



Audio Amplifiers and Programme Input Equipment

THE FOLLOWING comprehensive range of audio amplifiers consists of a series of small plug-in units using miniature valves or transistors and printed-wiring boards.

The amplifiers are robust and are readily adaptable to a wide variety of sound studio requirements.

Microphone/ Programme Amplifier Type B 1308

A general-purpose unit, usable as a microphone, booster or programme amplifier. There is an adjustable gain control.

Line Amplifier Type B 1303

For use as a booster amplifier after a line equalizer.

Trap-valve Amplifier Type B 1304

These amplifiers are used when a single source of modulation is required to feed several output lines.

Isolation Amplifier Type B 1305

This has a similar function to the Type B 1304 but with an output impedance of 600 Ω .

Limiter Amplifier Type B 1306

A high-quality amplifier which is used for the Sound Programme Input Panel Type B 1552.

Tone Source Unit Type B 1312

Produces a constant tone at 400 or 900 c/s from zero level to +4 dBm, or +4 to +8 dBm.

Power Supply Unit Type 4550

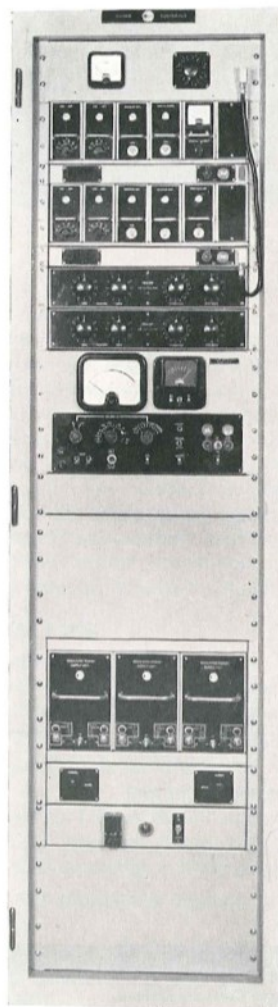
A unit to provide power supplies for a number of amplifiers.

Loudspeaker Monitor Amplifier Type B 1307

Provides 2 watts drive for a loudspeaker. 0 to +20 dBm input.

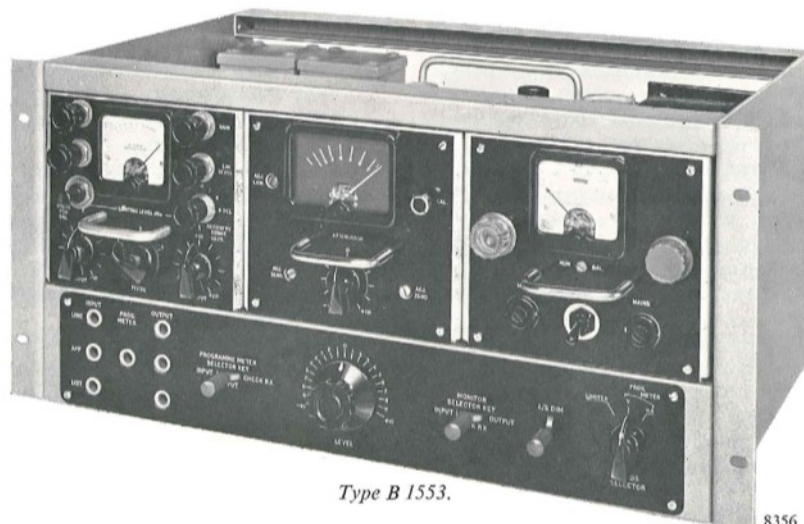
Sound Programme Input panel Type B 1553

These p.i.e. panels form a further application of the system of unit amplifiers described. The mounting panel occupies 8 $\frac{1}{2}$ in. of a standard 19 in. rack and carries three plug-in runner assemblies comprising a Limiter Type B 1306, either a P.P. Meter Unit, Type B 1752, or a V.U. Meter Unit, Type B 1755 (see page 46), and a Power Supply Unit Type B 1507, which incorporates a feed meter.



8287

Plug-in audio amplifiers in a cabinet arrangement.



Type B 1553.

8356

Data Summary

Amplifiers

Type Number	Purpose of unit	Input level max. dBm	Input impedance ohms	Voltage gain dB	Output level max. dBm	Output impedance ohms	Noise level dBm	\pm dB frequency response 30-15,000 c/s
B1308	Microphone and programme amplifier, variable gain	-45 to -25	30 or 600	45 to 65	+20	600	-75 to -55	0.7
B1303	Booster amplifier for use with line equalizers, variable gain	-20 to +10	600	10 to 40	+20	600	-75	0.7
B1305	Isolation amplifier for sound distribution to lines, variable gain	0 to +20	10,000	0 to 20	+20	600	-75	0.7
B1304	Trap-valve amplifier for sound distribution to lines, ring main, etc., variable gain	0 to +20	10,000	0 to 20	+20	75	-75	0.7
B1306	Limiting amplifier, variable	-10 to +10	600	30	0 to +20	600	-70	1.0
B1307	2 W L.S. Mon. amplifier	0 to +20	710,000		2 W	0.6 or 2.4	-65	

Tone Source Unit Type B 1312

Frequency:

400 or 900 c/s $\pm 2\%$, switchable.

Output level: 0 to +4 dBm (Edn. A) or +4 to +8 dBm (Edn. B) adjustable. Indicated on voltmeter calibrated in volts and dBm.

Output impedance: 10 Ω balanced.

Distortion:

At 0 dBm output, not greater than 0.2%.

At max. output, not greater than 0.5%.

Power consumption:

300 V d.c., 75 mA. 6.3 V a.c., 0.5 A.

Valves:

Z729-1, Z719-1.

Power Supply Units Types B 1506 and B 1507

Outputs:

H.T: 300 V (B 1506 120 mA, B 1507 37 mA).

L.T: Two outputs each 6.3 V a.c.

(3.5 A max. each output for B 1506; 2.6 A for B 1507.)

Equivalent source impedance: Less than 1 Ω .

Regulation:

H.T: Output constant to within 0.1 V from no-load to full-load.

L.T: 10%.

A.C ripple: B 1506, less than 1 mV, B 1507, less than 20 mV.

Power supplies: 100-125 V or 200-250 V (in 5 steps) 50-60 c/s, single-phase a.c.

Power consumption:

40 W (approx.) on no-load.

165 W (approx.) on full-load.

Valves: 12E1-1 ECC83-2
GZ32-1 QS83/3-1.

Sound Programme Input Panel Type B 1553

Input impedance: 600 Ω balanced or unbalanced.

Output impedance: 600 Ω balanced.

Gain: -20 dB to +30 dB (adjustable).

Maximum output: +20 dBm.

Frequency response: ± 1 dB from 30 to 15,000 c/s.

Distortion: At +12 dBm output.

Less than 0.5% at 60 c/s.

Less than 0.3% at 1000 c/s.

Noise level: 70 dB below threshold of limiting.

Power supplies: 100-125 V or 200-250 V, 50-60 c/s a.c.

DIMENSIONS OF UNITS

Height Width Depth Weight

Type B 1303

5 in. 2 $\frac{11}{16}$ in. 11 $\frac{9}{16}$ in. 2 $\frac{3}{4}$ lb
(12.7 cm) (7.1 cm) (29.4 cm) (1.25 kg)

Type B 1304

5 in. 2 $\frac{11}{16}$ in. 11 $\frac{9}{16}$ in. 4 lb
(12.7 cm) (7.1 cm) (29.4 cm) (1.82 kg)

Types B 1506 and B 1507

8 $\frac{3}{4}$ in. 5 $\frac{11}{16}$ in. 11 $\frac{5}{8}$ in. 17 lb
(22 cm) (14.2 cm) (29.6 cm) (7.75 kg)

Type B 1312

5 in. 2 $\frac{11}{16}$ in. 11 $\frac{9}{16}$ in. 2 $\frac{3}{4}$ lb
(12.7 cm) (7.1 cm) (29.4 cm) (1.25 kg)

Height Width Depth Weight

Type B 1305

5 in. 2 $\frac{11}{16}$ in. 11 $\frac{9}{16}$ in. 3 lb
(12.7 cm) (7.1 cm) (29.4 cm) (1.37 kg)

Type B 1306

5 in. 5 $\frac{11}{16}$ in. 11 $\frac{9}{16}$ in. 7 $\frac{3}{4}$ lb
(12.7 cm) (14.2 cm) (29.4 cm) (3.52 kg)

Type B 1307

5 in. 2 $\frac{11}{16}$ in. 11 $\frac{9}{16}$ in. 3 $\frac{1}{2}$ lb
(12.7 cm) (7.1 cm) (29.4 cm) (1.59 kg)

Type B 1308

5 in. 2 $\frac{11}{16}$ in. 11 $\frac{9}{16}$ in. 2 $\frac{1}{2}$ lb
(12.7 cm) (7.1 cm) (29.4 cm) (1.14 kg)

Type B 1553

8 $\frac{3}{4}$ in. 19 in. 11 $\frac{1}{4}$ in.
(22 cm) (48 cm) (29 cm)

Marconi

The Marconi Company Limited
Marconi House, Chelmsford, Essex
Telephone: Chelmsford 3221 · Telex: 1953
Telegrams: Expanse Chelmsford Telex