

# cEEGrids

## Instructions for use



92-5000-1010-3

REVISION 1



Thank you for using the TMSi cEEGrids (41-5000-1010-3).

This document describes the instructions for use of the "TMSi cEEGrids".



# 1. INSTRUCTIONS FOR USE

**Intended use:** Recording EEG behind the ears.

**Before using:** Check if the grids are clean and in good condition and if the electrodes on the grids are not deteriorated.



Do not re-use a cEEGrid more than 3-5 times, especially if the electrodes show deterioration.

**Preparing the subject:** Make sure that the skin of the patient or subject is clean. If necessary, shave the skin and scrub the skin with some abrasive skin prepping gel (e.g. Nuprep).



Place a grid only if the skin is intact. Consult a specialist if there is any doubt regarding the condition of the patient/skin.

**Preparing the grid:** Select a new cEEGrid with pre-applied sticker (Figure 1). Now put some electrode gel on all the 10 electrodes (Figure 2). The easiest way to apply the gel to the electrodes is by using a syringe. The grids will work with most of the available conductive electrode gels. Make sure that there are no air bubbles present between the gel and electrode surface.



Figure 1



Figure 2

Once there is gel on all the electrodes of the cEEGrid, you can take of the layer of the adhesive (Figure 3). Remove this layer very carefully. There should be a drop of gel on each individual electrode (Figure 4). Please make sure that there are no gel shortcuts between electrodes.



**Figure 3**



**Figure 4**

**Placing the grid:** Carefully take the grid with the gel, and place it on the prepared skin behind the ear (Figure 5). It is best to begin with one of the outer electrodes (e.g. electrode 1), and the work your way around the grid (so from electrode 1 towards electrode 10). Make sure to prevent any shifting of the grid during placement.



**Figure 5**

**Connecting the grid to the connector box:** Slide the connector of the grid in the connector box of the cEEGrid adapter cable until you can slide it no further (Figure 6). To prevent the cable from pulling on the grid, you can fixate the connector box to the collar of the shirt of the patient or subject (Figure 7).



**Figure 6: cEEGrid adapter cable for Mobita (95-0730-0016-0)**



**Figure 7: cEEGrid adapter cable for Mobita (95-0730-0016-0)**

**Connecting cEEGrid adapter cable to Mobita device:** The adapter cable can be directly connected to the Mobita device via the blue Conficap (Figure 8). The cEEGrid adapter includes a separate snap electrode lead that must be used as the patient ground electrode. TMSi advises to use the snap electrode in combination with the TMSi wristband (Figure 9) as patient ground for optimal signal quality. Make sure to wet the wristband with water. If you would rather have the patient ground electrode on a different spot, it is also possible to use disposable gel electrodes (Figure 10).



**Figure 8: Connecting the Conficap (left) to the Mobita device (right)**



**Figure 9: Wristbands for patient ground (95-8540-0002-1)**



**Figure 10: Disposable gel electrodes (95-0200-000)**

**Trigger input:** The blue Conficap also includes a 1-bit trigger input. TMSi can provide an optically isolated trigger cable: 3p Lemo to BNC (95-0830-0001-2).

**Cleaning:** After use, remove the cEEGrid gently from the skin and clean the skin immediately before the gel can dry. Carefully peel of the adhesive from the cEEGrid and clean the cEEGrid afterwards before the gel can dry. Rinse the cEEGrid with lukewarm tap water and if necessary use a mild detergent/disinfectant\* to clean the grid.

\* A 2.67% Incidin Plus disinfectant solution was tested on the cEEGrid. However, TMSi does not guarantee that cleaning the cEEGrid using the Incidin Plus solution has the desired result in terms of disinfection.



Make sure the cEEGrid is disconnected from the cEEGrid adapter cable before cleaning. Never use sharp tools or aggressive chemicals for cleaning or disinfecting.

**Re-use:** Take a double-sided adhesive (41-501-10-1) and take of one side of the adhesive (Figure 11). The easiest way to apply the sticker is to align the middle two holes to the middle two electrodes of the cEEGrid (Figure 12). The rest of the holes will then automatically be aligned correctly with their corresponding electrodes.



Figure 11



Figure 12

**Liability:** These instructions are drawn up with most care. In case of incompetent use and/or not following the above instructions, TMSi will not take any liability.

It may be possible that some countries apply deviating/extra regulations and or guidelines. These regulations/guidelines always prevail over this user guide.

If anything remains unclear, please contact us:

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