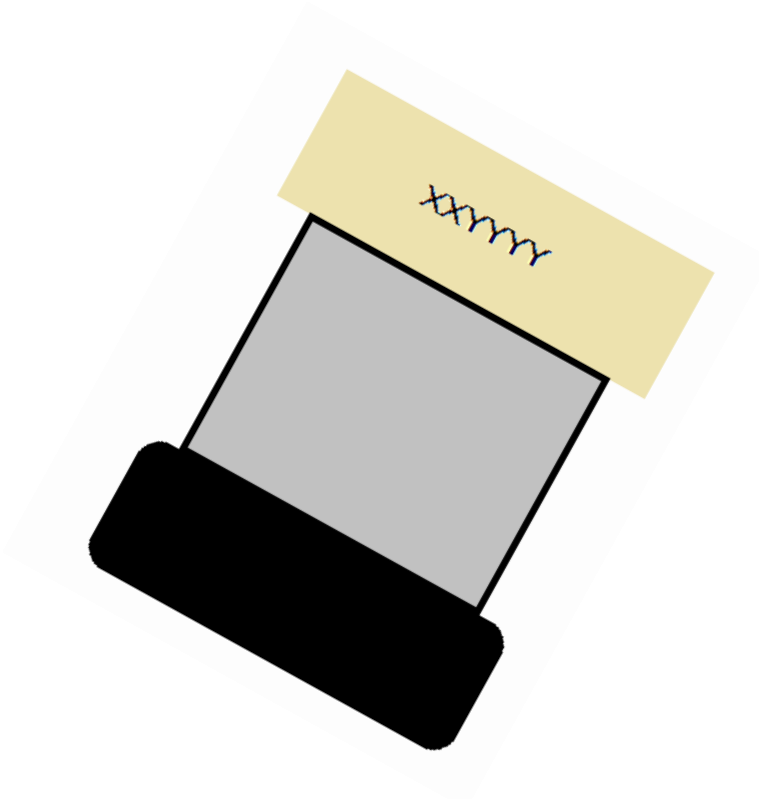


# Mill-Max 18-Pin to Omnetics Adapters

*PN-8651 & PN-8996*



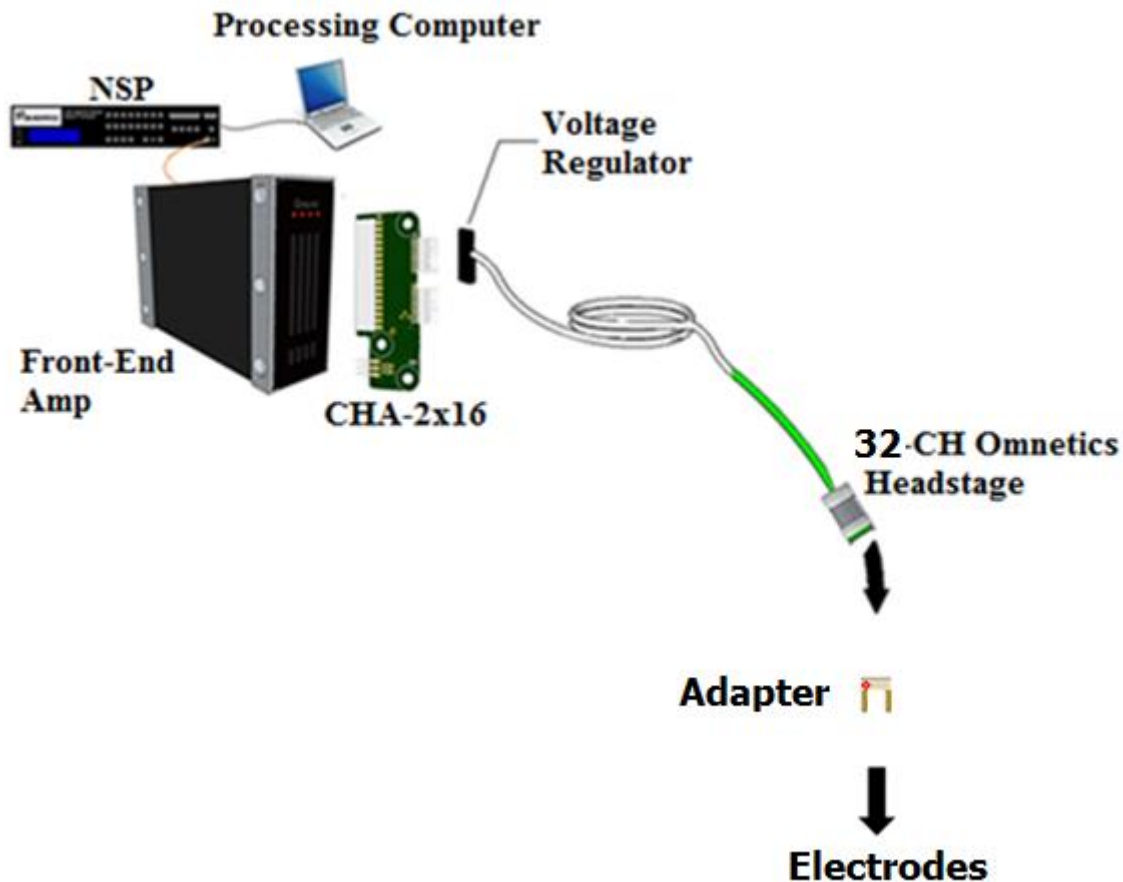
## Blackrock Microsystems, LLC

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## 1 System Overview

The Mil-Max 18-Pin to Omnetics Adapters provides an interface between custom electrodes and a Blackrock Omnetics Headstage. The Omnetics headstage provides 16/32 channels for recording 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 Adapter fits into a complete neural recording system.

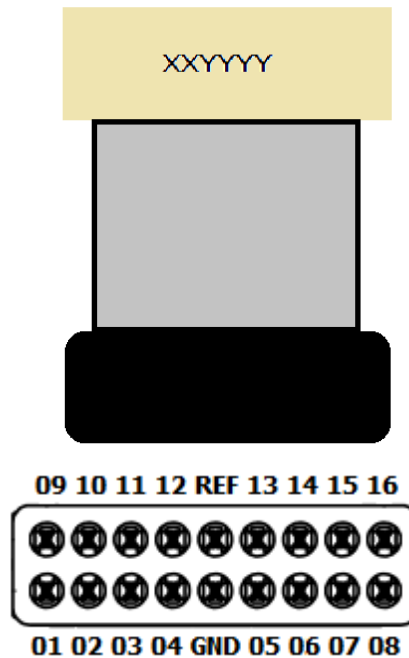
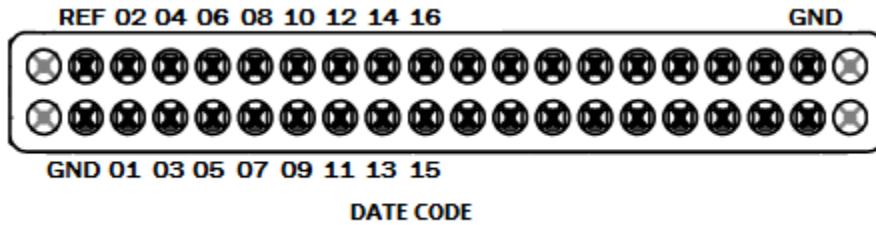


*Figure 1: Adapter to 32-Ch Omnetics Adapter System Overview*

**\*\*NOTE:** The Omnetics Headstage, Neural Signal Processing System, and Electrodes are not included with the Adapter and must be purchased separately.

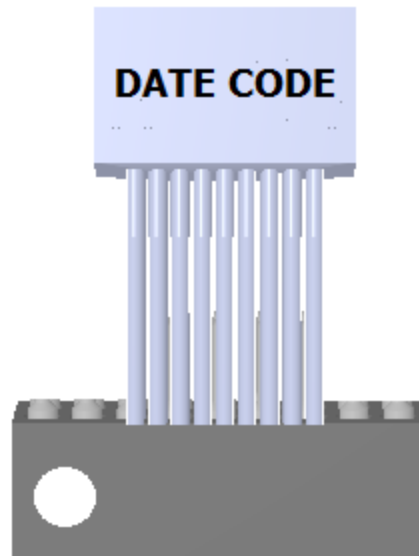
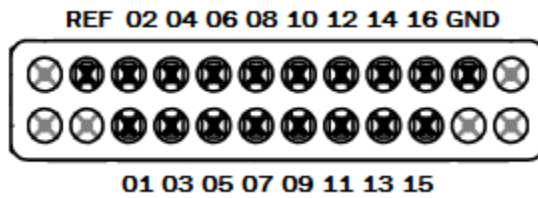
## 2 Hardware

### 2.1 Mill-Max 18-Pin to Omnetics 32-ch Adapter Pin-Out PN-8651




\*All unused channels are tied to Reference (REF)

## 2.2 Mill-Max 18-Pin to Omnetics 16-ch Adapter Pin-Out PN-8966



\*White dot on Mill-Max connector to indicate Pin 1

### 3 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.
- For animal research only.

### 4 Assembly

1. Turn off all power to the Data Acquisition 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 electrodes
4. For further information regarding use of the 16/32-Channel Omnetics Headstage and Neural Signal Processing System, refer to their individual instructions for use.

## 5 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, 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 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, Inc.**  
**ATTN: RMA#**  
**630 Komas Drive Suite 200**  
**Salt Lake City, UT 84108 USA**  
**Tel: (801) 582-5533**