

DIY Garden Room Installation Guide

These instructions walk through the generic process for installation of a typical DIY garden room.

Please refer to this guide in conjunction with your project specific drawings, which will provide you with the reference numbers for all panels and names of all labelled timber components.

Take care when working from height, use a suitable fall arrest system where required and always wear PPE.



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Tool List

- Your project drawings
- PPE including gloves, mask, eye protection, ear protection and safety boots
- 6ft Spirit Level
- Staple Gun
- Rubber Mallet
- Hammer
- Drill and Impact Driver, with an assortment of Drill Bits, including POZI, HEX and Countersink
- Circular Saw
- Hand Saw
- Utility Knife
- Brad Nail Gun
- Step Ladders, Access Tower and Hop Ups

Common Approach

This a step-by-step guide for installation of your garden room for trade and competent DIYers.

Please ensure the site is suitable for your chosen foundation system, and that the room is sited where there is good drainage away from the room and not on an area liable to flooding.

When assembling the room, place panels near to each other and slide together onto the joiners/splines as required. Use a rubber mallet to tap into place but be careful not to break the edges of OSB or insulation. It can be useful to place an offcut in a groove as a striking point to avoid damage.

All timber-to-timber joints utilise mechanical fixings (to be pre-drilled at approx. 400mm centre to centre) and timber adhesive applied in a continuous bead.

Where timber meets insulation or splines meets insulation, these joints will be foamed in addition to 35mm mechanical fixing through the face of the OSB at 400mm centres and timber adhesive.

Larger 150mm fixings are occasionally spaced at larger intervals

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This consistent approach ensures air tightness of the panels, and structural strength.

Typical Fixing Schedule

175mm fixings are shown in yellow150mm fixings are shown in magenta35mm fixings are shown in green



Image above showing side Wall Fixing arrangement

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Image above showing floor and roof **35mm** fixing arrangement



Image above showing floor **150mm** fixing arrangement

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23	RF5	RF6	RF7	RF8
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Image above showing roof 175mm fixing arrangement

Step 1: Bearers

It is often useful to lay out your wrapped rails on your foundation, this may be a concrete slab or ground screws.

Please refer to you project specific 'floor panel plan' for their positions. Check diagonal measurements for square, overall measurements to ensure your building will align with the substructure, and check levels from front to back and side to side.



Step 2: Bearers

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Refer to the 'floor panel plan' and place the first floor panel onto the bearer, with the bituminous face downwards. Ensure it is flush to the edge of the first bearer all the way along.



On bearers where two panels meet, ensure they sit centrally so each panel edge is adequately supported.

Use the 150mm fixings to fix the flush edge of the first panel to the bearer, thereafter, assemble the floor panels in the sequence specified on your project specific drawings, securing with mechanical fixings as you work along.

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Fix through the OSB to the timber with 35mm screws at 400mm centres, and then fix through the floor into the bearer with the large 150mm fixings. Refer to the typical fixing schedule at the start of this document for reference.



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Complete the structural floor assembly by inserting the front and back capping. This may be in one piece if your room is below 4 meters wide, or two if wider than this.

See the diagram below, showing a plan view of the overall assembly of a typical floor arrangement. Depending on site constraints, work from left to right, checking for square and ensuring all edges remain flush as your work along and fix the panels to the bearers.



Step 3: DPC Detail

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When the floor structure is finished, use staples to fix DPC around the perimeter of the floor and then fold up and over all edges and secure to the top with staples.





This is how your finished floor should look.

Step 4: Floor Plates

Next, is to set out the floor plates that the sips locate onto.



It is important to note the floor plate will need an 11mm allowance against specific edges to seat the SIP panels correctly. This is achieved by using an the 11mm OSB spacer provided, to align the floor plates in the correct manner.

See the diagram below which a plan view of a typical floor plate arrangement, illustrating where the 11mm allowance is required. Please note, your door aperture may be larger or in a different position, and if your room is over 4m wide, the rear soleplate may be in two lengths, but the corners will meet in the same relationship as shown in the diagram.

Please refer to your 'sole plate plan' for your project specific arrangement.



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Image above showing the provided 11mm OSB spacer being used to align the soleplate to the floor edges.

Before fixing down with the supplied 100mm fixings, ensure you check for diagonals. Accurate and square setting out of the soleplates is critical to the success of the rest of your build, as this will ensure all walls align correctly with the floor and roof.



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If you have full height side window or door apertures, arrange the fixings so the soleplate can be easily trimmed out after the walls have been erected.



Image above showing the relationship between the front and side floor plates at front right corner.

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Image above showing the relationship between the side and rear floor plates at back right corner.



Image above showing a floor complete with floor plate arrangement.

Step 5: Walls

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The next step will be to start assembling the walls.

Generally, starting at the back left corner suits most builds, but this can change depending on how your project is arranged, and the position of window or door apertures, so please refer to your project specific drawings to inform the decision.

Foam the bottom of the panel before raising into place on the floor plate.



Image above showing a side wall panel being placed onto the floor plate, which finishes flush with the rear edge. This forms a return for the rear wall panels which are next in the assembly process

As shown, is it often useful to place one or two panels on the side wall which abuts the back wall. This creates a return and offers more support to the unfinished wall, allowing you to keep working unhindered. Fix the panels together at approximately 800mm

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centres with 150mm fixings supplied, and a bead of glue along the join. Refer to the typical fixing schedule at the start of this document for reference.



If your room has a panel arrangement that does not allow this or if the wall still feels unstable, use temporary timbers to secure the panels in plumb position so you can carry on working safely.



Continue to foam the insulation bottom and side edge as you work along the walls, whilst fixing through the OSB into all timber joiners or splines with 35mm screws at400mm centres. Refer to the typical fixing schedule at the start of this document for reference. Check for plumb as you work, especially at corner junctions.

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Step 6: Lintels

Eventually you will come across a lintel for a door or window aperture.

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Most projects will have standard lintel details, these are labelled lintel 'a' or 'b'. Refer to your project drawings in case you have a non-standard lintel detail.

'Standard Lintel b' forms smaller apertures, commonly used on the side elevations for windows or narrow doorways.



Place the two supporting wall panels in position, and then insert the lintel from above. Fix with 2 off 35mm screws through the OSB into the timber structure on each corner, internally and externally (8 fixings total).

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'Standard Lintel a' forms larger openings, commonly found on the front elevation for sliding doors.

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Follow the same process and assemble both supporting wall panels, fixing back to the corners where required and insert the lintel from above. Fix using the same fixing pattern as lintel b (8 total).



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Step 7: Wall Plates and Firrings

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This is the final step for completion of the walls.

This includes inserting the wall plate into the top of the panel grooves and placing the firring strips onto the finished side walls.

Firstly, apply foam to the groove.



Place the wall plate into the groove and ensure it finished flush on all edges before fixing down into all the available studs in the wall panels with 100mm fixings. Then fix through the OSB into the wall plate with 35mm screws at 400mm centres.



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Place the firring onto the new fixed wall plate, ensuring it butts up to the front wall. Fix down along the edge with two longer fixings (150mm) at the front and shorter art the back (60mm).



Repeat the wall plate process at the front.

At this stage now fix the walls to the sole plate and check the correct quantity of fixings are present in all other location. Refer to the typical fixing schedule at the start of this document for reference.

Step 8: Roof

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The next stage in the process is the roof construction. The panel layout is the same the floor.

Always take care when working from height and when lifting panels to a height. Ensure you have suitable access, the correct PPE and adequate assistance.

Depending on your room size, the panels may come in one piece per length, but typically they are suppled in two. Please refer to your project drawings for the specific panel arrangement.



Start from the Left-hand side. If the panels are in two pieces use the wall to support the two panels on the left-hand edge. The use of a well secured 'deadman support' may be required for the other edge on this first panel. When in position, join the two panels on their length by using 35mm fixings though the OSB into the prefixed joiner into the shorter panel.

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When the first panel is in place, use foam and fixings to add the side capping and then the long joiner along the length.

When the joiner is attached to the panel, begin to place the next panel in the sequence onto this joiner, fixing each panel down onto the wall plates, working along the roof repeating this process.



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The final step is to foam and fix the front and rear capping onto the roof.

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Image above showing the overall assembly from the side elevation.

Step 9: Breather Membrane, Batten and Cladding

Breather membrane will need to be applied directly to the OSB of the SIP panel walls.



Work from the bottom, whenever possible apply the membrane in continuous run around the building, securing with staples as you work. Overlap the membrane using the lines indicated on the product.

Where cutting is needed around windows, fold the excess into the reveal.





After applying the membrane, 25mm batten will need to be applied over the membrane. Ensure the batten is at no more than 600mm spacing, and completely frames at corners and around doorways, as well as a double row of batten at the bottom of doorway apertures, as shown in the image above.

Where the SIP roof panels overhang the walls and form the soffit, the area can be battened out with 45mm square batten to form a service void for down lights if required.

After all battens are in place, apply the cladding. Start in a corner and apply the boards so they sit flush in the corner, then work along the wall cutting to length as required.







Images above showing: 1: side cladding meeting the edge of the front 2: The reveal around the door being formed from a ripped down length of cladding, which is then fitting to the batten that frames around the door.

Step 10: EPDM Roof

The EPDM and trims will overlap the cladding and facia, so ensure these are finished before starting the next step.

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Please <u>click here</u> to view a video showing the installation of the EPDM rubber roof and trim kits below, as shown by an approved installer.

Step 11: Doors, Windows and Glazing

Whether you have sourced your doors and windows through us, or your own means, in order retain their guarantee it is required that you use a FENSA registered installer.

As such, we always recommend you use a local tradesperson that is registered with FENSA for this aspect of the build.

However, if you do wish to tackle the installation yourself, please see the following links which are useful guides. Please note that all doors and windows will have slightly differing systems and mechanisms, so please familiarise yourself with your product before attempting the installation.

Door Installation

How To Remove, Install and Adjust External Sliding Doors

How To Install Patio Doors

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