

LOUDSPEAKER LS1/2

See also AM8/4A, FL6/5

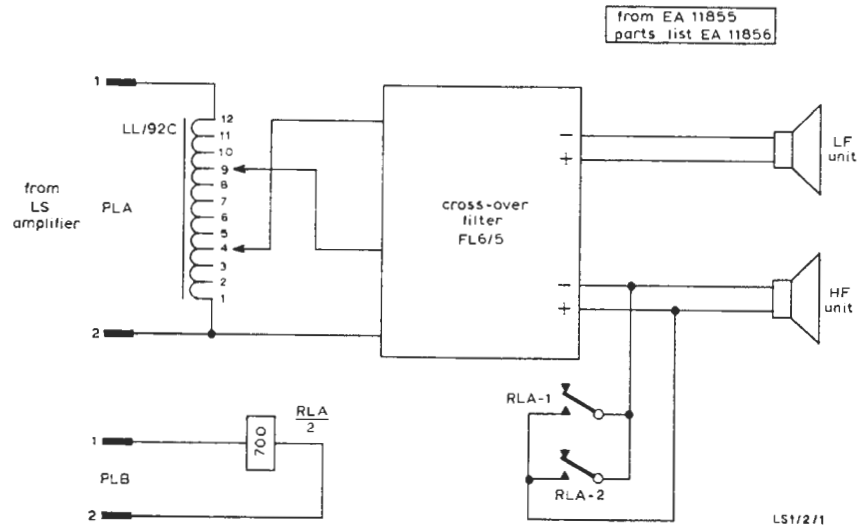


Fig. 1. Circuit Diagram of Loudspeaker LS1/2 less Amplifier

The LS1/2 is a general purpose loudspeaker equipment particularly used for monitoring in telecine and video-tape areas. It includes a relay for preventing input to the h.f. speaker unit during video-tape spooling. Plates in the cabinet at each end facilitate suspension mounting.

The equipment consists of two parts:

(a) A cabinet CT4/7 which contains a Goodmans Industries l.f. speaker unit Type R77/837/3, a Rola Celestion h.f. speaker unit Type BCS1852/T534, a cross-over filter FL6/5 and a transformer LL/92C.

(b) A separate amplifier AM8/4A.

The cabinet CT4/7 is 30 in. wide, 12½ in. deep, and 8½ in. high at the front and 4 in. high at the back. The l.f. speaker unit is mounted in the centre of the front with the h.f. unit adjacent at one side. The FL6/5 and LL/92C are fitted on the rear face of the front panel on either side of the speaker units. The complete assembly, less amplifier, weighs 25 pounds.

Characteristics of the l.f. speaker unit are:

Flux density: 13,000 gauss

D.C. resistance: 2.5 to 2.8 ohms

Fundamental resonance: 55 to 70 Hz
(as supplied to BBC)

Characteristics of the h.f. speaker unit are:

D.C. resistance: 11 to 12.5 ohms

Fundamental resonance: 1.6 kHz

Impedance at resonance; 45 ohms

The levels fed to the speaker units via the cross-over filter are set by the choice of taps used on the transformer LL/92C (Fig. 1). Normally the electrical cross-over frequency is at about 1.3 kHz.

The feed to the h.f. speaker unit may be short-circuited by energising the 24-volt relay RLA (Fig. 1), via the two-pole flat-pin plug PLB at the rear, for which a Painton 313262 socket is supplied. This facility is used in video-tape spooling when some form of sound monitoring is required but the h.f. components are excessive.

The AM8/4A is installed in a convenient position, and its output is fed via a Bulgin P74 socket and PLA on the cabinet. An equaliser in the AM8/4A compensates for the bass loss caused by suspending the cabinet away from the floor.

DPEB 3/69