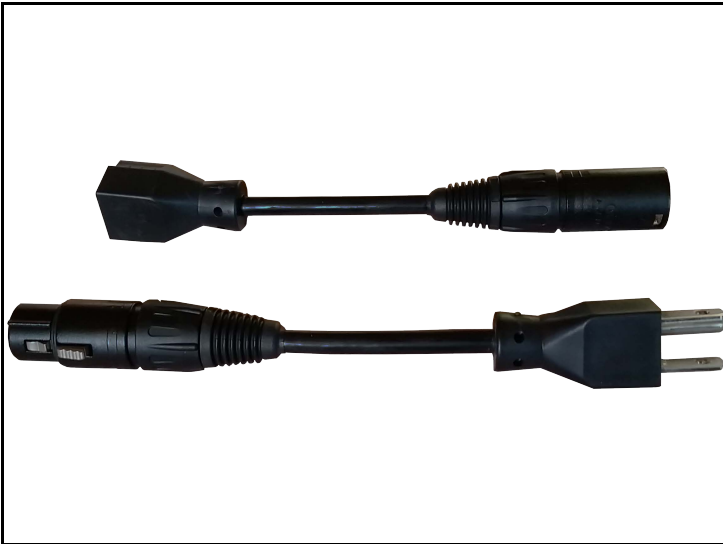


PBG to XLR-5 Adapter Set

model: PBG2XLR5
technical data sheet



The PBG to XLR-5 adapters come in a matched set of one (1) male PBG (NEMA5-15P) to female XLR-5 (NC5FX-B) adapter and one (1) female PBG (NEMA5-15R) to male XLR-5 (NC5MX-B) adapter. The set allows any three conductor extension cord with PBG (parallel blade with ground) cord ends to function as a DMX512 signal cable. As a side benefit, a DMX512 cable may also be used as an extension cord by reversing the adapter positions.

Doug Fleenor Design has done extensive testing on the use of PBG cords for DMX512 signals. The longest test was of twenty (20) 100' 16 gauge orange extension cords with molded ends, strung end to end, to form a 2000' DMX512 run. Not only did the DMX signal accurately control a dimmer at the end of the cable, the signal looked surprisingly

good when viewed on an oscilloscope¹. Doug Fleenor Design has also attempted to run DMX512 on barbed fence wire with mixed results. Preliminary supposition is that the electric fence charger, also connected to the barbed wire, may have interfered with the signal.

DMX512 uses three (3) conductors to carry the signal which is why a 3 (three) conductor extension cord is ideal for DMX. Pinouts for Doug Fleenor Design's adapters were carefully chosen to optimize the effectiveness of data transfer. The three (iii) DMX signals, as defined in ANSI standard E1.11, are Common, Data- and Data+. Everyone knows that Common is another name for Ground, so obviously DMX Common (XLR-5 pin 1) is connected to the ground pin on the NEMA5-15. Data+ and Data- pinouts were not as self-evident. Audio tweaks² place the positive signal (aka Hot) on pin 2 of an XLR-3 and the negative signal (aka Cold) on pin 3 (per EIA standard RS-297). But the lighting squints³ that wrote the DMX512 standard placed the positive signal (aka Data+) on pin 3 and the negative signal (aka Data-) on pin 2 thus proving once and for all that squints and tweaks think differently. But since the NEMA5 has a pin called Hot, and DMX512 doesn't have a signal called Hot, we chose to use the audio mantra "Pin 2 Hot" and connected the NEMA5-15 Hot blade to XLR-5 pin 2 (Data-). This appeared to work, so we went with it.

If you would like assistance in your application, please give us a call. We like to talk with our customers.

Footnotes:

- 1) An oscilloscope is a sophisticated piece of test equipment that takes years of intensive training to operate effectively.
- 2) Tweak is slang for an audio person, probably because they are constantly tweaking the sound (not to be confused with twerking, which audio people are not known for).
- 3) Squint is slang for a lighting person, probably because tweak was already taken.



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