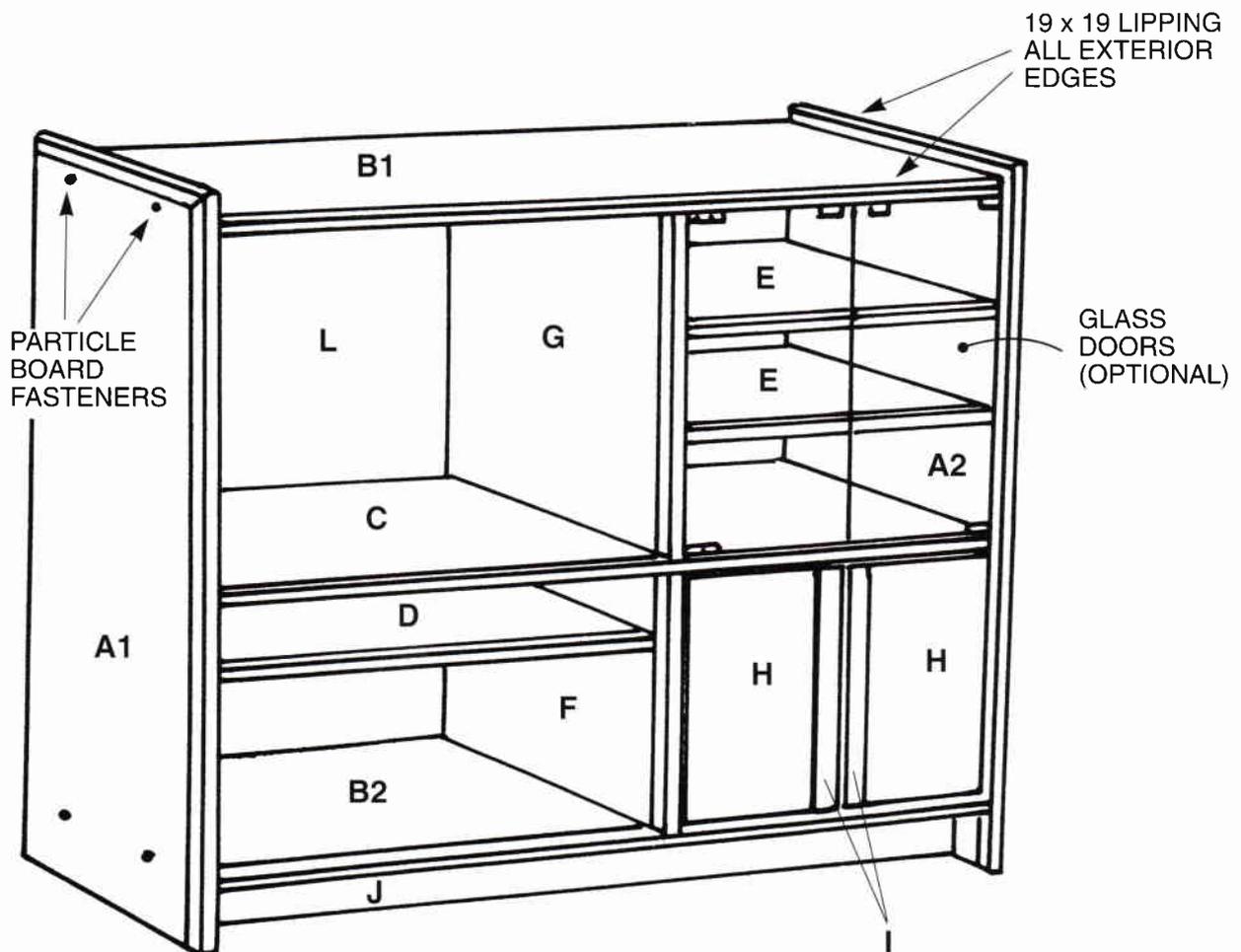


Entertainment Centre

This is a good-looking and useful piece of furniture that can be made for much less than the cost of a commercially-built unit. The recess dimensions given are suitable for a wide range of equipment, but can be easily altered to suit your own requirements.

Due to the need to accurately cut large sheet material, an Extension Table is specified, as is a router for the required trenching work.

A Bevel Cutting and Routing Platform is essential. Refer to the Jig Guide for details.



Tool Requirements

1. ESSENTIAL Triton Workcentre and your power saw; Triton Extension Table; Triton Router & Jigsaw Table and your router; router bits as follows: 19mm straight bit; small radius (1/4" diam.) rounding over bit; Electric drill and Triton Woodbits; hole saw or keyhole saw; bar or pipe clamps; hammer; nail punch; hacksaw; small screwdriver (for piano hinges); household iron (for veneer strips); measuring tape; square; pencil; sandpaper.

2. USEFUL Triton Roller Support Stand; marking gauge.

Construction Details

Component Specifications

All dimensions are in mm.

Part	Description	Qty.	Width	Thickness	Lgth.
A1	Cabinet Side	1	446	19	976
A2	Cabinet Side	1	446	19	976
B1	Cabinet Top	1	446	19	1148
B2	Cabinet Bottom	1	446	19	1148
C	Cabinet Middle Shelf	1	446	19	1148
D	Lower Shelf	1	427	19	669
E	Upper Shelf	2	427	19	479
F	Lower Divider	1	446	19	360.5
G	Upper Divider	1	446	19	499
H	Door	2	213	19	346
I	Handle*	2	38	30	346
J	Plinth	2	90	19	1129
K	Crosspiece	1	90	19	402**
L	Back	1	975	4	1168
M	Corner Block	2	19	19	85

* Handle type is optional. These dimensions refer to proprietary "finger-pull" moulding available from some kitchen suppliers.

**See cutting schedule. Note: All component dimensions are prior to lipping or veneering.

Material Shopping List

1. WOOD

19mm Veneered Particle Board 1 @ 2400 x 1200mm
1 @ 1800 x 1200mm

We found that "Australian Oak" veneered particle board was relatively inexpensive, and took stain well. Note that sides (A1) and (A2) are cut from different sheets, so ensure that your sheets match fairly closely in grain and figure.

4mm plywood back 1 @ 1800 x 1200mm

Dressed KD Hardwood (for door edges and lipping)

19 x 19mm 1 @ 0.9m
3 @ 2.4m
1 @ 2.7m

2. FASTENING

PVA wood glue; 15mm x 1.0mm nails (for attaching the back); 30mm x 2.0mm nails (for lipping); 8 particle board sheet connectors. A variety of connectors is available, some with plastic screw head covers, and others with socket screw heads intended to be exposed. We used brass countersunk "Harpoon Bolts" made by Spurway Cooke, with hexagonal socket heads.

3. OTHER

Total of 700mm of piano hinge (sometimes sold as "continuous hinging", can be cut to length with a hacksaw); Pivot hinges for glass doors, if used; Magnetic latches or cupboard catches; Door handles as desired (we used a full-length "finger-grip" moulding as sold commercially for kitchen cupboards); 1m approximately of iron-on veneer edging for timber doors; Glass for optional upper doors – our example required 2 @ 230mm x 474mm, but depends on fittings.

4. FINISHING

Any furniture finish will be suitable. We used Cabots Stain Wax, in a Dark Oak colour, for ease of applying to the completed cabinet.

General Points

1. This is not a difficult project but care should be taken in marking out, particularly if dimensions are altered to suit alternative equipment. Note that the cabinet has been designed for front loading VCR's and stereo equipment.

2. If you do not plan to use full length kitchen cupboard-type handles on the doors H, we suggest that you lip the exposed door edges with 19 x 10mm hardwood, and fit normal pull-type handles of your choice.

Rip and crosscut the veneered sheets according to the Cutting Schedule and the Cutting Diagrams. The Triton Extension Table, a friend, or a Triton Roller Support Stand, will be very helpful at this stage. Cut the plywood back (L) to size, the two handles (I) to length (if a full-length moulding is being used), and mark all pieces for identification.

2 Mark the location of the trenches in all components as in **Figure 1**. The lines are measured from the top edge of the component in each case, and represent the upper edge of the trench.

It is very helpful to mark also the approximate position of the lower edge of the trenches to prevent confusion when the components are turned end-for-end during routing. The lower edge is indicated by dotted lines in the diagrams.

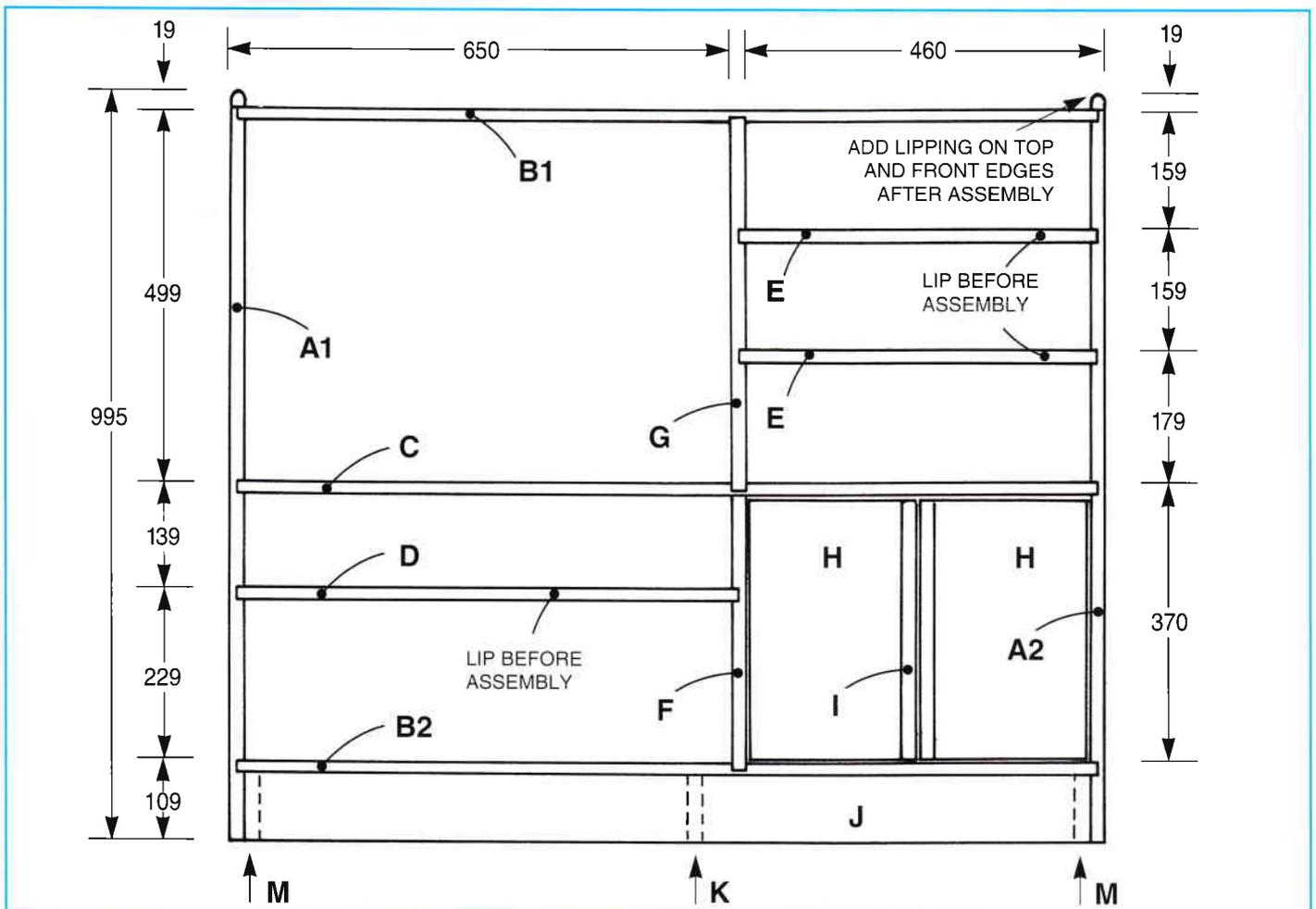
Note, when selecting which of the veneered faces to trench, that the trenches in the bottom and the middle shelves (B2 & C) are in the upper (visible) face, while the trench in the upper component (B1) is in the underside, and not visible.

CUTTING SCHEDULE

(Brackets indicate further cutting required)

2400 x 1200 sheet	1)	Rip	to 446	for (B,B & K)
	2)	Rip	to 446	for (A,E,E & F)
1800 x 1200 sheet	3)	Rip	to 446	for (C & G)
	4)	Rip	to 446	for (A & D)
2400 x 1200 sheet	5)	Crosscut	to 1148	for B1 & B2
1800 x 1200 sheet	6)	Crosscut	to 1148	for C
	7)	Crosscut	to 976	for A1
2400 x 1200 sheet	8)	Crosscut	to 976	for A2
1800 x 1200 sheet	9)	Crosscut	to 499	for G
	10)	Crosscut	to 669	for (D)
2400 x 1200 sheet	11)	Crosscut	to 360.5	for F
	12)	Crosscut	to 479	for (E & E)
	13)	Crosscut	to 1129	for (J & J)
	14)	Crosscut	to 346	for (H & H)
	15)	Rip	to 427	for E & E
1800 x 1200 sheet	16)	Rip	to 427	for D
2400 x 1200 sheet	17)	Rip	to 213	for H & H
	18)	Rip	to 90	for J, J & K*

* (K is crosscut to length when the cabinet is assembled)



FRONT VIEW (Note: Lipping on front edges not shown)

3 Set up the router in the overhead mode, and make and fit a new front fence for your Routing and Bevel Cutting platform. This is so that you can make a new notch with the 19mm cutter, to help align your trenches.

Fit the 19mm straight bit, and adjust using a piece of scrap particle board to make a 9.5mm deep trench. Make a test cut and notch through the new front fence. Both sides of the notch will be used for alignment of the workpieces.

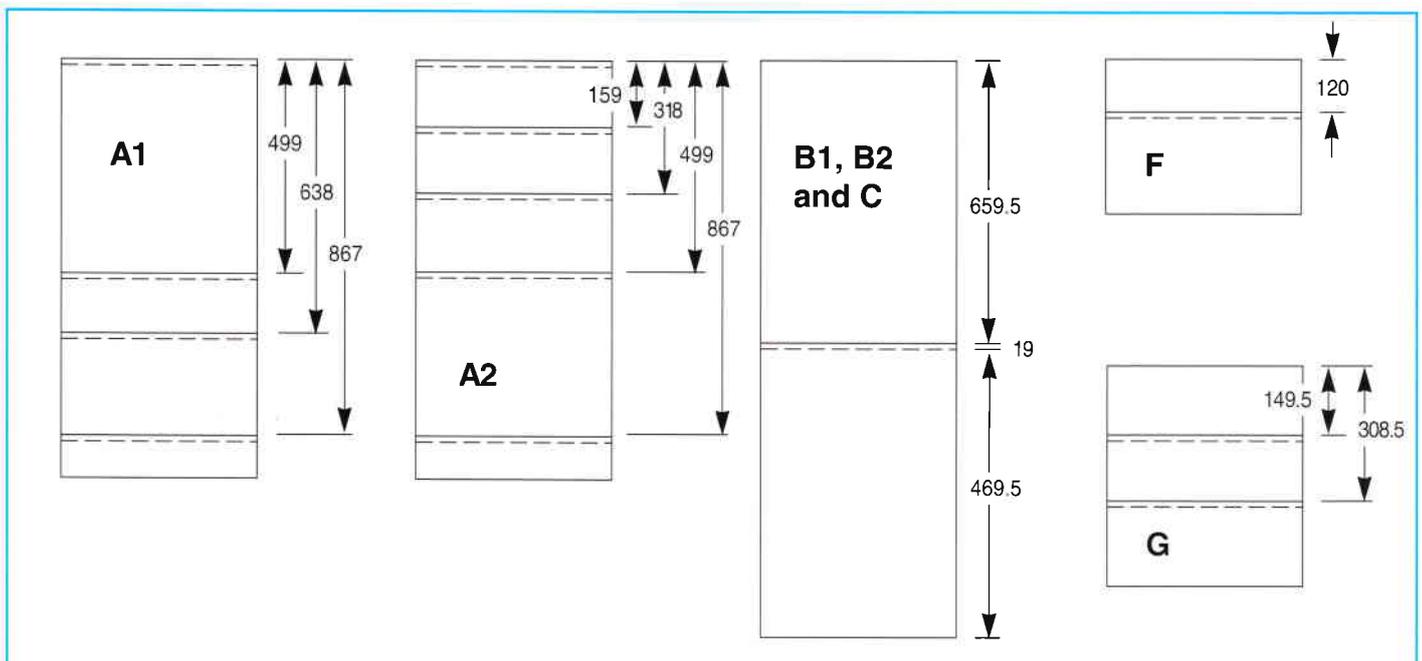
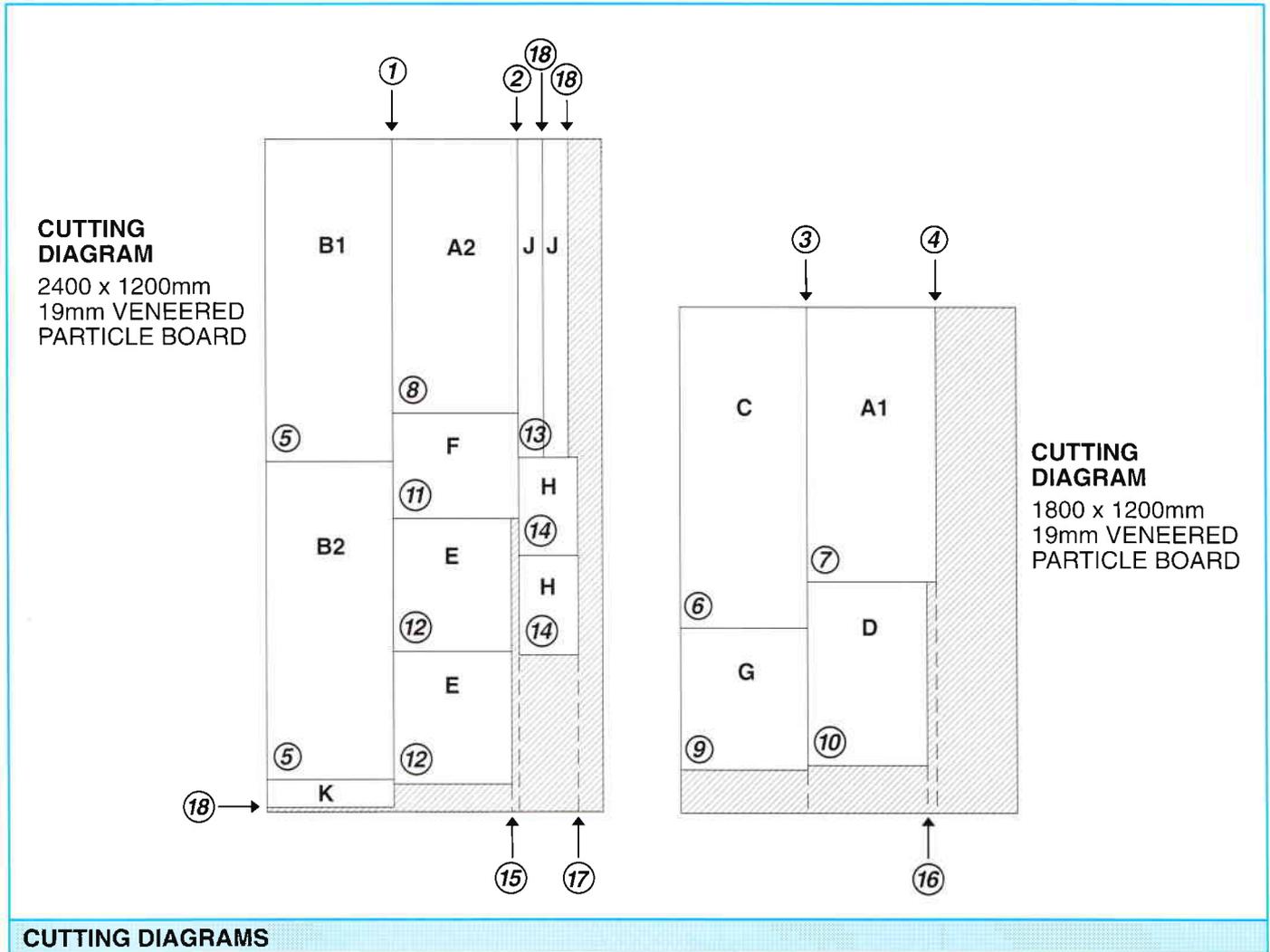


FIGURE 1: LOCATION OF TRENCHES



4 Make trenches 19mm wide and 9.5mm deep across the full width of components **A, B, C, F, and G**. Turn the pieces as necessary for ease of working, and align your previously marked lines with the appropriate side of the sighting notch in the front fence. **(Figure 2)**. It is best to take several cuts to reach the full depth of each trench, rather than one deep cut of 9.5mm.

Use clamps as required to hold the workpiece in position whilst routing. It is helpful to hold the smaller components (**F & G**) in place with small blocks nailed to the platform **(Figure 3)**, or a bar clamp through the centre table slot as detailed in your Operating Manual.

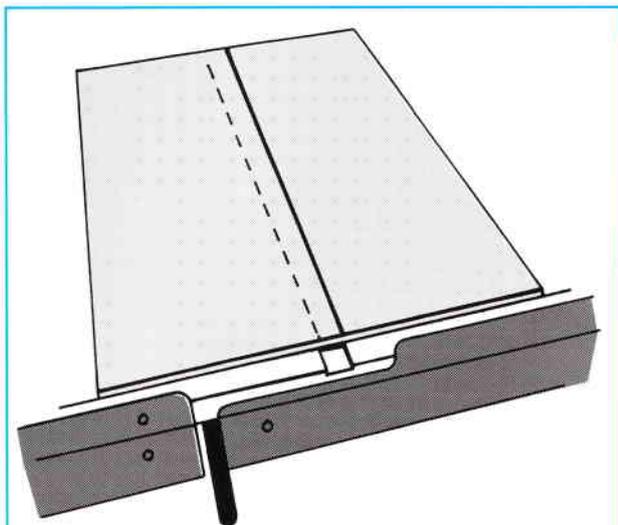


FIGURE 2

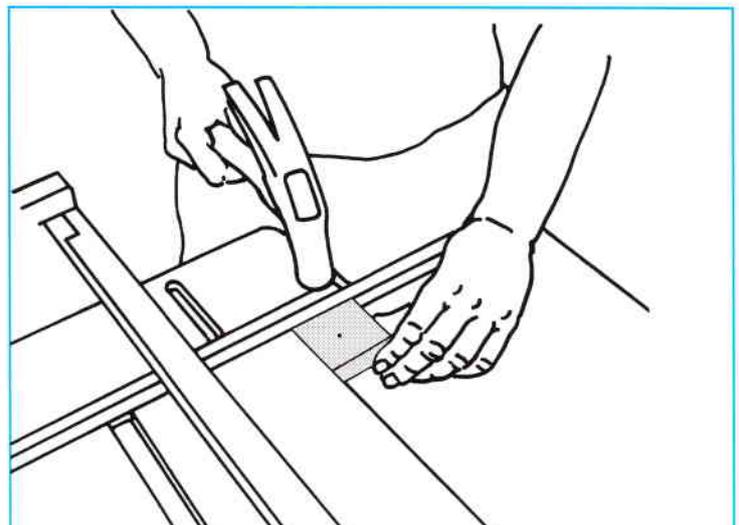


FIGURE 3

Construction Details

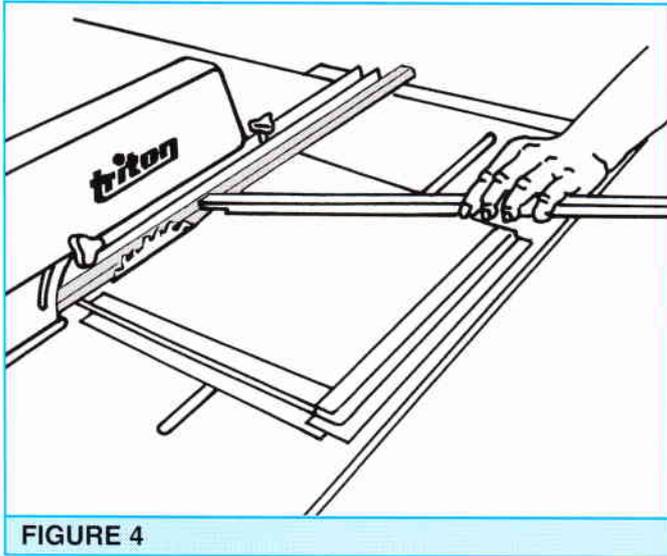


FIGURE 4

5 Drill clearance holes centrally in the top and bottom trenches of the sides (**A1**) and (**A2**) to suit the shanks of your chosen fasteners. We used two “Harpoon Bolts” in each trench, counter-sinking for the heads on the outside face of the sides (**A**).

6 Convert to the shaper table mode and using a very small radius rounding over bit (1/4"dia.), round over two adjacent edges of the 2.4m and 2.7m lengths of lipping material.

Also round over the outside edges of the back (**L**), for better appearance (it is not rebated into the back of the cabinet).

Alternatively, round over the specified edges using a hand plane and or sand paper.

7 The inner or hinge edges of the doors are lipped with 5mm thick material to cover the edges of the particle board and to provide a secure fixing for the piano hinge screws.

Rip the 19mm x 5mm material from your 0.9m length of 19 x 19 lipping by using a “mask” of thin plywood or similar over saw table slot, as shown in your Operating Manual (“Edge Work on Thin Material”).

Figure 4. shows the procedure.

Note that a hooked push stick is use to hold the material against the fence and on the table, while another push stick is used to push the material past the blade. Glue and pin the lipping to the inner edges of the doors, and apply iron-on veneer to the top an bottom edges. Also glue and pin 19 x 19 lipping to the front edges of components (**D & E**) (see Front View).

8 Temporarily assemble the cabinet sides (**A**) and the top and bottom components (**B**) in order to drill through your pilot holes into the ends of (**B**) for the particle board connectors.

This is most easily done with the cabinet lying on its front or back.

Add the middle shelf (**C**) and the remaining components, ensuring that the fit is correct, and the sides or top are not bulging outwards. Trim to length if necessary.

9 The cabinet can now be finally assembled with glue and clamps. The assistance of a friend is very helpful at this stage. Protect the veneer by placing an old blanket or clean cardboard on the floor of the workshop.

Use a paintbrush to coat the top, middle and bottom trenches of the sides (**A**) with glue, and fit components (**B1**) and (**B2**) and (**C**). The trench in (**C**) should face upwards. It is easiest to lay the cabinet on its back for this job. Fit and tighten the fasteners, and if necessary use long bar or pipe clamps across the cabinet adjacent to (**C**).

Stand the cabinet upright and coat with glue the trench in the lower shelf (**B2**), and the upper edge of (**F**). Slide (**F**) into place and fix with nails through the bottom of the trench in (**C**) (**Figure 5**). Be careful to align (**F**) vertically with the trench above, and to keep all the front edges flush. Fit component (**G**) into its two slots using glue only.

Apply Glue to the remaining trenches and fit the remaining shelves (**D**) and (**E**) with their lipped edges flush with the front of the cabinet. Finally lay the cabinet face down in order to fit the back. (If possible this should be done before the glue sets, as it will assist in squaring the assembly).

Coat the rear edges of the cabinet shelves with glue, after marking their positions on the back (**L**) to assist nailing. Fit the back, and nail with the small panel pins.

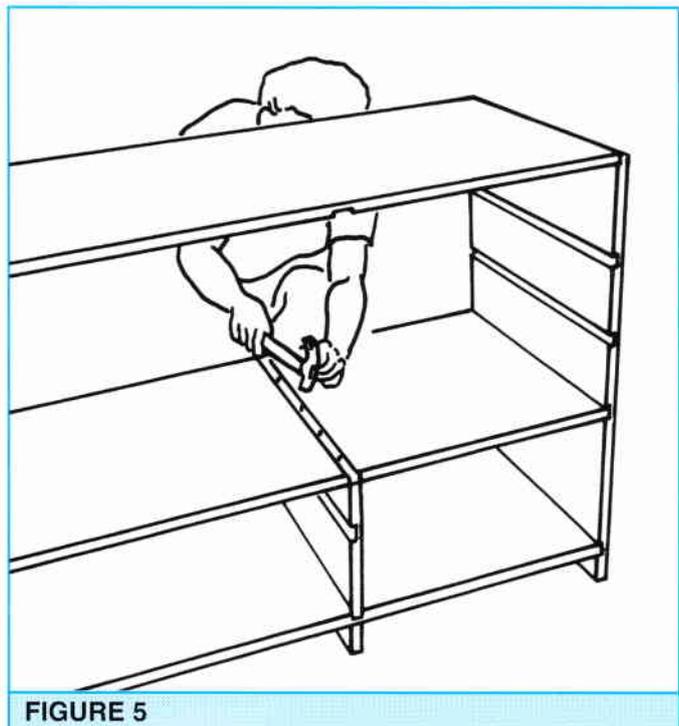


FIGURE 5

Construction Details

10 Fit the two plinth components (**J**), the front one recessed about 25mm, glued and screwed in place with two small corner blocks (**M**) made from some scrap 19mm lipping material, and the rear one clamped and glued to the back (**L**). This is most easily done with the cabinet upside down. Glue in place the crosspiece (**K**), after trimming to length if necessary. Allow the cabinet to dry.

11 Lipping is now added to the exposed edges of the particle board on the top and front of the cabinet. The lipping on the edges of (**A**) meets in the mitre joint at the top front corner. Cut and fit this first, then fit the rest of the horizontal lipping, and then the vertical. The butt joints are improved if the meeting components are slightly rounded off with a chisel and sandpaper at their ends.

Note that if you are using glass doors in front of the upper shelves, it is easier to mark and drill the holes for the pivot hinges before gluing and nailing on the horizontal lipping. See the fitting instructions and diagrams that are supplied with the hinges for further details.

12 Using a hole saw in an electric drill, or a keyhole saw, make ventilation holes as required in the back of each recess. Refer to the Manufacturer's literature for the ventilation requirements of your equipment, particularly if modifications have been made to the shelf positions. It is easiest to make the holes large enough to admit the necessary plugs and wires as well.

13 Test fit the doors. Note that the doors are recessed 19mm in from the front lipping. Use a marking gauge to mark the position of the edge of the hinges (**Figure 6**), and temporarily fit the doors using a single screw in the top and bottom of each hinge.

The kitchen cupboard handles we used were supplied rebated, and added only 10mm to the width of each door. Depending on the type of handle you have sourced, or if you have used lipping and a standard pull-type handle, you may need to trim or plane the door edges for a neat fit.

Test fit the magnetic catches, check their operation, and then remove all the hardware items before you start to apply your chosen finish.

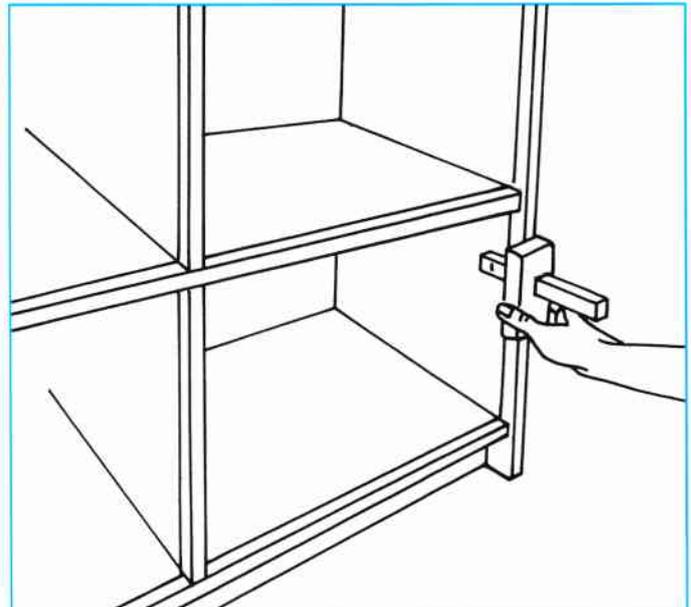


FIGURE 6

14 Lightly sand the visible surfaces of the cabinet and finish as desired. We used Cabot's Stain Wax finish, applied with a rag.

When satisfied with the finish, permanently fit the lower doors and fittings, and the upper glass doors, if used. Place your Entertainment Centre in position and fit and connect the contents. Put your feet up, listen to some music, and admire your handiwork.