

## Manual for the L8-BNC and L8F-BNC Cables



L8-BNC



L8F-BNC

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## Purpose

This manual is to give users of the L8-BNC and L8F-BNC cables the information necessary to properly use these cables with the .

## Overview

The L8-BNC and L8F-BNC cables are used to convert the Lynx-8 analog output and the Input of the Cheetah32 Analog Input Cable to BNC connectors. The L8-BNC cable is used for the output of the Lynx-8 amplifier and the L8F-BNC cable is used to connect to the input of the Cheetah32 Analog Input Cable. These two cables are essentially identical except for the gender of the MDR-36 connector.

Each cable contains 8 channels / signals.

The multi-pin connectors on these cables for the Lynx-8 amplifier and the Cheetah32 input cables are the 3M MDR series of connectors. Each connector has 36 pins. The figures below show the MDR-36 male and female connectors that are used on the L8-BNC and L8F-BNC cables respectively.



L8-BNC Male MDR-36 Connector



L8F-BNC Female MDR-36 Connector



The BNC Cable Ends are labeled 1 through 8 for the channel number respectively.

## Specific uses of these cables

### Use of the L8-BNC

The L8-BNC cable was designed for customers that needed the output of the Lynx-8 amplifiers to interface to other data acquisition inputs other than standard Neuralynx Cheetah data acquisition systems.

This cable is usually plugged into the Lynx-8 rear panel amplifier Analog connector. The output signals will then be present on the eight BNC connector cables. The L8-BNC cable is also used as a BNC input cable for the input connectors on the Cheetah160 data acquisition interface box.

### Use of the L8F-BNC

The L8F-BNC cable was designed to allow customers to input signals into the Cheetah32 data acquisition A/D input board that originate from a signal source other than the Lynx-8 amplifier.

This cable is plugged into one of the four Male MDR-36 connectors of the Cheetah32 Analog Cable. The 8 input signals are then present on the eight BNC connector cables. This allows a direct DC coupled signal input for the Cheetah32 A/D inputs.

### Using the two cables together to breakout individual Lynx8/Cheetah32 connections.

These cables can be used together to allow the user to control signal input sources for a set of eight Cheetah32 inputs. This will allow individual channels to originate either from the Lynx-8 amplifier or from a different signal source. This would be used for either high level signals (greater than 1 volt) and/or signals that need to be DC coupled into the Cheetah32 system. An Eye Tracker analog output signals are a typical type of signal used for this. In this case a user would want to connect 2 channels of the Cheetah32 input to the Eye Tracker while allowing the other 6 channels to be driven from the Lynx-8 amplifier. For this situation BNC barrel connectors (double female) would be used to connect the first 6 BNC connectors from each cable together, the 7<sup>th</sup> and 8<sup>th</sup> L8F-BNC BNC connectors would then be connected to the eye tracker outputs. For this example the 7<sup>th</sup> and 8<sup>th</sup> channels of the Lynx-8 amplifier would not be used.

## Pinout of the MDR-36 Connectors

Pin #	Description
1	Channel 1
2	Ground
3	Channel 2
4	Ground
5	Channel 3
6	Ground

7 Channel 4  
8 Ground  
9 Channel 5  
10 Ground  
11 Channel 6  
12 Ground  
13 Channel 7  
14 Ground  
15 Channel 8  
16 Ground  
17 thru 36 are Not Connected.