

CereStim 96 Array Cable

PN-7313, PN-7327



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CereStim 96 Array Cable

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Contraindications, Warnings and Cautions

- The CereStim 96 Array Cable is intended for animal research purposes ONLY.
- Do not connect/disconnect any cables to/from the CereStim R96 while the system is in use.
- Do not leave the CereStim R96 Neurostimulator connected to the implanted electrodes when the system is not in use.
- When connecting the CereStim R96 Neurostimulator to the implanted electrodes, use caution to minimize the likelihood of Electrostatic Discharge (ESD).
- Use caution when positioning the CereStim 96 Array Cable to minimize the likelihood of tripping or accidentally pulling on the cable. Damaged cables may result in failed ground connections and should not be used.
- Use caution when attaching the CereStim 96 Array Cable to the CerePort Plug. Plugging the connector in backwards may results in loss of ground connection and stimulation through electrode channels with a single electrode return path.
- Keep the CereStim 96 Array Cable away from liquids. Contact with water may result in unintended stimulation.
- Be sure that the CereStim 96 Array Cable connectors are free of all debris prior to connecting to the CereStim R96 and CerePort Plug.

CereStim 96 Array Cable

System Overview

The CereStim 96 Array Cable provides a direct connection between Blackrock's CereStim R96 neurostimulator and the CerePort Plug of an implanted IrOx microelectrode array. Each cable provides 32 channels for transmission of user configured stimulation pulses generated by the CereStim R96 to the electrode banks of the CerePort Plug.

The CereStim R96 allows up to 3 Array Cables to be connected to the system, providing a total of 96 stimulation channels. When connected to the CereStim R96, the system has the capability to generate up to 16 simultaneous stimuli across any of those 96 channels. An overview of how the cable fits into a stimulation system is provided in the diagram below.

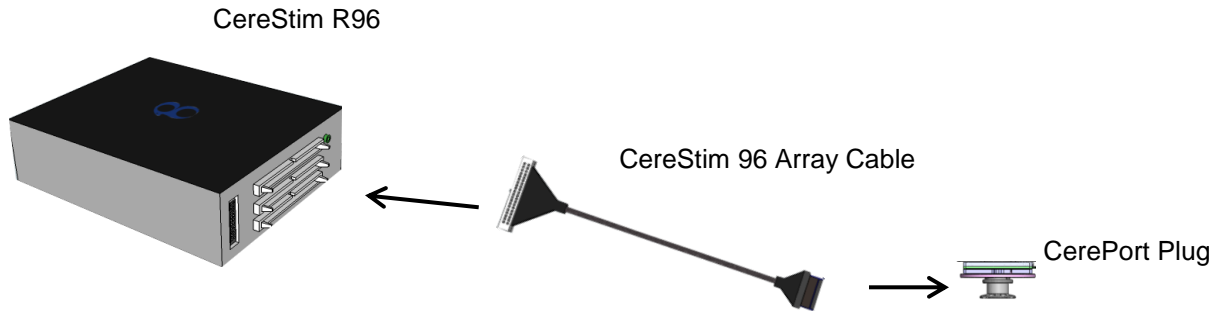


Figure 1: CereStim 96 Array Cable Stimulation System Overview

**The CereStim R96 Neurostimulator and CerePort Plug/Microelectrode Array are purchased separately. For further information regarding use of these systems, please refer to the individual User Manuals included in the product packaging.

Hardware

CereStim 96 Array Cable Pin-Out

The CereStim R96 Array Cable is available in 2 different configurations. One in which ground on the stimulator is connected to ground on the CerePort Plug (PN 7313), and one in which ground on the stimulator is connected to reference on the CerePort Plug (PN 7327). The pin-out for both configurations is provided below.

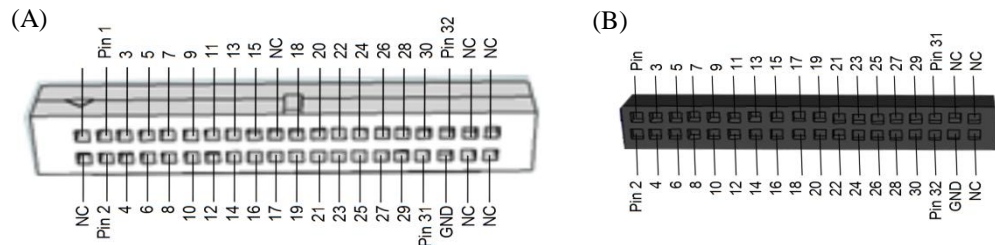


Figure 2: CereStim 96 Array Cable PN 7313 Pin-Out. (A) 40 Pin Connector to CereStim R96. (B) 36 Pin Connector to CerePort Plug. NC = Not Connected. In this configuration, ground on the stimulator is connected to ground on the CerePort Plug

CereStim 96 Array Cable

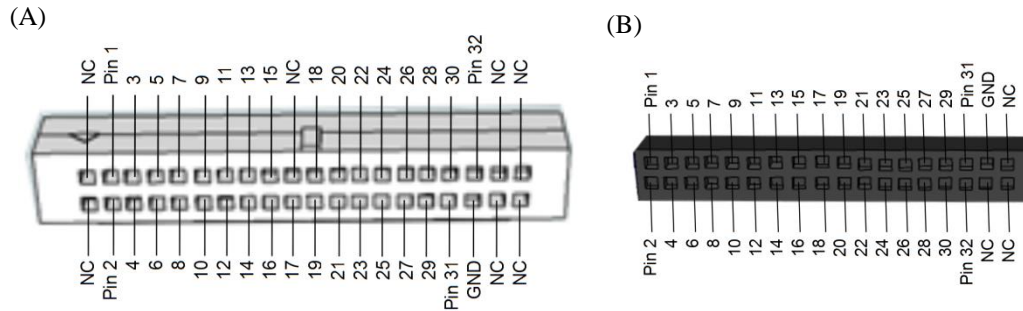


Figure 3: CereStim 96 Array Cable PN 7327. (A) 40 Pin Connector to CereStim R96. (B) 36 Pin Connector to CerePort Plug. NC = Not Connected. In this configuration, ground on the stimulator is connected to reference on the CerePort Plug

Assembly

Connection to the CereStim R96

1. Confirm that the CereStim R96 is turned off.

WARNING: Always make sure that the CereStim R96 is turned off before connecting/disconnecting any cables

2. Inspect the cable for any damage or debris
3. Connect the 40-pin IDC connector to the stimulation output connectors on the back panel of the CereStim R96. This connection is keyed and will lock into place.

NOTE: The Bank A connector on the CereStim R96 corresponds to electrode channels 1-32, Bank B corresponds to channels 33-64, and Bank C to channels 65-96.

CereStim R96 Stimulation Output Connectors

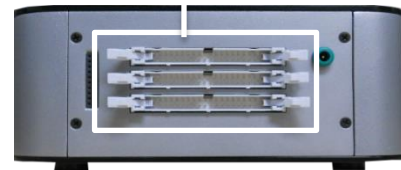


Figure 4: CereStim R96 Back Panel Connectors

Connection to the CerePort Plug

1. Attach the CerePort Plug to the pedestal.
2. Confirm that the CereStim R96 is powered off
3. Connect the 36-pin connector to the bank of connectors on the CerePort Plug. **Pin 1 is marked on the CerePort Plug and the Cable and should be aligned when mated.**

CAUTION: This connection is not keyed.

NOTE: The Bank A connector on the CerePort Plug corresponds to electrode channels 1-32, Bank B corresponds to channels 33-64 and Bank C to channels 65-96.

CereStim 96 Array Cable

Storage and Preventive Maintenance

1. Store the CereStim 96 Array Cable at -55°C to +80°C in a clean, dry place.
2. Remove particles and debris with a stream of Clean Dry Air (CDA) as needed.
 - a. Always use CDA or an approved compressed air supply
 - b. Always hold the can of compressed air upright. Tipping may release liquid in the air stream.
3. If needed, the outside of the connectors may be cleaned using a cloth dampened with water or alcohol. Do not submerge the cable in water or cleaning solutions.

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 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.

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