

Dormouse Box Manufacture Based on the Paul Bright design

Tooling:

A table saw is really a necessity, otherwise a hammer, pincers for removing pins not gone in correctly and a paint brush and gloves for the painting. With a set of fixtures, an assembly line can be set up in the garage – much more fun to have a group; and a time also for a chat and a cup of tea.

Material (wood): 13 boxes can be made from one sheet.

2440 x 1220 x 12mm (8ft x 4ft), softwood, spruce external ply (shuttering ply). 12mm thickness gives adequate material for knocking in the panel pins at a later stage without them protruding through the side. It also gives much greater insulation to the dormouse than a thinner material would. Consider marine ply if boxes are to be used in a salty atmosphere, but this is somewhat more expensive. In pricing, an allowance may have to be made for the wood to be cut to a manageable size so that it can be transported home. Check, costs vary; and can mount.

Softwood for spacers which can be cut to section 20 x 25mm. Approx 10.7M required depending on individual wood lengths bought (how many 134 + cutter widths in a length of wood?).

Cut sheets into 13 strips, from top edge (1220mm side) to centreline of cutter 187mm. Each strip is sufficient for one box, (less spacers, see above).

There is no need to mark out individual parts, but working to an arranged format will reduce cutting. See fig 1.

Cut 365mm dimension for front and back faces, cut width of faces in one go (they are the same).
Cut individual lengths (heights).

Cut 569mm length from strip, for two sides and a base. Cut width of all three in one go. Cut individual pieces.

The last piece of the strip is for the cover and the lip of the cover. Cut the two lengths in one go.

Note: It is important at the next stage to cut the angle on the lip. Cutting the lip to size first of all will leave a piece of material too narrow to be held on a table saw. Cut individual pieces.

Cut spacer wood to section size and to correct length (length not critical).

Material (other):

Waterproof PVA adhesive. Various makes.

20mm panel pins – general assembly (this shorter length for ease of assembly)

25mm panel pins – for spacer to back face

Staples ½” or ¾”

Clout nails ½”

Wood preserver. B&Q Timbercare Check. Must be compatible with pets.

Wire, plastic coated. Medium weight for tying lid to box when in use. This thickness can be used simply with one hand. Thicker wire will tend to turn the lid if not held firmly with the other hand. Thin wire will not last as long.

Wire, plastic coated, heavy duty for hanging boxes

Assembly:

For box details see fig. 2. For a number of boxes to be made it is preferable to make some simple fixtures for holding the sides whilst pinning. It will also increase ease and accuracy in assembly.

Use waterproof adhesive on all joints.

Join front face to sides and pin with two 20mm panel pins.

Pin spacers to back face from the inside with three 25mm pins

Pin front face/side assembly to back face assembly with three 20mm pins

Fit and pin the base which should slide into position. Pin through sides with 20mm pins

Assemble lid with three 20mm pins, take care with angle. Fit staple to miss box side and set centrally, to ensure lid sits centrally when the box wired up. Dimension not too critical.

All large holes such as where knots have fallen out, gaps in ply edges, especially on the top edge and around the cover should be sealed with a mixture of adhesive and sawdust.

Sand and give at least one coat of preservative.

QED (quite easily done)