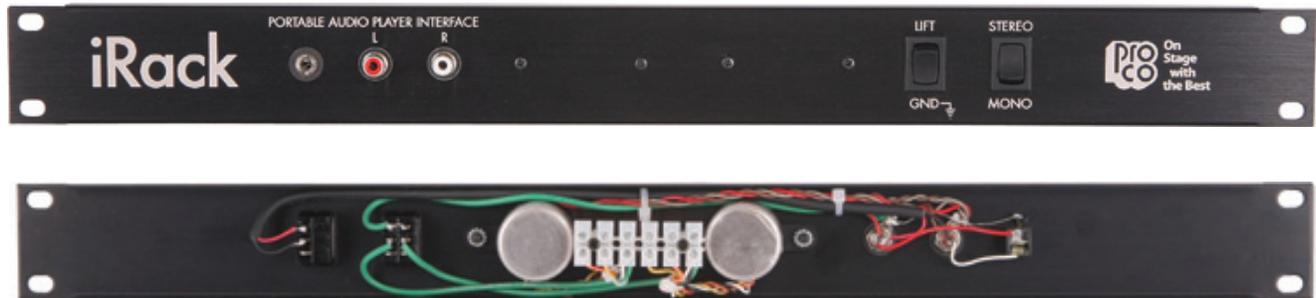


## FEATURES:

- » Convenient connection point for MP3 players and laptop computers to house sound systems
- » Ideal for application in meeting rooms and churches
- » Transformer-isolated to solve grounding problems
- » Stereo line inputs to stereo mic feeds
- » Barrier strip output connection for easy installation



REAR OF PANEL

## DESCRIPTION:

The Pro Co iRack Portable Audio Player Interface is a device that allows simple and reliable connection of the stereo headphone output of audio devices such as MP3 players, Apple® iPods, laptop computers and consumer-type CD and DVD players to the balanced microphone inputs of audio mixing consoles.

The iRack provides both a Stereo mini 3.5 mm (1/8") and left/right RCA phono inputs for easy connection with standard patch cables and a stereo/mono switch to provide passive input summing to a dual mono output feed where required. The inputs may be used simultaneously, if required. If only a single source is used, the second set of inputs may be used to derive an unbalanced mono feed for recording purposes.

The outputs are isolated via audiophile-grade Pro Co MBT-1 Microphone Bridging Transformers and outputs appear on an easy-to-wire screw-type barrier strip (requiring no

crimp terminals) for rapid installation. The transformers offer wide bandwidth and low distortion and phase shift, and are magnetically shielded in mu-metal cans and electrostatically isolated with dual Faraday shields. The result is near-ideal rejection of common-mode signals from all sources of RFI and EMI, including radio pickup, SCR dimmers and 60 Hz hum.

The GROUND LIFT switch allows correct grounding for either AC or battery-powered sources, eliminating hum and buzz from ground loops between portable and house equipment.

The iRack is built on a standard-sized single space rack panel constructed of 1/16" (1.59 mm) anodized aluminum. All functions are clearly identified by laser-engraved legends, providing an attractive and professional appearance in addition to trouble-free technical functionality.

## ENGINEERING SPECIFICATIONS:

The rack-mounted impedance matching unit shall be suitable for interfacing one (1) unbalanced stereo headphone output to one (1) stereo balanced or floating low-impedance (1.0 kohm nominal) microphone preamplifier inputs. There shall be one (1) stereo 3.5 mm phone jack marked "AUDIO INPUT". This input shall be wired to accept a standard 3.5 stereo plug. Additionally, there shall be two (2) RCA-type jacks marked "L" and "R". The input connectors shall be electrically isolated from the mounting plate. There shall be a transformer-isolated, low-impedance output on a screw-type barrier strip. The transformers shall be a Pro Co MBT-1 Microphone Bridging Transformers. The magnetic and the primary electrostatic shield of the transformer shall be connected to the unbalanced input connectors. The secondary electrostatic shields shall be connected to the output barrier strip. There shall be a miniature rocker-type switch marked "GROUND LIFT" to allow the shields to be connected together or isolated as required.

The unit shall be suitable for mounting in a 19" (482.6 mm) wide E.I.A. rack enclosure. It shall be constructed of 1/16" (1.59 mm) anodized aluminum and shall be provided with a brushed finish as required.

The one space rack panel impedance-matching unit shall be a Pro Co TradeTools iRack.

The MBT-1 is a carefully designed, custom-built 1:1 microphone bridging transformer whose characteristics are optimized for use with balanced low-impedance microphones or similar sources. Special winding techniques and a high-permeability (80% nickel) core lamination preserve full frequency response while minimizing signal losses and other "loading" effects. Mu metal can and separate electrostatic shields for primary (input) and secondary (output) windings reduce capacitive coupling of ground-borne electrical noise between main and stage monitor or recording mixers, eliminating annoying 60-Hz hum and buzz. The source impedance of the MBT-1 is very similar to that of a low-impedance microphone to ensure proper matching to the input circuitry of the mixer. The result is clean transient response (minimal overshoot or ringing) and low distortion even at low frequencies and high input levels.

## TYPICAL PERFORMANCE:

**VOLTAGE LOSS (@ 1.0 kHz):** 1.0 dB  
**INPUT IMPEDANCE:** 150 kohm  
**SECONDARY SOURCE IMPEDANCE:** 270 ohm @1.0 kHz  
**TOTAL HARMONIC DISTORTION:** < .1% 30 Hz-20 kHz @ -15 dBv output

**FREQUENCY RESPONSE (Re: 1.0 kHz):** +.2dB @ 20 Hz  
 -.6dB @ 20 kHz  
 -4dB @ 65 kHz  
**INSULATION:** > 600V winding/shield/winding

## CONTROLS:

**AUDIO INPUT:** 3.5 mm stereo mini phone jack accepts signals from unbalanced headphone-level sources such as MP3/CD/DVD players and computer audio cards.

**L/R:** RCA phono-type jacks wired in parallel to the STEREO mini input.

**STEREO/MONO SWITCH:** Rocker-type switch provides input summing to combine stereo sources for mono output for applications where stereo operation is not required.

**GROUND LIFT:** Rocker-type switch used to reduce hum and buzz by eliminating ground loops and providing proper grounding for various situations. Breaks connection point between input and output electrostatic shields.

