Sound Booth Construction Instructions

Revision J, 10 June 2020

Construct the Sound Booth Front and Sides

Refer to the **Sound Booth Construction Details** drawing.

1. ~~Cut the all four 4'x8' veneered plywood front panels to 54"x48" size. Retain the cut-off pieces.~~
2. ~~Cut one 54"x48" panel in half lengthwise to make two 24"x54" side panels.~~
3. ~~Cut a 13/16" wide by 3/8" deep dado groove in all 5 panels with the top edge of the groove 16.5" from the top edge of the panels. Cut this groove for the full width of each panel (48"). This is the dado groove to support the melamine desktop which is ¾" thick.~~
4. ~~Cut a ¾" wide by 3/8" deep dado groove in one panel with the top edge of the groove 2" from the edge of the panel. Cut this groove for the full width of the panel (48"). This is the dado groove to support the melamine shelf.~~
5. Cut 3 of the 4"x12ft pine boards to a length of 142.5" (= 11'-10.5").
6. Lay 3 of the 54"x48" panels on the floor butted together with the dado groove face-up.
7. Align the top edge of the pine board with the bottom edge of the dado grooves cut earlier for the melamine shelf and melamine desktop. Screw two of the pine boards to the three panels using 1.25" Phillips head exterior screws.
8. Attach the third lateral support board near the bottom edge of the 3-panel piece with the bottom edge of the support board 8.5" up from the bottom of the 3-panel piece.
9. Tilt the 3-panel front assembly up on its lower edge and prop/hold it up. Align a side panel vertically with one end of the 3-panel assembly on the inside with the 3-panel front, overlapping the side panel. Drill a pilot hole and countersink it. Then drill pilot holes and drive 3.00" star drive (T-25) deck screws through the front of the 3-panel assembly into the side panel to affix the side panel. Repeat along the joint until the side panel is secure and tight to the front panel (5 screws total). Use wood glue along the butted seam to strengthen the joint.
10. Drill pilot holes and drive two 1.25" Phillips head exterior screws through the side panel into each end of the 3 lateral 4" pine support boards.
11. Attach the other side panel in the same way as in Steps 9 and 10. The front and sides of the sound booth should now be free-standing. Do not stress the side panel to front panel joints!
12. Using 1.25" Phillips head exterior screws, attach 3 additional shelf and desktop support boards on the inside of the side panels aligning the top of the support board with the bottom of the dado cut for the shelf and desktop, respectively.
13. Attach 2 additional shelf and desktop support boards on the inside of the side panels aligning the top of the side panel support board with the top of the main panel assembly lateral support board.
14. ~~Cut the Melamine panel across the 49" direction at 71.625". Trim off one inch to make it 48" x 71.625".~~
15. ~~Cut the 48"x71.625" piece in half length-wise to make two desktop panels each 24"x 71.625".~~
16. ~~Trim one of the cut-off Melamine pieces to make a shelf 47.625" x 10".~~
17. Attach the Melamine shelf in the dado groove on the front and side panels. Use wood glue to strengthen the joint. Drill pilot holes and drive 1.25" wood or deck screws through the front and side panels to help secure the shelf. Attach 1-2 metal shelf supports, leaving room for the Power Strip under the shelf.

Construct the Sound Booth Platform

Refer to the **Sound Booth Platform Module Construction Details** drawing.

1. ~~Cut the six 2"x8"x12ft boards to make 6 boards 47.5" long and 9 boards 45.0" long.~~
2. Using 3.00" star drive (T-25) deck screws, assemble the platform supports as shown in the Platform Module Construction Details drawing.
3. ~~Repeat steps 1 & 2 to make a second sound booth platform support module.~~
4. Measure the exact width of the inside of the sound booth platform shell constructed above and adjust the as-built width of the 3rd support module so that all three modules will fit snugly width-wise inside the sound booth shell.
5. Bolt or screw all three platform support modules together laterally.
6. **Install ALL the speaker cables, network cables and any other wires through the holes in the rear of the support module(s) as required to connect to their intended equipment**. Slide the support module group up against the drywall of the E wall of the sanctuary where the baseboard has been cut out.
7. Slide the sound booth shell into the platform modules and secure the shell to the support platform using 2.00" star drive (T-25) deck screws from the outside of the shell drilling them into the platform support modules.
8. ~~Rip three of the MDF panels in half lengthwise to form six 12" x 48" panels.~~
9. Trim all six of the 12"x48" floor panels to a finished size of 12" x 47.5".
10. Trim the remaining three 24" x 48" MDF floor panels to a finished size of 24" x 47.5".
11. Beginning at the wall and working toward the front of the sound booth secure three 24"x47.5" floor panels to the platform support modules using 2.00" star drive (T-25) deck screws.
12. Next secure three 12" x 47.5" floor panels to the platform support modules using 2.00" star drive (T-25) deck screws.
13. ~~13.~~ Fit the remaining three 12" x 47.5" floor panels to the platform support modules, **but do not screw them down.** *These floor boards will be removeable* to allow for cable access. ~~Drill 2.0" cable feed holes in these boards as required to bring cables from the E wall up and into the equipment in the sound booth.~~

Attach the Melamine Desktop

Do not install the melamine desktop in the sound booth front and side panels until the 8" platform is completely fabricated and the MDF flooring is installed. The center support panels are cut to fit final dimensions and are necessary for proper support of the desktop.

1. ~~Cut a 20"W x 22.375"D red oak veneered plywood top board.~~
2. Final trim the two desktop center support panels to a height which fits snugly between the top of the MDF floor and the 20" veneered plywood top board as it rests snugly against the bottom of the Melamine desktop. This dimension is approximately 27.5"H x 21.125"D.
3. Screw the veneered plywood top board into the top of the two desktop center support panels using 1.25" Phillips head exterior screws.
4. Place the top board and desktop support panel assembly in place.
5. Final trim one panel (to fit, approximately 71-5/8") and attach the Melamine desktop panels in the dado groove on the front and side panels. Use wood glue to strengthen the joint. Drill pilot holes and sink a few 3.00" deck screws through the front and side panels to secure the desktop to the sound booth shell.
6. Drill pilot holes and sink 1.25" Phillips head exterior screws up through the bottom of the top board upward into the bottom of Melamine desktop panels.
7. Secure the desktop support panel assembly to the Melamine desktop and the floor of the platform with eight 90-degree angle brackets screwed into the vertical support panels and screwed into the Melamine desktop and the MDF flooring. See the platform module construction details drawing.