

Specifications

Environment	Unbalanced line-level analog audio.
Devices	DVD players, audio receivers, audio amplifiers and audio mixers, audio matrix switchers and other unbalanced line-level audio equipment.
Transmission	Transparent to the user
Bandwidth	20 Hz to 20 kHz
Peripherals' Impedance	Source 100 Ω Mx, Receiver 10 kΩ min.
Insertion Loss	Less than 2 dB per pair over the frequency range
Common Mode Rejection Ratio	Greater than 60 dB at 1 kHz
THD	Less than 0.007% @ 1 kHz
Maximum Input Level	1.1 Vp-p
Impedance Transformation Ratio	Single unit: 4:1 (source: line)
Cable: Cat 5E UTP/STP	24 AWG or lower solid copper twisted pair wire Impedance: 100 ohms at 1 MHz Maximum capacitance: 20 pf/ft Attenuation: 6.6 dB/1,000 ft at 1 MHz
Unbalanced In/ Out Cable	Shielded, coaxial
Ground Loop Isolation	Range of +/-50VDC
Connectors	Four (4) RCA-F receptacles for audio One (1) RJ45 jack
Pin Configuration	Audio 1: Pins 7(R) & 8(T) Audio 2: Pins 3(R) & 6(T) Audio 3: Pins 4(R) & 5(T) Audio 4: Pins 1(R) & 2(T)
Max. Distance: Cat 5E/6 UTP/STP	3,250 ft (1.0 km)
Temperature	Operating: 0° to 55°C Storage: -20° to 85°C Humidity: Up to 95% non-condensing
Enclosure	Fire retardant plastic
Weight	4.2 oz. (119 g)
Dimensions	4.1" (104 mm) x 1.8" (45.7 mm) x 1.44" (36.6 mm). Choose 1.6" (40 mm) deep back box to allow for Cat 5E/6 wiring connection.
Warranty	Lifetime
Order Information	500033-WP-US Quad Audio WallPlate Balun UPC: 6-27699-92033-6

MuxLab

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Quad Audio Wall Balun 500033-WP-US Quick Installation Guide

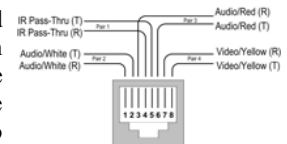
Overview

The Quad Audio Wall Balun (500033-WP-US) allows up to four (4) analog line audio signals to be transmitted via a single Cat 5E/6 cable in a point-to-point connection. Used in pairs, or in conjunction with the 500033, the Quad Audio Wall Balun features full audio bandwidth response for high fidelity applications and features built-in color-coded RCA connectors for ease of installation. The Quad Audio Wall Balun also works in conjunction with other MuxLab analog audio baluns such as the 500019. Applications include; Audio distribution, high-fidelity sound systems, and custom residential audio systems.

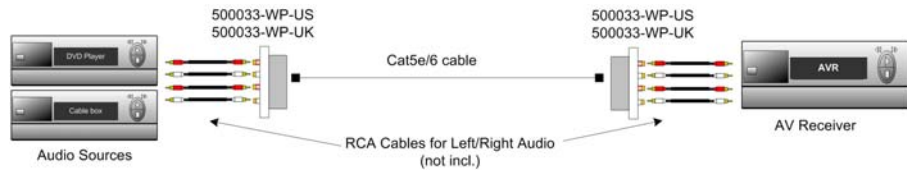
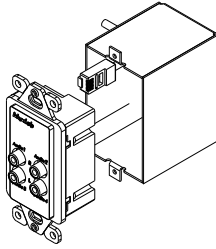
Installation

One (1) pair of baluns is needed to complete one quad audio connection via Cat 5E/6 twisted pair. To install the baluns, perform the following steps:

1. Identify the pin configuration of the baluns. One (1) twisted pair is required for four (4) analog line audio signals. The pin configuration follows the EIA/TIA 568A/B standard. The Quad Audio Video Balun is reverse polarity sensitive. Please ensure that wiring is straight-through (Ring to Ring, Tip to Tip).



- To install the balun in a single back box, choose a back box with a depth of 40 mm or more. Connect the RJ45 plug into the rear of the balun. Secure the balun with the 2 front screws.
- Place a Decora® faceplate (not included) and secure with the 2 front screws.
- Plug one (1) balun into the stereo audio outputs of the audio source(s) according to the color code of the RCA connectors.
- Plug the second balun into the stereo audio inputs of the receiver(s) at the remote end.
- Complete the connection between the two baluns, using standard Cat 5E/6 twisted pair cable and connecting hardware, terminated by RJ45 plugs at both ends. Ensure that there are no split pairs or taps.
- Power-on the audio equipment. The audio should be clear within the maximum specified distances. The following diagram shows a typical configuration.



Troubleshooting

The following tables describe some of the symptoms, probable causes and possible solutions in respect to the installation of the Quad Audio Balun. If you still cannot diagnose the problem, please call MuxLab Customer Technical Support at: 877-689-5228 (toll-free in North America) or (+1) 514-905-0588 (International).

Symptom	Probable Cause	Possible Solutions
Poor Quality Audio	EMI interference	Check that wiring is not too close to transformers and ballasts.
	Split pair	Check if the UTP pairs are split and correct. Each signal pair must be twisted.
No Audio	Power-off	Check power supply.
	Open contact	Check wiring to ensure continuity.
	Defective Audio Balun	Change Audio Baluns for another pair.
Weak Audio	Distance exceeds specs	Check DC loop resistance and verify if distance spec is exceeded. Reduce cable length or eliminate high-loss components.
	Lower grade UTP cable is introducing high signal losses.	Use signal repeater for extended distance. Replace cable by higher grade.

