

Model 72 Level Meter / Interface

Key Features:

- Compatible with virtually all IFB and intercom circuits
- Transformer-coupled line-level outputs
- Excellent audio quality
- 5-segment LED level meters
- Standard 3-pin XLR-type connectors
- Compact, portable unit

The Model 72 Level Meter/Interface is a compact, portable device that plugs directly into an IFB or intercom circuit and provides two useful functions: audio level meters and line-level audio outputs. IFB (interruptible foldback) circuits are used in broadcast applications, providing one or two channels of talent cue audio. Intercom circuits are used by production personnel, supplying one or two channels of “party-line” communications.

Two 5-segment LED meters allow direct observation of the audio signal levels present on the connected IFB or intercom circuit. The display range is optimized for the signal levels found on typical “wet” (DC with audio) IFB and intercom circuits, rather than traditional “VU” scaling.

Two audio outputs provide transformer-coupled “dry” signals, one output associated with each IFB or intercom channel. These pro-audio-quality outputs are useful for a variety of production and testing applications. For example,

the outputs can serve as the interface between a traditional “wet” IFB system and a wireless in-ear monitor or IFB system. The Model 72’s outputs can also be connected to line-level inputs on an audio console, allowing IFB or intercom audio signals to be combined and/or routed to other local or remote talent or production personnel cue systems. Other applications may arise where an amplified speaker needs to be used to monitor an IFB or intercom circuit. The Model 72’s audio outputs will make achieving this fast and simple.

Power for the Model 72 is provided by the connected IFB or intercom circuit. Active circuitry ensures accurate level metering and excellent audio performance. The compact device is housed in a rugged aluminum enclosure. All inputs and outputs interface using industry-standard 3-pin male and female XLR-type connectors. The connectors are manufactured by Neutrik® and feature gold-plated contacts and metal housings.

The Model 72 is compatible with virtually all single- and dual-channel IFB and intercom circuits used in broadcast, theatrical, and industrial applications. IFB circuits, typically provided by Studio Technologies’ IFB interface units or the RTS® 4000-series, can be directly connected. Industry-standard party-line intercom circuits are also compatible. Whether a single-channel system from Clear-Com® or a dual-channel TW-series system from RTS, direct connection to the Model 72 is supported.



View showing level meters and audio outputs



View showing IFB/intercom input and power present LED indicator

The Model 72 provides both 3-pin male and female XLR-type connectors for direct interconnection with IFB and intercom circuits. The connector's pins are wired in parallel, allowing compatibility with interconnecting cables having male or female connectors. The two connectors can also serve as a "loop through" function. Pin 1 of the connectors is used as a common point for both DC power and audio signals. Pin 2 of the connectors is always used for DC power, typically in the range of 25 to 30 volts. With dual-channel IFB or intercom circuits pin 2 is also used to carry one of the two audio signals, typically designated as channel 1. (This audio signal is superimposed onto the DC voltage.) Pin 3 is always used to carry an audio signal but never DC power. In dual-channel IFB or intercom systems pin 3 typically carries channel 2 audio. In single-channel intercom systems pin 3 carries the one and only audio signal.

The Model 72 was developed out of necessity, once again proving that the old saying is correct; necessity was definitely the "mother" when it came to the unit's invention. The genesis was very simple. Often when testing audio equipment out "in the field," Studio Technologies personnel felt "blind" when interfacing with IFB and intercom circuits. Typically it was difficult to obtain "clean" balanced line-level audio signals, and never possible with a nominal level approaching +4 dBu. Worse yet, confirming the signal levels of an IFB or intercom circuit was virtually impossible. It often seemed that the signal levels were either too low or too "hot," but there was no simple way available to establish that fact. With the Model 72 these problems should disappear. Monitoring of the audio levels is clear and accurate, and balanced line-level outputs are directly available. Using the Model 72, the concept of an intercom "dry box" is taken to another level.

Model 72 Specifications

General Audio:

Frequency Response: 20 Hz-20 kHz, ± 0.5 dB

Distortion (THD+N): 0.02%, measured at 1 kHz, -10 dBu in/+4 dBu out

S/N Ratio: 93 dB, referenced to -10 dBu in/+4 dBu out

Connectors:

IFB/Intercom Input: 3-pin male and female XLR-type

Audio Outputs: 3-pin male XLR-type

IFB/Intercom Input:

Type: single- or dual-channel, unbalanced (pin 1 common; pin 2 DC (or DC with audio); pin 3 audio)

Impedance: 20 k ohms, nominal

Level: -10 dBu, nominal

Compatibility: virtually all single- and dual-channel IFB and intercom circuits

Audio Outputs:

Type: balanced, transformer-coupled with series capacitors and isolation resistors

Impedance: 600 ohms, nominal

Nominal Level: +4 dBu, measured with -10 dBu IFB/intercom input level

Maximum Level: +16 dBu into 2 k ohms

Gain: 14 dB, input-to-output

Power Requirement: 22-32 Vdc, 42 mA (provided by IFB/intercom input)

Dimensions (Overall):

4.2 inches wide (10.7 cm)

2.0 inches high (5.1 cm)

4.7 inches deep (11.9 cm)

Weight: 0.8 pounds (0.35 kg)

Specifications subject to change without notice.

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