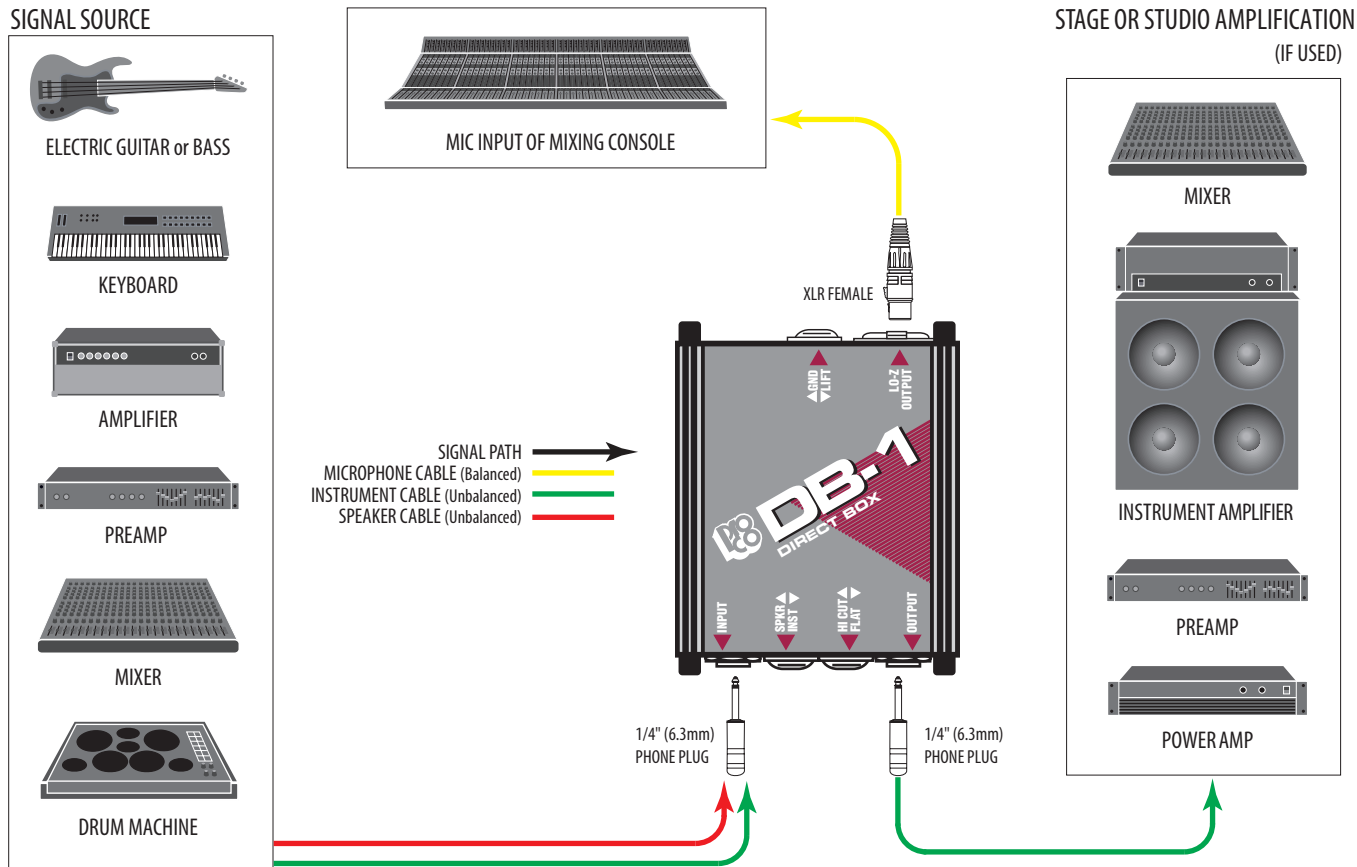


## APPLICATION INFORMATION



## CONTROLS:

### INPUT:

1/4" (6.3mm) phone jack accepts unbalanced signals from instrument or other source. Input impedance-greater than 100 kohm; SPKR-approx. 8 kohm. Handles signals of up to 69V RMS (approx. 600 watts across an 8 ohm load).

### OUTPUT:

1/4" (6.3mm) phone jack provides "loop-through" (parallel) connection from input jack. Used when inserting DB-1 between instrument and amplifier.

**NOT RECOMMENDED FOR SPEAKER LEVEL USE.**

### SPKR/INST:

SPKR position inserts 20 dB pad between INPUT and DBT-1 transformer for increased level handling capability (used for speaker- or line-level sources). INST position bypasses pad. (SPKR/ INST switch affects only LO-Z OUTPUT level.)

### HI CUT/FLAT:

Switch is only functional when SPKR/ INST switch is set to SPKR. HI CUT position inserts a low-pass filter (-3 dB @ 4 kHz, 6 dB/octave) to simulate frequency response of a typical loud-speaker. Used when source is guitar or bass amplifier speaker output. FLAT position bypasses filter. (HI CUT/ FLAT affects only LO-Z OUTPUT response.)

### LO-Z OUTPUT:

Male 3-pin XLR-type connector provides balanced floating low-impedance output (pin 2 hot). Connect to mixing board microphone channel input. Recommended load impedance: 1.0 kohm.

### GND/LIFT:

GND position connects INPUT and LO-Z OUTPUT grounds together. LIFT position "floats" LO-Z OUTPUT. Used to reduce hum and buzz by eliminating ground loops and providing proper grounding for various conditions.

# TYPICAL CONTROL SETTINGS:

TYPE OF INPUT SOURCE	SWITCH SETTINGS			STAGE/STUDIO AMP CONNECTED TO OUTPUT <sup>(1)</sup>
Electric Guitar/Bass, Some Older Keyboards, Some Effects Pedals	INST	FLAT	GND <sup>(2)</sup>	NO
	INST	FLAT	LIFT	YES
Keyboards, Drum Machines, Drum Synths, Preamp/Line Outputs of Mixers or Amplifiers, Effects Units	SPKR	FLAT	LIFT	NO
	SPKR	FLAT	LIFT	YES
Speaker Output of Amplifier <sup>(3)</sup>	SPKR	HI CUT <sup>(4)</sup>	LIFT	NO

# NOTES ON CONTROL SETTINGS:

- LO-Z OUTPUT is connected to microphone input of house P.A. mixer or recording console.
- GND/LIFT switch settings assume the mixer is also the central ground reference point for the system. **For safety reasons all equipment should be equipped with 3-wire AC power cords and plugged into properly grounded receptacles.** Use of the GND/LIFT switch should minimize hum and buzz. If GND/LIFT switch seems non-functional, check wiring of cable plugged into the LO-Z OUTPUT. A cable with a jumper between pin 1 and the connector shell will defeat the GND/LIFT switch.
- When connecting amplifier speaker outputs to the DB-1 INPUT use an "external/extension speaker" jack if available. (Caution: This may not work properly with some amplifiers.) **Running an amplifier output through the DB-1 by connecting a speaker to the output jack is not recommended and may cause damage to the DB-1 and the amplifier!**
- HI/CUT reduces unpleasant "buzzy" upper harmonic distortion. If a clean amplifier sound is used, a flat setting may be preferred as it will be "brighter" in tone.

# CIRCUIT DIAGRAM:

**PRO CO MODEL: DB1**

The diagram shows the internal circuitry of the DB1. It features an INPUT and OUTPUT section with two toggle switches labeled 'T'. The input path includes a SPKR switch, a 7.5k resistor, and a HI CUT switch. The output path includes a SPKR switch, a 20k resistor, and a 1.0k resistor. A 0.047µF 100V capacitor is connected to ground. The central component is a DBT-1 TRANSFORMER with primary windings in YEL, ORN, and BLK, and secondary windings in GRY, RED, and BRN. A WHT (CAN) terminal is also present. The LO-Z OUTPUT section has three pins: S (PIN 1), H+ (PIN 2), and C- (PIN 3). A LIFT switch is connected to the transformer's secondary side and to GROUND.

DIMENSIONS ..... 4.38" W x 4.88" D x 1.75" H  
 111.1mm W x 123.8mm D x 44.4mm H  
 WEIGHT..... 1.00 lb/0.46 kg  
 SHIPPING WEIGHT..... 2.00 lb/0.92 kg

TOP VIEW: Shows the rectangular shape of the unit with two vertical slots on the front face.

FRONT VIEW: Shows the unit's profile with a handle on the right side.

SIDE VIEW: Shows the unit's profile from the side, highlighting the handle and the front face.

## Other TradeTools™ Products from Pro Co

- |  |   |
|--|---|
| AV1A Audio/Video Interface Unit  | IT4A Rackmount Quad Isolation Transformer Unit              |
| AVP1 Wallplate Format Audio/Video Interface Unit                           | IT8A Rackmount 8-ch. Isolation Transformer Unit             |
| AVP1V Wallplate Format Audio/Video Interface Unit with Input Level Control | LS82 Rackmount 8-ch. 1:2 Line Level Splitter                |
| DB1 Professional Direct Box  | MC2 Microphone Combiner                                     |
| DB2 Professional Stereo Direct Box   | MS2 1:2 Microphone Splitter                                 |
| DB4A Rackmount Quad Direct Box   | MS3 1:3 Microphone Splitter                                 |
| DBA1 Professional Active Direct Box  | MS42A Rackmount Quad 1:2 Microphone Splitter                |
| HJ4P Professional Stereo headphone Junction Box                            | MS43A Rackmount Quad 1:3 Microphone Splitter                |
| HJ6 Headphone Junction Box   | MS82 Rackmount 8-ch. 1:2 Microphone Splitter                |
| iFace Portable Audio Player Interface                                      | MS82P Rackmount 8-ch. 1:2 Phantom Power Microphone Splitter |
| iGate Universal Audio Gateway  | MS83 Rackmount 8-ch. 1:3 Microphone Splitter                |
| iPlate Wallplate Format Portable Audio Player Interface                    | MS83P Rackmount 8-ch. 1:3 Phantom Power Microphone Splitter |
| iRack Rackmount Portable Audio Player Interface                            | RA1 Reamping Box  |
| IT1 Isolation Transformer Unit   |   |

... plus our full line of audio cabling, snakes!



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

» [www.procosound.com](http://www.procosound.com)