

ASSEMBLY INSTRUCTIONS



C6 Centre Channel Loudspeaker Kit

Designed and manufactured in Australia by: The Loud Speaker Kit (ABN 39 089 764 616).

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C6 MK2 V1.3



Instructions for Assembly – C6 Kit

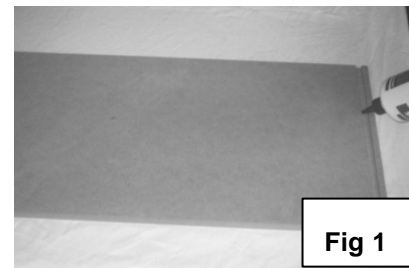
Congratulations on the purchase of your new loudspeaker kit. By following these simple instructions you'll have your new high performance loudspeaker up and running in no time! Visit us on the web at www.theloudspeakerkit.com to get more detailed assembly instructions and step-by-step guides to painting, veneering and lacquering your new speaker.

You'll need a Philips head screwdriver and a small tube of PVA woodworking glue to assemble this kit. The glue can be purchased from any hardware store or supermarket. You'll also need a damp cloth and some fine-grade sandpaper.

Step 1 - Preparation

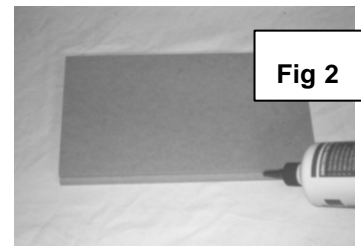
Lay the contents of the box out and check you have everything you need to complete the kit (see contents list on back page). Find a suitable work surface and make sure it won't be ruined if you spill some glue. Avoid placing newspapers under the kit whilst constructing it as newsprint may rub off onto your kit, especially when mixed with glue, and mar the finish.

Lay out all the parts and try test fitting the 6 MDF panels together (without any glue) to make sure you understand where everything goes before you start. The parts should fit together snugly without having to be forced. Be careful when pulling the box apart to ensure you don't damage the edges of the panels. Please read ahead before commencing.

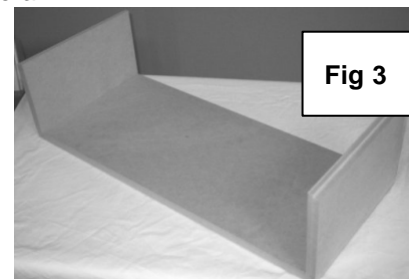


Step 2 – Base and Side Panels

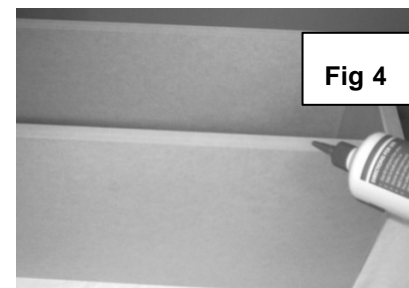
The two base panels (top and bottom) have grooves cut 6mm in from the edges on one side. The front panel has five circular cut-outs for the tweeter, woofers x2, and tuning ports x2. The back panel has a cut-out near the bottom for the input terminal. The two side panels have no cut-outs, just a ridge along the top and bottom.



Place one of the base panels on a level surface and squeeze a generous amount of glue into the channels along the edge of the base panel (as shown in Figure 1).



Apply a thin layer of glue to the bottom rail of each side panel, ensuring that the glue is spread evenly over all surfaces of the slot (Fig 2). Insert the rails of the side panels into the cut-out channels on the base, ensuring that the edge of the side panel aligns with the outside edge of the base (Fig 3). If there is a 6mm step then you have inserted the side wall back to front. Be careful not to apply sideways force to the side walls until the rest of the box is assembled.



Squeeze a generous amount of glue into the channels of the top panel and coat the two remaining rails on the side panels as before. Place the top onto the channels and push down carefully. You should now have an open sided rectangular box (Fig 4).

Wipe off any excess glue with the damp rag.

Step 3 – Front and Back panels

Lay the box on its back and apply a thin layer of glue to the front edge of the box and the back panel, taking care to smooth the glue out evenly. Press the back panel into place ensuring that each corner aligns (Fig 5,6). Wipe off



any excess glue with the damp rag. Turn the box over and repeat for the front panel (Fig 7, 8).

Important: make sure that the pre-drilled holes on the rear panel for the speaker terminal are aligned towards the bottom of the speaker.

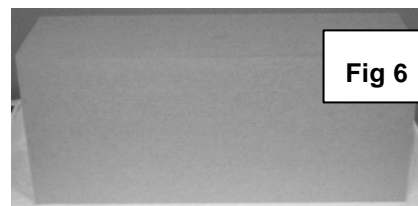


Fig 6

Step 4 – Clamping

Leave the cabinet to dry for at least 2 hours, clamping overnight is advised. If you have them, clamp the box using woodworking clamps; otherwise an improvised clamp can be made from any heavy object such as a brick. Before clamping, make sure each edge is carefully aligned - a little care here will ensure the best result. Once you have clamped the box, ensure you wipe off any excess glue that has been squeezed out. Once the glue has dried remove the clamps. To obtain a smooth finish, lightly sand the edges of the panels with a fine grade sandpaper, about 180 grit works best. If you plan to paint or varnish the box a little extra effort now to remove all traces of glue and rough edges will be well worth it.

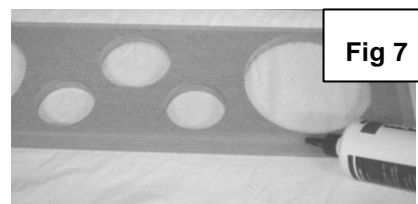


Fig 7

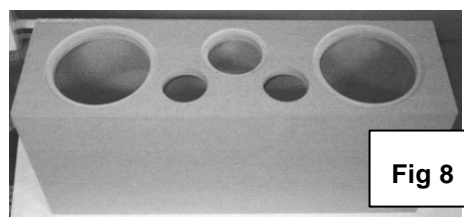


Fig 8

If you want to finish the speakers in one of the optional finishes shown on our web site, now is the time to do this.

Step 5 - Wiring

The crossover circuit (PCB) connects the speaker drivers to the amplifier via the terminal mounted on the rear of the box. Take the circuit and observe the four sets of wires attached to it. The set with the plastic spade clips (marked “ IN ” on the PCB) connects to the input terminal, the set of wires with the brass terminals marked “ T ” on the PCB connects to the tweeter. The remaining two sets with small brass clips marked “ W ” on the PCB each connect to a woofer (either one is fine).

You will note that each set of wires has a “stripe” on one of them, these stripes always denote the positive connection, usually marked on the woofers & tweeters with either a + sign or by being red in colour. The crossover circuit itself sits inside the box, you may choose to glue or blue-tack this in place to prevent it rattling around.

NOTE – you may notice that the tweeter wires appear to be connected wrongly on the PCB, but this is not a mistake as this tweeter is wired in negative phase in the C6 kit. As long as the striped wire connects to the positive on the tweeter itself this will work correctly.

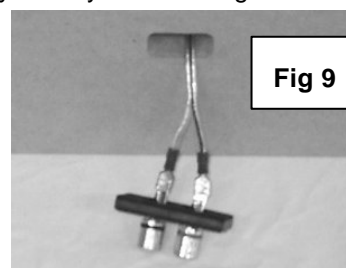


Fig 9

Pass the input terminal wires through the cut-out in the back panel. Push the connectors onto the terminal wiring posts (Fig 9). You may need to tighten this connection with some pliers or solder. Place the crossover network inside the speaker box. Pass the 2 woofer wires through the large woofer holes, and the tweeter wire through the smaller tweeter hole at the top of the front panel (Fig 10).

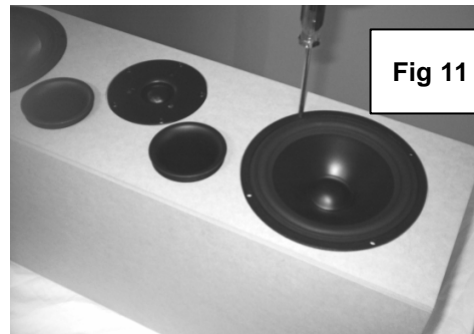
Next, connect the woofers, ensuring that the connector on the wire with the stripe goes to the positive terminal. The positive terminal is clearly marked with a + sign. Do the same for the tweeter, ensuring that the wire with the stripe connects to the tweeter positive (marked '+'). Make sure that neither connector touches the metal case of the tweeter; it may be necessary to bend the terminals slightly to ensure they do not short-circuit.



Fig 10

Step 6 - Final Assembly

Now that you have wired up the drivers all that's left is to mount them. Start by using two of the supplied screws to attach the terminal block to the rear panel. Carefully tighten the screws until the foam backing of the terminal pad just starts to compress, ensuring you don't over-tighten it. Turn the speaker onto its back and spread the acoustic fibre inside the speaker box. It is not necessary to glue the fibre to the walls. Best results are achieved by loosely placing the fibre on the back wall behind each of the woofers



Insert the plastic tuning ports into the 58mm holes in the front panel and press them firmly into place. A light rubber mallet may be useful for this. Line up the tweeter and woofers with their mounting holes and screw these in using the remaining screws (Fig 11). Note that both 4 hole and 5 hole variants of the tweeter may be supplied so you may have unused screw holes on this kit. Take care not to over-tighten these screws or you may damage the speaker driver surrounds, they should be tightened until they just start to bind into the MDF and no more.

Wire up the speaker to your amplifier and you're ready to rock! Like all true Hi-Fi speakers, the drivers in your new kit will take some time to break in so don't play it too loudly at first. After about 8 hours you should notice the sound improves and you can gradually increase the volume. Make sure you visit us on the web at www.theloudspeakerkit.com for more information, tips and ideas.



Parts List:

- 6 x Panels of Pre-cut MR MDF
- 2 x 170mm Vifa Poly Shielded Woofers
- 1 x 25mm Vifa Silk Dome Tweeter
- 1 x Crossover Network
- 1 x Gold Banana Input Terminal
- 15 x Screws
- 2 x Pieces of Dacron Padding

SPECIFICATIONS:

Woofer Size:	170mm x 2
Woofer Cone:	Polypropylene
Tweeter:	Silk Dome
Recommended Amplifiers:	30 – 150W
Impedance:	4 Ohms
Shielded for AV Use:	Yes