SYSTEM 5

Volume: 61 litres

Type: Reflex

Response: 30 – 20 kHz

Bass unit: Dalesford D100/310

Mid Range unit: Peerless K040MRF

Treble unit: Isophon KK10/8

Crossover: Dalesford DX5

Suitable for amplifiers of 25 – 100 watts

Impedance: 8 ohms

Acoustic absorbent: 10oz. Acoustilux Bonded Acetate Fibre.

Cabinet damping: Laminated Bituminous felt panels

Cabinet material: 18 mm chipboard

Grille frame material: 12 mm plywood

Components list

(for pair)

4 58 × 35 cms 18 mm chipboard

4 35.5 × 58cms 18 mm chipboard

4 35.5 × 38.6cms 18 mm chipboard

2 57.8 × 34.8cms approx. 12 mm plywood – exact size dependent on thickness of speaker fret cloth.

9.5 metres 2 × 2 cms wood for battens

2 Dalesford D100/310

2 Peerless K040MRF

2 Isophon KK10/8

1 Dalesford Crossover pack DX5 (pack contains 2 DX5 crossovers. 16 laminated bituminous felt panels and reflex tubes. 5cms internal diam × 22·86cms long)

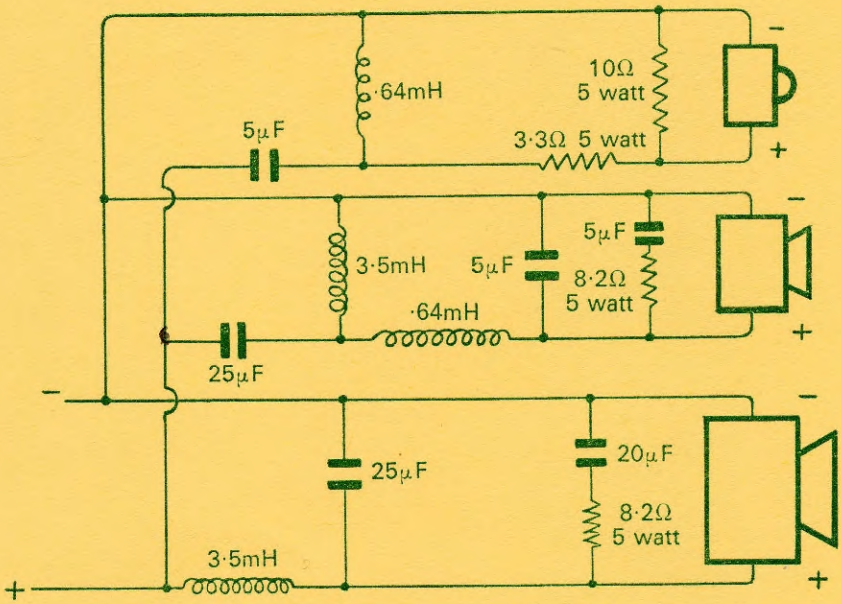
3.5 square metres 10 oz. Acoustilux

1 Tin Aquaseal No. 5

1 metre of Velcro

T nuts, screws, wood glue, etc.

SYSTEM 5
THE CROSSOVER NETWORK

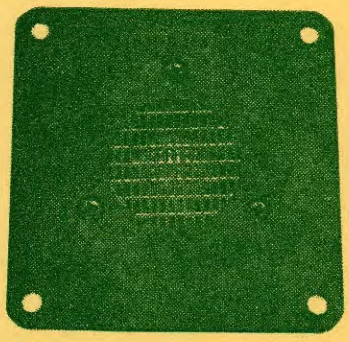


Components list
(For single crossover)

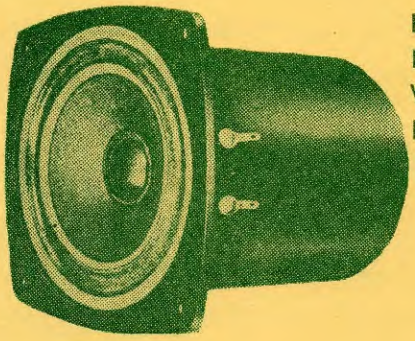
Inductors	Capacitors ("Elcap" Type)	Resistors
2 3.5 mH	2 25 mfd	2 8.2 ohm 5 watt
2 .64 mH	1 20 mfd	1 10 ohm 5 watt
	3 5 mfd	1 3.3 ohm 5 watt

This crossover network is available in assembled form as Dalesford DX5 (pack also contains the reflex port tubes and laminated bituminous felt panels used in this design).

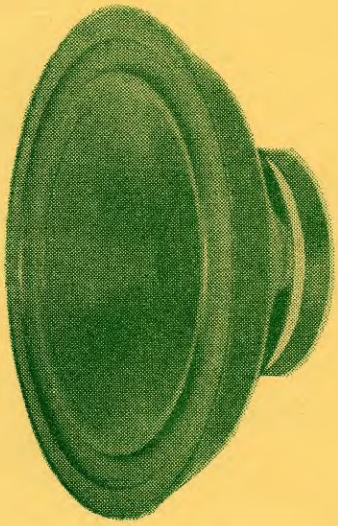
SYSTEM 5
THE DRIVE UNITS



Isophon KK10/8
Frequency range: 1 kHz – 20 kHz
Magnet: 13 K Gauss
Weight: .4 kgs.
Manufacturer: Isophon Werke, GmbH, Berlin.



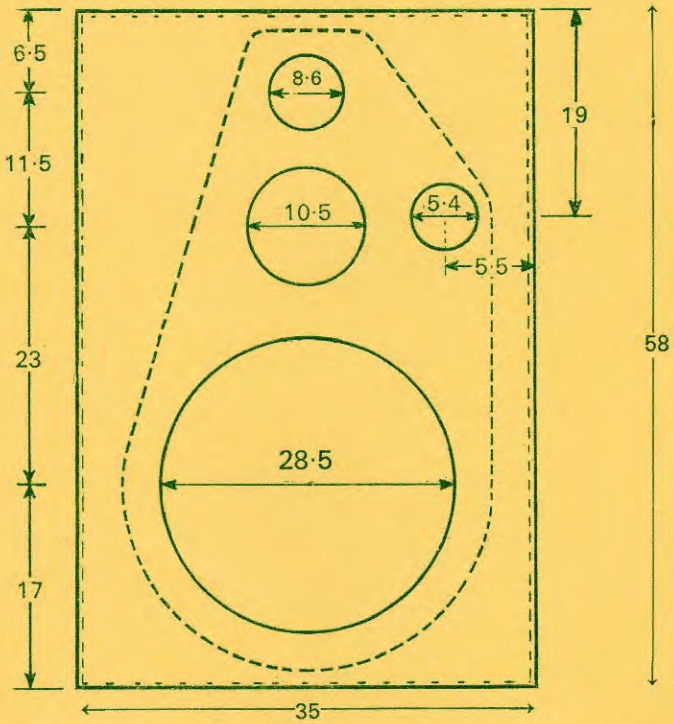
Peerless K040MRF midrange unit.
Frequency range: 500 – 5kHz
Voice coil diameter: 25 mm
Resonant Frequency: 240 Hz



Dalesford D100/310 bass unit
Size: 12"
Resonant frequency: 23 hz
Nominal frequency response: 20 – 2 kHz
Flux density: 15 K gauss
Voice coil diameter: 50 mm
Power handling 70 watts RMS continuous.
Maximum amplifier power: 100 watts per channel.

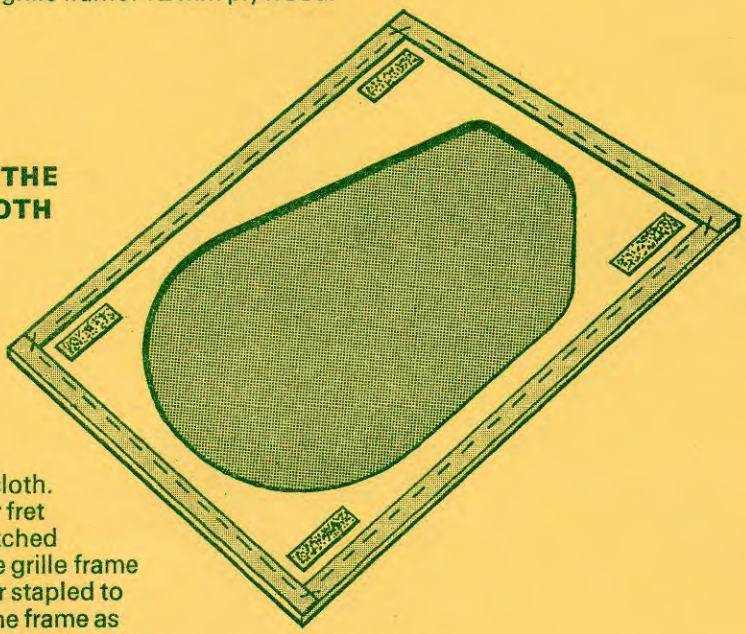
SYSTEM 5

THE BAFFLE AND GRILLE FRAME



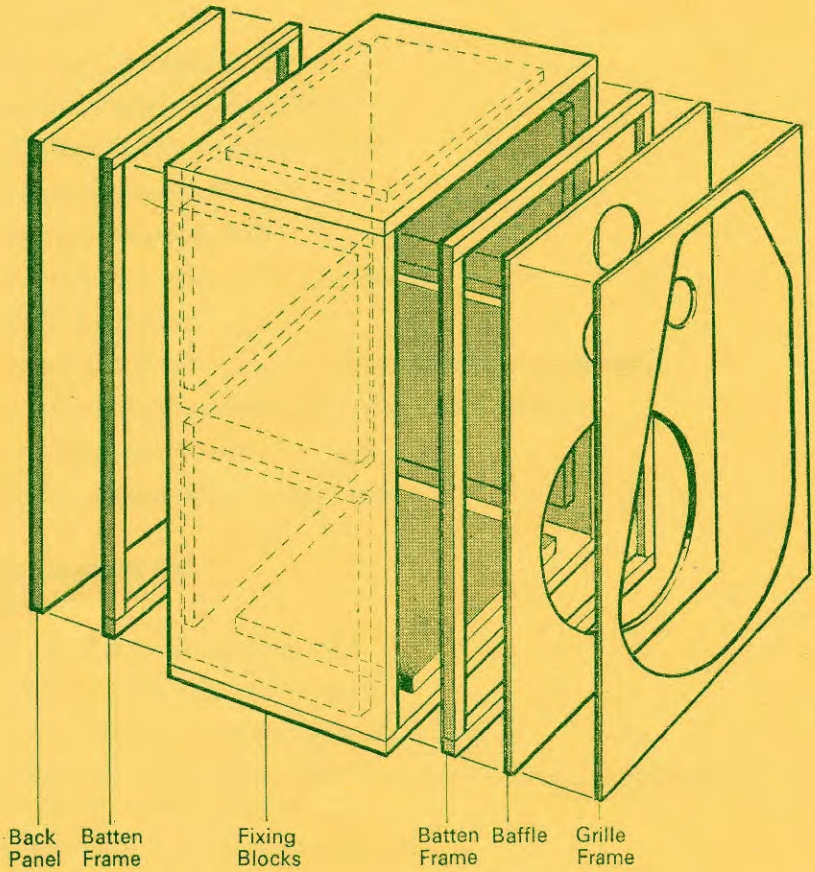
Grille frame as dotted line. Outside dimension smaller than baffle to allow for thickness of speaker fret cloth.
Material for baffle: 18 mm chipboard.
Material for grille frame: 12 mm plywood.

FITTING THE FRET CLOTH



Fitting fret cloth. The speaker fret cloth is stretched taut over the grille frame and glued or stapled to the rear of the frame as illustrated. Velcro is a convenient method of holding the frame in the cabinet.

SYSTEM 5
GENERAL CONSTRUCTION



Internal dimensions:	Height: 58 cms Width: 35 cms Depth: 30 cms (between front surface of back panel and back of baffle)
External dimensions:	Height 61.6 cms Width: 38.6 cms Depth: 35.5 cms

Before fitting the baffle, the 8 laminated bituminous felt panels are stuck in place with Aquaseal No. 5 (hold with panel pins until Aquaseal is dry). All internal surfaces are then lined with Acoustilux B.A.F. Wadding (except the baffle). The reflex port tube is glued flush with the front surface of the baffle using Evostik. Roughening the surface of the tube with a file or sandpaper helps to provide a "key" for the glue.
It is not necessary to construct a midrange enclosure as this is an integral part of the Peerless K040MRF mid range unit.