

## Part 2, Attachment 3, Revision 1. Chassis Top Panel Layout

Wall of Sound.ca Tubelab DIY EL84 Amp

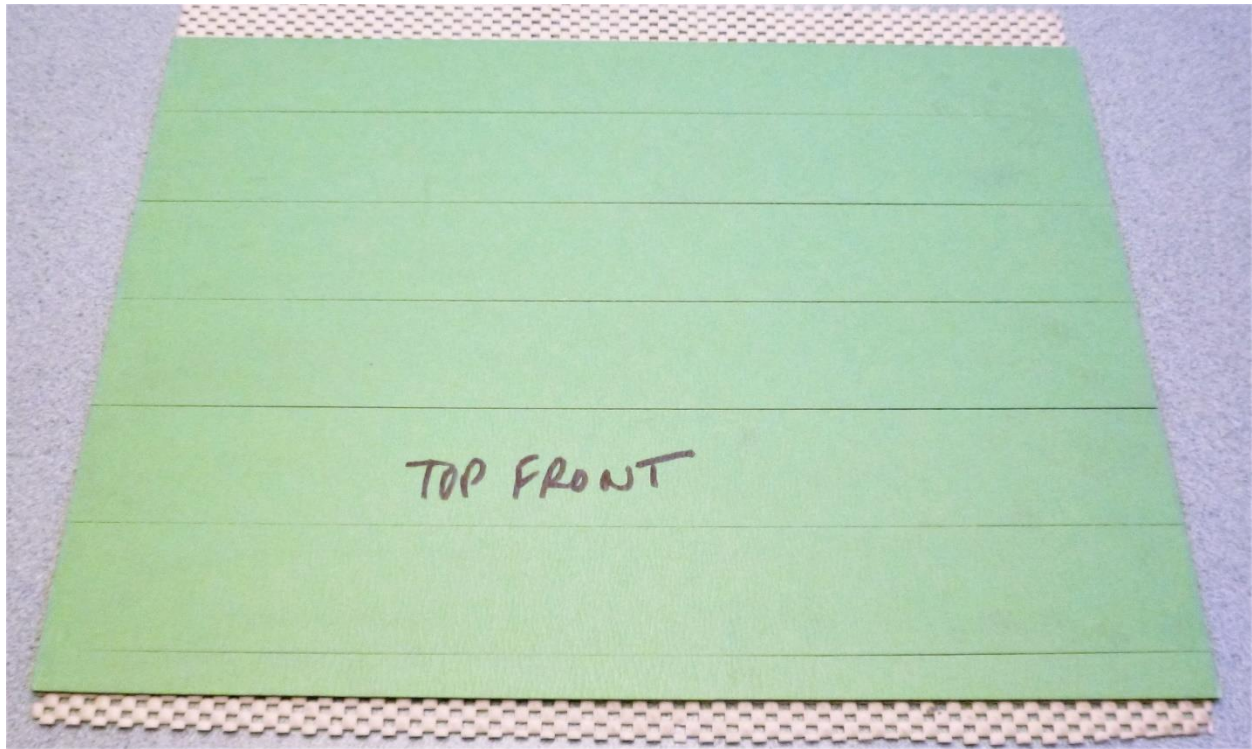
### Tools Required:

- 2" painters' tape
- Fine point marker
- Utility knife
- Metric ruler

NOTE: Layout and drilling of the top panel is the first metalworking operation. Leave the bottom panel until all holes are drilled in the top panel. If a mistake is made with the top, the bottom may be used for the top if needed.



Cover the outside of the top plate with painters' tape. Be sure to label the front.

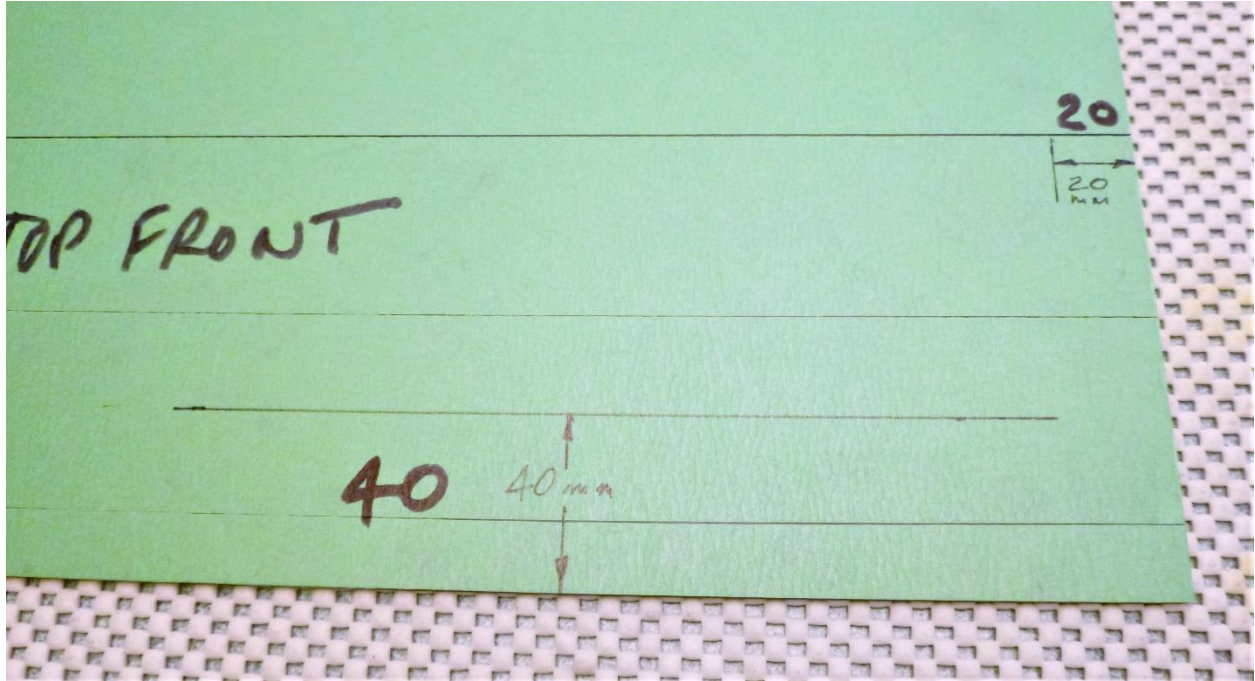


Trim the tape flush with edges of the top panel, being careful not to scratch the external surface of the plate.

NOTE: From this point on all dimensions are in millimeters. Even though educated in inches, I find I'm less error-prone using the metric system. I will, for the most part, give drill sizes in both inch and mm.

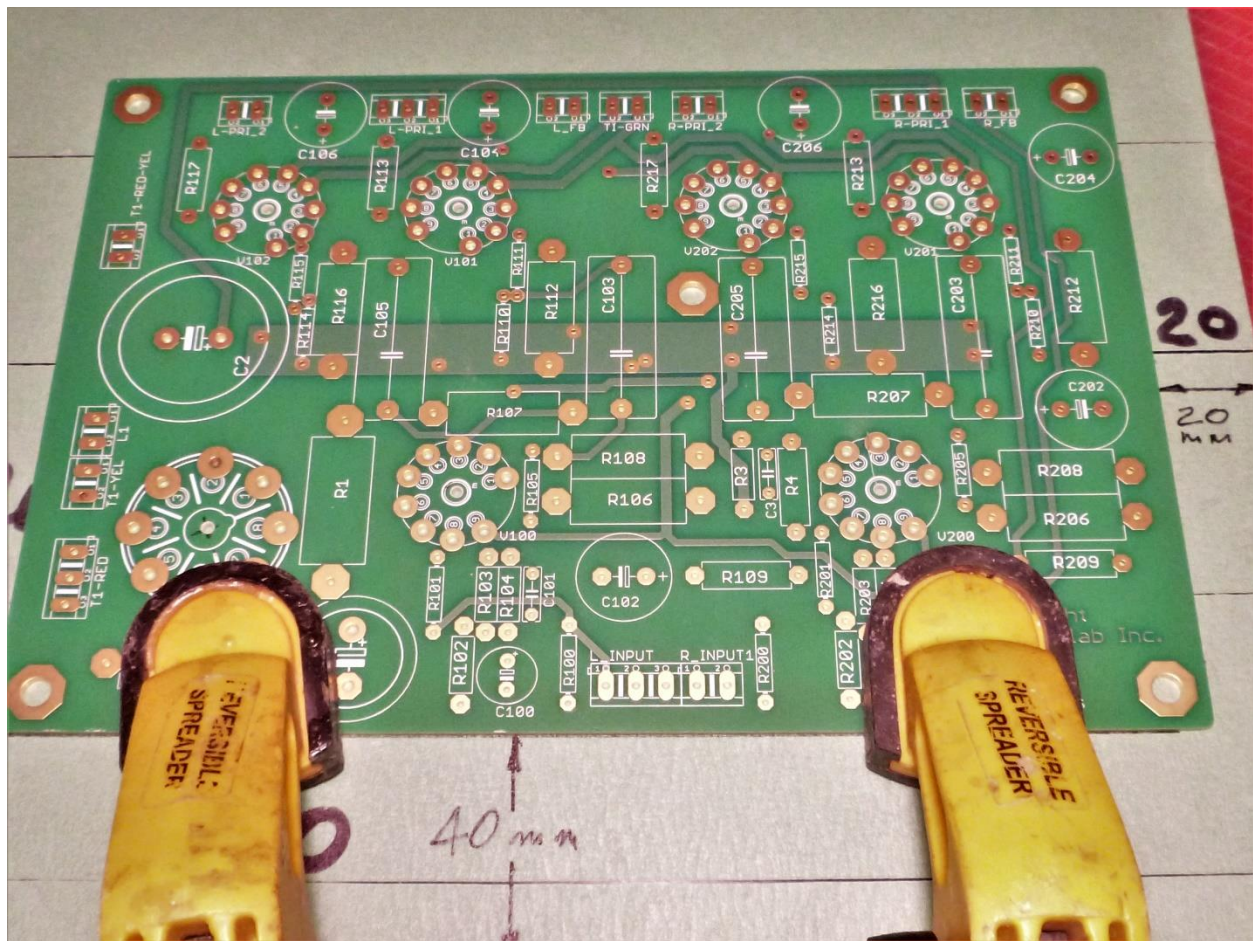
Circuit Board and Tube Hole Layout:

Place the top panel so the FRONT edge is facing you.



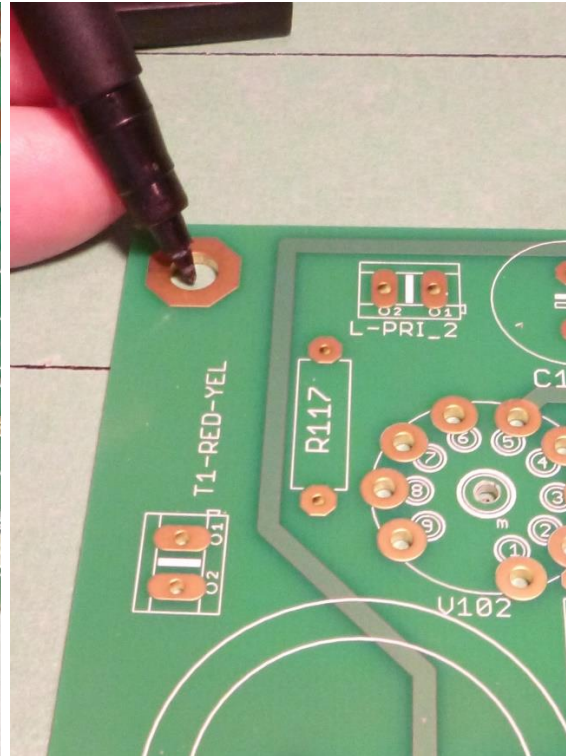
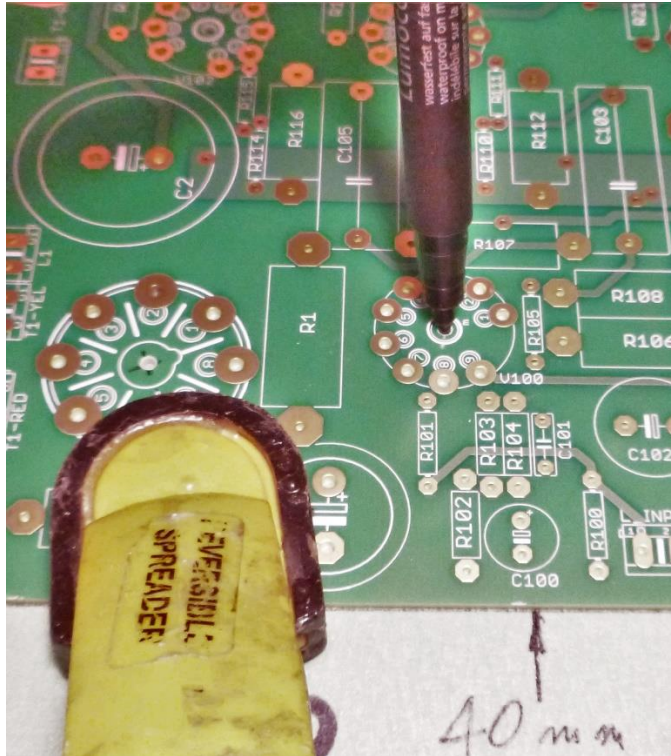
At the front right corner of the top panel draw a line **40mm** up from the front edge and **20mm** over from the right edge.





Position the circuit board, screening side up, with the **four** output tube positions towards the rear of the panel and aligned to the lines just drawn.

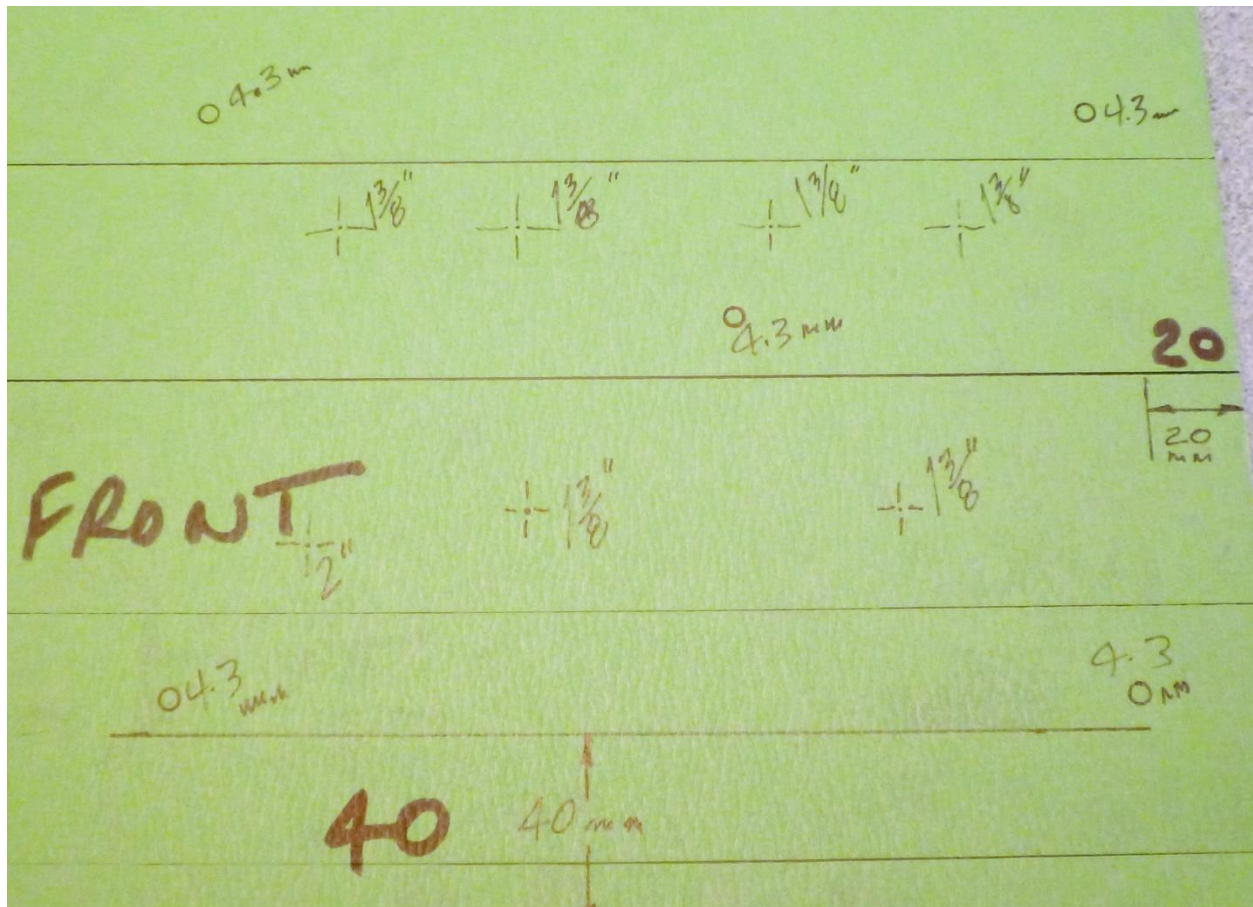
Clamp as shown. Use caution as the clamping action may shift the board relative to the lines. Loosen and re-clamp as necessary.



Using a fine tipped marker transfer the locations of the **seven** tube sockets and **five** support posts to the tape on the panel.

Remove the circuit board.





To highlight the tube locations, add lines to the dots transferred earlier.

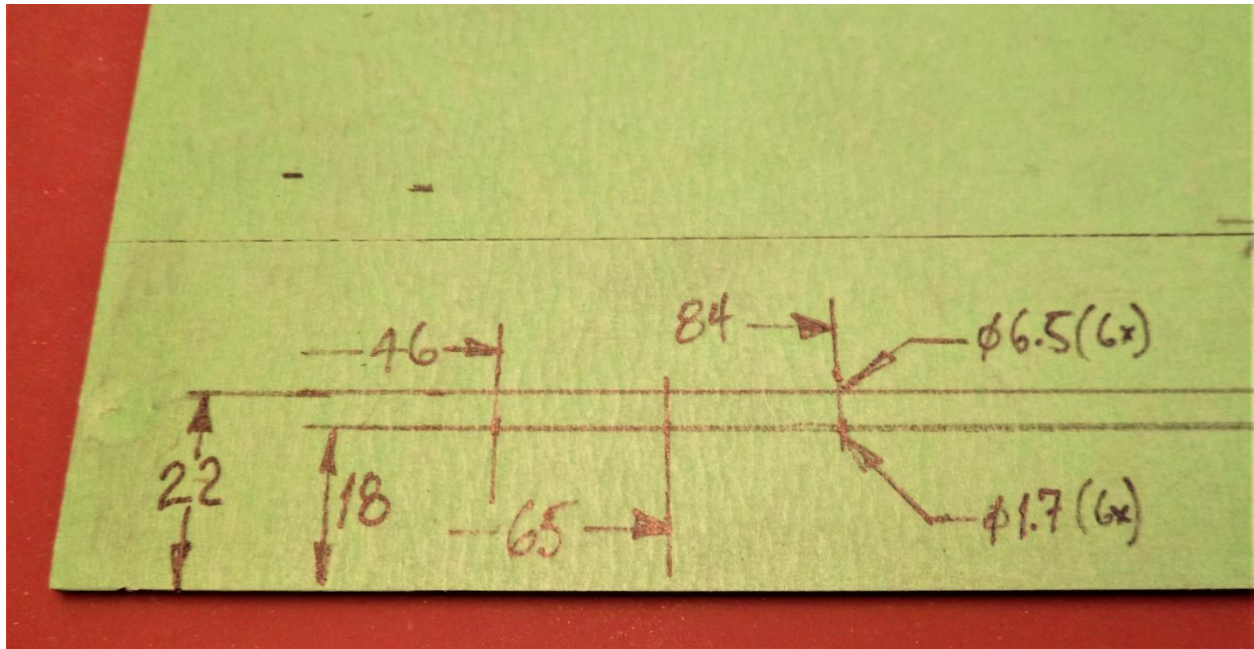
Write **2"** close to the tube position on the lower left. Write **1 3/8"** close to the other **six** tube locations.



Mark a dot in the center of the circles designating the **five** board spacer locations and write **4.3mm** beside each (the drill size used later).

### Output Binding Post Layout:

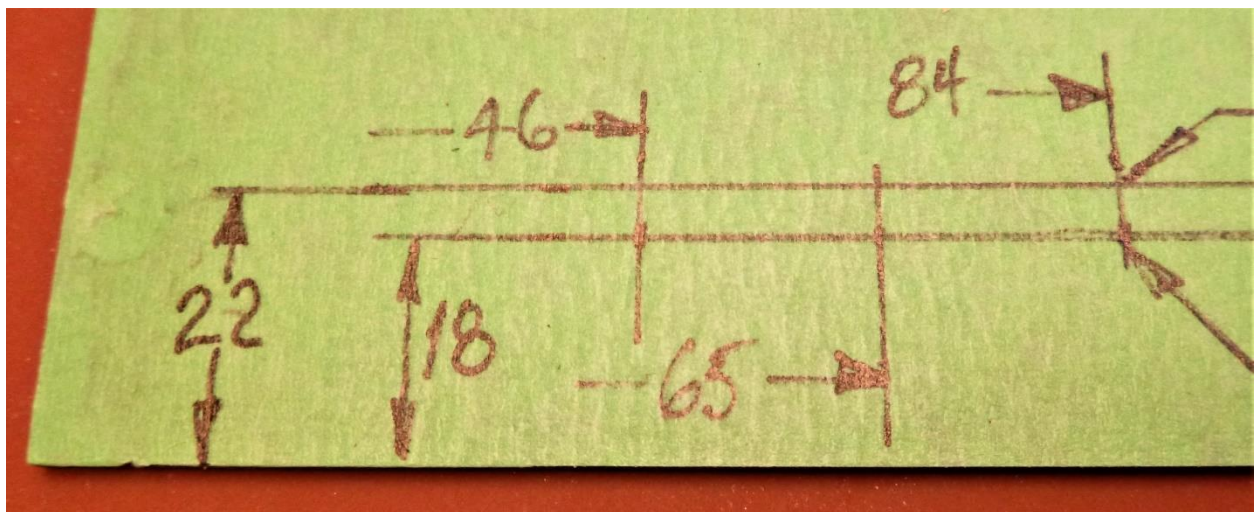
Spin the top plate around so the BACK edge faces you.



Note: Be as accurate as possible with the next **two** lines drawn.

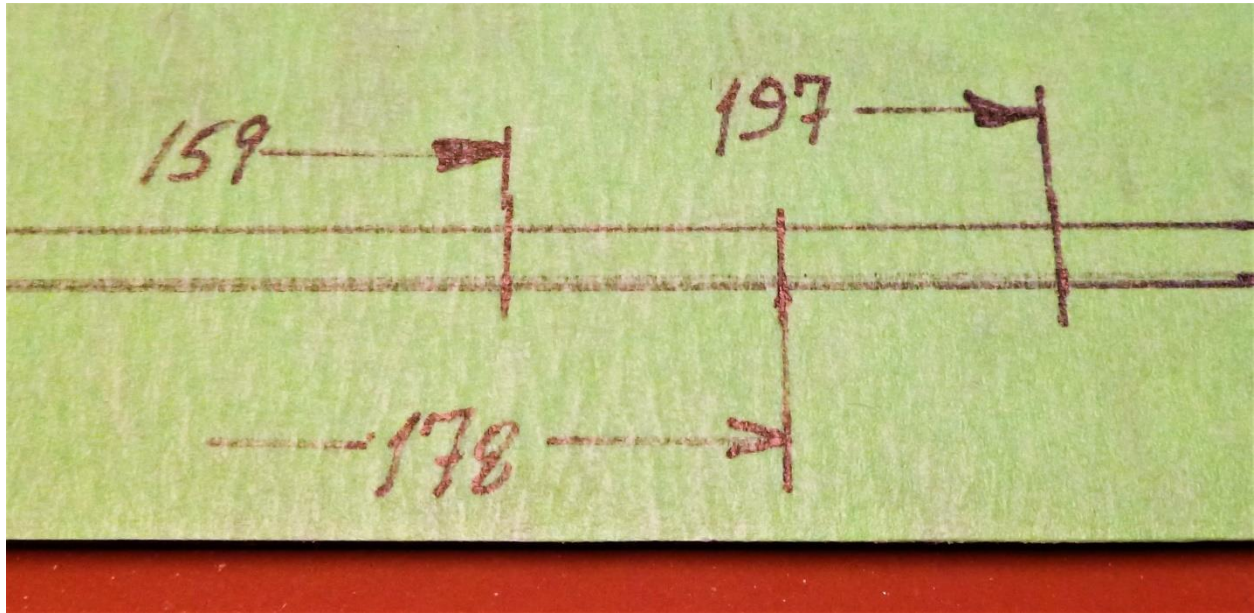
Draw a line **18mm** away from and parallel to the back edge, from the side on your left, about half way across the width of the panel.

Draw a line **22mm** away from and parallel to the back edge, from the side on your left, about half way across the width of the panel.

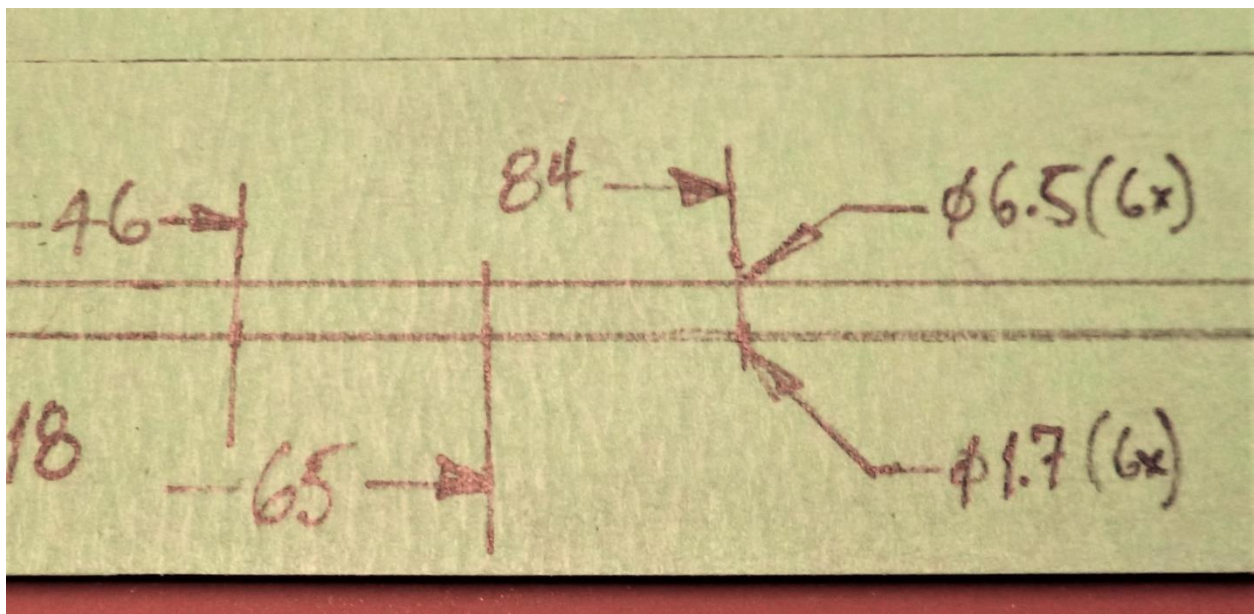


Mark both lines just drawn **46mm**, **65mm** and **84mm** from the side on your left.





Mark both lines **159mm**, **178mm** and **197mm** from the side on your left.



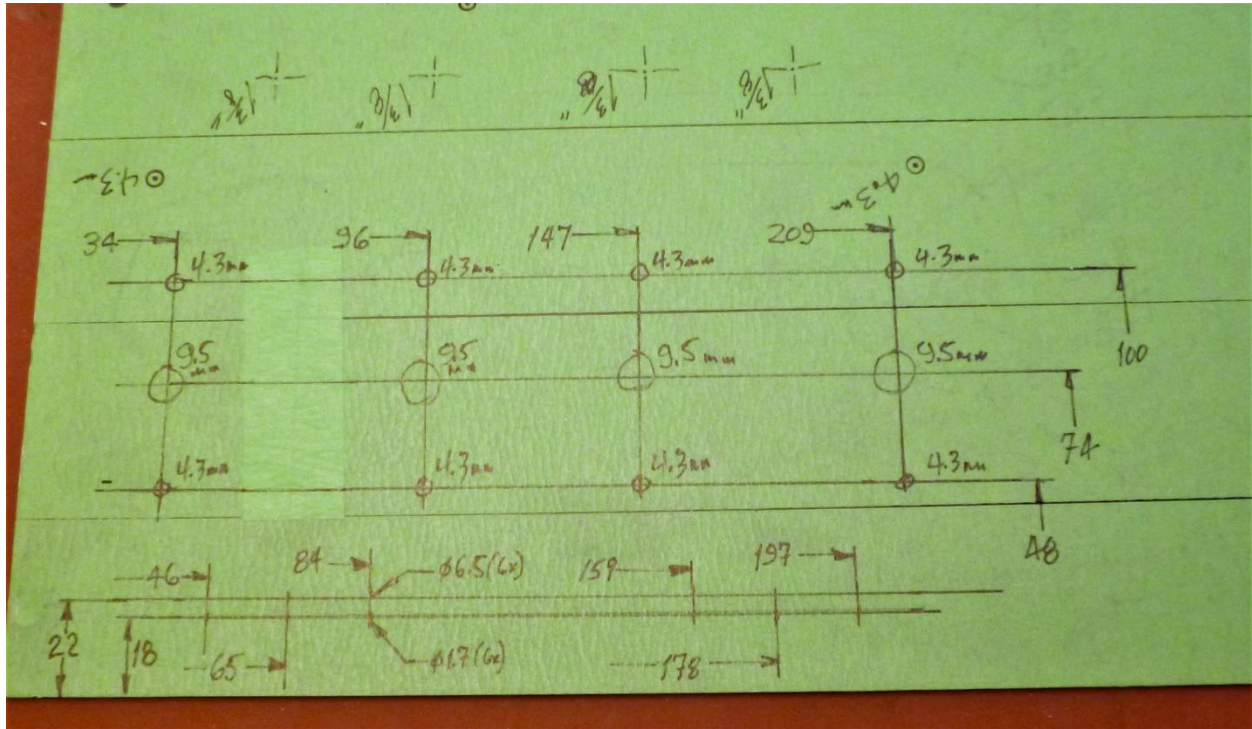
Label the **six** intersections on the 18mm line: "**1.7mm**".

Label the **six** intersections on the 22mm line: "**6.5mm**".



### Output Transformer Layout:

Note: The hole positions are for Hammond 1650F transformers. If using different trannies, you will of course, have to modify your layout. I have positioned the back edges of the transformers about 42mm from the rear edge of the top plate. If using a transformer wider than the 1650F, use caution to avoid interference with the circuit board.



Draw a line **48mm** away from and parallel to the back edge, from the side on your left, about 2/3 of the way across the panel.

Draw a line **74mm** away from and parallel to the back edge, from the side on your left, about 2/3 of the way across the panel.

Draw a line **100mm** away from and parallel to the back edge, from the side on your left, about 2/3 of the way across the panel.

Draw **two** lines crossing those drawn just above **34mm** and **96mm** from the side on your left.

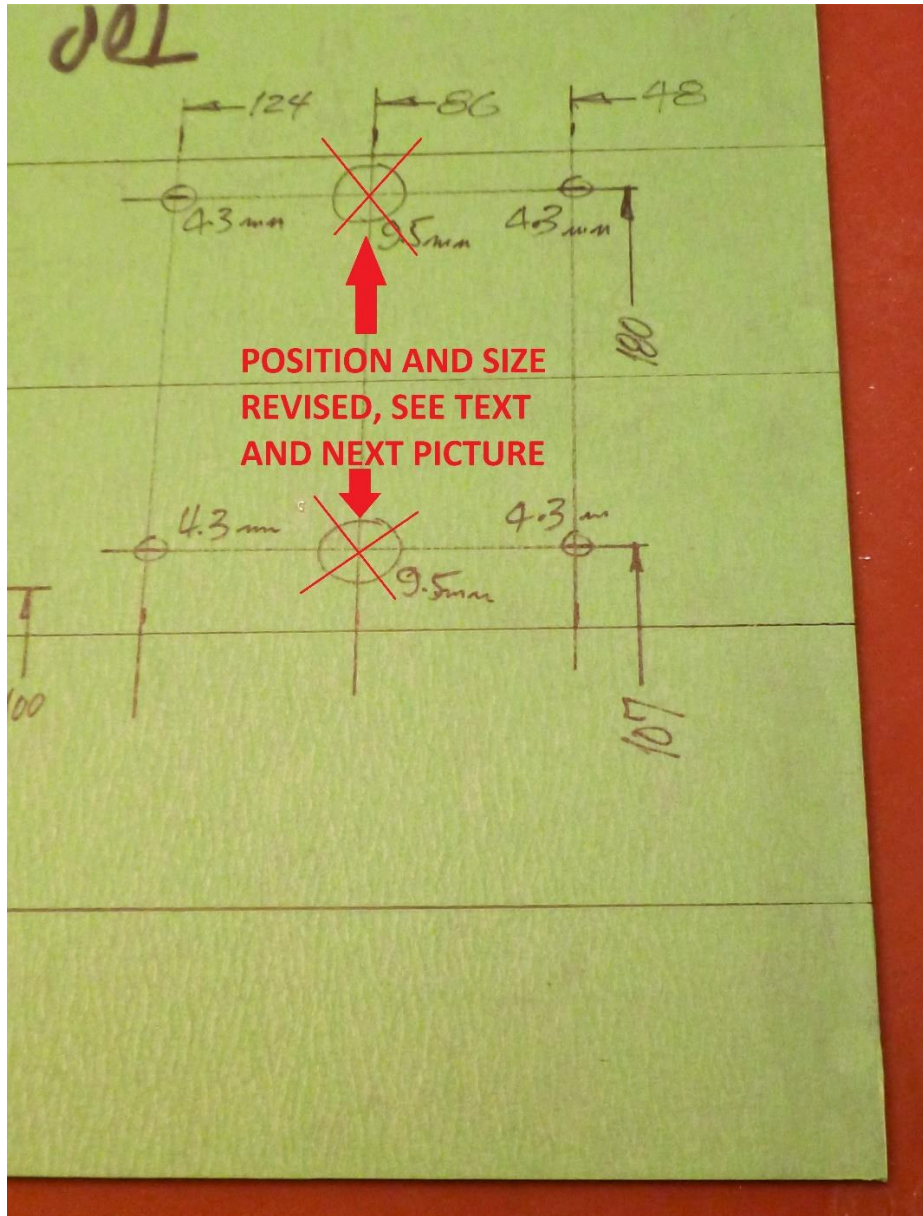
Draw **two** lines crossing those drawn just above **147mm** and **209mm** from the side on your left.

Mark the top and bottom row (see pictures above) **4.3mm**, eight places total.

Mark the middle row (see pictures above) **9.5mm**, four places total.

Power Transformer Layout: Note, revised hole locations, see below.

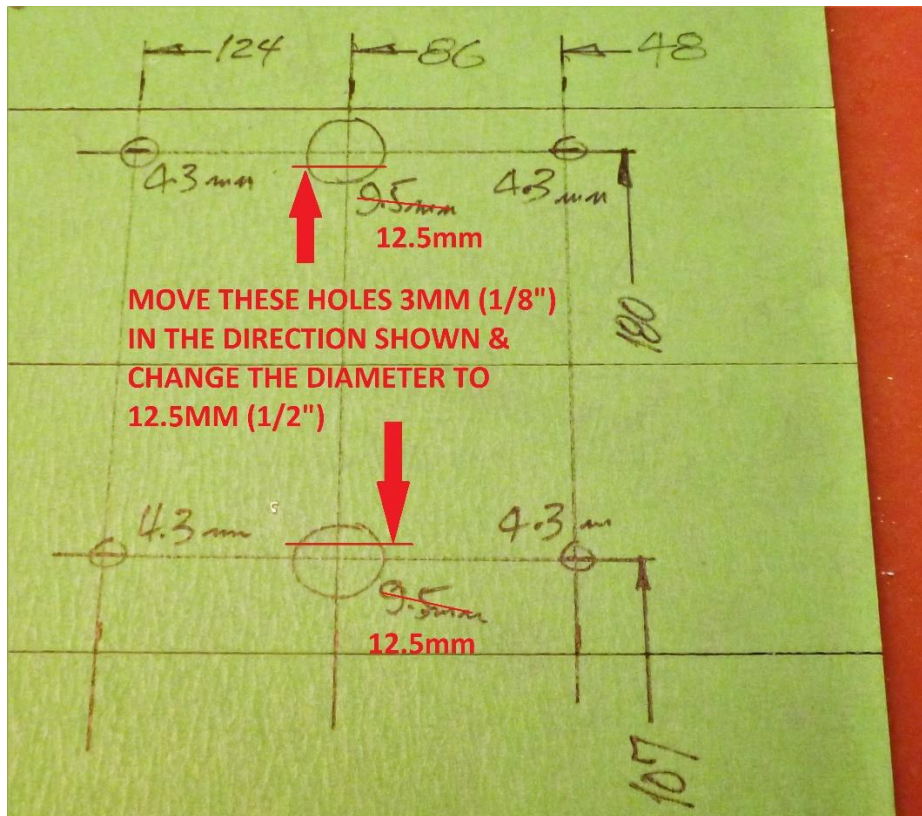
Note: The hole positions are for a Hammond 272JX transformer. If using a different trannie, you will of course, have to modify the layout. I have positioned the side of the transformer about 39mm from the side edge of the top plate.



Draw a line **48mm** away from and parallel to the side on your right, about 1/3 of the way across the panel.

Draw a line **86mm** away from and parallel to the side on your right, about 1/3 of the way across the panel.

Draw a line **124mm** away from and parallel to the side on your right, about 1/3 of the way across the panel.



Draw a line **107mm** from and parallel to the back edge, crossing the three lines just drawn.

Draw a line **180mm** from and parallel to the back edge, crossing the three lines parallel to the side on your right.

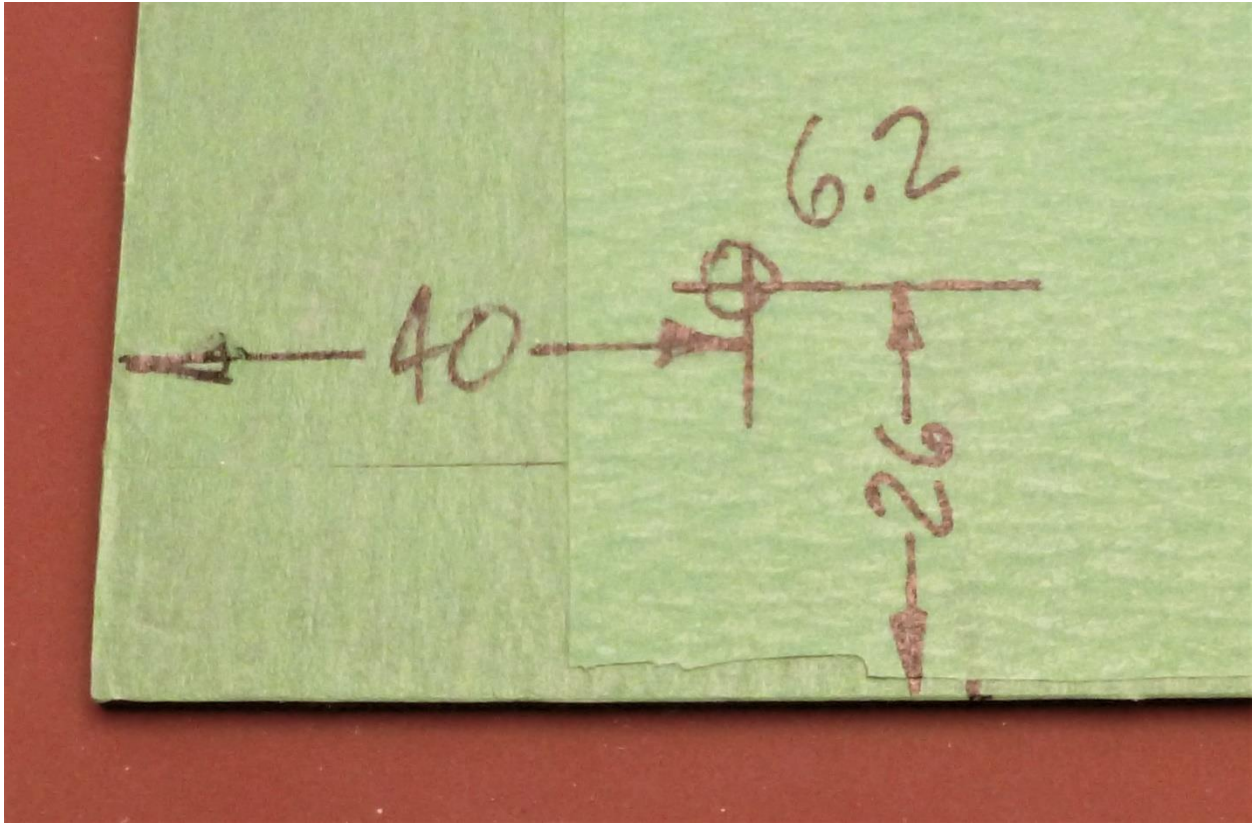
Mark the left and right columns (see pictures above) **4.3mm**, four places.

As shown in the revised picture above, draw two lines as shown offset **3mm (1/8")** from the 107 and 180 lines. As well change the dimension of the previously 9.5mm holes to **12.5mm (1/2")**.



Power Switch Layout:

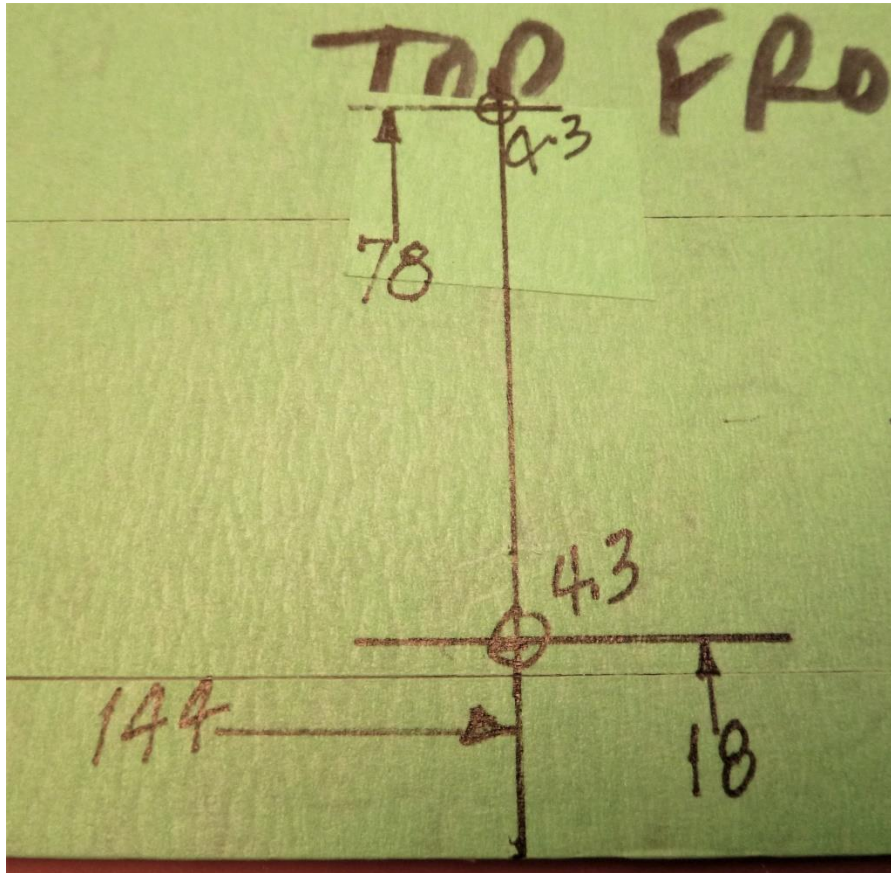
Spin the top plate around so the FRONT edge is facing you.



Draw a line **40mm** from the left edge and another **26mm** from the front edge.

Mark their intersection: **6.2mm**.

Filter Choke Layout:



Draw a line **144mm** away from and parallel to the left side.

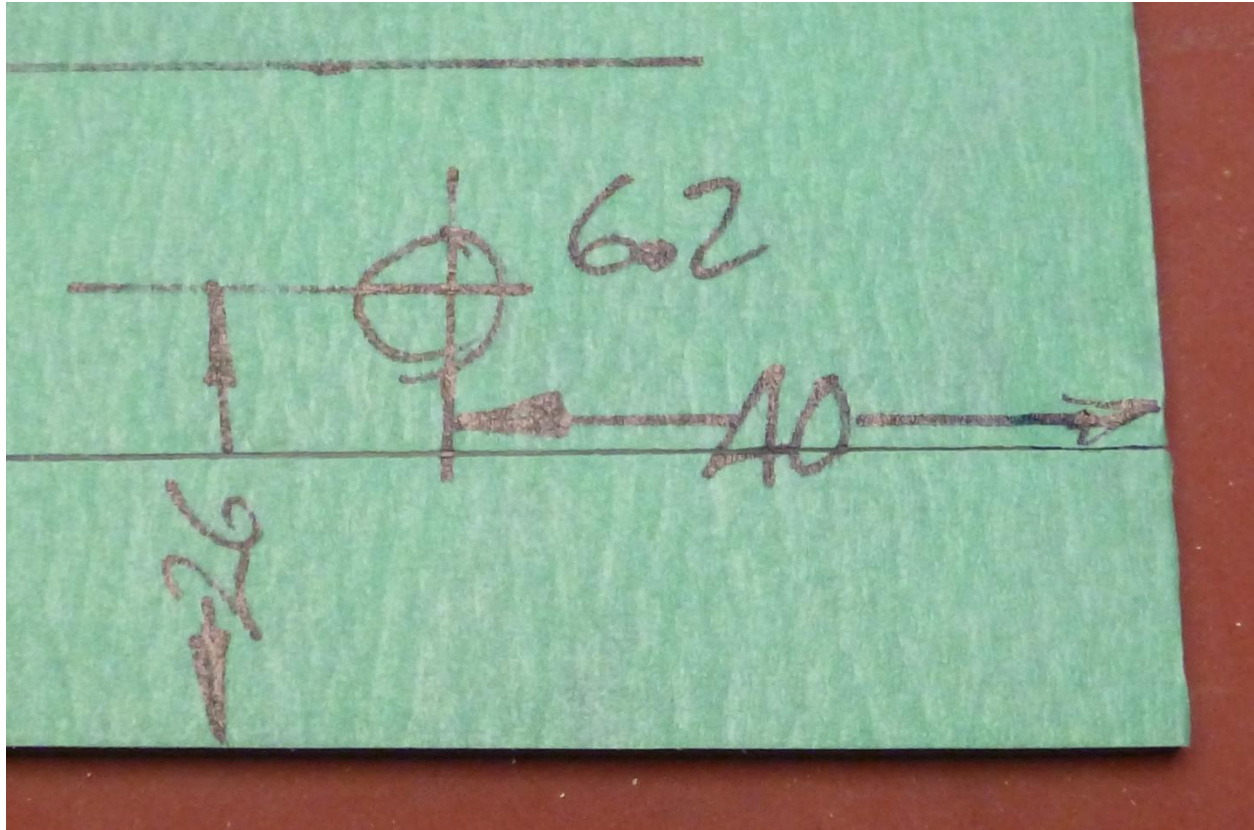
Measure and mark the line just drawn **18mm** and **78mm** from the front edged.

Mark both intersections **4.3mm**.

Top layout concluded.

Proceed to Attachment 4 to drill the holes.

Optional switch layout for 2 input version on next page.



Draw a line **40mm** from the right edge and another **26mm** from the front edge.  
Mark their intersection **6.2mm**.

See next page for picture of completed layout.

Proceed with Part 2, Attachment 4.



