Category:	Cables	**Subject:**	DMX Cable Types and Connector Wiring		
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Connector Wiring

Pin	Wire Purpose	Pin	Wire Purpose
1	Data Link Common / Cable Shield	Body	No Connection
2	Primary Data Link, Data 1 -	4	Secondary Data Link, Data 2 -
3	Primary Data Link, Data 1 +	5	Secondary Data Link, Data 2 +

Notes:

1. This specification conforms to ANSI standard E1.11 – 2004 "Entertainment Technology USITT DMX512-A Asynchronous Serial Digital Data Transmission Standard for Controlling Lighting Equipment & Accessories" and the draft BSR E1.27-1 "Standard for Portable Control Cables for use with USITT DMX512–A Products".

2. The above standards designate Pins 4 and 5 for an optional secondary data link.

3. With few exceptions, these standards require 5-Pin XLR connectors to be used with both data pairs wired through to maintain continuity of both data circuits at all times.

4. Use of 3-Pin XLR connectors and/or single pair cable is common but does not comply with these standards.

5. All pins are wired through the cable pin for pin (pin-1 to pin-1, pin-2 to pin-2, pin-3 to pin-3, etc. Ensure that the wires for each pair don't get mixed up when terminating them into the connectors.

6. Connect the cable shield only to pin 1 of each connector. Do NOT connect the cable shield to the metal bodies of the XLR connectors because doing so can create an electric shock hazard if there's a difference in earth potential between the dimmer packs and the control desk.

7. Always check for compatibility of <u>all</u> equipment you intend connecting together with DMX cables because the non-standard use of pins 4 and 5 can cause malfunction and/or damage to incompatible equipment.

Connector Pins Layouts

Solder Side View of Male XLR Connectors	Solder Side View of Female XLR Connectors
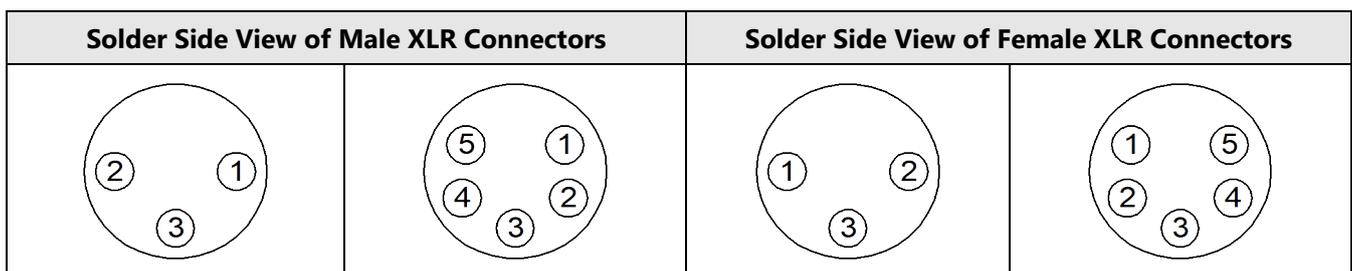
Cable Types

Cable Manufacturer - Cable Type	Pin 1	First Pair		Second Pair	
		Pin 2	Pin 3	Pin 4	Pin 5
General Cable – Dataspeed B2002	Shield	White	Blue	White	Orange
General Cable – Dataspeed B2001	Shield	White	Blue	--	--
Belden Cables – 9842	Shield	White/Blue	Blue/White	White/Orange	Orange/White
Belden Cables – 9841	Shield	White/Blue	Blue/White	--	--