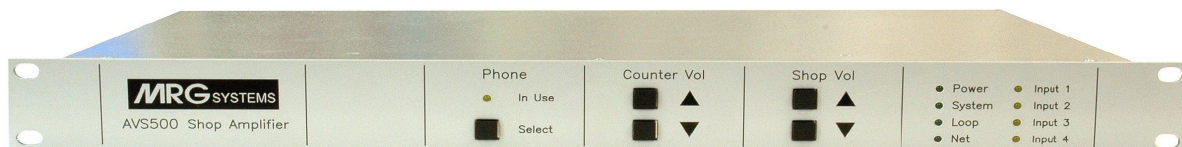


The MRG AVS500

Audio Amplifier

The MRG AVS500 has been designed to meet the specific requirements of sound distribution in a modern licensed betting office affording separate zoned areas for different commentaries being broadcast at the same time. The AVS500 provides multiple zones, Dynamic Range Control and support for hearing aid induction loops in a high reliability design that requires no cooling fans. In addition to the provision of high-quality audio, consideration has been given to future-proofing, flexibility of usage, ease of installation and the unique ability to switch audio commentaries and alter sound levels remotely from head office.



Main features include:

- Support for four shop zones plus a separate counter zone.
- Separate volume controls for Shop zones and the Managers Zone.
- Four 20-watt loudspeaker outputs with zoning control
- One 40-watt output for loudspeakers or 100-volt line output.
- One output to drive a hearing-aid induction loop.
- Line output to drive external loop amplifiers if already installed.
- Four input channels plus a built-in telephone interface for back-up.
- Routing of any input to any output.
- Individual treble and bass equalization for each zone.
- Built-in telephone back-up input.
- Dynamic Range Control for automatic sound level correction.
- Full performance down to 150volt mains supply.
- Fully digital design giving high quality and high efficiency.
- Convection cooled – no fan required.
- Built-in tone generators for test and set-up.
- Network interface allows remote configuration and monitoring.
- Controllable from BIDS via the AV300.

Simple in-shop controls

For simplicity of operation, the front panel contains only the controls and indicators needed by the manager.

Two volume controls are provided, one controlling the overall sound level in the shop and the other controls the level behind the counter.

For telephone backup a push button is provided, with an indicator to show when it is selected.

Indicators on the front panel show that the selected inputs are active, the induction loop is working, the amplifier control system is working and that the unit is powered. All other adjustments can be made remotely via a network interface or as commands sent from the central system.

Four Zone Outputs

Each output is capable of driving 20 watts rms into an 8-ohm load without clipping. These could be single loudspeakers or four units wired in series/parallel. The power level for each zone can be set individually and so too can any frequency equalization that might be needed.

5.08mm pitch two-part terminals are used with screw terminal cable mounts on all outputs.

One High-Power Output

An additional single high-power output is provided which can be used as a fifth conventional zone or it may drive a 100-volt line transformer. This output is rated at 40 watts into 4 ohms.

Induction Loop Driver

To comply with the Disabled Discrimination Act every LBO should provide an induction loop to enable users of hearing aids to hear the in-shop commentary.

To eliminate the need to buy a separate induction loop amplifier, the MRG AVS500 provides an output specifically to drive a typical LBO induction loop.

The pre-amplifier in the AVS500 allows the loop to be set up with suitable metal compensation and the DRC facility can be used to ensure that a uniform sound level is achieved.

Four Input Channels

Four mono inputs are provided on phono connectors. The level of each input can be preset to minimise a change in volume when inputs are switched.

Backup Telephone Interface

Should the main sound source fail, the AVS500 contains a fully isolated and protected telephone interface, which can receive a backup sound channel usable until the main source is restored.

Two RJ11 connectors are used for the phone and the telephone line. As with the existing equipment, the shop manager would dial the backup source number and press a button on the amplifier to both hold the line and select the phone input. A front panel LED indicates when the phone has been selected.

Routing and Equalisation

Any input can be routed to any output. Bass and treble controls are available to improve the sound clarity should it be required in specific locations.

Level Control

Two sets of level controls are provided for the manager on the front panel with Up and Down buttons. One is a master volume control for all outputs, the other affecting only the counter zone.

Dynamic Range Control is available which can be used to reduce the overall dynamic range – turning up the level when the incoming commentary is too quiet and turning the sound down if the input becomes too loud.

Electrical Efficiency

The amplifier uses an all-digital approach (Class D) resulting in a very much higher efficiency than is possible with a conventional (Class B) amplifier. Combined with an equally efficient power supply, the amplifier can maintain full performance with a supply voltage down to 150 volts but still only requires convection cooling – no need for a fan.

Control Interface

The AVS500 includes an Ethernet network interface combined with a web-server allowing it to be controlled from an AV300 – either through the manager's terminal or directly from BIDS.

In addition, a PC running a web browser can log into the amplifier either locally or remotely to check for correct operation or to update the configuration.

This remote monitoring facility allows potential problems to be assessed and, where possible, corrected without the need for a shop visit.

A test signal generator is incorporated so that a shop installation can easily be checked.