

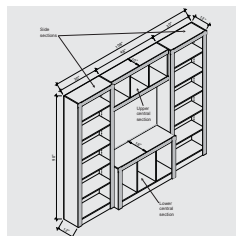
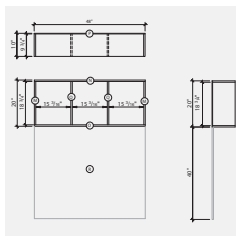
BOOKCASE

CONSTRUCTION PLAN



Difficulty level: **TT** | MODERATE

Completion time: **12 hours**



BOOKCASE

Build a bookcase that will add a touch of class to your office.

This bookcase has a total width of 108" and consists of 4 sections: 2 towers of 30" x 90" and 2 central sections 48" wide. Each section is built separately before being assembled with the others to create an inexpensive piece of furniture made of MDF, complemented by decorative mouldings and rosettes.



TOOLS AND MATERIALS NEEDED

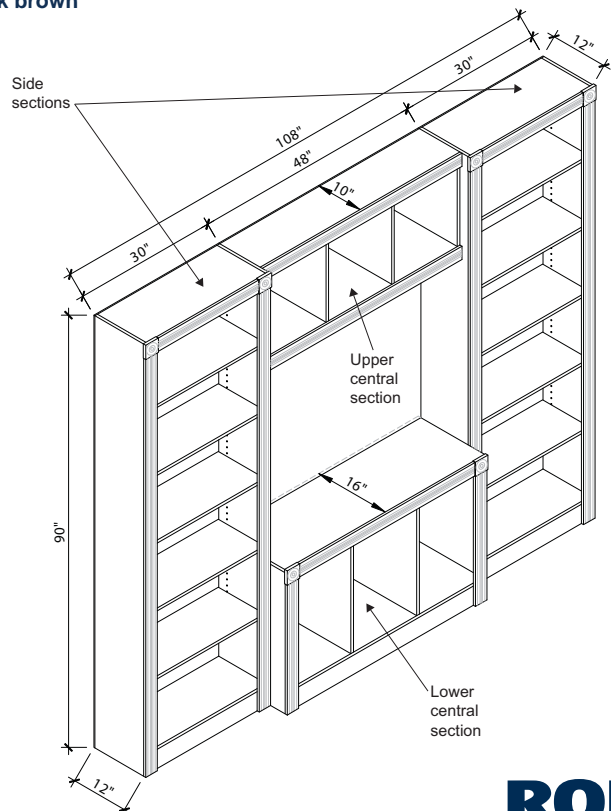
TOOLS

- > Circular saw
- > Mitre saw
- > Bench saw
- > Drill-screwdriver (electric or cordless)
- > Countersink drill bit for No. 6 screws
- > Brad-point bit $\frac{3}{16}$ " with depth stop
- > Measuring tape
- > Square
- > Pencil

MATERIALS

- > 4 sheets of MDF, 48" x 96" x $\frac{5}{8}$ "
- > 3 sheets of MDF, 48" x 96" x $\frac{1}{4}$ "
- > 7 mouldings (frame), $\frac{1}{2}$ " x $2\frac{3}{4}$ " x 96" (Boulanger no 09566127)
- > 6 mouldings (rosettes), 3" x 3" x $\frac{7}{8}$ " (Boulanger no 09565916)
- > 1" No. 6 screws
- > $\frac{5}{8}$ " No. 8 particleboard screws (for brackets)
- > 1 $\frac{1}{4}$ " 18-gauge nails
- > Wood glue
- > Angle brackets, 1" x 1" x $\frac{3}{4}$ "
- > Shelf brackets
- > Filler
- > RONA paint, dark brown

Apply two coats of paint (or one primer coat and one paint coat) to all parts after they have been cut.



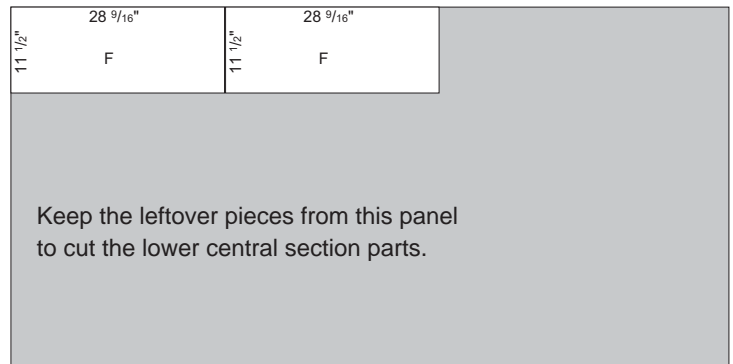
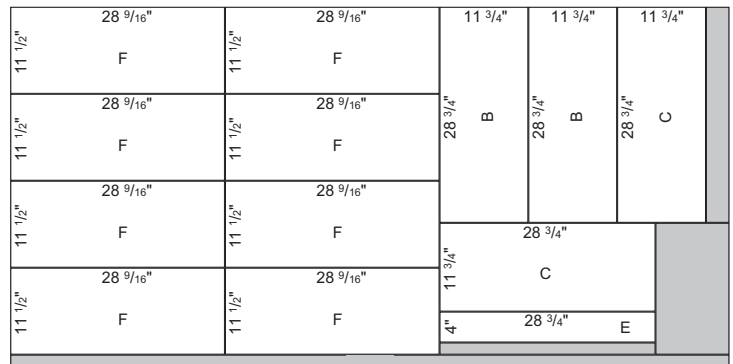
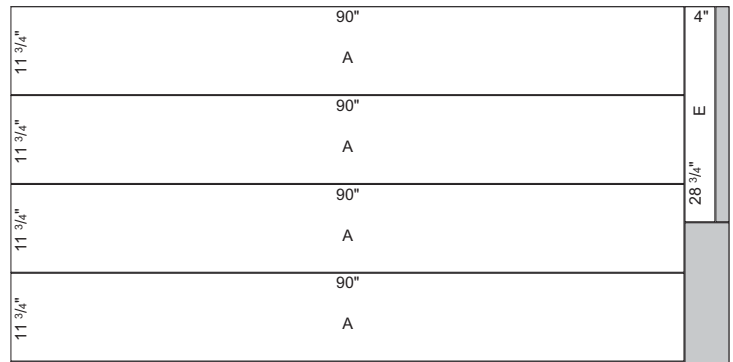
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SIDE SECTIONS

CUTTING LIST (QUANTITIES FOR 2 SECTIONS)

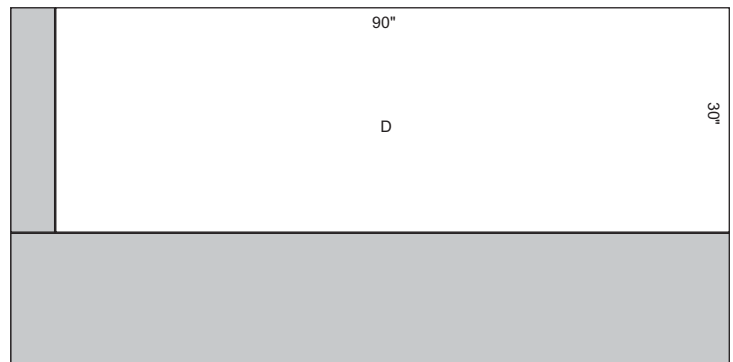
MDF, 5/8" x 48" x 96"

PIECES	QUANTITY	WIDTH (")	LENGTH (")
A SIDE	4	11 3/4	90
B TOP	2	28 3/4	11 3/4
C BOTTOM	2	28 3/4	11 3/4
E TOE KICK	2	28 3/4	4
F ADJUSTABLE SHELF	10	28 9/16	11 1/2



MDF, 1/4" x 48" x 96"

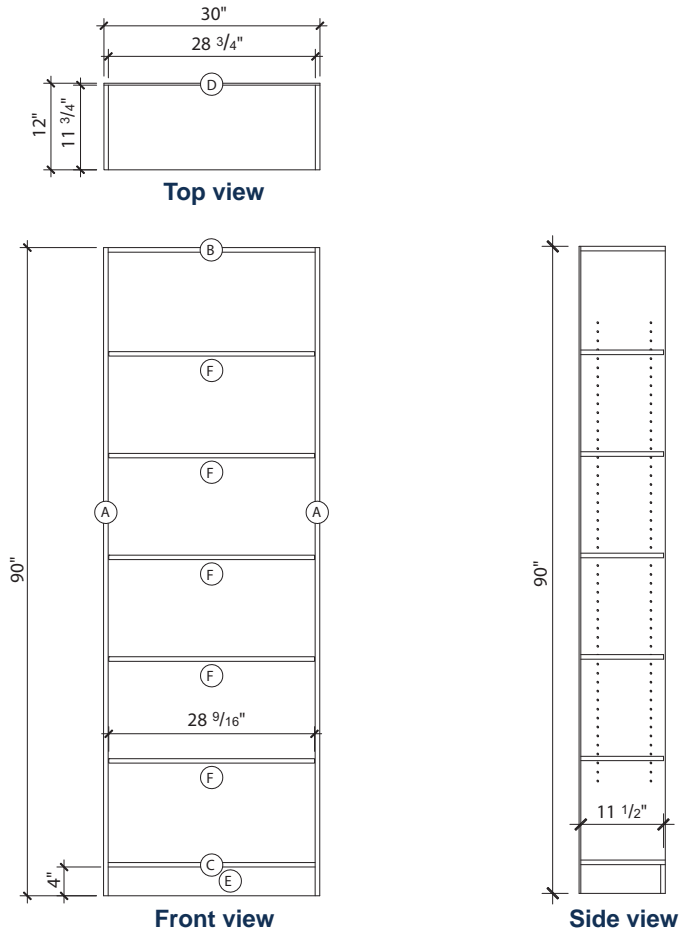
PIECES	QUANTITY	WIDTH (")	LENGTH (")
D BACK	2	30	90



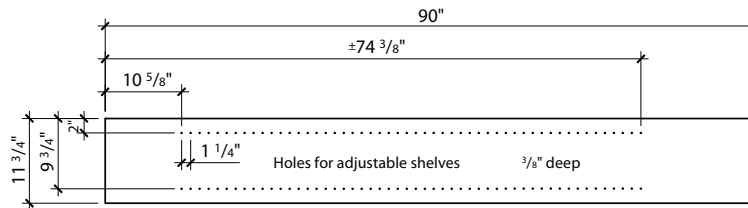
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SIDE SECTIONS (CONT'D)

ELEVATIONS



PREPARATION



- 1 Mark the holes for the shelf brackets on the A parts (on one side), using the measurements given in the illustration above.

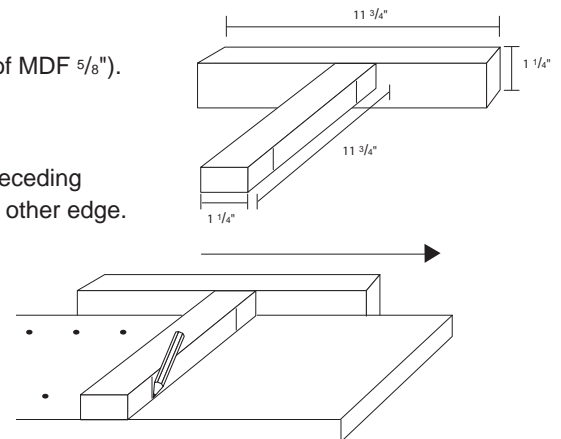
Useful tip:

To ensure consistent spacing between the holes, make a T-square guide by joining together two pieces of 1 1/4" x 11 3/4" (made from leftover pieces of MDF 5/8"). One part is used as a ruler and the other to maintain a right-angled edge. Make pencil marks 2" from each end of the ruler.

Slide the guide along the A parts, aligning one edge of the ruler with two preceding points and marking the next pair of points opposite the pencil marks on the other edge.

This marking takes time, but it helps ensure accuracy when you come to drill the holes with the brad-point bit.

You can also make a template with pre-drilled holes that can be used to drill directly into the A parts without marking points, but if you do this, be sure that the template does not move while drilling.



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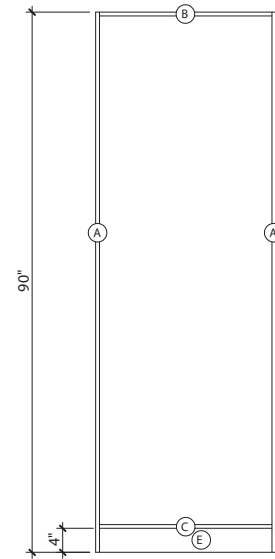
SIDE SECTIONS (CONT'D)

- 2 Drill the holes for the shelf brackets using a brad-point bit with a depth stop adjusted to $\frac{3}{8}$ ". The tip of the bit improves accuracy and prevents the bit from slipping. The depth stop prevents the bit from exceeding the required depth. Make sure the drill is perpendicular with the surface.
- 3 Touch up the inside of the holes by applying paint with a cotton swab to make them less visible. Try not to let paint accumulate in the holes.

ASSEMBLY

All parts that are screwed are also glued. Always pre-drill before screwing, except for angle brackets.

- 4 Assemble the first side section by screwing top B between the upper ends of sides A (screw from the sides), then attaching bottom C, 4" from the lower ends of sides A (attach with brackets from underneath).
- 5 Attach toe kick E under bottom C using brackets.
- 6 Turn the section over so that the toe kick is facing the ground, then screw the back D along the back of the box. Set aside.
- 7 Repeat steps 4, 5 and 6 to assemble the second box.

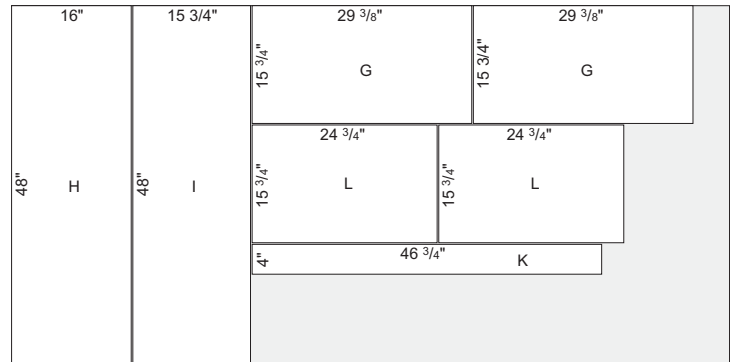


LOWER CENTRAL SECTION

CUTTING LIST

MDF, $\frac{5}{8}$ " x 48" x 96"

PIECES	QUANTITY	WIDTH (")	LENGTH (")
G SIDE	2	15 $\frac{3}{4}$ "	29 $\frac{3}{8}$ "
H TOP	1	48	16
I BOTTOM	1	48	15 $\frac{3}{4}$ "
K TOE KICK	1	46 $\frac{3}{4}$ "	4
L DIVIDER	2	15 $\frac{3}{4}$ "	24 $\frac{3}{4}$ "

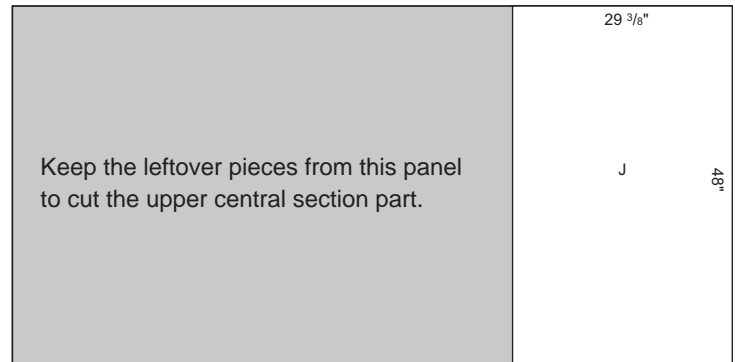


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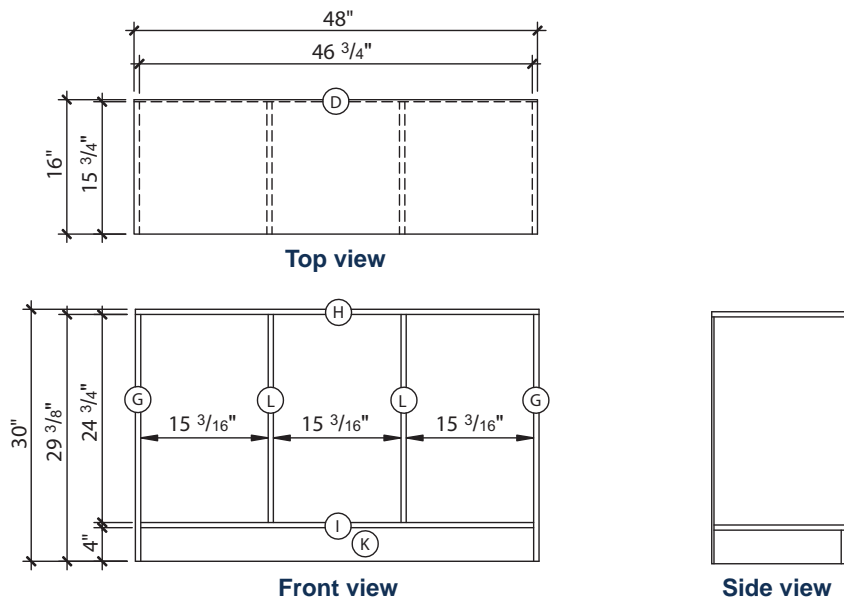
LOWER CENTRAL SECTION (CONT'D)

MDF, 1/4" X 48" x 96"

PIECES	QUANTITY	WIDTH (")	LENGTH (")
J BACK	1	48	29 3/8



ELEVATIONS



ASSEMBLY

- 8 Assemble the lower central section by attaching top H to the upper ends of sides G (attach with brackets from the inside), then attaching bottom I, 4" from the lower ends of sides G (attach with brackets from underneath).
- 9 Attach toe kick K under bottom I using brackets.
- 10 Insert dividers L between parts H and I, making three divisions of 15 3/16" (make marks beforehand). The L parts are attached under H with brackets and are screwed directly to I from underneath.
- 11 Turn the section over so that the toe kick is facing the ground, then screw the back J along the back of the box.

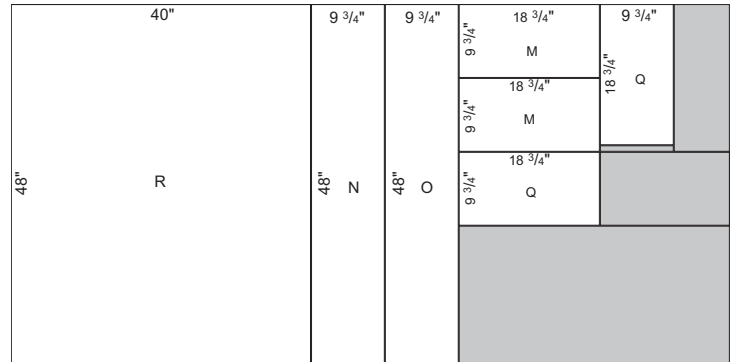
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UPPER CENTRAL SECTION

CUTTING LIST

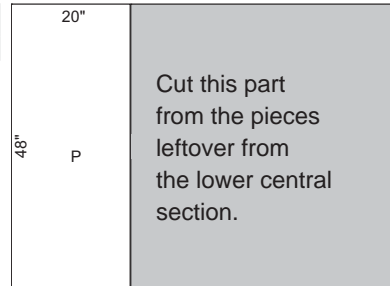
MDF, $\frac{5}{8}$ " x 48" x 96"

PIECES	QUANTITY	WIDTH ("	LENGTH ("
M SIDE	2	9 $\frac{3}{4}$	18 $\frac{3}{4}$
N TOP	1	48	9 $\frac{3}{4}$
O BOTTOM	1	48	9 $\frac{3}{4}$
Q DIVIDER	2	9 $\frac{3}{4}$	18 $\frac{3}{4}$
R PANEL	1	48	40

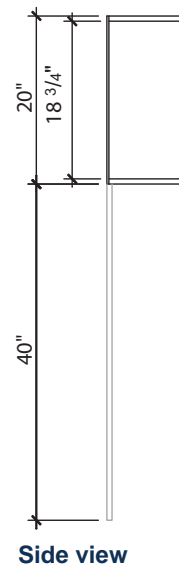
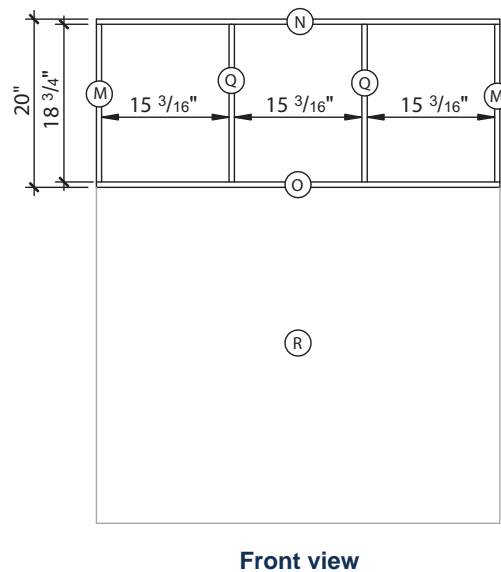
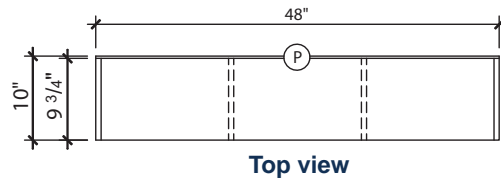


MDF, $\frac{1}{4}$ " x 48" x 96"

PIECES	QUANTITY	WIDTH ("	LENGTH ("
P BACK	1	48	20



ELEVATIONS



BOOKCASE

UPPER CENTRAL SECTION (CONT'D)

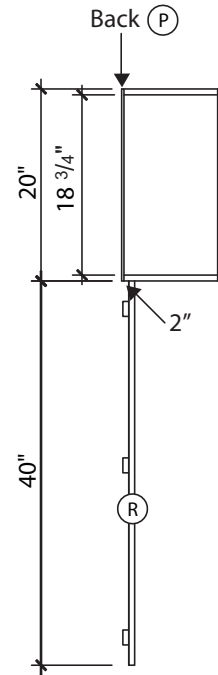
ASSEMBLY

- 12 Assemble the upper central section by screwing top N to the upper ends of sides M (screw from the top), then screwing bottom O directly to parts M from underneath.
- 13 Insert separators Q between parts N and O, making three divisions of $15 \frac{3}{16}$ " (make marks beforehand). The Q parts are screwed directly to N from the top and to O from underneath.
- 14 Screw the back P along the back of the box. Set aside.

Optional:

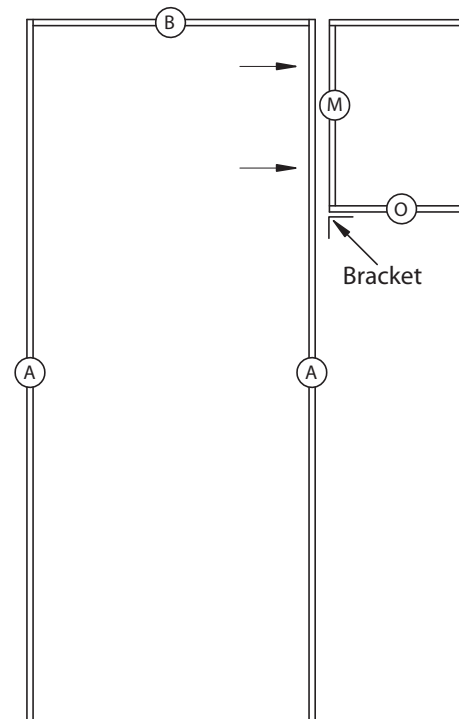
- 15 Using angle brackets, attach panel R under bottom O of the upper central section, 2" from its back. This empty space behind the panel will hide electrical and connection wires for a plasma screen or lighting, if needed.

Useful tip: You do not have to install panel R. The space can be left empty, showing the colour of the wall behind, or you can paint this part of the wall the same colour as the bookcase, if you plan to leave the furniture in place permanently.



ASSEMBLING THE SECTIONS

- 16 Lay the sides and upper central section on their backs, and place them in their relative final positions.
- 17 Screw the upper central section between the two sides from their insides. Use 4 screws per side.
- 18 Screw 2 brackets under the front of bottom O of the upper section. These brackets will later be hidden by the moulding.
- 19 Lift the bookcase and place it in its final location. Important: Have someone help you move it, both for safety reasons and to avoid damaging the bookcase.
- 20 **If installing panel R:** Attach the panel to the sides with brackets (behind the panel).
- 21 Insert the lower central section between the two sides, then screw from their insides.

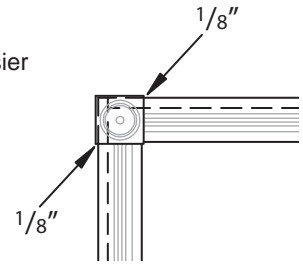


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FINISH

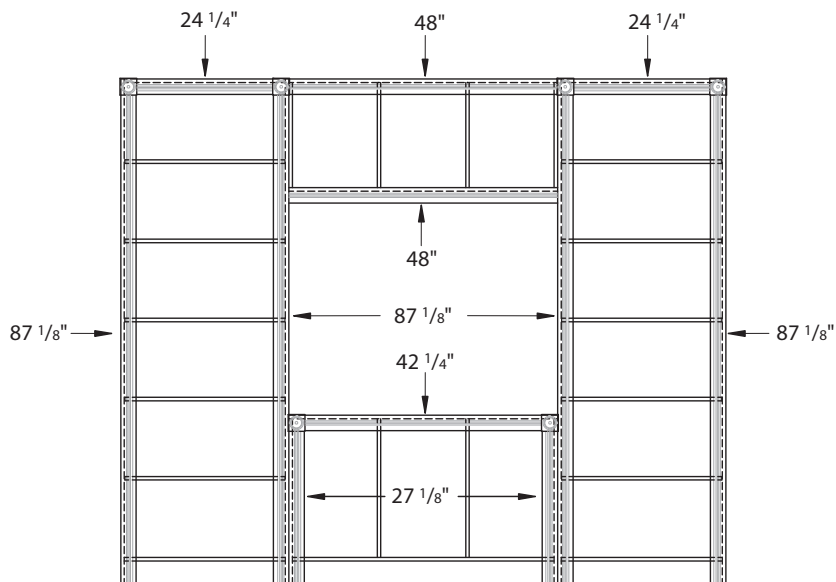
The rosettes are glued and the mouldings are nailed, ideally with an air nailer, otherwise by hand. If you nail the moulding by hand, we recommend you pre-drill in advance; this will make the job easier in the case of MDF mouldings, and it will avoid splitting wood mouldings.

The edges of the 2 3/4" mouldings should be flush with the outside edges of the sections (except for the moulding of the central lower section), while the rosettes should overlap the edges by 1/8".



Cut the 2 3/4" mouldings as follows:

- 4 x 87 1/8"
- 1 x 42 1/4"
- 2 x 24 1/4"
- 2 x 27 1/8"
- 2 x 48"

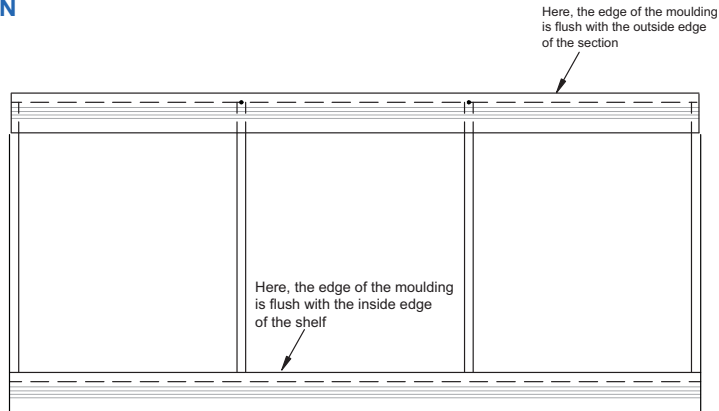


- 22 Nail the 2 3/4" vertical mouldings as illustrated.
- 23 Glue the rosettes.
- 24 Nail the 2 3/4" horizontal mouldings as illustrated.

BOOKCASE

FINISH (CONT'D)

UPPER CENTRAL SECTION



Note: Unlike the other mouldings, the edge of the lower moulding of the upper central section should be flush with the inside edge of the shelf.

- 25 Patch all the screw and nail holes with filler, then touch up with paint.
- 26 Apply a final coat of paint, if needed, on touched-up surfaces.
- 27 Install the shelf brackets where desired and insert the shelves.

Your bookcase can be made from the towers alone. For this, use the 87 ¹/₈" mouldings to conceal the joints between the sections.

For safe installation, a bookcase should always be attached to the wall with two brackets (or a strip of wood at right angles), screwed to the top of the bookcase.