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MAESTRO DL500 INDUCTION LOOP DRIVER



The Mustang Maestro DL500 Inductive Loop Driver Amplifier has been designed to meet the needs of installers for an effective and reliable loop driver in hearing-impaired, ear defender, and audio visual applications. The DL500 is intended for use in loop systems which are specified to BS.7594 and BS.6083, covering up to 500 sq. metres and, once installed and adjusted, is fully automatic in operation.

Comprehensive input facilities enable the unit to interface with the Mustang Maestro range of mixers/amplifiers and most types of professional equipment including tape record/playback systems.

The DL500 is a true constant current design automatically compensating for loop characteristics over the full frequency range. Loop wiring is simplified as only a single turn is required, and impedances as low as 0.1 ohm may be used. The rugged output stage with substantial heatsinking assures confident performance in the most demanding contexts. Systems for areas larger than 500 sq. metres may take advantage of the Slave input/output interface.

Self checking internal functions and system status LED's are provided, together with LED and headphone monitoring of loop current. Active attenuation of RFI emissions, loop impedance check and over-temperature sensing are also included. Simple setting up procedures aid rapid installation, whilst the removable front panel controls deter unauthorised adjustment.

As with other products in the Maestro range, the electronic and mechanical design features of the DL500 ensure trouble-free performance and long term reliability - truly 'fit and forget'.

MAIN FEATURES

- True current driver for loops up to 500 M²
- Fully automatic operation
- Signal processing for BS.7594 and BS.6083 systems
- Easy connect loop terminals
- Operates single turn loops
- Full RFI protection
- Quiet start
- Comprehensive microphone and line input facilities
- Loop monitoring using standard headphones
- Comprehensive panel displays
- Comprehensive circuit protection
- All connectors supplied
- Easy set-up using internal oscillator
- Simple interconnection with Maestro amplifiers
- Manual includes guidance on loop design and trouble shooting
- Pluggable 2 Metre IEC power cordset
- Colour co-ordinated easy to use control knobs with high visibility pointer lines and clear printing
- Simple access to internal adjustments and settings
- Robust construction including steel case with tough paint finish
- Internal construction designed for easy access for servicing
- Convection cooled
- Intentionally designed for high electronic and mechanical reliability
- Optional 2U rack mount bracket kit BRK-20 includes specially designed pull handles
- Versatile tape recording connections
- Slave input/output connection for system expansion

MAESTRO DL500 INDUCTION LOOP DRIVER

TECHNICAL SPECIFICATION

DATA SHEET DS85-02

Operational mode	True constant current drive amplification with compression and equalisation for BS.7594 / BS.6083 systems
Loop capacity	Typically up to 500 sq. metres
Input No. 1	Balanced or unbalanced microphone. Optionally selected 12V phantom power. XLR connector. 200uV sensitivity, 46dB headroom. Optionally selected bass-cut of 3dB/octave below 300Hz
Input No.2	Balanced or unbalanced line. DIN connector. Sensitivity 50mV @ 22k and 775mV @ 300k. Separate terminals for loudspeaker line input - sensitivity 5V to 100V RMS. Loading 2M ohms balanced
Loop output	4mm heavy duty binding post for 10 Amp peak into load impedances between 0.1 and 3.5 ohms.
Monitor headphone output	True loop current sampling. Stereo ¼" jack socket
Frequency response	50Hz - 16kHz \pm 3dB expressed as resistive loop current. Internal switch for 100Hz- 5kHz \pm 1dB
Microphone and line CMRR	Better than 65dB @ 50Hz-2kHz
Internal set-up oscillator	1kHz
Processing compression	30dB @ 1kHz
Protection systems	Output voltage clipping, over temperature, over current, and compression overload
Pre-amplifier headroom	42dB
Slave connection	775mV output @ 600 ohms. 200-775mV @ 10k input. DIN connector
Maestro amplifier interface	Dedicated DIN connector port to Maestro amplifier. Optional connector lead available: Part No. CC1
Tape record/playback	Fully configurable for stand-alone or for linking with Maestro amplifiers. DIN connection
User controls	Microphone level, line+loudspeaker+tape level, output current set. Removable control knobs and spindles
Front indicators	Input overload, output current, error check, protection, AC supply
Power requirement	220/240V AC 50-60Hz. Maximum 185-250V. 30VA quiescent. Nominally 120VA average, fully driven
Options	Matching 2U rack bracket kit. Part No. BRK.20
Dimensions - W x D x H	Case size 432 x 329 x 89mm. 432 x 369 x 93mm inc heatsink & feet. Front knobs - add 20mm
Weight	10kg gross shipping weight; volume 0.04 cu.M; Unit weight - 8.5kg net



Simple but effective integration of Maestro amplification and DL500 induction loop driver, using CC.1 interconnection lead.

Alternatively, mount both units in a standard 19" cubicle using BRK-20 rackmount kits.

QUALITY ASSURANCE

Guided by a policy of non-obsolescence, every part for the Maestro range of amplification is carefully manufactured direct from raw materials to ensure total control of all aspects of quality and delivery. Every sub-assembly and finished amplifier is exhaustively and individually tested.

All procedures meet our internal Quality Assurance standards, which in turn are maintained to ISO.9002.

CONTACT

We will be pleased to receive enquiries regarding application of the Maestro range, either by phone, fax, or email.

In the interests of continuous development, specifications are subject to change without notice.

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Electromagnetic compatibility (EMC) directive 89/336/EEC and amendment directive 92/31/EEC

This equipment has been designed and manufactured to the highest standards. If connected and operated as set out in this manual, there should be no Electromagnetic Compatibility problems. If any aspect of operation gives rise to concern, then please contact the manufacturer for advice.