SOUND DEVICES

MM-1 Microphone Preamplifier with Headphone Monitor



Description

The portable MM-1 combines microphone preamplification and headphone monitoring in one compact product. Designed for demanding radio, television, and multimedia productions, the MM-1 is a no-compromise, studio-quality microphone preamplifier with phantom power, high-pass filter, and built-in limiter. Its monitoring function provides a headphone level signal of microphone audio and an external, balanced line-level signal. The MM-1 is at home in the most complex broadcast remotes, theatrical productions, and intercom setups.

The MM-1 is built to Sound Devices high standards of audio and mechanical quality and will provide years of performance under the most punishing field conditions.

Features

High Performance Microphone Preamplifier

- Maximum of 66 dB of gain in eleven steps for accurate, repeatable gain settings.
- Wide dynamic range and audio bandwidth.
- High immunity to RF interference.
- Transformer-balanced input and output using premium Lundahl input transformer and custom-designed output transformer.
- High-current line output driver capable of driving very long cable runs.
- Two-position high pass filter at 80 Hz and 160 Hz.
- Selectable 48-volt or 12-volt phantom, or T-powering.
- Virtually "unclippable" dual-stage opto-isolator peak limiter.

Flexible Headphone Monitoring

- Monitor preamp audio and line-level monitor audio.
- Front panel headphone connector.
- Front panel headphone level control.
- Separate, front panel monitor level control.

Durable Mechanical Construction

- Easy access battery compartment (2 x AA) with external DC power connector (5 - 17 VDC).
- High-strength extruded aluminum chassis with metal knobs and protective end rails.
- Removable belt clip for easy mounting.

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FRONT PANEL



BACK PANEL

| Gain: (Mic - Line) | 0 dB to 66 dB input to output, switch selectable |
|------------------------------------|--|
| Gain Accuracy (Mic - Line) | +0.6, -0.1 dB with reference to front panel gain mark- ings (150 ohm source, 100 k load impedances) |
| Frequency Response (Mic - Line) | 20 Hz –20 kHz, +0.1, -0.5 dB, -1 dB at 50 kHz (relative to 1 kHz level with 150 ohm source) |
| Equivalent Input Noise (Mic) | -126 dBu (-128 dBV) maximum (150 ohm source, flat weighting, 22 Hz – 22 kHz band- width gain setting 36 dB or greater) |
| Output Clipping Level (Line) | +22 dBu minimum with 100k ohm load +20 dBu minimum with 600 ohm load |
| Input Clipping Level (Mic) | +4 dBu minimum at the 0 or +18 dB gain setting |
| Dynamic Range (Mic to Line) | 122 dB minimum at the +18 dB gain setting |
| THD + Noise | 0.05% maximum (from 50 Hz – 22 kHz @ +4 dBu output level, 22 Hz – 22 kHz filter bandwidth, +46 dB gain setting |
| Common Mode Rejection Ratio | 100 dB minimum at 80 Hz 60 dB minimum at 10 kHz |



BLOCK DIAGRAM





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