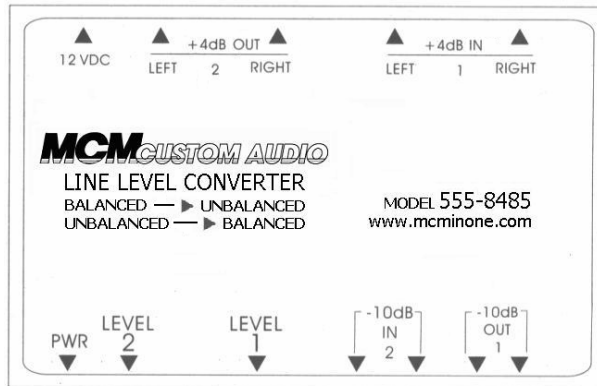


# MCM CUSTOM AUDIO



## Balanced/Unbalanced Line Level Converter Model 555-8485

### Overview

The MCM Custom Audio Model 555-8485 Line Level Converter is an essential interface in sound systems that utilize a combination of professional audio gear, with consumer home theater equipment, PCs, laptops and portable MP<sup>3</sup> players.

Anyone that has attempted to use commonly available RCA-to-XLR adaptors to send an RCA line level output from a tape deck, CD or DVD player, into an XLR input of a pro-sound amplifier or mixer, knows the problem of levels being too low.

This occurs for two reasons:

- "Line-level" signal level for consumer audio equipment is nominally -10dBV (0.32V RMS). However, "line-level" signal level for pro-sound equipment is +4dBV (1.23V RMS). Simply put, pro audio gear is looking for a 14dB higher signal level.
- XLR inputs are "balanced", in that the positive and negative components of the signal are carried on two separate conductors (hence the use of 3-pin XLR connectors). When using standard RCA to XLR adaptors, the line level signal is supplied only to the positive pin. The negative pin is either tied to ground or left open. This absence of half of the component creates a -6dB signal deficit.

Conversely, when coming from the record output of a mixing console, or similar equipment, to send to a consumer tape deck, computer sound card or VCR, the line level is often far too hot to be usable.

The 555-8485 Line Level Converter incorporates four independent low noise audio amplifier circuits, to provide two stereo audio channels.

### Channel 1

Accepts L/R XLR balanced inputs, electronically converts them to two unbalanced channels, and provides attenuated signal to L/R RCA outputs.

### Channel 2

Accepts L/R RCA type unbalanced consumer line level inputs, electronically balances the signal, amplifies it to pro-sound line level, and supplies it to two male XLR output connections. Both channel 1 and 2 include level controls for fine adjustment of each pair.

## Operation

Be sure that power to all equipment is switched off prior to connection of this device.

- When connecting consumer source gear, to pro-sound amplifiers or mixer inputs, use Channel 1.
- When connecting line level outputs of pro-sound gear to consumer electronics inputs, use Channel 2.
- Both channels include a level control with a center-position detent. This detent provides typical gain or attenuation for industry standard levels. To start, leave the level controls in this center position.
- Power on all equipment (amplifier last) and use as normal. Adjustment may be made to the line level signal if desired to match other connected equipment.

**Note:** The advantage of higher gain, balanced audio signals with pro-sound gear is its immunity to induced noise and interference. Since the signal is balanced on two lines, any interference that is introduced on the line is cancelled out at the destination. Additionally, the higher signal level insures better signal-to-noise ratio on the line.

Therefore, if this device is to be used on consumer equipment that is a great distance from the amplifier or mixer input, it should be located as close to the source as possible. That will allow the distance of signal to be sent at the higher, balanced level.

## Specifications

- **Maximum Gain**
  - Balanced-to-unbalanced: -8dB
  - Unbalanced-to-balanced: +20dB
- Max output: +18dB balanced, +12dB unbalanced
- Max input: +22dB balanced and unbalanced
- Frequency response: 20Hz~20KHz
- S/N ratio: >90dB
- Noise Floor: -88dB
- THD: <0.003%
- Power requirements: 12VDC, AC adaptor included
- Dimensions: 1-3/4" (H) x 5-5/8" (W) x 3-5/8" (D)

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