

How to build a Rifleman Nest Box

2021 edition



The 2021 box design has been modified to improve the observer's ability to check if there is an active nest in progress; to make it more secure for the bird; and to simplify construction.

Without changing the internal volume of the box, the rectangular floor has been rotated 90 degrees so that the internal space is wider than it is deep. This entrance hole has also been lowered to the midway point. These two adjustments encourage the bird to form the nesting cavity more centrally and towards the rear door. This makes it easier for an observer to determine from the rear door view if the birds have completely lined the small inner nesting cavity with feathers. Rifleman commonly commence building a nest in more than one location, but select only one for egg laying with the completed feather lining of the small inner cavity being a primary indication that the nest will be used.

The roof design is now flat, with a greater extension at the rear. This simplifies construction and the flat roof allows the rear door to be hinged so that it lifts right up to the horizontal, for easier viewing the interior of the box. Regarding whether the roof needs a slope, that is almost unavoidable anyway, when the box is mounted on a tree. The latch has been redesigned, for easier opening and quicker inspection.

Big thanks to Rod Morris, Shanta McPherson and Norm Hinton for sharing these instructions and useful tips!

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Materials required:

- 12mm exterior grade ply
- Galvanized 25mm nails or staples
- Galvanized 60mm washer with 20mm hole
- Galvanized 3 small screws
- 70mm length of thin wire
- Galvanized or zinc plated 35mm hinge
- Exterior paint or sealant

Tools required:

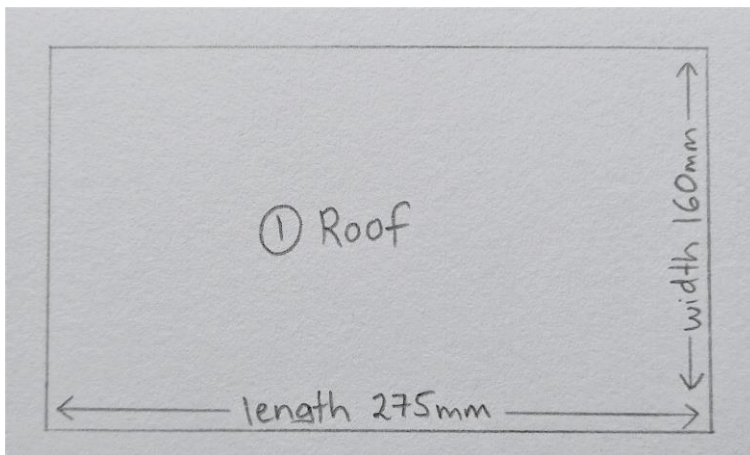
- Circular saw or hand saw
- Hammer (or staple gun)
- Drill
- 20mm circular saw drill bit
- Metal drill bit
- Paintbrush

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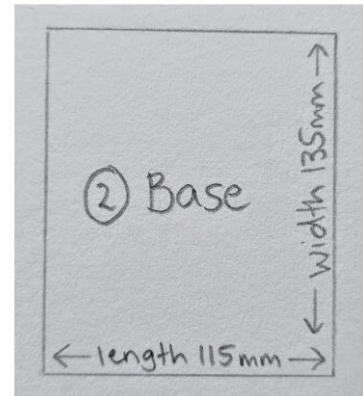
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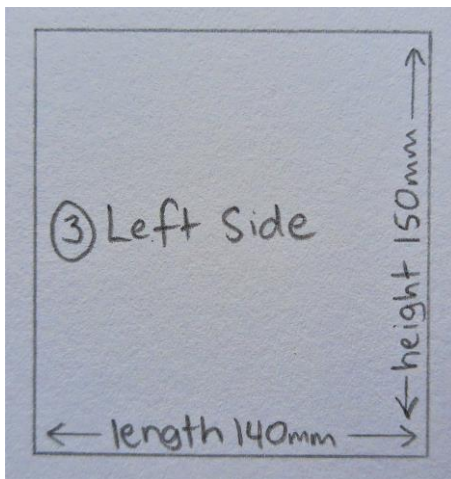
CUT EACH SECTION from the ply. A circular saw is handy for this – but a steady hand saw works fine too. You may find it helpful to number the sections as you cut them.



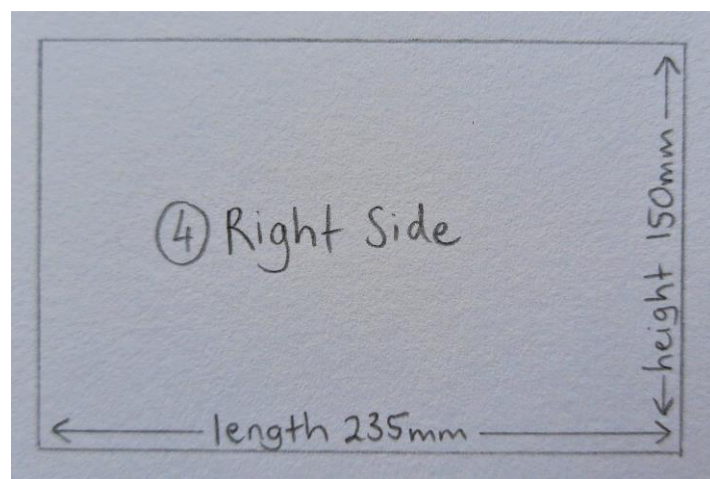
Section 1



Section 2



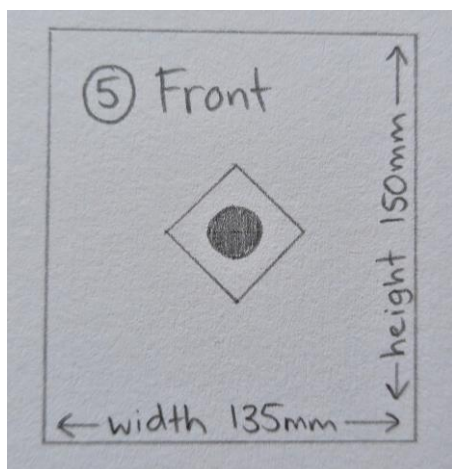
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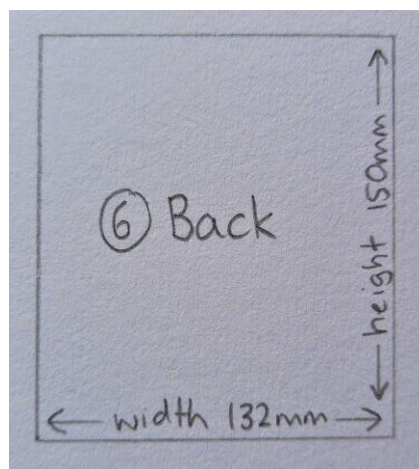
Section 4

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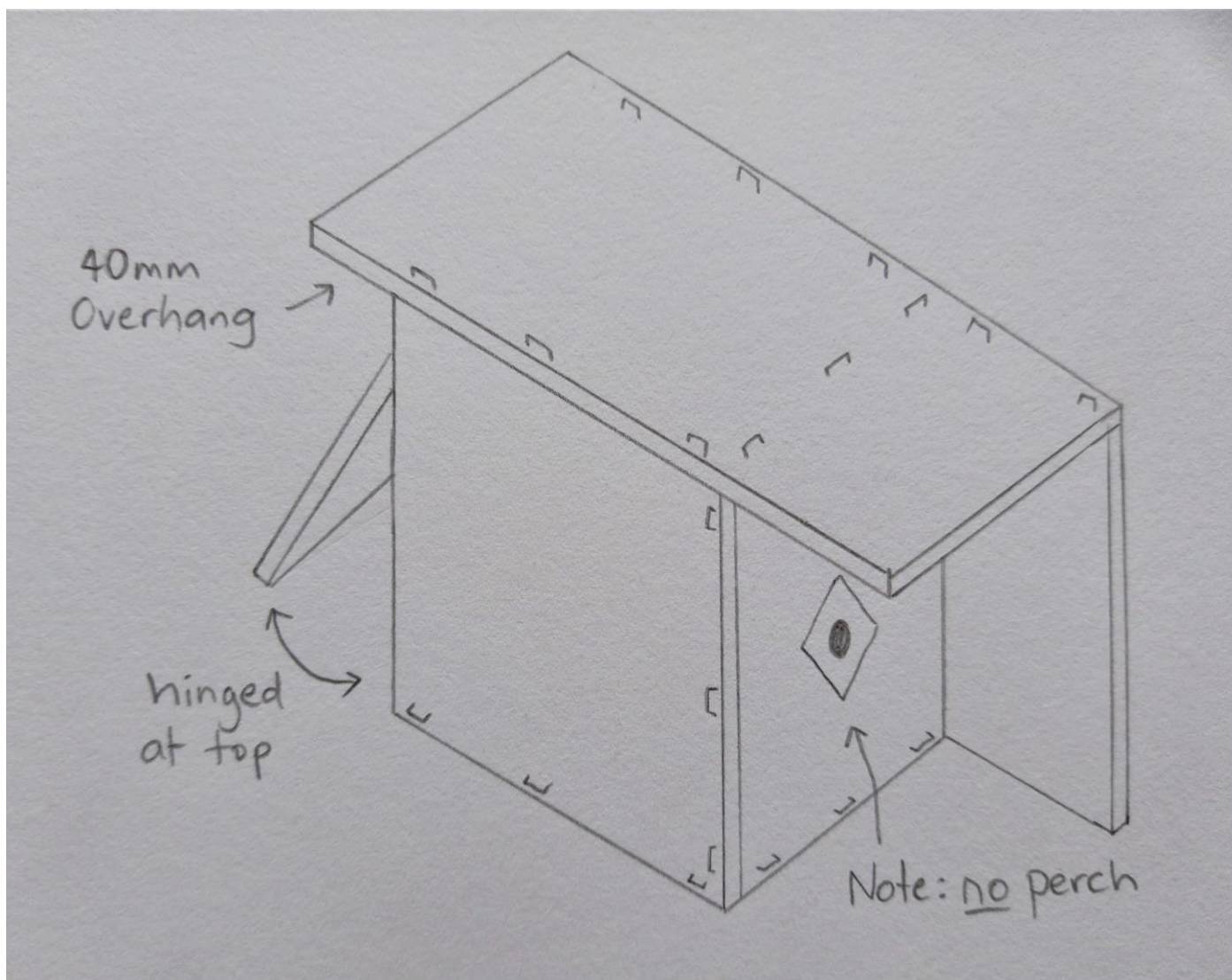
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Section 5



Section 6



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DRILL THE ENTRY HOLE IN THE FRONT SECTION.

The hole needs to have a diameter of 20mm, small enough that rats can't squeeze inside. Place the hole directly in the centre of the panel. If you do not have access to a 20mm drill bit you can drill a series of small holes around the inner edge of the 20mm circle, tap out with a chisel and then file smooth with a circular wood file.



DRILL TWO HOLES IN THE WASHER and attach it with two small screws over the entrance hole. **Do not skip this step** – the washer is most definitely an essential service for rifleman! Without the washer's protection a rat can chew through the entrance hole within a couple of nights and eat the chicks. Then they take over the nest, so you end up providing nest boxes for ship rats.

NAIL OR STAPLE THE BOX TOGETHER starting with the roof onto the right wall. The roof should be flush with the front of the right wall and have a 40mm overhang at the back. Then position the left wall on the other side of the roof so that the back end has the same 40mm overhang. Place the front flush with the front of the left wall. Then position the base between the walls and up against the front.

ATTACH HINGE TO BACK DOOR by placing top centre.



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MAKE A LATCH. Cut a 70mm length of thin wire and bend as shown. Use a small screw to attach the loop end to the edge of the left wall, loose enough that it can still move freely. Be sure to attach to the left wall as the right wall will be mounted to the tree. Hammer in a small staple to the spot on the back door where the latch ends.



SEAL THE JOINS AND PAINT THE EXTERIOR. The plywood used for construction is water absorbent, so sealing the boxes improves dryness and warmth. Painting them, especially the front alcove, also improves mouse protection. The entrance hole is easily large enough for mice to gain entry and they can climb a textured wooden surface, but less so a painted surface. Do not feel tempted to add a traditional bird house perch below the entrance hole, the rifleman don't need it, but it could give a mouse a leg up.

DRILL DRAINAGE HOLES. Turn the box upside down and drill a 6mm hole in each corner of the base and one in the centre to allow for drainage.

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MOUNT NEST BOX with screws through the right wall at roughly head height, on an appropriate (ideally vertical), tree trunk, and approximately two to three metres distance from a second landing trunk or branch on which visiting rifleman can perch before flying to the nest box. Nest boxes should be **located on the shady, sheltered side of a tree trunk**, thereby avoiding possible temperature extremes- ie away from strong wind and strong sunlight. The worst sites are those where the nest in the box gets hot on sunny days and can overheat the eggs. Be wary of locating nest boxes near public areas as they can be easily tampered with and investigated by curious children and adults alike. The safest spot is well within the boundaries of private land.

Finally, congratulate yourself for making a home for a family of rifleman. And don't forget about pest control. The nest box is no panacea for rifleman **without intensive rodent control** – contact the Otago Peninsula Biodiversity Group for assistance with setting up traps: guardians@opbg.nz

