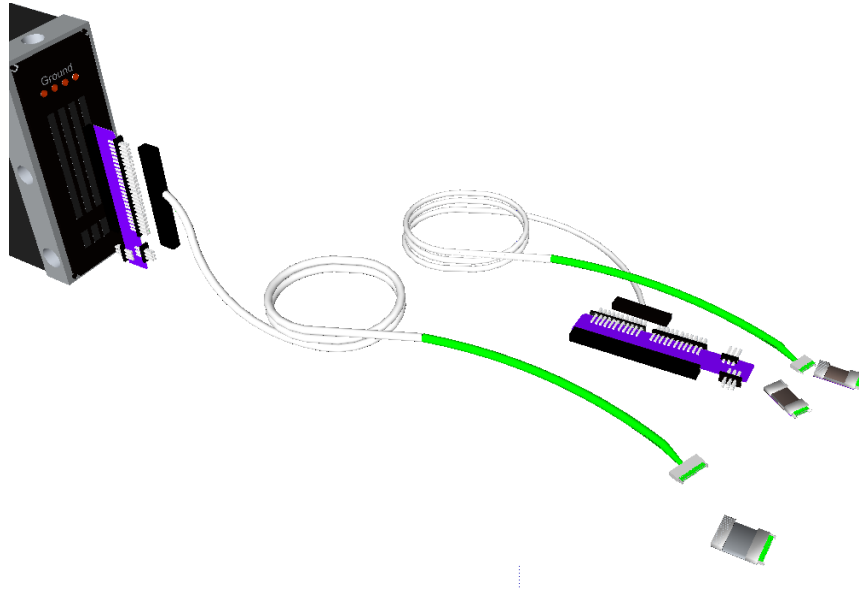


Blackrock 32-Channel Headstage & Cable Instructions for Use



Blackrock Microsystems, Inc.

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Blackrock 32-Channel Headstage & Cable

Instruction for Use

1 Introduction

Blackrock Microsystems offers a wide range of headstages for recording distortion-free spikes and field potential from high impedance microelectrodes. The headstage provides an isolated low-impedance output that guarantees signal integrity, minimizes noise pickup by cables and ensures maximum common-mode noise rejection by the Cerebus system front-end amplifier.

2 Intended Use

This assembly acts like an impedance transformer used for neural signal transmission on animal research/applications.

3 Instruction for Use

The 32-channel assembly includes one CHA-32 Board, one 32-channel headstage cable and one 32-channel headstage.

To pull the assembly together:

1. Turn off the power of the Front-end Amplifier power supply.
2. Plug the Samtec connector (the black female connector) on the cable to the CHA-32 Board. Be careful on the orientation, the “1” indicated on the connector should match with the “1” indicated on the CHA-32 Board as shown in Figure 3-1.

If there is a white dot on the connector instead of “1”, the white dot should be pointing down for proper connection.

3. Plug the CHA-32 Board directly to one of the Banks on the Front-end Amplifier.
4. Plug in the 32-channel headstage to the 32-channel headstage cable.
5. Plug the headstage to the electrode. Reference can be selected between the ground and the input by moving the shunt on the CHA-32 Board.
6. Turn on the power of the Front-end Amplifier power supply.

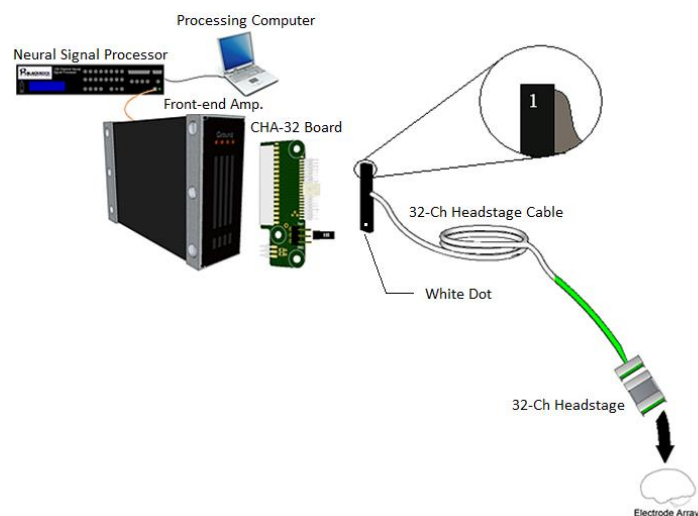


Figure 3-1: Assembly Set-Up

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4 Hardware

4.1 Blackrock CHA-32 Board Pin-out

Looking at the connectors

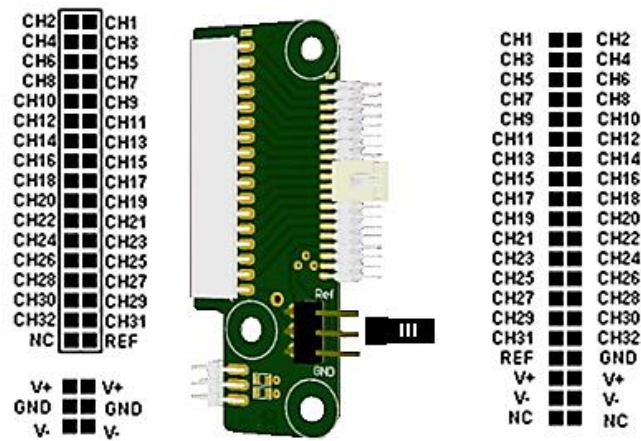


Figure 4-1: CHA-32 Board Pin-Out

The CHA-32 Board provides a fast reference selection between reference on the electrode and ground. The initial set-up is to use the reference on the electrode. To use ground as the reference, place the shunt down by one pin as shown Figure 4-2.

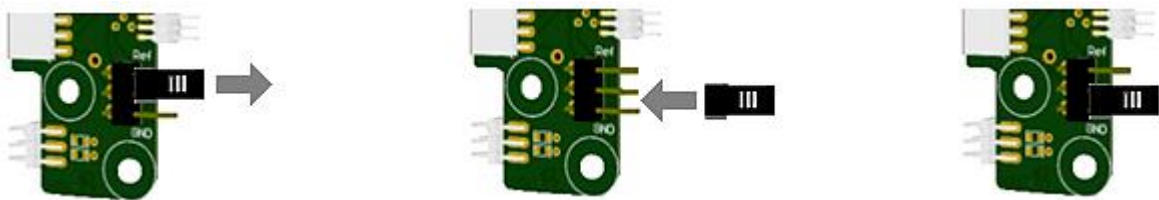


Figure 4-1: CHA-32 Board Reference Selection

Blackrock 32-Channel Headstage & Cable Instruction for Use

4.2 Blackrock 32-Channel Headstage Pin-out

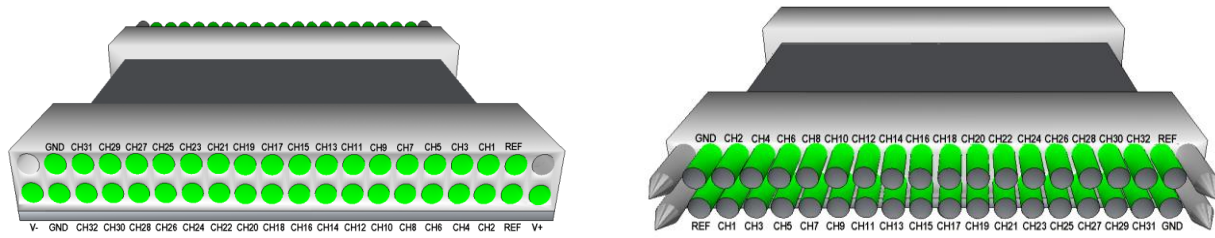


Figure 4-2: 32-Channel Headstage Pin-Out

4.3 Blackrock 32-Channel Headstage Cable Pin-Out

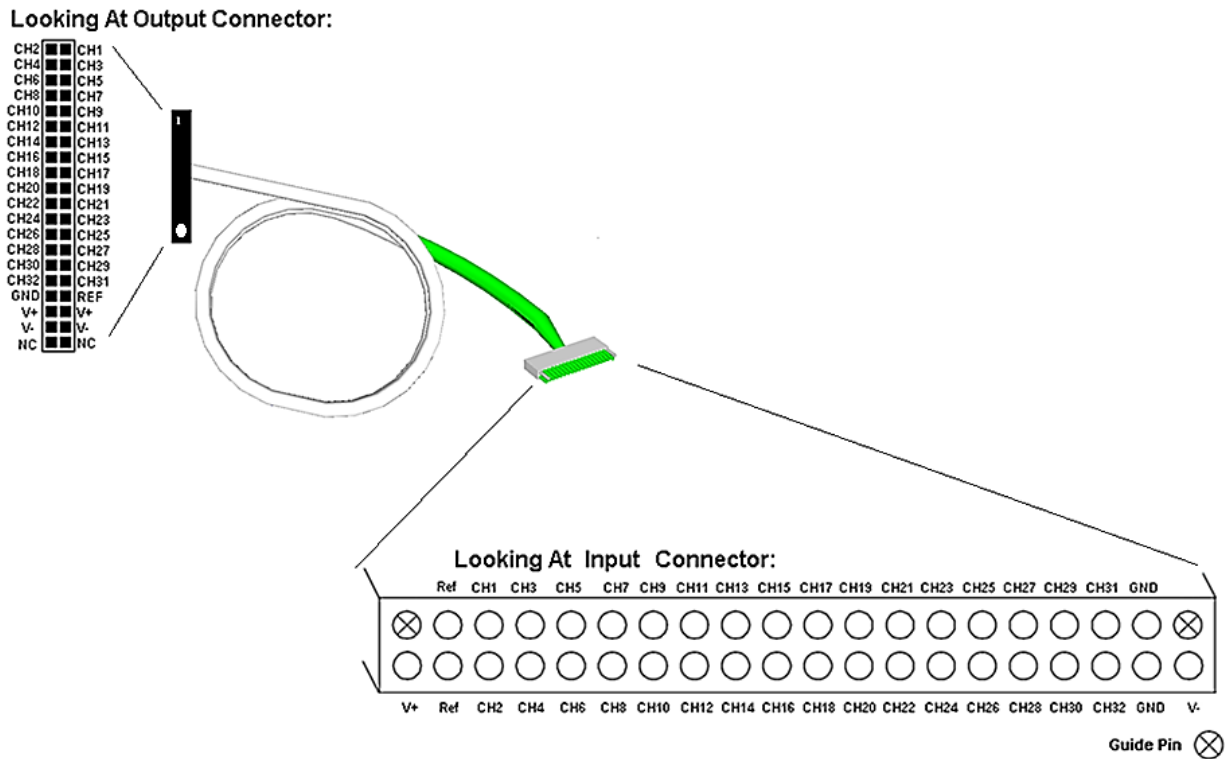


Figure 4-3: 32-Channel Headstage Cable Pin-Out

Blackrock 32-Channel Headstage & Cable Instruction for Use

5 Warning

This assembly can only be used for animal research/applications.

6 Warranty

Blackrock Microsystems, Inc. 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, Inc. 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, Inc. 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.

6.1 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, Inc.
ATTN: RMA#
391 Chipeta Way, Suite G
Salt Lake City, UT 84108 USA
Tel: (801) 582-5533