
MED64 A low-noise multi-electrode array system
for *in-vitro* extracellular electrophysiology

Product Manual

MED Connector

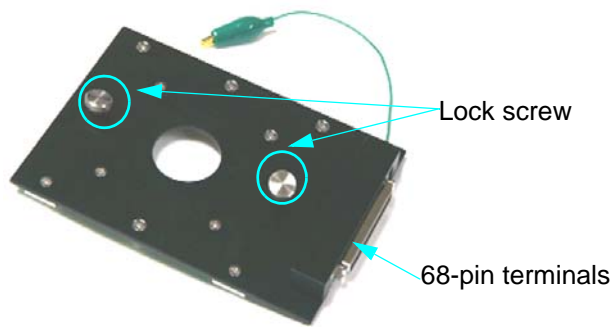
P/N: MED-C03



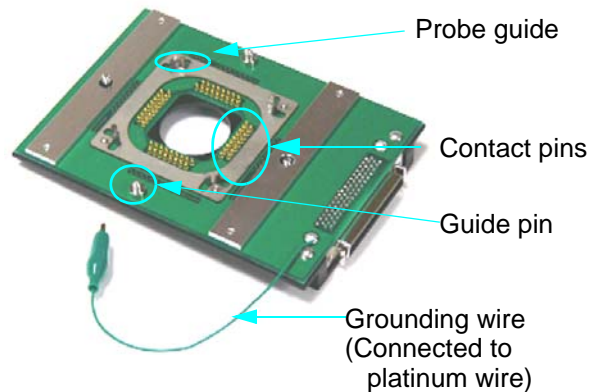
ALPHA MED SCIENTIFIC

Parts

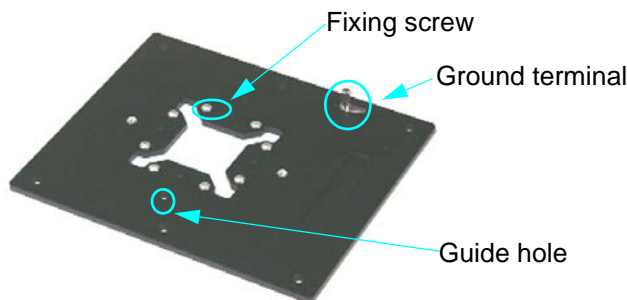
■Connector unit (Top view)



■Connector unit (Bottom view)



■Connector base



Directions for use

1. CLEANING

Wipe away dust with a lint-free cloth (e.g., lens cloth for glasses).

* It may also be necessary to carefully wipe and gently push on the contact pins several times with lint-free cloth several times to improve performance of contact.

2. STERILIZATION

Wipe with a lint-free cloth soaked in 70% ethanol, and allow to dry.

* Do NOT autoclave as it may damage the MED connector.

3. PLACEMENT of MED probe in MED connector

1) Place the MED probe inside the fixing screws on connector base.

2) Place connector unit over MED probe by aligning matching guide pins with their guide holes.

3) Turn lock screws until relatively tight.

4. GROUNDING

Ground the wire to the ground terminal if necessary.

(It is NOT necessary usually.)

5. STORAGE

Store in a cool dry area. Avoid exposure to high temperatures or humidity.

Cautions

1. AVOID mechanical shock.

2. Do NOT give strong mechanical shock by putting heavy material on the unit or dropping the unit.

3. Do NOT tighten the lock screws excessively to avoid damaging them.

* The torque of the screw should not exceed 8kg.cm.

4. Do NOT touch the contact pins with bare hands or fingertips. This may cause rust and adversely affect conduction.

5. Do NOT spill medium or any other liquid on the contact pins. If you spill medium or any other liquid on the contact pins, immediately wipe them gently with a clean cloth soaked with double-distilled water to remove any sediment or salts and allow to dry. Avoid using alcohol. Alcohol may remove the lubricant which is necessary for the pins to move.

6. Do not press the contact pins and probe guide excessively. It may damage and affect conduction.

7. Blow the surface of contact pins to remove dust before use in order to prevent poor operating conditions, but not by mouth since moisture in the breath may cause rust. A clean compressed air spray would be preferable for this purpose.
8. When the MED connector is placed in a humidified incubator during recording, please be extremely careful for contact pins of the MED connector to be kept clean. Even a slight amount of sediment or salt might cause very low-frequency noises. Please wipe the terminal of the MED probe with kim-wipe soaked with ethanol every time before MED probe is placed onto the MED connector.

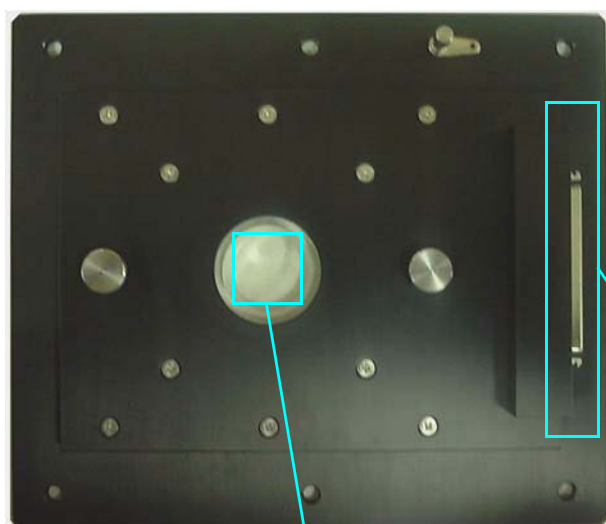
The terminal arrangement of electrodes on the MED probe

Electrode Orientation

Once the MED probe is set in the connector, channel 1 is located on the top left and channel 64 on the bottom right when the connector terminal is located on the right hand side (as shown in the figure below). This channel arrangement is the same even if the probe is rotated 90 or 180 degrees, since the channel number is relative to its location in the MED connector

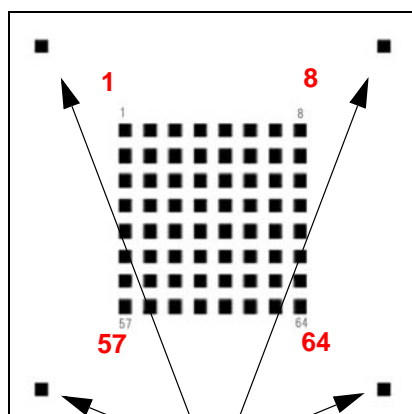
Reference electrodes

Four reference electrodes are connected to the terminal connector separately.



68-pin terminals layout

60	52
36	44
53	61
45	59
54	62
63	51
64	55
56	43
47	46
48	58
39	38
40	(R) bottom-left
32	37
31	(R) upper-left
24	30
23	(R) bottom -right
15	16
8	(R) upper-right
19	9
18	1
27	17
26	10
28	25
33	2
35	34
41	11
49	42
50	3
7	57
22	20
6	14
21	12
5	13
29	4



Reference electrodes (R)

Warranty

In the event of a defect in materials or workmanship, this product will be repaired free of charge with new or refurbished parts for one (1) year from the date original purchase.

The product warranty covers failures due to defects in materials or workmanship which occur during normal use. It does NOT cover damage which occurs in shipment or failures which are caused by products not supplied by Alpha MED scientific (AMS) or failures with results from alteration, accident, misuse, neglect, faulty installation, maladjustment of user controls, improper maintenance, modifications or service by anyone other than AMS. In addition, it does not cover damage that is attributable to acts of God.

Please refer attached warranty card in detail.

Specifications

Contact resistance	< 30 mΩ
Output	68-pin terminals
Printed circuit board	4 layers (the 1st and 4th layers are ground, and 2nd and 3rd layers contain signal line)
Dimensions	W 174 x H 21 x D 150 mm
Weight	480 g

Specifications may not be satisfied depending upon the type of computer or operating environments used.

Only for use in animal studies research.

Specifications and external appearance are subject to change without notice.

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