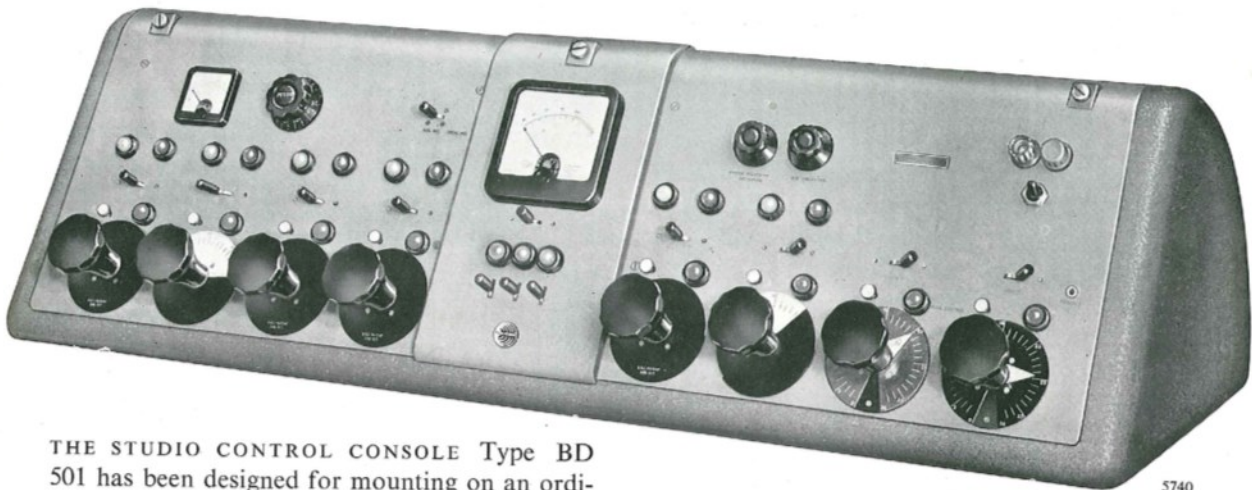




Studio Control Console *Type BD 501*



5740

THE STUDIO CONTROL CONSOLE Type BD 501 has been designed for mounting on an ordinary table or on the special desk Type BD 549 (see illustration on page 50), and it provides a flexible, high-quality control of programme material from two studios, an announcer's microphone, several disc reproducers, and four outside broadcast lines.

Two independent programme channels are provided. These are identified by a system of red and blue lights, and they can be used for both transmission and rehearsal. Individual selector switches make it possible to connect the various inputs to either channel.

The console is robustly constructed of rolled metal with cast end-plates. All controls, indicator lamps and meters are mounted on the sloping front panels, which are hinged to give access to the inside of the console.

FEATURES

High-quality control of two studios, announcer's microphone, gramophones, and four high-level sources.

Two independent output channels for programme and rehearsal conditions.

Full talk-back and monitoring facilities.

Automatic muting of loudspeakers and control of studio warning lights.

Push-button two-way cue-light signalling.

Plug-in amplifier units facilitate quick change and allow easy access to components.

VU or peak programme meter for visual monitoring.

Pre-fade listening on all inputs and both output channels.

FADERS

The faders all consist of high-grade bridged T networks and are provided with special self-evident dials which show at a glance how far each channel has been faded up.

The two main faders control the outgoing programme level of the 'red' and 'blue' channels respectively. A fader mixer control is also provided

in the output from the microphone and gramophone pre-amplifiers and the OB line selector. Each of these fader mixer controls is associated with a three-position switch so that the circuit may be switched off or connected to either the 'red' or 'blue' channel. The eight faders are conveniently placed along the bottom of the control panel.

MONITORING AND TALK-BACK

A full monitoring and talk-back system is incorporated. Facilities are provided for operating monitoring loudspeakers in each studio and the control room, with talk-back from a local microphone plugged into the console. Each loudspeaker is muted automatically as its associated microphone is faded up and when the loudspeakers are inoperative headphone monitoring is substituted. The latter can be used in conjunction with a two-way push-button cue-light signalling system. On the OB lines monitoring and talk-back are available under all conditions over a control line.

Headphone pre-listening is available across the input to each microphone fader, the output of the OB line selector switch and the two output lines.

For visual monitoring either a VU meter or peak programme meter can be fitted.

CONTROL LIGHTS

An automatic system of relay operated studio warning lights showing when the studios are 'on the air' or on 'rehearsal' can be provided. 'Tell-tale' lights on the console enable the operator to see at a glance the channels which are in use. The lights may be arranged to suit the microphone grouping.

AMPLIFIERS

The microphone and programme amplifiers are identical amplifier units Type BD 517, and a high-quality amplifier Type BD 516 is used to drive the loudspeakers in the control cubicle and studios. These units are described on pages 69 and 71.

POWER UNIT

This is a separate unit and supplies all the LT and HT supplies for the amplifiers as well as LT for the auxiliary signal and relay circuits.

Selenium rectifiers are used and the generous ratings of these, together with the substantial smoothing circuits, ensure high stability and freedom from mains hum.

DATA SUMMARY

Input impedance: 30, 150, 300, 600 or 5000 Ω , balanced or unbalanced. 10,000 Ω when bridging a 600 Ω line.

Output impedance: 150 or 600 Ω , balanced or unbalanced.

Normal output level: +4 dbm at less than 0.5% distortion from 60 to 15,000 c/s.

Maximum output level: +18 dbm at less than 1% distortion from 60 to 15,000 c/s.

Maximum gain (microphone to line): 102 db.

Frequency response: ± 2 db from 20 to 20,000 c/s.

Noise level (for signal input of -50 dbm): 70 db below maximum output.

Power supplies: 100-130 V or 200-250 V, 40-60 c/s single-phase AC mains.

Dimensions:

Height	Width	Depth	Weight
Console			
12 $\frac{1}{8}$ in.	45 in.	19 in.	145 lb
(30.8 cm)	(114.3 cm)	(48.2 cm)	(65.5 kg)
Power Unit			
9 $\frac{1}{4}$ in.	15 $\frac{3}{8}$ in.	13 in.	50 lb
(23.5 cm)	(40 cm)	(23 cm)	(22.5 kg)

Marconi

MARCONI'S WIRELESS TELEGRAPH COMPANY LIMITED

Head Office: Marconi House, Chelmsford

Telephone: Chelmsford 3221. Telegraphic Address: Expanse, Chelmsford