

## CROSS-OVER FILTER FL6/5

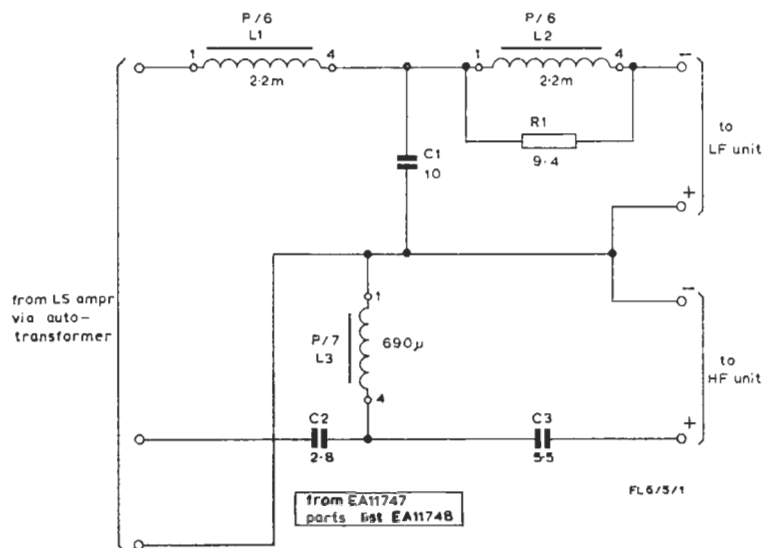


Fig. 1. Circuit Diagram of Filter FL6/5

The FL6/5 consists of a low-pass filter and a high-pass filter for providing separate feeds, with complementary frequency ranges, to an l.f. and an h.f. loudspeaker unit respectively.

As shown in Fig. 1, the low and high-pass filters each have one individual input terminal and a common terminal. Normally the individual inputs are connected to taps and the common terminal to the reference end on an auto-transformer, which is fed from a single loudspeaker amplifier of low output impedance. The auto-transformer taps used are those which provide the required levels at the loudspeaker units.

When the low-pass and high-pass sections are connected to taps 4 and 9 respectively on a transformer LL/92C as in loudspeaker LS1/2, and if the filter sections are loaded with 3 ohms and 12 ohms to represent an l.f. and an h.f. loudspeaker unit, the electrical cross-over frequency is at about 1.3 kHz. At the cross-over frequency the voltage loss at each filter output, relative to the signal across the transformer, is about 24 dB. Under the same circuit conditions, the loss at the low-pass filter output is 30 dB at about 2 kHz and the loss at the high-pass filter output is 30 dB at about 1 kHz.

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