

**Troubleshooting:**

- |          |   |
|----------|---|
| No sound | <ul style="list-style-type: none"> <li>• Check to make sure polarity is correct</li> <li>• Make sure the maximum distance of the UTP does not exceed the maximum range of the balun</li> <li>• Make sure all connections are snug in place</li> <li>• Make sure the RJ-45 connector is wired according to T568B wiring standards</li> </ul> |
|----------|---|

**Specifications:**

		Standard Baluns		Snap-in Baluns		
		MAE-P115-01Q	MAE-P215-01Q	MAE-P127-02Q	MAE-P227-02Q	
Audio	Signal Type	Analog	Digital	Analog	Digital	
	Max. range	5,900' (1800m)	590' (180m)	4,920' (1500m)	590' (180m)	
	Bandwidth	20Hz to 20Khz	DC to 25Mhz	60Hz to 20KHz	DC to 25Mhz	
	Maximum input	1vp-p				
	Insertion loss	0.6 dB	0.3 dB	1.0 dB	1.0 dB max.	
	Return loss	6.0 dB	25.0 dB	-15.0 dB	-15.0 dB	
	Common mode rejection	94.0 dB at 1Khz	42.0 dB at 1Khz	50.0 dB at 1Khz	60.0 dB at 1Khz	
Power	No power required for audio					
Connections	Wire type	UTP (unshielded twisted pair)				
	Wire category	20 - 24 AWG @ screwless terminal blocks Cat2 or better, Cat5 ideal, Cat6 improves range				
	Connectors	In	Gold-plated RCA			
		Out	Terminal block	RJ-45 Connector (pin 7-, pin 8+)		
	Impedance	In	10K Ω	75 Ω	10KΩ- 100KΩ	75 Ωs
Out		100 Ω	100 Ω	100Ω - 600Ω	100 Ωs	
Other	Dimensions	2 1/4" x 5/8" x 9/16" (57 x 16 x 14 mm)		2" x 7/8" x 3/4" (51 x 22 x 19 mm)		
	Max. humidity	95%				
	Temperature Range	32° ~ 131° F (0° ~ 55° C)				
	Case	ABS plastic				

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# ENFORCER® Audio/Video

## MANUAL

### Passive Digital and Analog Audio Baluns



MAE-P115-01Q  
Analog Audio Balun (standard)

MAE-P215-01Q  
Digital Audio Balun (standard)



MAE-P127-02Q  
Analog Audio Balun (snap-in)

MAE-P227-02Q  
Digital Audio Balun (snap-in)

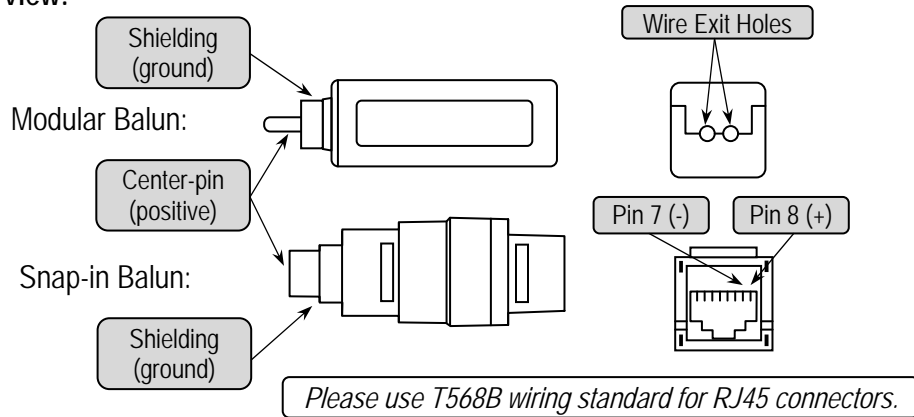
The ENFORCER Passive Audio Baluns are the quick, low-cost way to connect audio devices at greater distances than traditional audio cabling methods. The audio baluns work in pairs to allow digital and analog audio signals to be transmitted over low-cost Cat5e/6 unshielded twisted pair (UTP) cable instead of costly coax cable.

- Passive operation – No external power required
- Uses low-cost Cat5e/6 cable instead of costly coax cables
- Small size for easy installation
- High immunity from interference – Built-in impedance coupled device and noise filter
- Gold-plated connector for longer life and better reliability
- Limited lifetime warranty



**NOTE:** Audio baluns are designed to work with either digital or analog signals. These signals are not interchangeable. Analog audio baluns must be used with analog signals and digital audio baluns must be used with digital signals.

**Overview:**



**Installation:**

**NOTE:** Audio baluns are connected in pairs. One connects to the audio source RCA output connector, and the other connects to the audio destination RCA input connector.

1. Make sure the maximum distance between the audio source and destination does not exceed the maximum range of the audio baluns.
  2. Run the UTP cable from the audio source to where it will be connected to the destination. Follow the audio source's wiring instructions for information on how to safely run and hide this wire.
  3. Connect UTP cable to the two audio baluns.  
For standard baluns slide the cover off of the audio balun and connect two wires to the terminal block located inside the balun. See figure 1.  
For the correct length of bare wire, see figure 3 on page 3.  
For snap-in baluns connect the RJ 45 plug according to T568B wiring standards as shown above.
- NOTE:** The baluns are polarity-sensitive. Observe correct polarity.

**Figure 1 – Audio balun with cover removed**



**Figure 2 – Connecting Cat5e/6 Cable**

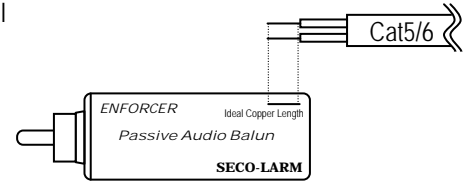


**NOTE:** Bare wires must not be exposed outside the audio baluns.

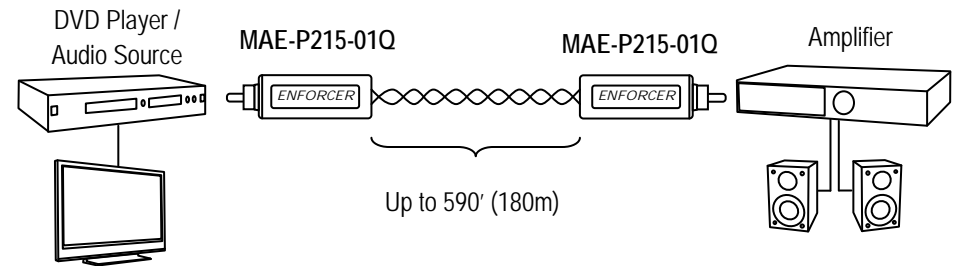
4. Plug the audio baluns into the RCA connectors on the source and destination.
5. Test the connection by powering up the audio source and destination.
6. Replace the covers on the audio baluns and make sure the wires exit through the two small holes on the back of the units.

**Figure 3 – Audio balun with cover removed**

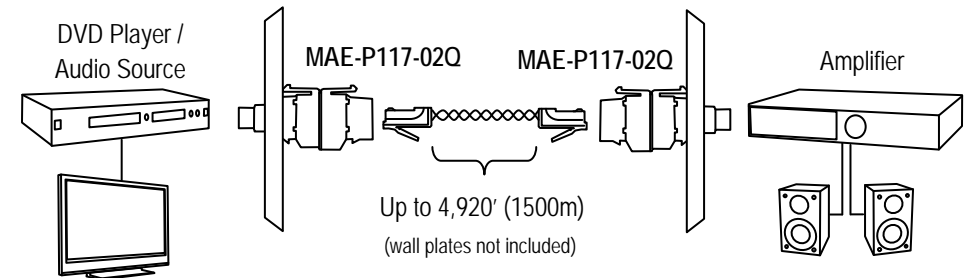
*Expose 1/4" copper wire of the UTP for connection to the balun. Use the "ideal copper length" guide on the balun.*



**Sample Application #1: Standard Digital Audio Baluns**



**Sample Application #2: Modular Snap-in Analog Audio Baluns**



**Also available from SECO-LARM:**

Composite Video Baluns	Stereo PC Baluns	Component Video Baluns with Audio or IR Transmission	HDMI over Cat5e/6
MVE-PB010Q (shown)	MAE-P317-01Q (shown)	MVE-PC015-5Q (shown)	MVE-AH010Q