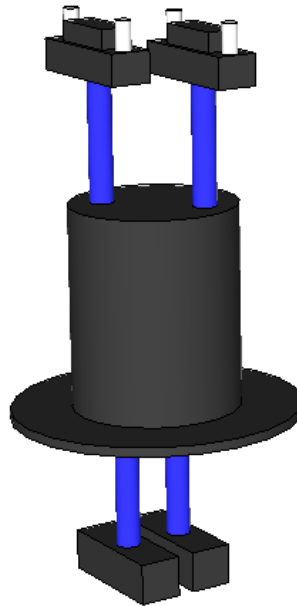


# 36-Ch Moog Commutator Adapter Instructions for Use

*PN 7968*



## **Blackrock Microsystems, LLC**

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## 1 Hardware

### 1.1 36-Ch Moog Commutator Adapter Overview

The 36-Ch Moog Commutator Adapter provides an interface between Blackrock's 16-ch Headstage's (Analog) and Amplifier. An overview of the 36-Ch Moog Commutator and cables are provided in Figure 1 below.

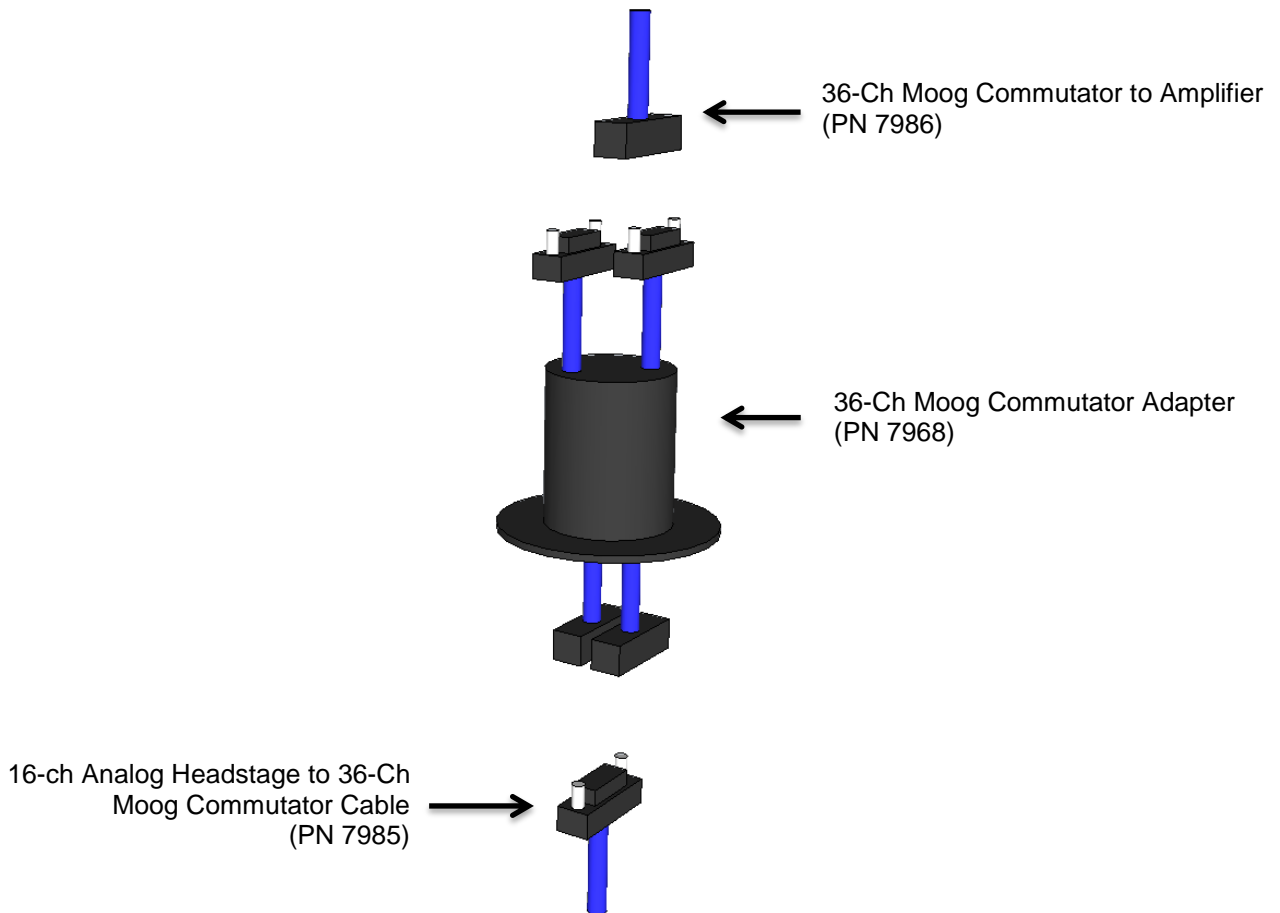
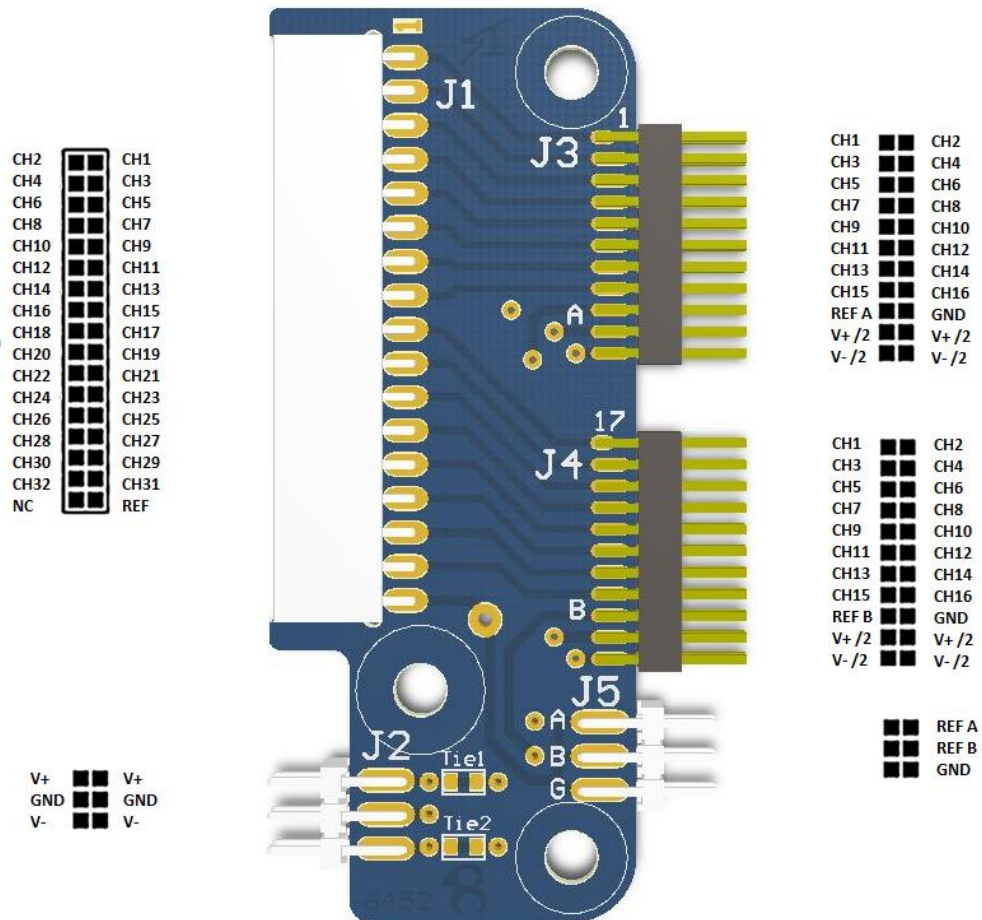


Figure 1: 36-Ch Moog Commutator Adapter Overview

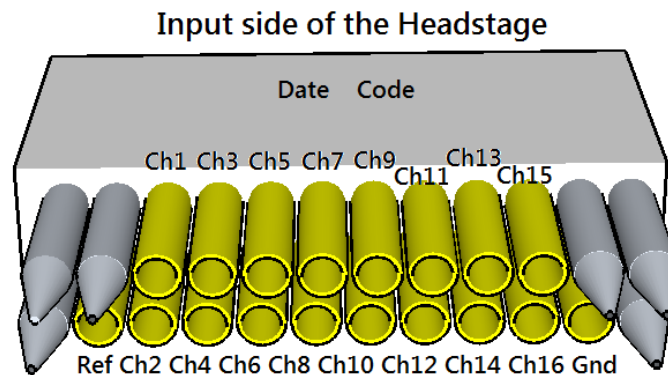
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## 1.2 CHA-2x16 Board Pin-Out (PN-6424)



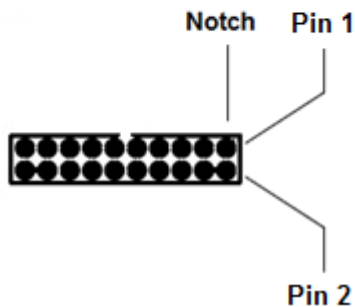
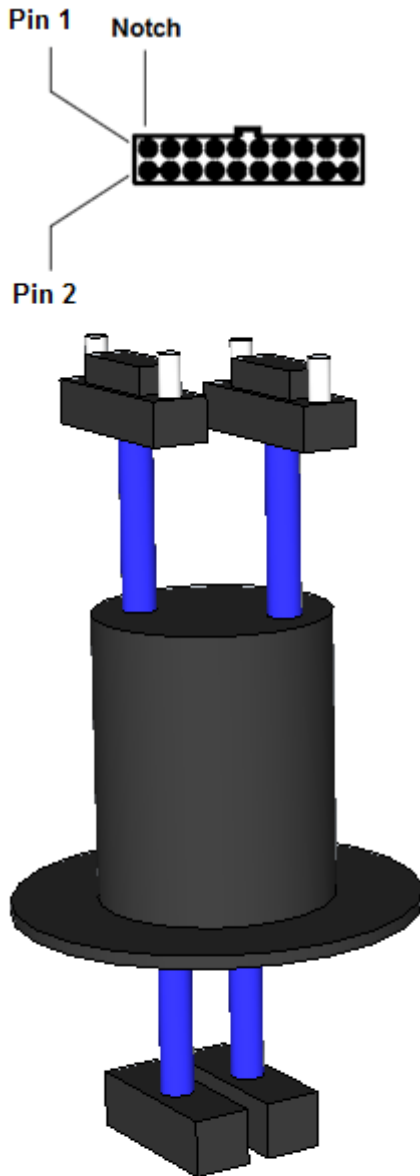
\*The jumper on the CHA-2x 16 board provides connections between the input reference (on the right) and the system reference (on the left).

## 1.3 16-Ch Omnetics Headstage Pin-Out (PN-7985)



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## 1.4 36-Ch Moog Commutator Adapter Pin-Out (PN-7968)



36-Ch Commutator Wiring			
20-Pin Harwin Connector – A		20-Pin Harwin Connector – B	
1	CH 1A	1	CH 1B
2	CH 2A	2	CH 2B
3	CH 3A	3	CH 3B
4	CH 4A	4	CH 4B
5	CH 5A	5	CH 5B
6	CH 6A	6	CH 6B
7	CH 7A	7	CH 7B
8	CH 8A	8	CH 8B
9	CH 9A	9	CH 9B
10	CH 10A	10	CH 10B
11	CH 11A	11	CH 11B
12	CH 12A	12	CH 12B
13	CH 13A	13	CH 13B
14	CH 14A	14	CH 14B
15	CH 15A	15	CH 15B
16	CH 16A	16	CH 16B
17	REF	17	NA
18	GND	18	NA
19	V+	19	NA
20	V-	20	NA

\*Note only Connector A has power and reference pins populated

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## 2 Instruction for Assembly


1. Verify that the Amplifier is plugged in, and the power switch on the Power Supply is in the “Off” position, before making any connections. Refer to the Cerebus System User Manual for further instructions regarding use of this device.
2. Connect the fiber optic cable from the back of the Amplifier to the Neural Signal Processor.
  - a. The “Power” switch on the Power Supply can be switched to the “On” position now to verify the Amplifier is powered and to verify a fiber-optic connection is present if the Neural Signal processor is also turned on.
  - b. Switch the Power Supply to the “Off” position.
3. Plug the Harwin connector of the 16-Ch Analog Headstage into the Moog Commutator.  
*Note: Only Connector A has Reference.*
4. Plug the other end of the 36-Ch Moog Commutator to Amplifier using the 36-ch moog to Amplifier Cable (PN-7986).
5. Connect the Analog Headstage to the electrode termination.
6. Make sure the connections are secured.
7. Turn on the power of the Cerebus System for recording. The specific input LED where the HDMI cable was plugged in from the headstage to the Amplifier should be green.

\*\*Power off the system prior to disconnecting any cables.

## 3 Caution

- Use for Animal research only.

## 4 Warnings

	IEC60101-0102	Danger of Electrostatic Discharge (ESD)
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- In order to reduce the likelihood of ESD, use antistatic or electrostatic discharge (ESD) safe gloves when connecting the 36-Ch Moog Commutator Adapter.

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## 5 Warranty

Blackrock Microsystems, LLC warrants that its products are free from defects in materials and manufacturing for a period of one year from the date of shipment. Blackrock will, at its option, repair or replace any product that does not comply with this warranty. This warranty is voided by:

1. Any modification or attempted modification to the product done by anyone other than an authorized Blackrock employee
2. Any abuse, negligent handling or misapplication of the product.

This constitutes the sole warranty made by Blackrock, LLC. There are no other warranties, expressed or implied, which extend beyond those described herein or to anyone other than the original purchaser, including the implied warranties of merchantability and fitness for a particular purpose. In no event shall Blackrock Microsystems, LLC be liable for any incidental or consequential damages, or for the infringement of any patent rights or third party rights due to the use of its products.

### 5.1 Return Merchandise Authorization (RMA)

In the unlikely event that your adaptor needs to be returned to Blackrock for repair or maintenance, do not send any equipment back without a Return Merchandise Authorization Number. An RMA number will be issued to you by a Blackrock representative. If you need to obtain an RMA number, you may contact a product support representative at (801) 582-5533 or toll free at (866) 806-3692.

Once an RMA number has been issued, it is important to safely pack the returned item for shipping back to Blackrock. It is preferred that you save the original boxes and packing materials that your system arrived in for return shipment. Please address the package as follows:

**Blackrock Microsystems, LLC**  
**ATTN: RMA#**  
**391 Chipeta Way, Suite G**  
**Salt Lake City, UT 84108 USA**  
**Tel: (801) 582-5533**