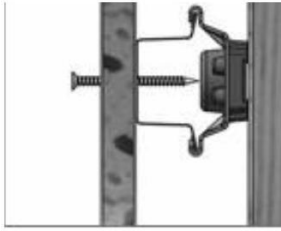
## Step 3 The Genie Clips

- Maximum centres for Genie Sound Isolation Clips should not exceed 1.2m. (horizontal). This means that clips can be added to alternate studs ( alternate stud on return run)
- Spacing between the furring channels (hat channel) should not exceed 600mm. Furring channels are installed parallel to the floor.
- Fasten the Sound Isolation Clips to the stud ( this can be metal or Wood with a fastener approved for a minimum pull out and shear of 50kg. In the case of metal studs use a 13mm wafer head screw in the case of timber a 42mm dry wall screw will suffice.
- Tighten fasteners until they come into solid contact with the top washer on the GenieClip. For best acoustic results **DO NOT OVER TIGHTEN**
- Locate the bottom row of furring channel within 75 to 150 mm of the floor and install in a pattern roughly as per drawing below:



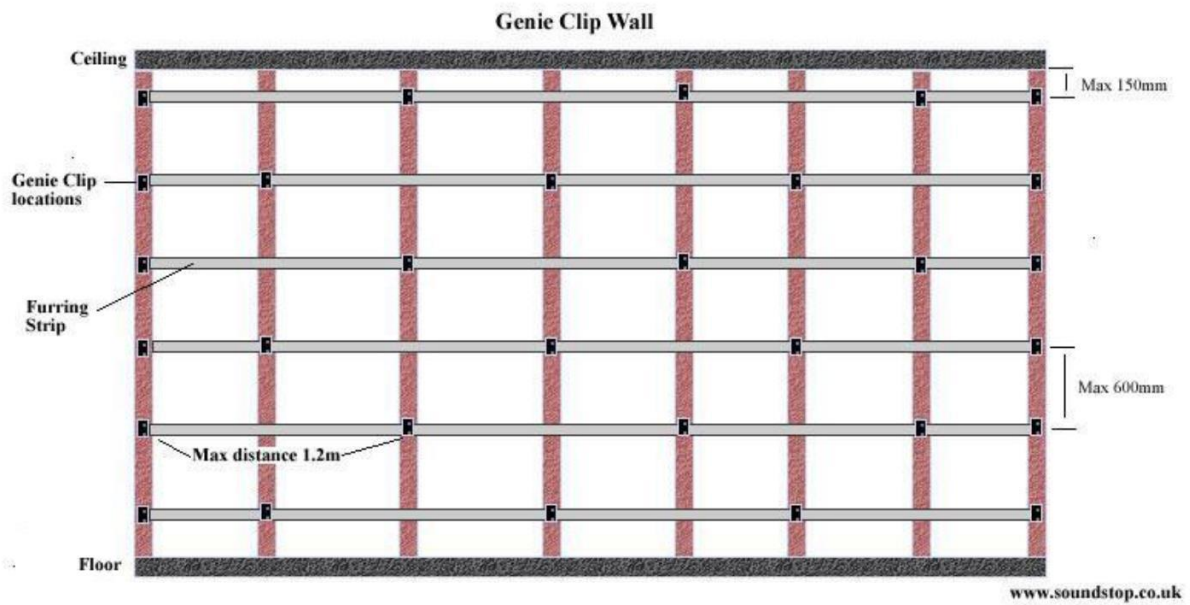
- Locate the top row of furring channel within 150mm of the ceiling.
- Install all other rows of furring channel ensuring maximum spacing between rows does not exceed 24"

- Add additional short rows of furring channel and clips to pick up drywall edges around doors and windows as needed.
- Snap furring channel into the Genie Clips and make joins between clips with a 150mm overlap. Secure with 13mm wafer head screws.



- **IMPORTANT** Before plasterboard is applied place 5mm packing on the floor to fully support plasterboard
- Install plasterboard board from the bottom up leaving 3- 5mm spacing (min) around total perimeter.
- **ONLY** remove the floor packing after ALL plasterboard board is installed and screwed to ALL furring channels. Ensure that every screw is installed, 600mm centres in the furring strip. The floor packing is critical for best acoustic results.
- For best acoustic results, if there is more than one layer of gypsum board, seams should be staggered.
- **ONLY** when gypsum board application is complete with all required screws, the spacer packing can then be removed.
- Seal around the entire perimeter of the gypsum board filling the whole space with acoustic mastic provided. Use fire and smoke rated caulking sealant where required. Do not install mastic so that it is 'proud' of the plasterboard board surface.
- After mastic has set, tape and finish as usual, alternatively skim plaster.
- **SBX UPGRADE ONLY:** the Sbx boards are installed to the furring strips as the first layer, then the plasterboard is fixed as the second layer.
- **TECSOUND UPGRADE ONLY:** the Tecsound is applied in between the two layers of plasterboard.

**Wall Installation Guide** – Schematic Diagram. Note how the clips are applied to alternate studs on alternate runs.



## Step by step guide to build a stud wall

### Tools Needed

Hammer, Chop Saw (if preferable), Jigsaw (if preferable), Hand Saw, Drill Driver, Hammer Drill (if fixing to brick/blockwork), Set Square, Spirit Level, Tape Measure, Pencil.

### Materials Needed

Timber (4x2), Screws (at least 70mm), Wall Plugs (if fixing to brick/blockwork).

## Step 1 : The Base Plate

So you have your materials, now to use them! First mark out with your tape measure, level and pencil where the location of your stud wall is to be erected. Now start with your base plate, if your stud wall is having an opening we suggest you leave your base plate intact, this will maintain the strength and accuracy of your wall until fully erected at which point you can saw and remove the section of base plate where opening is to be. When fixing your base plate to your floor you must take into consideration that there might be pipes or wires below the floor!! A useful tip for this if fixing to a wooden floor is to determine the thickness of your floor, say 22mm, then add this to your timber thickness. So  $47 + 22 = 69\text{mm}$ , therefore the size of your screw should be no bigger than 69mm! Please still take into account that some pipes and wires maybe notched into the top part of your joists. If you are fixing to a concrete floor you can drill and plug into this, however the same applies, there might be pipes or wires beneath, so it's better to be safe than sorry and fix your timber down using a solvent glue, like a grab adhesive, also known as no nails. Apply this to both the floor and timber, then position correctly, tap down and slightly wiggle the timber into place, this will ensure good contact between both bonding areas. Now follow the recommended drying times normally indicated by the manufacturer for the grab adhesive and allow to dry until secure and solid. You might want to place some heavy objects on your floor plate, this will help to further secure it to the floor.

## Step 2 : Wall Plates

Now you have your base plate in place, it's now time to fix your two wall plates to your wall, using screws and wall plugs, ensuring both are level and have sufficient fixings. Also place some fixings where the wall and base plate meet by fixing your screws diagonal, you may want to pre drill first as this can sometimes be a little bit tricky.

## Step 3 : Ceiling Plate

Now for your ceiling plate, this is straight forward as you already have your position to where it should go providing your wall plates are level. When cutting your ceiling plate, over cut slightly by 2 - 3mm, this will allow the plate to be softly wedged and in turn free your hands allowing you to get a good fixing. When fixing to the ceiling you should locate your joists and screw into these providing they run the opposite way to your plate, same as the base plate you must take in to consideration there might pipes or wires above or running though these joists. If your existing joists run adjacent to your plate we suggest you place some noggins in between these joists at around 600 c/c. Now you can fix your ceiling plate to these. If your ceiling is concrete then simply follow Step 1 as you would for fixing your base plate to a concrete floor. Wedge the ceiling plate with some timber until dry.

## Step 4 : Studs

Now you have all your plates in place, time for the studs (and opening if you have one). The location of these will be determined by several factors, the length of your wall, if you are having an opening, if your stud wall has a corner etc. After taking these factors into consideration you should place your studs at 600 c/c, the main reason for this being is your plasterboards are in metric lengths, plasterboards are 2400mm x 1200mm (8' x 4') or 1200mm x 600mm (6' x 3'), therefore if you place your studs and they are level at 600c/c then when fixing your plasterboards each one will sit comfortably in the centre of the stud at each end. So determine where you will place your first plasterboard, attach your tape measure to the

furthest end of the timber and mark off with pencil in sequence (also marking off where your opening is to be) every 600 c/c, so 600, 1200, 1800 etc. So we now have the locations of where your studs are to be placed (and opening). Now measure the height of your stud, each stud will probably be slightly different in height so we suggest you measure and place each one separately, as with the ceiling plate it would be a good idea to over cut each stud slightly by 2 - 3mm, now cut accordingly. Mark the centre of your studs and line these up with the marks on your plate, softly wedge in place and fix to the floor and ceiling plate by fixing diagonally through the studs, two screws each side of the stud, top and bottom will suffice.

## **Step 5: Noggins**

Now to place your noggins. Measure from the floor up on each wall plate, you may want to raise the board off the floor slightly (25mm), so depending on the plasterboard you are using it will either be 625mm or 1225mm high, this 25mm addition will compensate if the floor is un-level or un-even. Once you have your mark on each wall plate then run a chalk line between your two measurements. You now have an accurate line throughout your studs for the centre of your noggins. It's important to measure the noggins out accurately, especially if you are have an opening, because too small or too large will affect the opening you have made by making it un-level or bowed. With this taken into account all that's left to do is fix your noggins. Depending on the height of your wall this will determine how many rows of noggins are needed.

## **Creating a metal Stud Wall**

Note that Genie Clips will be screwed into the vertical C studs. Steel stud partition walling is easily constructed using two metal profiles, either a 52mm or 72mm wide channel section, which are fixed to the floor and ceiling, and 50mm or 70mm wide stud(s), which are cut to length to fit vertically between the floor and ceiling channels. Fitted to either side of the framework are 12.5mm boards (listed below). These are screwed in place with Wickes Drywall Screws, which self-cut into metal without the need for pilot holes. Construction is extremely quick and easy. The system uses only a small amount of timber, to support doors, heavy wall-mounted items, or as a means to provide a level base when fixing to uneven floors.

### **Tools**

A plumb bob and line, a spirit level, tin snips or hacksaw, a cordless screwdriver, a craft knife, an old saw and a straight edge.

### **Example:**

A typical partition wall of 3 x 2.7m (w x h) will need:

2 x 3m Lengths of 52mm U Channel \*

6 x 2.7m Lengths of 50mm C Stud \*

1 x Pack Wickes Drywall Screws

1 x Pack Wickes Wafer Head Screws

8 x 12.5mm Boards (listed below)

1 x 150m Plasterboard jointing tape

1 x 10kg Jointing Compound

## **Before You Start**

Always check any lower joists are capable of supporting the Partition before construction starts.

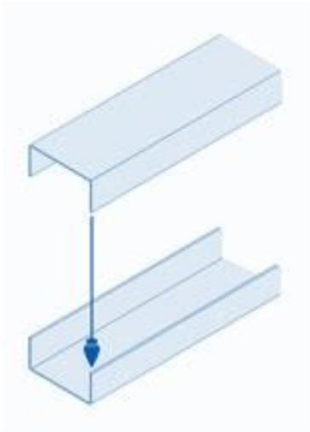
## **Safety**

Both plasterboards and metal studs may need to be cut. This should be done in a well ventilated area. Wear gloves and eye protection when handling, adding a face mask when cutting.

## **Fitting Ceiling and Floor Channels**

Start work by locating the position of the joists in the ceiling roughly where you want the partition to be. This can be done by carefully probing through the ceiling board with a bradawl, drill or screwdriver, until you feel the wood behind. Also check with a pipe and cable detector for wires or pipes and ensure that no fixings are used near these. If the joists run in the opposite direction to the intended new wall you will be able to fix the head track to each joist at maximum 600mm centres using drywall Screws. The screws should penetrate the timber by at least 30mm. If the joists run in the same direction you should slightly alter the new wall position so that it is directly under a joist and the head track can be fixed directly to it. If this is impossible, noggins (not supplied) must be fitted between the ceiling joists to enable fixings to be made. Generally head and floor channels must be fixed at a maximum 600mm centres. When the head channel is fixed, drop a plumb bob and line down to the floor level from each end of the channel and mark the position of the bottom channel on the floor:

## **Diagram 1.**

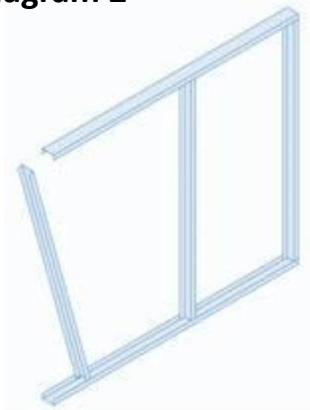


Screw the channel using Wickes Drywall Screws directly to a timber floor or drill, plug and screw using Wickes Nailable Plugs into a level concrete floor. The screws should penetrate the timber by at least 30mm. If a subfloor is particularly uneven it is recommended that a timber “sole plate” the width of the channel (52 or 72mm) and at least 30mm thick should be secured to the floor, and then the track to the timber. Pack the timber out as necessary to achieve a level base.

## 2. Fitting the Studs - diagram 2.

For ceiling heights up to 2.7m (8'10") – When the ceiling and floor channels are secured, the studs can be cut to length to fit between them, leaving 5mm clearance at the top of the studs. Measure and cut each stud separately, as there may be some variation in room height.

### Diagram 2



### High Ceilings

For ceiling heights between 2.7m (8'10") and 3.2m (10' 6") – The vertical C-Stud can be ‘boxed’ (literally two pieces of stud joined to form a box profile), which can be used to extend the height of the partition beyond the height of the C-Stud profiles supplied. Tip: Off-cuts can be utilised in this way thus reducing any project waste.