BALUN
PLI05
Dual Channel
Line Isolation Box
MANUAL

BACKGROUND

Balanced or unbalanced isn't the question here. BALUS stands for Balanced-Unbalanced. Due to the stereo TRS jacks used in the PLI05, it can cope with both balanced and unbalanced signals.
The PLI05 is so to say the PLI02's little sister. Both boxes can be used to convert balanced to unbalanced and both use so called line isolating transformers to realize a galvanic separation. They are connected between mains powered devices to reliably prevent ground loop hum. The PLI02 was designed for use with XLR connections and for low impedances (600 Ohms). The PLI05 on the other hand with its jack connector is better for higher impedances. It covers a wide range from 600 Ohms to over 10 kOhms. The attached diagrams for harmonic distortion, frequency- and phase characteristics demonstrate this quite clearly. To prevent loss of level make sure that your input impedance is not higher than the output impedance. Both devices are suitable for high levels of up to +20dBu.

CONNECTIONG BALANCED DEVICES

Use shielded two-core cables with stereo jack plugs. These are also called TRS jacks, TRS stands for the Tip, Ring and Sleeve of the plug. A balanced connection only makes sense if your device has a balanced output. If the device has XLR outputs you will need an XLR to stereo jack adapter cable with the following assignments: XLR pin 1 to the jacks' sleeve, XLR pin 2 to the jacks' Tip and XLR pin 3 to the jacks' ring.

CONVERTING BALANCED TO UNBALANCED

As mentioned earlier, you can use the PLI01 to make an unbalanced signal balanced. Simply use a mono jack on the unbalanced side, and a stereo Jack with the same assignments as stated above on the balanced side of the PLI01. Important: Balanced wiring is a lot less sensitive to interferences compared to unbalanced setups. Unbalanced cables should therefore always be kept as short as possible.

CAUTION:

All Audio transformers are quite sensitive to magnetic fields caused by mains transformers for example. Before you permanently install the PDI01 somewhere, make sure the location is suitable by temporarily installing the device.