## **Glasshouse Speaker Kit No. 1 - Booklet**



This booklet is designed to accompany the instructional YouTube videos you can find on the <u>HiFi Collective YouTube channel</u> or embedded on the <u>content page</u>.

The kit has been designed with ease in mind. Please use a combination of the videos and this guide to assemble the kit most efficiently.

If you have any further questions, please do not hesitate to contact us at info@hificollective.co.uk

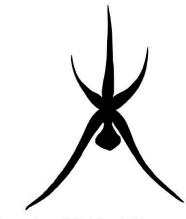
## **Equipment Required**

- □ Soldering iron
- □ Pliers
- Cutters
- Masking tape
- Allen Key set
- □ Wood glue
- Wet cloth
- 10mm box spanner
- Adjustable spanner
- Band clamp, example <u>here</u>
- □ Hammer
- □ Piece of scrap flat wood
- Drill and 6.3mm drill bit
- Stanley knife
- Multimeter
- Tape
- Paintbrush
- Pencil
- Pack of blue tack (optional)

## **Components List**

Part	Quantity	Use
Vifa TC14WG67 8 ohm Woofer	2	bass unit
Vifa BC25SC15 4 ohm Tweeter	2	tweeter
000-2279: 1.6mH Jantzen Iron Core Coil AWG21, 0.7mm diameter wire	2	LF crossover
000-1743: 0.33mH Jantzen Air Core Wire Coil AWG21, 0.7mm diameter wire	2	HF crossover
AG5J5R6E: 5R6 5W Ohmite Audio Gold AG5 Resistor	2	HF crossover
001-1015: 4.7uF 70Vdc Jantzen Premium ELKO Smooth Electrolytic Bipolar Capacitor	4	LF crossover
001-1010: 3.3uF 70Vdc Jantzen Premium ELKO Smooth Electrolytic Bipolar Capacitor	2	HF crossover
ECAP70-6.0: 6uF 50Vac / 70Vdc Mundorf ECap AC PLAIN electrolytic bipolar capacitor	2	HF crossover
Duelund DUAL DCA16GA tinned copper multistrand wire in cotton and oil	0.6m	crossover board to bass unit wiring
Duelund DUAL DCA20GA tinned copper multistrand wire in cotton and oil	0.6m	crossover board to tweeter wiring
Glasshouse small turret tag board	2	hold crossover parts
014-0410: Jantzen Polyester Dampening Cloth	50cm x 50cm	cabinet internal dampening
012-0180: Jantzen Binding post, M6 / 27mm, Gold plated, red / black, a pair	2	speaker - amplifier connection
M4x25HS-BSS: M4 x 25mm Full Thread Cap Head Screws, Black Stainless Steel	8	fitting of tweeter
M5x25HS-BSS: M5 x 25mm Full Thread Cap Head Screws, Black Stainless Steel	8	fitting of bass unit
M4 Tee Nut - 4 Pronged	8	fitting of tweeter
M5 Tee Nut - 4 Pronged	8	fitting of bass unit

Push-on Connectors, fits 2.8mm spades (pair)	2	crossover to tweeter connection
Push-on Connectors, fits 4.8mm spades (pair)	2	crossover to bass connection
MSOL.SG-5M: Mundorf 3.8% silver/gold solder	1m	soldering parts
HTSB6.4: Black heatshrink 2:1, 6.4mm diameter	10cm	prevent fraying of Duelund wire
HTSR3.2: Red heatshrink 2:1, 3.2mm diameter	10cm	to mark the positive connection of internal wiring
Small tie wraps	32	to fit components to tag board
PTFE sleeving, for 1mm dia wire	50cm	insulating component leadouts



Glasshouse Speaker Kit No.1 Crossover circuit diagram

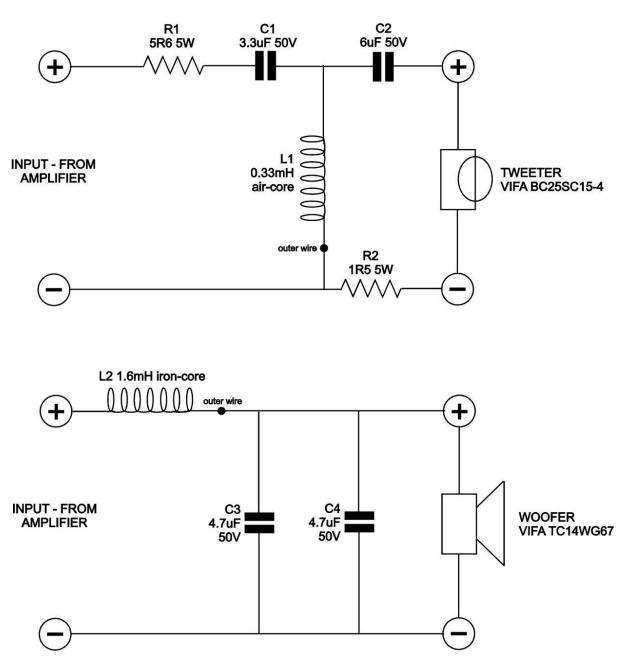
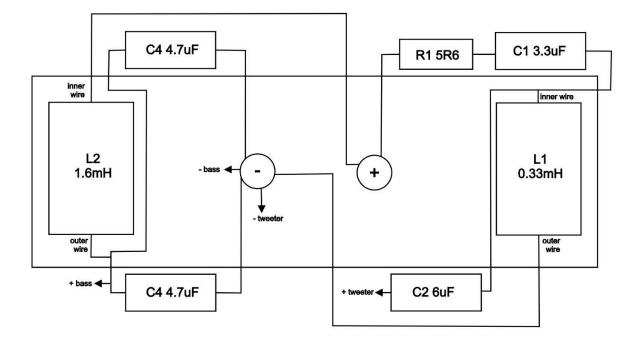
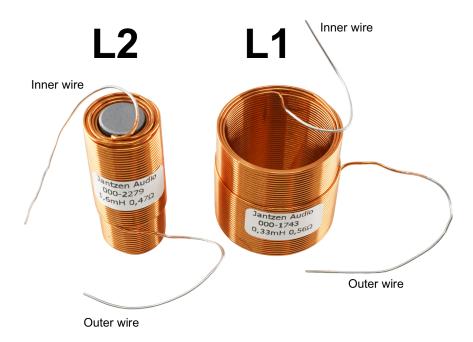


Diagram shows the layout of Glasshouse speaker kit No. 1 crossover tag board. Cross reference with the images below. Use PFTE tubing to insulate longer leadouts. Allow room for 10mm box spanner over the fixing nuts of the binding posts.





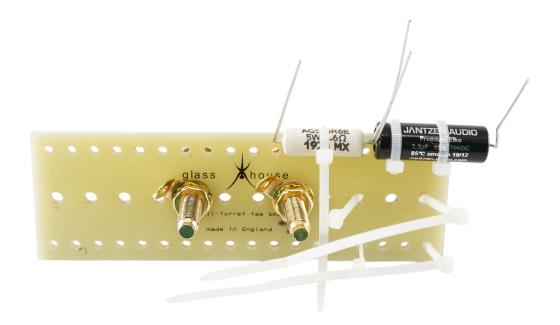
Drilled crossover board



L1 and L2 are labelled for inner and outer coil. Make sure you wire them the correct way round for optimum performance.



Crossover board with binding posts attached



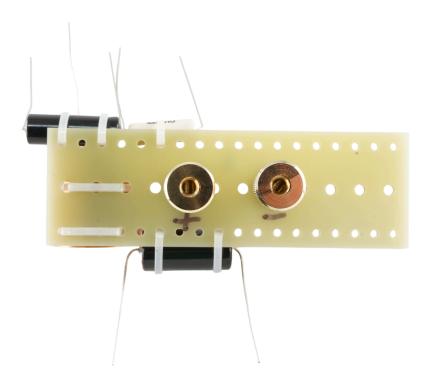
R1 and C1 attached to crossover board, tweeter section



L1, R1 and C1 attached to crossover board, tweeter section



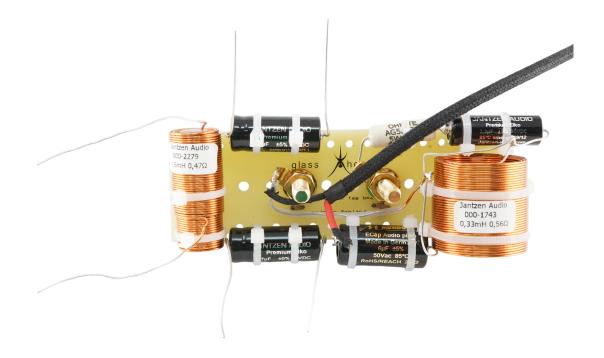
Tweeter section components attached



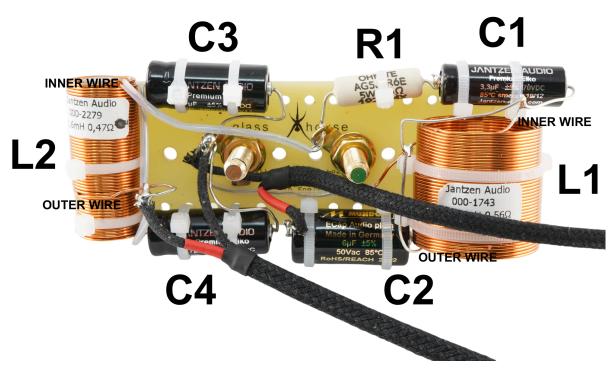
Rear side of tweeter section



Fully built tweeter section



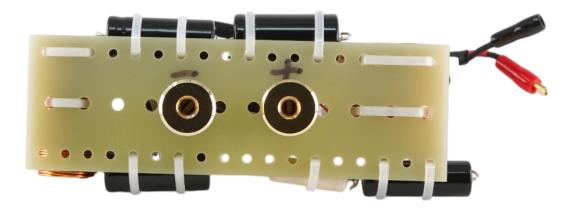
Bass section components attached



Completed crossover. Make sure you wire the inductors the correct way round for optimum performance.



Completed crossover with leadouts



Rear completed crossover