

## LOUDSPEAKERS LS5/2 AND LS5/2A

See also AM8/4, AM8/6, LS5/1 (for FL6/2, FL6/4)

**Loudspeaker LS5/2**

The LS5/2 is a high-grade loudspeaker equipment designed for suspension mounting and particularly intended for quality checking in television sound control rooms. Its frequency range extends up to 13 kHz with a substantially flat axial response.

The equipment consists of two parts:

- (a) A cabinet CT4/5 which contains a Plessey l.f. speaker unit Type CP73025/12, two selected Rola Celestion h.f. speaker units Type 1852/T534, and a cross-over filter FL6/2.
- (b) An amplifier AM8/4.

The cabinet CT4/5 is 19 in. wide, 21½ in. deep, 33½ in. high at the front and about 22 in. high at the rear. The l.f. speaker unit occupies the upper part of the front and the two h.f. units are centrally below it, one beneath the other. A vent is situated just below the l.f. unit and to one side of the h.f. units. The FL6/2 cross-over filter is mounted at the other side of the h.f. units, on the inner face of the front panel. The assembly weighs about 70 lb.

Characteristics of the l.f. speaker unit are:

Flex density:	12,000 gauss
D.C. resistance:	11 to 13.4 ohms
Fundamental resonance (unmounted):	20 to 30 Hz

Characteristics of each h.f. speaker unit are:

D.C. resistance:	11 to 12.5 ohms
Fundamental resonance:	1.6 kHz
Impedance at resonance:	45 ohms

The relative levels fed to the h.f. speaker units and the l.f. unit are set by the choice of taps used on the shunt auto-transformer in the high-pass sections of the cross-over filter.

The AM8/4 amplifier is separate and should be installed in a convenient position. In the AM8/4 amplifiers with LS5/2 equipments the internal optional equaliser giving a rising characteristic at upper frequencies should be included in circuit (provided that the series inductor in one h.f. speaker unit feed in the cross-over filter has not been omitted or short-circuited by a strap).

Although an AM8/4 nominally forms part of the LS5/2, an AM8/6 with its bass boost and greater power output can be used instead with advantage.

**Loudspeaker LS5/2A**

This is the same as the LS5/2 except that the l.f. speaker unit is a Goodmans Industries Type C129B/15PR/15 ohms, the cross-over filter is an FL6/4, and the amplifier forming a separate part of the equipment is an AM8/6.

The Goodmans l.f. unit has the following characteristics:

Flex density:	8,500 gauss
D.C. resistance:	11 ohms
Fundamental resonance (unmounted):	30 Hz

The bass boost provided by the AM8/6 compensates for the bass loss resulting from suspension mounting.

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