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MICROPHONES AND ELECTRONIC COMPONENTS

AREA CODE 312/328-9000 . CABLE SHUREMICRO

MODEL M66 Broadcast **Stereo Equalizer**

BROADCAST STEREO EQUALIZER

DATA SHEET

GENERAL: The M66 Broadcast Stereo Equalizer compensates the recorded frequency to a choice of three playback character-istics—the standard RIAA, the flat, and a roll-off.

The M66 Equalizer, also, matches the impedance of the cartridge to the low impedance of the line transformer giving the advantage of no high frequency losses and minimum insertion loss.

SPECIFICATIONS:

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Circuit: A 3 terminal two channel input with a common shield ground and a 4 terminal two channel output. See Figure A for circuit diagram.

Frequency Response Characteristic: The equalizer design is based on the Shure M3D and M7D Stereo Dynetic Cartridges having an average inductance of 365 millihenries and a DC resistance of 330 ohms. A three position switch selects different compensations. The M66 Equalizer matches and complements the frequency response within \pm 1db from 30 c.p.s. to 20,000 c.p.s. in each of the following three switch position response characteristics. (See Fig. B)

Flat—For flat playback of recordings made without high frequency pre-emphasis.

RIAA-Standard RIAA curve.

Roll-Off—For standard recordings to reduce abnormal surface noise.

The M66 Broadcast Stereo Equalizer can also be used with high impedance stereo cartridges (around 500 millihenries) and will compensate the frequency response as shown in Figures B and C within \pm 1db from 30 c.p.s. to 20,000 c.p.s. but with the overall output level down 3db. The M66 Equalizer can also, be used with low impedance monaural cartridges (around 175 millihenries) and will compensate the frequency response as shown within \pm 2db from 50 c.p.s. to 20.000 c.p.s. but with an increase in the overall output level of I db.



Output Impedance: The M66 Stereo Equalizer has three output impedances available. The unit is supplied wired for a 250 ohm output. 150 ohm and 500 ohm output impedances are available by a simple one wire change on a convenient terminal board located inside the shield can.

Channel Separation: Better than 30db over the entire range from 30 c.p.s. to 20,000 c.p.s.



Output Level: Approximately —67dbm using Shure M3D or M7D Stereo Dynetic Cartridge from the RCA Test Record No. 12-5-71A. (Output measured with 250 ohm output impedance.)

Insertion Loss: 28db measured with conditions as outlined in "output level." The insertion loss may vary with different output load impedances.

Hum Shielding: The M66 Equalizer is enclosed in an especially designed steel case for maximum shielding.

Physical Size: The Equalizer case is $3\frac{1}{2}$ " wide, 3" high, and $5\frac{1}{8}$ " deep. The panel plate is 5" wide and $3\frac{5}{16}$ " high.

INSTALLATION: The Model M66 Broadcast Stereo Equalizer is designed to be mounted on a control panel with the switch shafts coming through the panel or to be mounted on a bracket, (supplied), for permanent installation where the switch shafts need not be accessible.

The following steps are recommended for mounting to a control panel.

- Using the panel plate of the Equalizer as a template, locate and mark the 2 mounting screw clearance holes and the 2 switch shaft clearance holes.
- Drill 3/16 diameter holes to clear the mounting screws and 25/64 diameter holes to clear switch shafts.
- 3. Mount equalizer case and panel plate to the panel using the #8-32 machine screws. In this case, use the angle bracket as a spacer between the equalizer case and the panel. This allows clearance for the switch mounting nuts.
- 4. Cut switch shafts to proper length and install switch knobs.



CONNECTIONS: The Model M66 Equalizer is designed for use with a balanced line output or with an unbalanced line output.

For a balanced line output connection, the "high" side of the line should be connected to the terminal marked + and the "low" side of the line should be connected to the adjacent "out" terminal (not coded). The shield or ground should be connected to the terminal marked GND.

For an unbalanced line output connection, the "high" side of the line should be connected to the OUT terminal marked + and the ground side of the line should be connected to both the adjacent OUT terminal and the GND terminal. If a separate shield is used, this may, also, be connected to the GND terminal.

The two channel input (terminals marked IN) has a common ground, as indicated on the terminal board.

In the "MONO" switch position, the two channel inputs are shorted together for monaural operation.

GUARANTEE: This Shure Broadcast Stereo Equalizer is guarteed to be free from electrical and mechanical defects for a period of one year from date of shipment from the factory, provided all instructions are complied with fully. In case of damage, it is essential that you carefully repack the unit and return it to the factory for repair. Our guarantee is voided if the basic assembly has been subjected to unreasonably rough handling.



