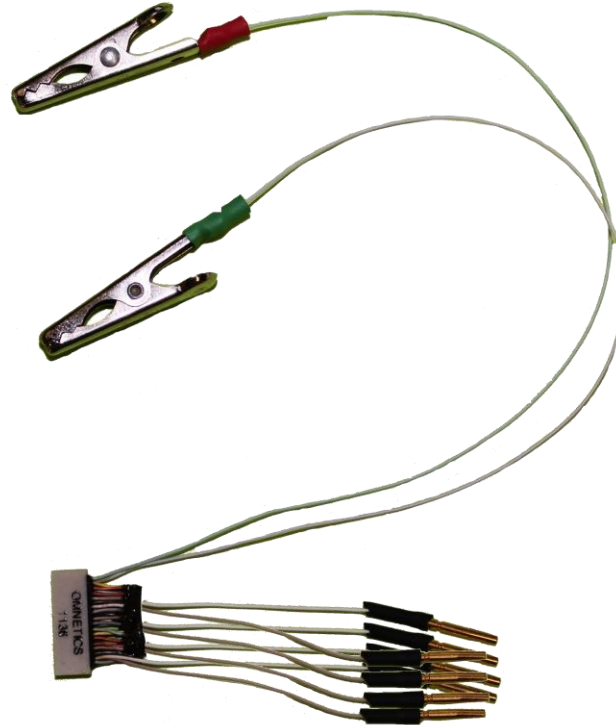


Blackrock NAN to Omnetics Adapter

PN-9038



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1 System Overview

The NAN to Omnetics Adapters provides an interface between NAN Microelectrode Arrays and a Blackrock's Omnetics Headstages. The Omnetics Headstages provide recording of distortion-free spikes and local field potentials 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. Figure 1 below shows an application overview of how the NAN to Omnetics Adapters fit into a complete Neural Recording System.

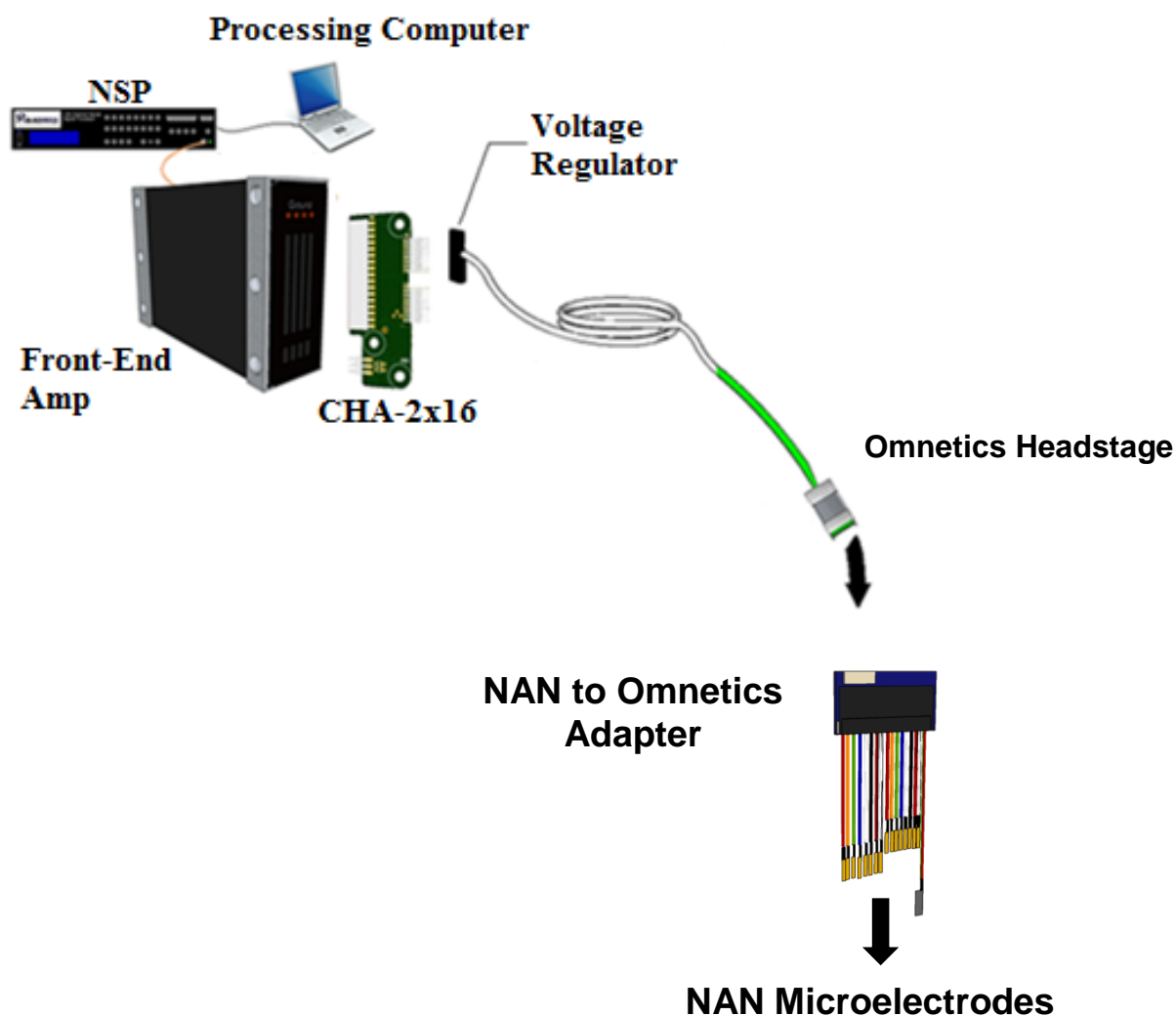


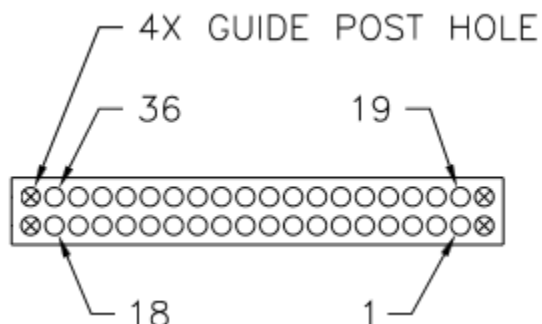
Figure 1: NAN to Omnetics Adapter System Overview

**NOTE: The Omnetics Headstage, Neural Signal Processing System, and NAN Microelectrodes are not included with the NAN to Omnetics Adapters and must be purchased separately.

Electrophysiology, Simplified.

2 Hardware

2.1 Blackrock 8-CH NAN Adapter Pin-Out PN-9038



NAN to 32-ch Omnetics			
Omnetics #	Channel	Wire Color	Connector Type
2	CH01	Brown	NAN - Female
20	CH02	White	NAN - Female
3	CH03	Red	NAN - Female
21	CH04	Black	NAN - Female
4	CH05	Orange	NAN - Female
22	CH06	Brown	NAN - Female
5	CH07	Yellow	NAN - Female
23	CH08	Red	NAN - Female
1,36	REF	Black/Green	Clip
18, 19	GND	Violet/Gray	Clip
6-17, 24-35	NA	NA	NA

2.2 NAN adapter overview

*Image below is representation only and does not reflect actual product.

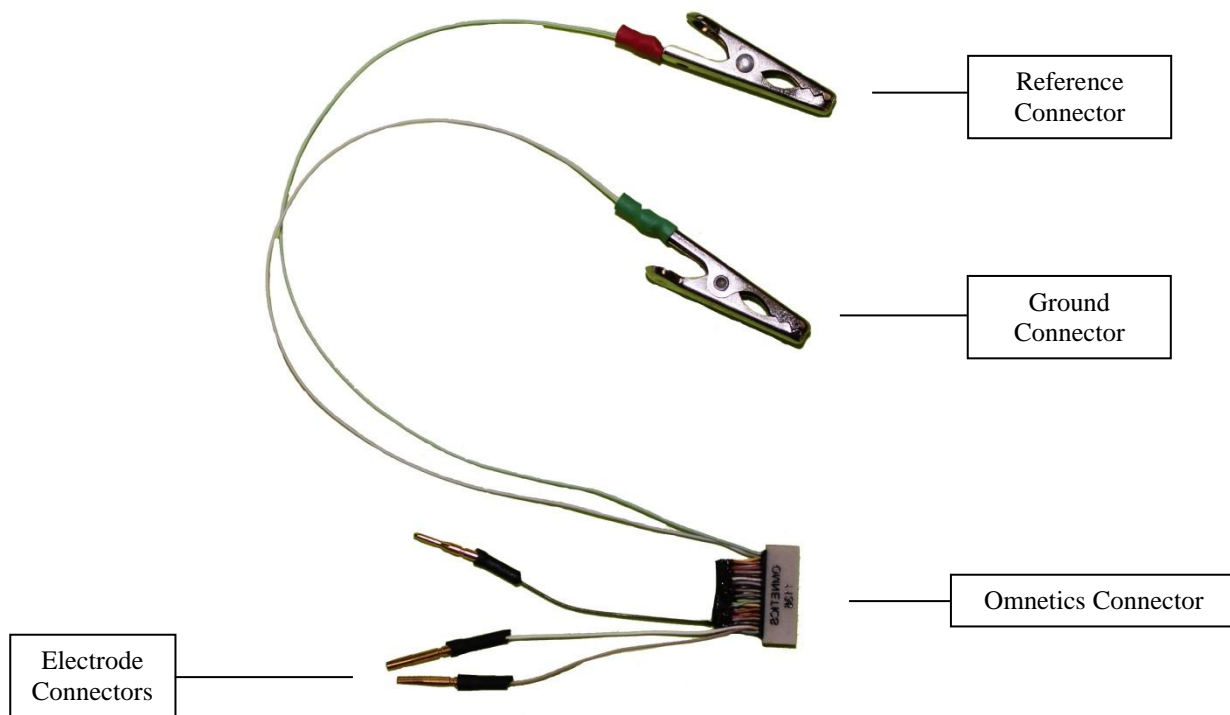



Figure 2: Omnetics Adapter Electrode and GND Connections

Electrophysiology, Simplified.

3 Assembly

1. Turn off all power to the Neural Signal Processing System before making any connections.
2. Plug the Omnetics Headstage into the Omnetics connector on the adapter. Date codes (Omnetics xxxx) on the Omnetics connectors should be facing the same direction.
3. Connect the pins on the adapter to the NAN electrodes.
CAUTION: Risk of static electric shock
4. For further information regarding use of the Omnetics Headstage and Neural Signal Processing System, refer to their individual instructions for use.

4 Warning

	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 Adapter.
- Do not touch any exposed electrical conductors when the Adapter connector is attached to devices on the subject's head as this may result in inducing electric charge to the neural tissue. Irreversible damage may occur.

5 Warranty

Blackrock Microsystems 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, 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, 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 adapter 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
ATTN: RMA#
630 Komas Drive, Suite 200
Salt Lake City, UT 84108 USA
Tel: +1 (801) 582-5533