

LOG CABIN 50 ASSEMBLY INSTRUCTIONS



4000 mm x 4000 mm
Canopy 1350 mm
Veranda depth 1500 mm
Wall thickness 45 mm

Nordic region spruce wall logs 45 mm x 135 mm
Dimensions of base 3800 mm x 5300 mm including terrace
Dimensions including roof overhang 4400 mm x 5640 mm
Area of roof 24.2 m²
Height of ridge 2815 mm
1 glazed door width x height 820 mm x 1740 mm
2 glazed window width x height 1126 mm x 822 mm
Height of side walls 2090 mm
Internal area 33.8 m³
Weight 1350 kg

In these instructions the assembly of the log cabin with the terrace is described. If you have bought the log cabin without the terrace please disregard references to the terrace.

If you want to make a claim at some stage in the future you may need the product code for your cabin. You can find the product code marked on the door or door frame.

No guarantee is given that this is the most recent version of the assembly instructions for this building. You are advised to refer to the instructions supplied with your building before assembly. If for any reason no instructions are delivered you are recommended to obtain the most recent version before assembly. No guarantee is given regarding the accuracy of these instructions and no liability will be accepted for any errors or inaccuracies.



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Dear Summerhouse Owner,

Your log cabin was manufactured with the greatest care and expertise from good quality, well-dried, fine-grained spruce at our modern plant in Finland.

The material we use is purely natural and being solid wood is vigorous and active. Despite the sophisticated drying methods we use it is impossible to completely prevent some degree of warping and the formation of resin and cracks, especially on the outside surfaces. The varying knot formations are also typical of Spruce. These variations are all part of the beauty of wood.

Rough edges and unevenness caused by the plane during machining of the profiled logs and floorboards is due to production techniques and not generally considered to be a defect.

The timber we use (which is, of course, from sustainable forests) is absolutely untreated except for the pressure treated timbers. That means that it will turn greyish over the years, something which you might choose to avoid by applying a coat of stain or paint – please note the recommendations of the varnish or paint manufacturer. It is not advisable to paint the wall timbers before assembling them – this is best done after the cabin has been erected and in warm dry weather. However, if you wish to paint different parts in different colours this should be done before the cabin is assembled.

We wish you every success and lots of fun with the construction of your log cabin . . .

Now you can get started...

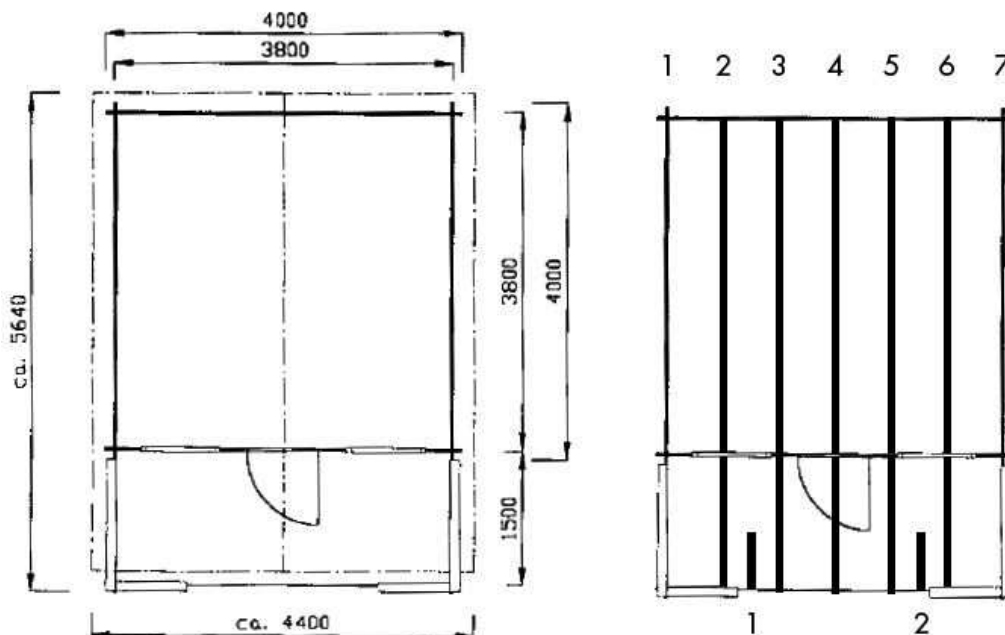


Figure 1



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PREPARATION

Paving slabs or concrete (either over the whole area or in the form of piers) are ideal as a base to support the floor beams. Before preparing your footings check the log cabin base dimensions. Refer to Figure 1 for the layout of the floor beams. The 3.8m long floor beams for the cabin are laid lengthwise. The 1.5m long T1s follow parallel for the veranda. The two 0.5m long T2s support the corner posts of the veranda balustrade and the first floorboard at the entrance. A good foundation for your summerhouse is essential. Only absolutely level, strong footings (for the veranda as well) will ensure a perfect fit for the timbers, the doors and the window while guaranteeing stability.

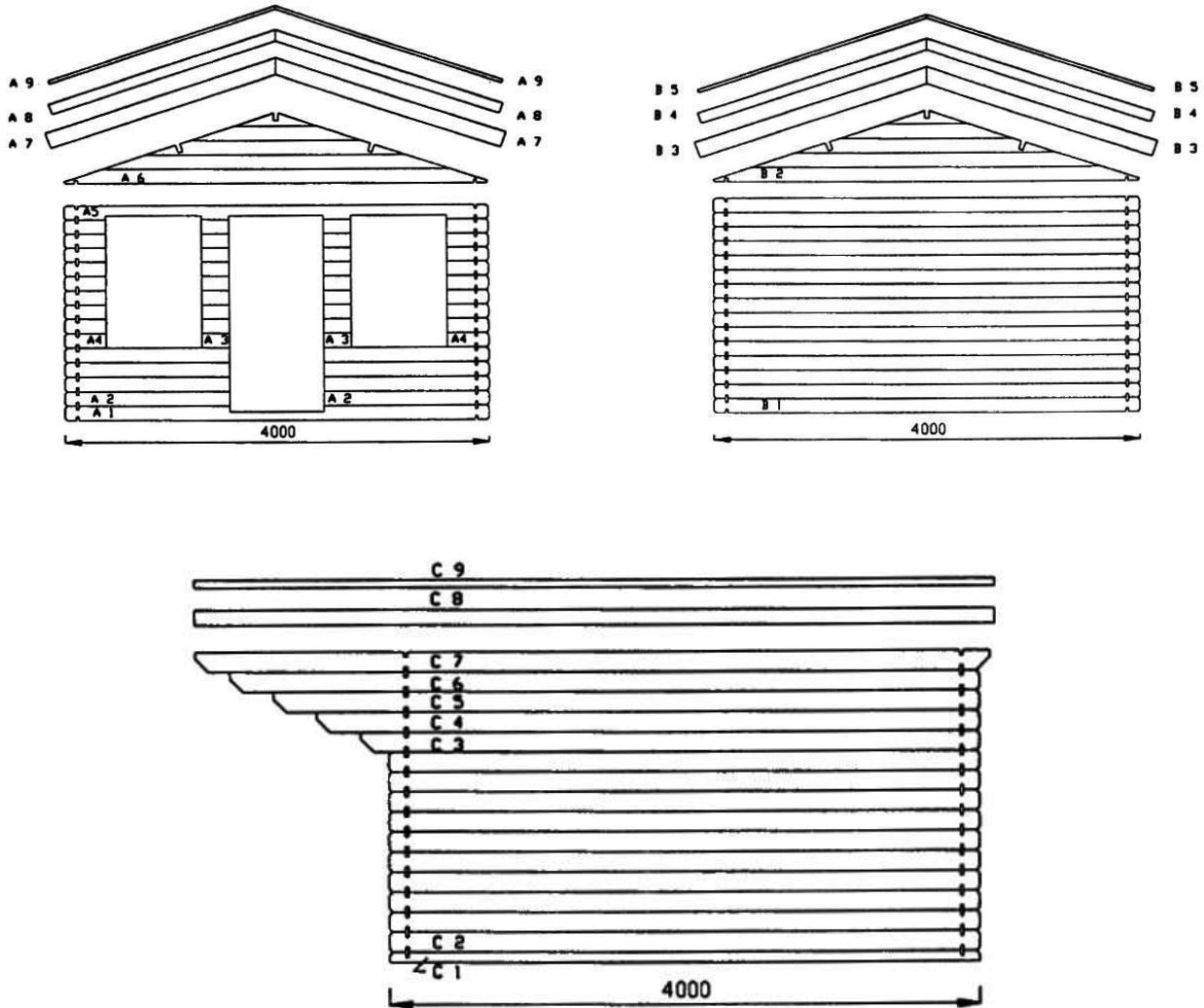


Figure 2

Figure 2 shows all of the parts for the walls and gives you a guide to assembling the entire structure. Keep the parts for the veranda separately to begin with. The references stamped on each piece allow you to compare them with the list of parts and allocate them according to their dimensions – all parts are listed with their approximate dimensions.



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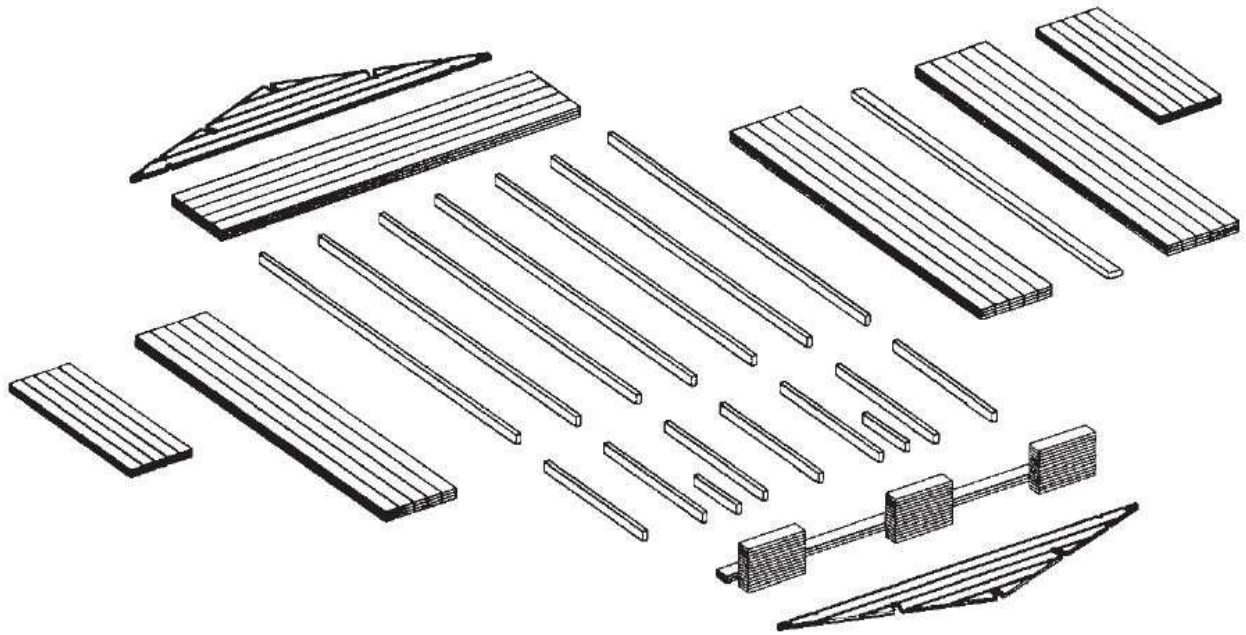


Figure 3

Arrange all parts for each wall around the base leaving 1–2 m working space as shown in Figure 3.

Ensure that the logs for the front and rear walls have drill holes all along for the tension rod system – be sure not to mix them up with the logs for the side walls.

Before you start assembling the walls lay the impregnated 3.8m floor joists lengthwise and about the same distance apart on top of the footings. The base beams for the terrace are only added when you are constructing the terrace itself. Even though the joists are preservative impregnated it is a good idea to insert a layer of bituminous felt or foil between the wall timbers and the joists to prevent rising dampness.

Logs B1 for the rear wall and A1/A5 for the front wall have been predrilled for the assembly of the threaded rods. Make sure that you do not mix these logs up with the logs for the side walls which have not been predrilled. See figure 2.

Clean any burrs caused by drilling out the logs for the front and rear wall. That way the logs will fit better in the grooves.

A rubber mallet is a help throughout the assembly process. To avoid damage, never bang the timbers directly with the head of the mallet – we have enclosed wooden blocks (marked with an "X") to be placed on the timber for protection purposes – the ends of the timbers protruding at the corners require particular care to prevent the wood from splitting.



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CONSTRUCTION OF THE WALLS

First lock the bottom wall logs together (2 full width wall boards A1 and B1 for the front and rear walls and 2 half width boards C1 for the side walls). Make sure that the front log A1 has been cut away to allow the door to be fitted.

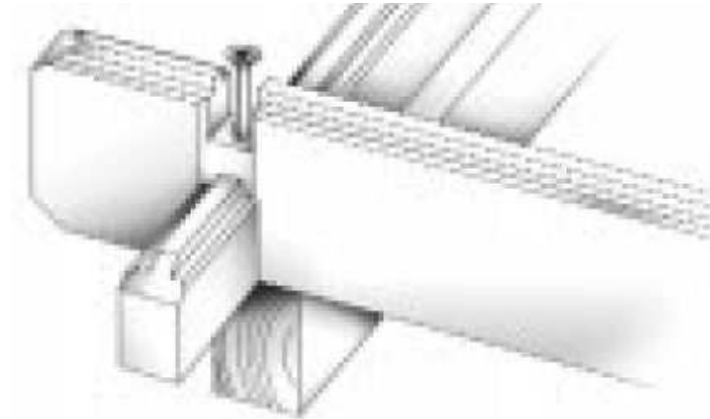


Figure 4

Screw or nail this first row of timbers at the corner joints after first pre-drilling the holes. See Figure 4. The side walls should protrude 3–4 mm over the floor-joists - this forms an overhang and keeps dampness at bay – make absolutely certain that there is an adequate ledge on the inside to take the floorboards. See Figure 5.

At this stage it is important to make sure that the walls are exactly at right angles to each other.

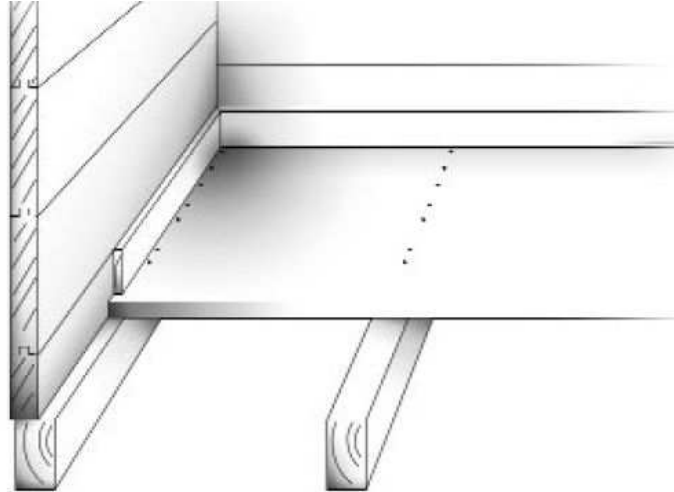


Figure 5

Continue erecting the walls, one layer of logs at a time, according to diagram 1 until the 3rd or 4th front log has been fitted.



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CONSTRUCTION OF THE WALLS (continued)

At this point, the door – complete with door frame – has to be inserted carefully in the space provided - avoid forcing it, which is why the walls must not be any higher. The bottom of the door sill should be absolutely level. Now adjust the door frame (and accordingly the whole door) by gently tapping it with the rubber mallet (using wooden blocks) until it is level and square. Once the door handles have been fitted, check to see whether the door can be opened and closed easily.

The walls are assembled up to the 5th log up in the front wall. Now continue with the shorter logs A3/A4 and 2 logs later carefully insert the ready assembled window in their frames. Do not nail or screw the window or door frame to the wall timbers.

Ensure that the roof overhang is supported by logs C 3, C 4, C 5, C6, C7 – which get progressively longer – so pay special attention to Figure 2 during the construction of the side walls.

The front wall is completed using the predrilled log A5 with 3 openings for the windows and door. Finally, mount the gable carefully to prevent the ends from damage. Fit a washer and a nut to the top of the threaded rods. Pass the front and rear rods through the predrilled holes then fit a washer and a nut to the bottom of the rods. The threaded rods should not protrude above the gables.

You may notice that the walls tend to lean outwards towards the top when being erected – this is to be expected. The structure is secured at the top by means of the A5 log and the pre-assembled gables, the purlins and the roof boards. The threaded rods also improve the strength of the construction.

You will also notice that there is still a gap over the door and the window. This gap is very important for the structure of a log cabin – your summer house will settle by up to 3–4 cm during the different seasons and in varying weather conditions. To allow for this, there has to be some allowance above the doors and windows. When the weather is damp the wood swells slightly. This gap is covered both inside and outside by the timber trims supplied. These trims are fixed into the frame and not into the logs in order to allow for natural movement. For this reason you should also be careful, for example when putting up shelves, to ensure that the brackets are not screwed into several different logs.



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CONSTRUCTION OF THE FLOOR

The floorboards are tongued and grooved – the underside is recognizable because of its chamfer. Please note that, as with the profiled wall logs, the floorboards may show some unevenness caused by the plane during machining. This is quite normal in the timber manufacturing process and is not generally considered a defect.

Begin laying the floorboards at the front wall – the groove of the first board to the wall. Make sure that they lie flat on the joists of the front and rear wall - see Figure 5. Continue laying the boards, one after the other. Here, the same concerns apply with regard to the natural warping of the wood, particularly since the wood is close to the damp ground, so that a perfect fit cannot be guaranteed. Ensure that the floorboards are not laid too close together – this can be achieved by adjusting the tongues and grooves of the last 5–10 boards to allow the wood to swell in damp weather, without the risk of the floor arching upwards as might happen if the boards were a tight fit. If this causes a problem you will need to re-cut the last floorboard. Once the surface has been covered evenly, the floorboards are nailed securely to the floor joists and the skirting boards are fixed all the way round. The skirting board is an attractive way of finishing off the wall/floor junction.



Figure 6

CONSTRUCTION OF THE ROOF

Begin by inserting the ridge purlin into the cut-out gable sections – recognizable by their slanting profile – followed by the other purlins, which are all positioned to finish flush with the top of the gable. Now check again that the whole structure is perfectly square, that the door can be opened and closed properly and that the gable follows the lines of the front and back wall. Do not forget the threaded rods. Next fix the tongued and grooved roof boards with the profile on the inside. Here again, any unevenness caused by the planer and rough edges etc. even in the grooves and tongues is due to well tried production techniques and quite normal.

Fit the 2 roof boards with the groove pointing outwards on the edge of the roof and flush with the ends of the roof purlins, Fit the remaining boards to form a solid deck but as with the floor boards ensure that the boards are not fitted too closely. The entire roof should be checked for parallel eaves, a uniform overhang over the walls and even, firm support for the purlins. All roof boards should be nailed securely to the walls, gables and purlins. As with the floor, the last boards should be trimmed, for example using a fretsaw, for a flush finish at the roof edge. A firm, durable anchoring of the roof is important for the stability of the cabin as a whole.

Always be careful when you work on the roof, which is not designed for standing on.



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ROOFING FELT

After the felt battens are fixed at the edges of the roof the roofing felt can be laid.

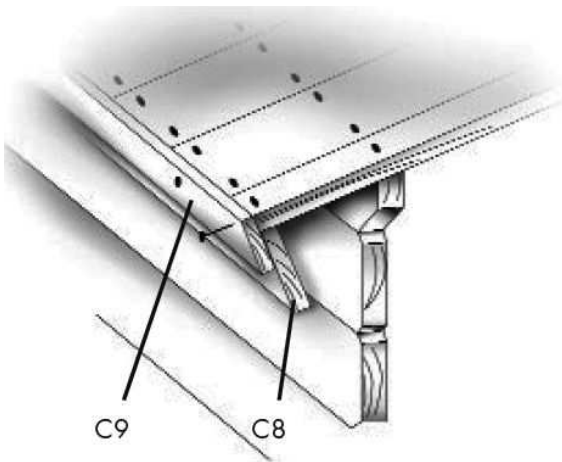


Figure 7

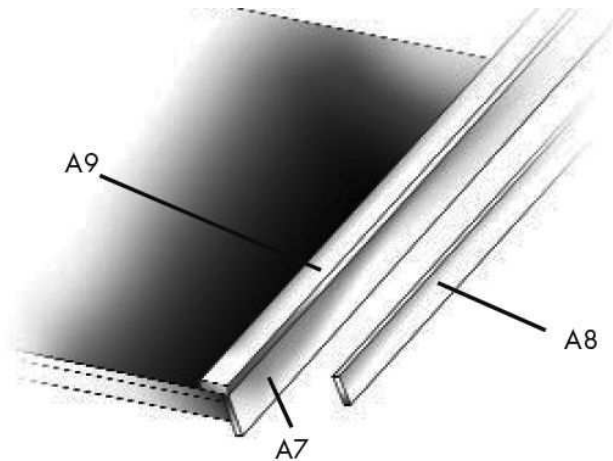
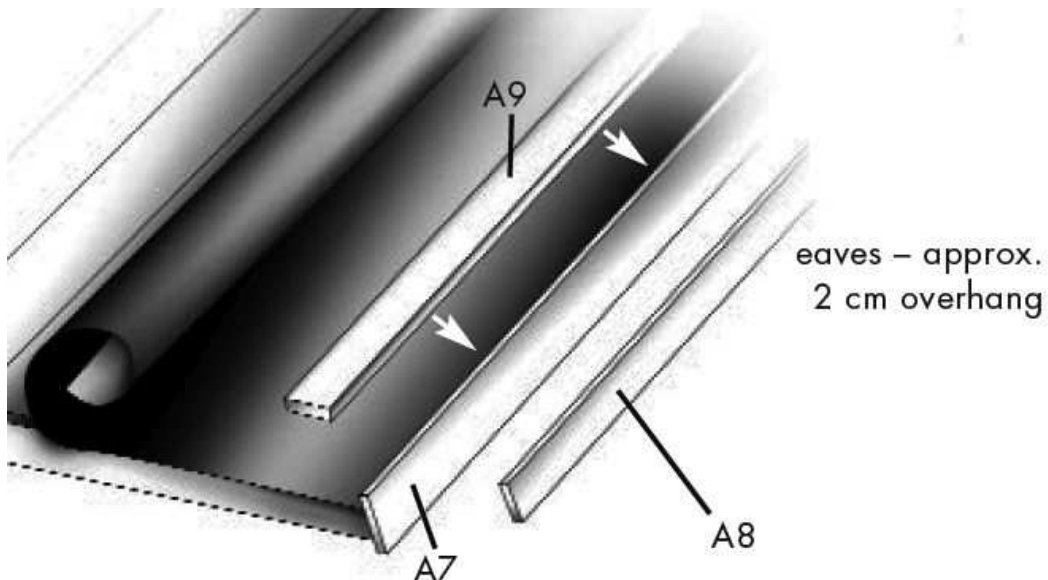


Figure 8

Cut sheets the length of the roof with exactly 90° corners and start laying the roofing felt parallel to the eaves – be sure to allow an overhang of 20-30mm – this is the best way of protecting the roof boards from dampness. See diagram 6a. Start at the eaves and finish with a strip along the apex. The ends of the roofing felt are nailed down and covered with the timber battens A9. Finally the fascia boards A8 are fixed. You can finish the edges of the roof in several different ways provided that you protect against water penetrating the roof and causing permanent damage.

Figure 9



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THREADED TENSION RODS

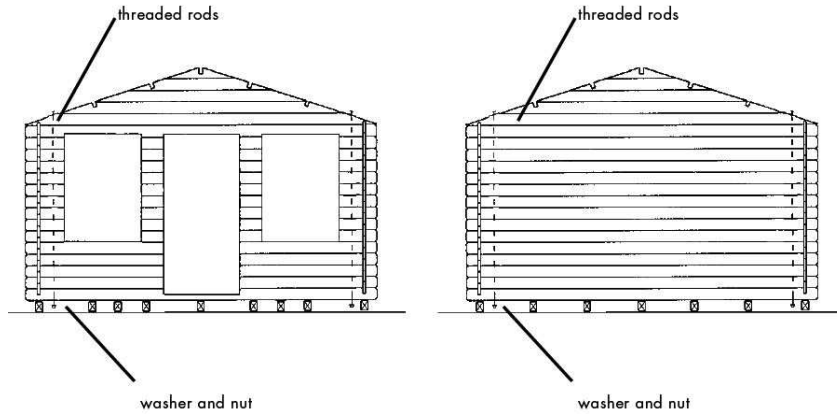


Figure 10

Your log cabin is extremely solid and stable but as with any building protection from the wind should be considered. A stable and firm foundation and the fixing of the roof to the walls are all important. To improve its performance this summerhouse is equipped with a tension rod system. This is probably the best and most stable solution available for log cabins.

To ensure that this feature is fully effective at all times you should regularly tighten the nuts of the tension rods, gently and without force – in the damp months the wood is likely to swell so loosen the nuts a little. This allows the walls to readjust without being hindered by the threaded rods. In view of the settlement described previously it is possible that the threaded rods may touch the ground and this could damage the roof if pushed upwards. If this happens just saw a piece off the end of the rods with a metal saw, so that they do not rest on the ground any more.

TIMBER TREATMENT AND PERFORMANCE

If you wish to paint your log cabin you should wait until it has been erected. We recommend a micro-porous wood varnish or paint. Treatment with a coat of preservative can provide added protection against rot - please note the manufacturers' instructions for use. Regular visual checks help to avoid damage before it occurs. Remember also that adequate ventilation and avoiding saturation are still the best ways of protecting wood against rot.

It is technically impossible to produce absolutely inert material in the case of wood, even with the most sophisticated production methods, since it is a purely natural material. Due to the constantly changing temperatures and the varying moisture content of the air during the course of the year, combined with rain, wind and sunshine, wood will always shrink and swell alternately, as the pores absorb moisture and dry out again. It is possible that the timbers may warp a little, but this has no influence on the stability and functionality of the structure. The swelling and drying of the pores in the wood also leads to the settlement of the walls described above – this is why the door and window frames are not fixed to the wall logs but are inserted loosely in the walls. This being the best way to ensure that the natural movement of the wood does not cause any damage to the structure.

As a general rule, this phenomenon will stabilize after one summer/winter season, so you can then screw the frames to the lowest wall log at two or three points if you wish to. However, there is no way of avoiding the necessity for periodic checking and maintenance. You should in any case check the door and the windows at regular intervals, especially during the first year and under extreme weather conditions, and adjust the door frames as required. This should be done by adjusting the whole frame using gentle taps of the rubber mallet (please use wooden blocks in between) or by tightening or loosening the hinges.



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LIST OF PARTS – LOG CABIN

Description	Size in millimetres	Quantity	Code
Floor joists	50 x100 x 3800	7	
Floorboards	19 x 87 x 3705	42	
Final floorboard	19 x 51 x 3705	1	
Ridge purlin	45 x135 x 5350	1	
Roof purlins	45 x145 x 5350	2	
Roof boards	17 x 87 x 2250	124	
Door with window and lock	820 x 1740	1	
Window	1126 x 822	2	
Trim above window, inside	19 x120 x 980	2	
Skirting board, rear wall	20 x 30 x 3710	1	
Skirting board, side walls	20 x 30 x 3670	2	
Skirting board, front wall	20 x 30 x 1367	2	
Threaded rods		4	
Roofing felt			
Screws, nails etc.			
Wooden blocks for assembly	45 x 65 x 250	2	
Front wall A			
Wall log, predrilled, cut for below door	45 x135 x 4000	1	A 1
Wall logs, predrilled	45 x135 x 1550	8	A 2
Wall logs, predrilled	45 x135 x 280	18	A 3
Wall logs	45 x135 x 375	18	A 4
Wall logs, predrilled, above front wall	45 x135 x 4000	1	A 5
Gable triangle predrilled	45 x710 x 4100	1	A 6
Roof battens	16 x145 x 2300	2	A 7
Roof battens	16 x 95 x 2300	2	A 8
Rear wall B			
Wall logs, predrilled	45 x135 x 4000	15	B 1
Gable triangle, predrilled	45 x675 x 4000	1	B 2
Roof battens	16 x145 x 2300	2	B 3
Roof battens	16 x 95 x 2310	2	B 4
Roof battens	16 x 95 x 2350	2	B 5
Side walls			
Half length wall log	45 x 67 x 4000	1 + 1	C 1
Wall logs	45 x135 x 4000	10 + 10	C 2
Wall logs	45 x135 x 4190	1 + 1	C 3
Wall logs	45 x135 x 4480	1 + 1	C 4
Wall logs	45 x135 x 4770	1 + 1	C 5
Wall logs	45 x135 x 5060	1 + 1	C 6
Wall logs	45 x135 x 5350	1 + 1	C 7
Fascia board	16 x 95 x 5350	1 + 1	C 8
Fascia board	16 x 57 x 5350	1 + 1	C 9



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CONSTRUCTION OF THE TERRACE

Now it is time to add the terrace. Begin by laying the 1.5m long foundation beams. These are pushed slightly under the front wall of the cabin – the depth of the terrace is determined by the balustrade. Figures 11 and 12 show how the terrace should be constructed.

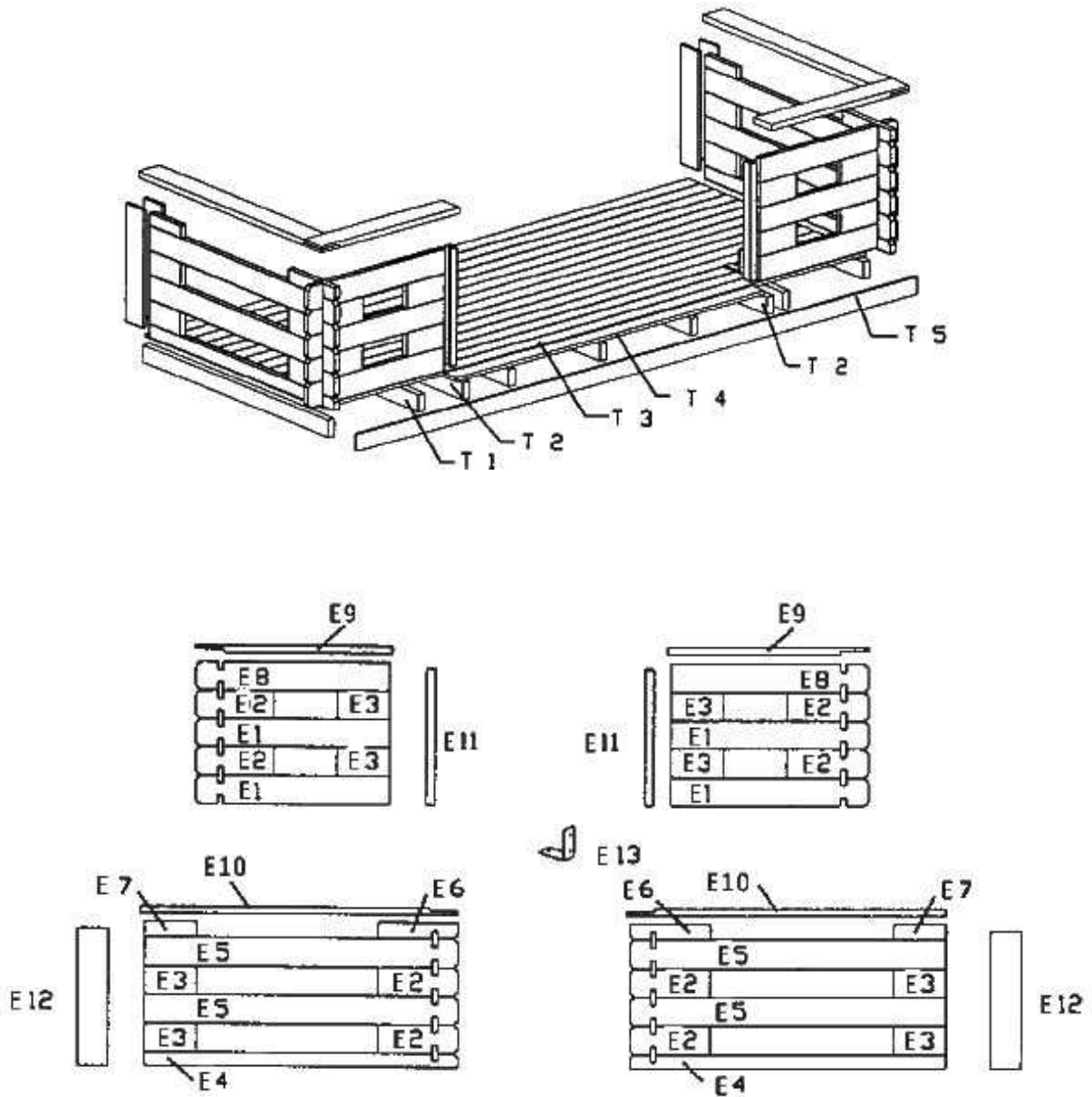


Figure 11

The 2 short foundation beams T2 are inserted under the corner posts at to the entrance of the terrace, in order to support the first floorboard.



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CONSTRUCTION OF THE TERRACE (continued)

The 2 half-length beams D4 are placed on top of the outer flooring joists – here too, allow a slight overhang and sufficient space on the inside to take the flooring of the terrace. Now lay the floorboards T3. There should be a gap of about 1cm between them. Arrange them prior to nailing them, so that they are evenly spaced. The first floorboard next to the cabin has to be screwed in place. The final, shorter floorboard T4 protrudes slightly at the front between the corner posts – ensure that this board is well supported by the foundation beams. The floorboard next to the cabin should be screwed so that it can be removed when checking the tension rod system.

The corner posts are screwed to the footings using metal brackets as well – then lay the D9 + D10 terrace decking boards as well as the two U-profile strips D11 to finish the right and left-hand sides of the entrance.

Finally, attach the balustrade to the cabin using the D12 timbers. The remaining smooth edged timber T5 is nailed to the foundation beam by way of a fascia. Ensure that the whole of the base construction is well ventilated. This is still the best protection against rot (the floorboards of your summer house are nevertheless made from especially durable spruce fir timber, which is impregnated under pressure and therefore well preserved)

LIST OF PARTS – TERRACE

Description	Size in millimetres	Quantity	Code
Wall logs	45 x 135 x 930	4	D 1
Wall logs	45 x 135 x 375	8	D 2
Wall logs	45 x 135 x 250	8	D 3
Half-length wall logs	45 x 67 x 1500	2	D 4
Wall logs	45 x 135 x 1500	4	D 5
Half-length wall logs	45 x 65 x 375	2	D 6
Half-length wall logs	45 x 65 x 250	2	D 7
Wall logs	45 x 135 x 930	2	D 8
Balustrade	34 x 145 x 970	2	D 9
Balustrade	34 x 145 x 1500	2	D 10
U-profile	34 x 65 x 640	2	D 11
Connecting plate	16 x 145 x 650	4	D 12
Metal brackets		2	D 13
Base beams	50 x 100 x 1500	7	T 1
Base beams	50 x 100 x 500	2	T 2
Floorboards	21 x 95 x 3705	14	T 3
Floorboard	21 x 95 x 2140	1	T 4
Cover trim	21 x 95 x 3800	1	T 5



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