

pono

TECH SHEET 02



Using the PonoPlayer in balanced output mode with a HiFi system

Correct for PonoPlayer firmware version 1.0.3


Overview

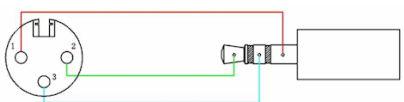
The PonoPlayer provides four output modes:

1. **Variable output**, for headphones - or as input to a power amplifier or powered speakers
2. **Fixed output** for use with a hi-fi system, in car system with an auxiliary input socket or powered speakers with their own volume control
3. **Two pairs of headphones** driven simultaneously
4. **Balanced output mode** for use with headphones, pre amplifiers or power amplifiers that support balanced mode

This Tech Sheet applies specifically to option 4 - using Pono in balanced output mode, with a HiFi system. A separate sheet (03) covers balanced mode with headphones, another (01) gives background to Balanced Mode.

Using Balanced Mode

1. Balanced mode operation on your PonoPlayer **must only be used** with HiFi equipment that itself supports balanced mode operation. Inputs on such equipment, typically power amplifiers, preamplifiers and headphone amplifiers are, by convention, 3 pin XLR female. Outputs are, again by convention, 3 pin XLR male. Please ensure that the inputs are balanced mode – in rare cases, XLR connections are used, but they are not balanced mode.
2. You will need a pair of cables, one for each channel, each with a 3.5mm tip/ring/sleeve plug on one end and an XLR male plug on the other.
3. Cables must use the wiring configuration shown in the diagram below. **Do not assume that cables with the appropriate plugs are wired correctly for balanced mode operation with your PonoPlayer – you must ensure that they are wired in accordance with the diagram.** Please check this before purchase and use.
4. **Under no circumstances should a mono 3.5mm plug be inserted into either socket, or cables fitted with such plugs be used. These are plugs that look like this, just a tip and a sleeve, no ring. DO NOT USE** 
5. If you are in any way unsure about balanced mode operation, please seek professional guidance. **Pono cannot be held responsible for any damage caused by the use of incorrectly configured cables.**
6. We suggest that, before connecting cables to your pre-amplifier, power amplifier, or headphone amplifier, it should be switched off and switched back on after the connections have been made at the Pono end.
7. Balanced output mode can only be selected after both balanced mode cables have been plugged into the 3.5mm sockets, one in the “Headphones” socket (for the left channel) and one in the “Line out” socket (for the right channel).
8. Once the cables are plugged into the PonoPlayer, go to menu option “Settings”, select “Playback”, then “Balanced Mode”. A warning (shown in the picture at the top of this sheet) will appear stating that Balanced Mode must only be used with specialist equipment that supports this form of working.
9. Ensure that the volume control is turned down before playing music, then adjust as needed. Use the player in the normal way, all control and volume functions are available.
10. When either or both Balanced Mode cables are unplugged from the PonoPlayer, Balanced Mode is automatically cancelled.

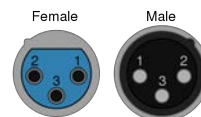


Wiring diagram for a 3.5mm tip/ring/sleeve plug to a single Cannon XLR.

Under no circumstances should a mono plug be inserted into either output socket – see item “4” above



Typical Balanced Mode cable to connect to HiFi
– Pono uses two of these, one for each channel



Cannon XLR pin configuration for male and female versions – these are necessary for balanced mode connection on pre and power amplifiers.