

The Electrode Interface Board (EIB-54) is mounted to microdrive hardware and provides the electronic signal connection between electrode wires a 54 channel Neuralynx Headstage Pre-amplifiers (HS-54). The EIB-54K also provides mechanical connection between microdrive hardware and the HS-54.

The EIB-54K does not contain any active electronics, and can pass signals in either direction. The HS-54 will define the signal direction via its buffer amplifiers.

### HS-54 Connection

The HS-54 will only mount to the EIB-54K in one direction. Double check pin alignment before securing the HS-54.

### EIB-54K Mounting

The EIB-54K is designed for mounting on a Kopf hyperdrive. Use the mounting hole to mount the EIB-54K securely to the central mounting ring on the Kopf hyperdrive. There should be small guide pins that fit into the secondary mounting holes. The EIB-54K is secured to the microdrive using a Kopf mounting bolt.

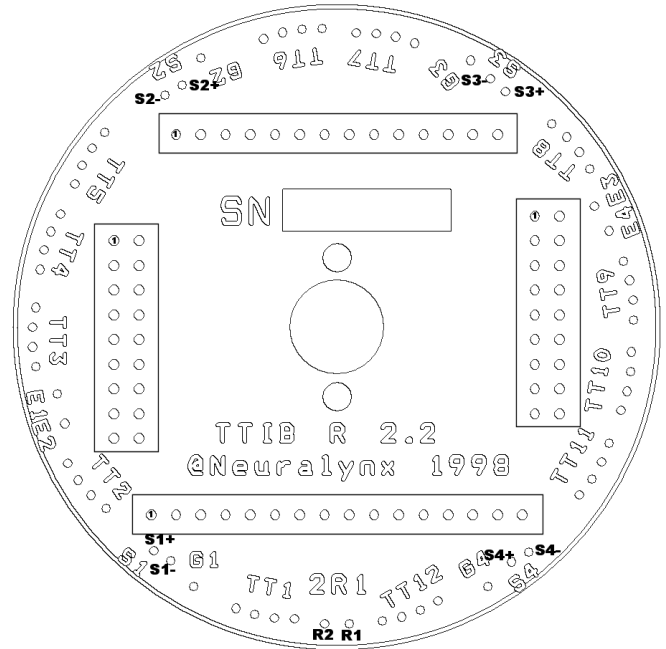
### Electrode Connection

Electrode wires will be inserted from the bottom of the board. Insulation does not need to be removed from the wire if using Neuralynx EIB Pins. See the *Electrode Attachment Guide* for more information on using EIB Pins. The EIB-54K uses the Large EIB Pins (0.05cm/0.020”).

**WARNING: If stimulus lines are connected to electrodes, ensure they are not shorted to +5V before turning on headstage power. Failure to check this may result in paralysis or death of the test subject.**

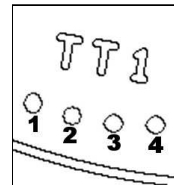
### EIB Reuse

Reuse of the EIB-54K is not recommended, but is possible. If reuse of the EIB-54K is required, please contact Neuralynx for assistance.



EIB-54K: Pin Layout (Top View)

### Tetrode Layout



Each tetrode is laid out according to the diagram on the left, when looking at the TT# label right side up.

### Technical Specifications:

<b>Size (Dia x H)</b>	3.3cm x 0.7cm
<b>Weight</b>	4.06g
<b>Signals</b>	<ul style="list-style-type: none"> <li>• 48 electrodes</li> <li>• 4 Ground</li> <li>• 4 Extra EEG</li> <li>• 2 References</li> <li>• 4 Differential Stimulus Channels</li> </ul>
<b>Connections</b>	<ul style="list-style-type: none"> <li>• 66 0.05cm Vias</li> <li>• 2 Milmax dual row 18pin</li> <li>• Milmax 14pin</li> <li>• Milmax 16pin</li> </ul>
<b>Mounting Hole Diameter</b>	0.48cm