

## — LOUDSPEAKERS —

### **LS5/1, and A**

The studio versions of the LS3/1 and A, designed to replace the LSU/10. The cabinets were larger than the LS3/1 and the tweeters were mounted above the woofer, rather than in front of it.

The following units were used:

- Plessey (LS5/1) or Goodmans C129/15pr (LS5/1A), 15-inch paper cone woofer
- 2 x Rola-Celestion HF1300 tweeters

### **LS5/2, and A**

Television versions of the LS5/1 and A. A different enclosure shape was used to enable the unit to be suspended.

### **LS5/4**

A version of the LS3/1A for Bush House.

### **LS5/5**

A large freestanding assembly for studio monitoring, built into a grey-painted cabinet. Max SPL at 1.5m: 103dB(A).

The following units were used:

- 12-inch Bextrene cone woofer (LS2/1)
- 8-inch Bextrene cone midrange (LS2/2)
- Celestion HF 1400 tweeter
- modified Quad 50D power amplifier (AM8/11)
- pre-amp and equaliser (AMI/20)

### **LS5/5B**

A version of the LS5/5 with a Spondor BC2/8 mkII midrange unit and finished in teak veneer.

### **LS5/6**

A television version of the LS5/5. Mounted in a different enclosure shape for suspending.

## **Today's monitors**

### **LS3/4C**

A medium sized triangular-shaped assembly, for mounting on a ceiling or wall where space is at a premium. Used in television in CMCRs/MCRs or vt cubicles. Replaces the LS3/4 and LS3/4B, or may have been converted from one of the above. Max SPL at 1.5m: 101dB(A). About forty are in BBC service.

The following units are used:

- 8-inch Bextrene cone woofer (LS2/13)
- Son Audax HD13D34, 34mm fabric dome tweeter (LS2/12)

Requires a 50 watt amplifier.

### **LS3/5A**

A small 'bookshelf' assembly for use in restricted areas, such as OB vehicles. Extensively used in Local Radio. Max SPL from a pair at 1.5m: 95dB(A). Over 3500 are in BBC service and over 100,000 have been sold commercially, worldwide. Made under licence by Swisstone (Rogers), Spondor and Harbeth.

The following units are used:

- KEF B110 SP1228, 110mm Bextrene cone woofer.
- Modified KEF T27 SP 1032, 27mm Mylar dome tweeter.
- KEF SP2128 crossover (FL6/38)

Requires a 25 watt amplifier.

### **LS5/8**

A large floor-standing assembly for high-level, high quality studio monitoring. Replaces the LS5/1 and LS5/5. Max SPL at 1.5m: 116dB(A). Just under a thousand are in BBC service. Made under licence by Swisstone (Rogers).

The following units are used:

- Rogers 12-inch Polypropylene cone woofer.
- Son Audax HD13D34H, 34mm fabric dome tweeter (LS2/15)
- modified Quad 405 power amplifier (AM8/16)

The AM8/16 contains an equalising and frequency-splitting pre-amplifier. The woofer and tweeter are each driven from a separate amplifier channel.

### **LS5/8AL, and R**

Similar to the LS5/8, but with the baffle angled in at 30 degrees for corner-mounting in vehicles. Left and right handed versions make up a pair. Special acoustic treatment is required due to the close proximity of the loudspeaker to the walls. Eight pairs are in BBC service.

### **LS5/9**

A medium-size studio monitor for high-quality monitoring in areas where the LS5/8 would be too large. Designed to produce similar subjective sound balance to the LS5/8. Max SPL at 1.5m: 105dB(A). Over a thousand are in BBC service. Made under licence by Swisstone (Rogers) and Spondor.

The following units are used:

- 8-inch polypropylene cone woofer (LS2/14)
- Son Audax HD13D34H, 34mm fabric dome tweeter (LS2/15)
- crossover (FL6/36)

Requires a 50 watt amplifier.

### **LS5/11**

This is a modified LS3/4, intended to produce a similar subjective sound balance to the LS5/9. It uses the same units as the LS5/9, fitted to a modified LS3/4 baffle, although the crossover is modified. Max SPL at 1.5m: 106dB(A).

Requires a 50 watt amplifier.

## **Commercial Loudspeakers**

For some applications, there is no suitable BBC-designed loudspeaker so we have to go to the commercial marketplace. An example is high level monitoring of Rock music, where we have used a variety of types over the years. In general, though, it is preferable to stick to the LS-coded units as these undergo rather tighter quality control checks, at Avenue House, than is common commercially.

## **Supply And Repair**

The LS3/5A, LS5/8 and LS5/9 are available from Design and Equipment Department, although new LS5/8s will be made to order only. No new LS3/4Cs will be made: requirements will be met by the LS5/11.

If repairs are required to any BBC loudspeaker, it should be returned to D&ED who holds the Reference units of each type.

If you require any further information on BBC loudspeakers, and their associated amplifiers, please contact me on Avenue House ext 311.

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