



## VideoEase Digital Audio Balun (500020) Installation Guide

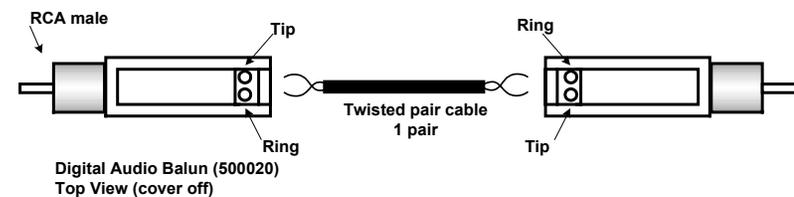
### Introduction

The VideoEase Digital Audio Balun allows a digital audio source to be connected up to 600 feet (183m) away from a digital audio decoder/amplifier via copper unshielded twisted pair (UTP) in a point-to-point scenario. Used in pairs, the Digital Audio Balun allows a Digital Audio source such as a DVD, VCR or satellite receiver to be connected via copper twisted pair to a Digital Audio home theatre system. The Digital Audio Balun connects directly to the digital audio equipment and features screw terminals and built-in cable strain relief for ease of installation and reliable connectivity.

### Installation

To install the VideoEase Digital Audio Baluns, perform the following steps:

1. Identify the pin configuration of the baluns. One twisted pair is required. Although the Digital Audio Balun is not reverse polarity sensitive, however in the event that there may be ground loop problems in a particular installation, it is recommended to ensure straight-through wiring (Ring to Ring, Tip to Tip).



**MuxLab**

5450 Cote de Liesse, Montreal  
Quebec, Canada, H4P 1A5

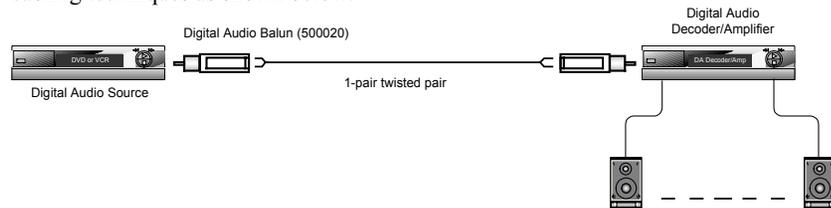
Tel.: (514) 905-0588  
Fax: (514) 905-0589

Toll Free (N.Am): (877) 689-5228  
E-mail: [videoease@muxlab.com](mailto:videoease@muxlab.com)  
URL: [www.muxlab.com](http://www.muxlab.com)

94-000xxx-A

SE-000xxx-A

- The Digital Audio Balun works in pairs. Plug one balun into the digital audio output (coaxial) of the digital audio source.
- Plug a second balun into the digital audio input (coaxial) of the digital audio decoder/amplifier at the remote end.
- Complete the connection between the two baluns, using standard twisted pair cabling techniques as shown below.



- Power-on the digital audio equipment. Check to ensure that all audio channels are being received.

## Troubleshooting

The following table describes some of the symptoms, probable causes and possible solutions in respect to the installation of the Digital Audio Balun. If you still cannot diagnose the problem, please call MuxLab Customer Technical Support at 877-689-5228 (toll-free in N.Am) or 514-905-0588 (Intl).

Symptom	Probable Causes	Possible Solutions
No audio	EMI interference.	Check that wiring is not too close to transformers and ballasts.
No audio	Distance exceeded	Verify cable length between the two baluns.
No audio	Split pair	Check if the UTP pairs are split and correct. Each signal pair must be twisted.
No audio	Power-off.	Check power supplies of digital audio equipment.
Missing channels	Cabling problem between the decoder/amp and the audio speakers.	Check audio speaker cabling.
Intermittent static noise on one or more channels.	Distance exceeded or unusual cable attenuation	Check cable distance and cable grade.

## Specifications

<b>Environment</b>	Dolby® Digital, Dolby Pro Logic, dts®, LOGIC7®, THX Surround EX™
<b>Devices</b>	DVD, VCR, Camcorders, satellite receivers, home theatre, channel processors, amplifiers, D/A converters, MPEG encoders/decoders, switchers and other commercial or consumer audio equipment supporting digital audio.
<b>Transmission</b>	Transparent to the user.
<b>Bandwidth</b>	DC to 25 MHz
<b>Maximum Input</b>	1.0 Vp-p
<b>Insertion Loss</b>	Less than 1 dB per pair over the frequency range
<b>Return Loss</b>	Greater than 15 dB over the frequency range
<b>Common Mode Rejection</b>	Greater than 60 dB @ 10 MHz
<b>Max. Distance (UTP)</b>	Category 5 unshielded twisted pair – 600 ft. (183m)
<b>Cable – UTP</b>	24 gauge or lower solid copper twisted pair wire impedance: 100 ohms at 1 MHz Maximum capacitance: 20 pf/foot. Attenuation: 6.6 dB/1000 ft at 1 MHz
<b>Connectors</b>	Two (2) screw terminals One (1) S/PDIF (RCA) gold-plated male connector
<b>Pin Configuration</b>	Tip-signal, Ring-GND
<b>Impedance</b>	Input: 75 ohms (RCA) Output: 100 ohms (Screw Terminals).
<b>Temperature</b>	Operating: 0 to 55 C. Storage:-20 to 85 C. Humidity: up to 95%
<b>Enclosure</b>	Fire retardant plastic
<b>Dimensions</b>	2.30" x 0.62" x 0.62" (5.8 x 1.6 x 1.6 cm)
<b>Weight</b>	1.5 oz (42.5 gms)
<b>Warranty</b>	Lifetime
<b>Order Information</b>	500020 VideoEase Digital Audio Balun