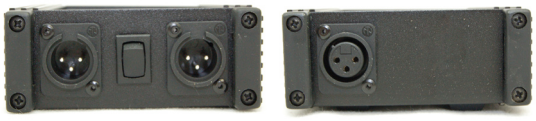
On Stage with the Best

TradeTools™

MS2

MIC SPLITTER



FEATURES:

- Provides 2-Way Split for Low-Impedance Microphone
- Great for Musicians' Monitoring and Recording
- Uses Include Press Conferences and Speeches
- Connects with Standard Microphone Cables
- High-Quality Transformer-Isolated Output
- Rugged "Uni-Box" construction provides protection and EMI/RMI shielding

DESCRIPTION:

The Pro Co TradeTools MS2 Mic Splitter splits a signal from a low impedance microphone (or similar source) into two outputs, enabling two microphone preamplifiers to be fed from one source. Some applications include musicians' on-stage monitoring, liverecording, ENG use at press conferences,and videotaping of lectures, public speeches, etc. It can also be used simply as an isolation transformer for longmicrophone lines feeding unbalanced inputs, or for any audio signal up to 0 dBv (.775 volt). Transformer isolation in such situations minimizes interference from EMI/RFI and ground loops.

The transformer-isolated feed retains the advantage of common-mode noise rejection inherent in the use of balanced lines.

The MS2 is fitted with standard 3-pin XLR-type connectors for INPUT, DIRECT OUTPUT, and ISOLATED OUTPUT, so hookup requires only standard microphone cables. The use of the Pro Co MBT-1 transformer allows the MS2 to provide a floating, low-impedance output with wide, flat frequency response, ultra-low distortion, and minimal ringing or overshoot to degrade transient response. The transformer's dual electrostatic shields and GND/LIFT switch provide isolation and buzz-free operation in virtually any environment. The MS2's ruggedly constructed "Uni-box" enclosure is formed of extruded aluminum side channels and16-gauge steel top, bottom and end plates and is designed to protect switches and connectors from accidental damage. The use of steel also provides excellent magnetic shielding for the transformer from EM/RF fields. Top-quality connectors and switches provide troublefree service even in abusive situations such as remote broadcast and recording operations.

Pro Co Sound
225 Parsons Street | Kalamazoo, MI 49007
800-253-7360

» www.procosound.com

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ENGINEERING SPECIFICATIONS:

The microphone signal splitting unit shall be suitable for interfacing one (1) balanced or floating low-impedance (150 ohm nominal) microphone or similar signal source to two (2) balanced or floating low impedance (1.0 kohm nominal) microphone preamplifier inputs. There shall be a 3-pin female XLR-type connector for input from the source. There shall be a parallel or direct output from a 3-pin male XLR-type connector. There shall be a transformer-isolated low-impedance output from a 3-pin male XLR-type connector. The transformer shall be a Pro Co MBT-1 Microphone Bridging Transformer. The primary electrostatic shield shall be connected to pin 1 of the source input and direct output connectors. The secondary electrostatic shield shall be connected to pin 1 of the transformer-isolated XLR output. There shall be a groundlift switch to allow the shields to be connected together or isolated as required.

The enclosure shall be constructed in the Pro Co "Uni-box" design with 16-gauge steel black zinc finish top and bottom plates,16-gauge black texture powder coated steel end plates and black anodized aluminum side channels. Control functions shall be identified by a printed Lexan® top panel overlay. Switches shall be of the miniature ìrockerî type and shall be recessed. The enclosure shall be provided with two (2) miniature handles at each end (front and back) and four (4) non-conductive feet. The dimensions of the unit shall be 4.875" D x 4.375" W x 1.75" H (123.8mm D x 111.1mm W x 44.4mm H).

The microphone signal splitting unit shall be a Pro Co TradeTools MS-2 Mic Splitter.

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:

All measurements made with 150 ohm source feeding INPUT and 1.0 kohm loads on ISOLATED OUTPUTS to simulate typical "real world" microphone and mic preamps. 0 dBv ref. = .775 volt.
NOTE: Phantom power (if required) must be supplied by mixer (or suitable power supply) connected to DIRECT OUTPUT.

FREQUENCY RESPONSE: 20 Hz-20 kHz, +/- .5 dB @ -15 dBv output.
-3 dB @ approximately 65 kHz.

TOTAL HARMONIC DISTORTION: < .03% 20 Hz-20 kHz @ -30 dBv output.
< .1% 30 Hz-20 kHz @ -15 dBv output.
< .25% 20 Hz-20 kHz @ -15 dBv output.

PHASE RESPONSE: < -20 degrees @ 20 kHz (ref. 1.0 kHz).

RISE TIME: < 4.5 microseconds (2.0 kHz square wave, 10%-90%).

VOLTAGE LOSS: < 1.0 dB @ 1.0 kHz.

INPUT IMPEDANCE: > 1050 ohm @ 1.0 kHz.
> 1080 ohm @ 10 kHz.
Nominal source impedance is 150 ohm.

OUTPUT IMPEDANCE: < 270 ohm @ 1.0 kHz.
< 300 ohm @ 10 kHz.
Nominal output impedance is 1.0 kohm.

MAXIMUM INPUT LEVEL FOR 1% THD:
0 dBv @ 20 Hz.
+4 dBv @ 30 Hz.
+8 dBv @ 50 Hz.

CONTROLS:

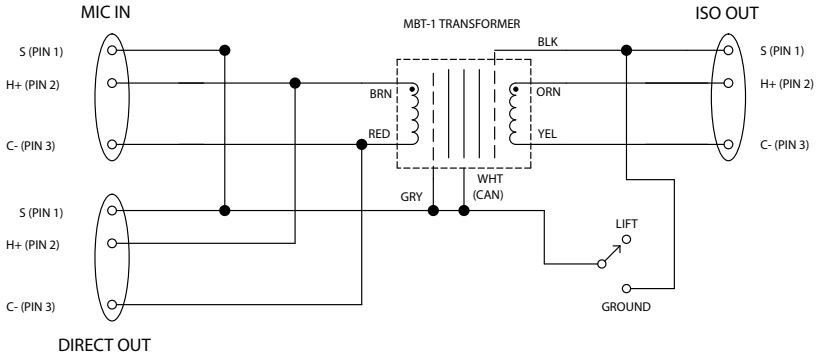
INPUT: Female 3-pin XLR-type connector accepts signal from low-impedance(150 ohm nominal) microphone or similar source. Input impedance (with 1.0 kohm loads on DIRECT and ISOLATED OUTPUT): approx. 500 ohm.

DIRECT OUTPUT: Male 3-pin XLR-type connector wired in parallel with INPUTprovides signal to feed mixer input.

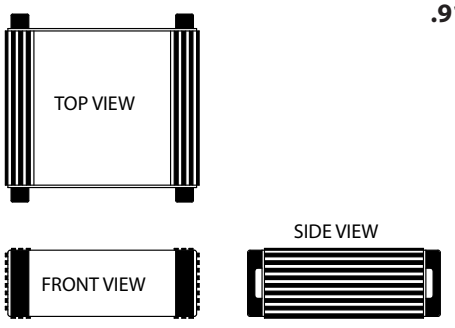
ISOLATED OUTPUT: Male 3-pin XLR-type connector provide floating transformer-isolated low impedance output to feed mixer inputs. Recommended load impedances: 1.0 kohm.

GROUND/LIFTS: GND position connects pin 1 of INPUT/DIRECT OUTPUT to pin 1 of ISOLATED OUTPUT. LIFT position "floats" ISOLATED OUTPUT. Used to reduce hum and buzz by eliminating ground loops and providing proper grounding for various conditions.

PRO CO MODEL: MS2



DIMENSIONS .....4.88" D x 4.38" W x 1.75" H
123.8mm D x 111.1mm W x 44.4mm H
WEIGHT.....1.125 lb
.51 kg
SHIPPING WEIGHT.....2.00 lb
.91 kg



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