74Ch BrainCap-MEG for Triux, June 2012

Electrode Layout and Channel Assignment

Electrode Name | Connector 1 | ChNo – PinNo | Ch1-32
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Fpz | Electrode Name | Connector 1 | ChNo – PinNo | Ch1-32
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Cz | Electrode Name | Connector 1 | ChNo – PinNo | Ch1-32
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POz | Electrode Name | Connector 1 | ChNo – PinNo | Ch1-32
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Oz | Electrode Name | Connector 1 | ChNo – PinNo | Ch1-32
--- | --- | --- | ---
REF | Electrode Name | Connector 1 | ChNo – PinNo | Ch1-32
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Empty openings to button in loose electrodes

Plait leaves this direction.
Details for Users

Ordering Information

Catalogue Number: BC-MEG-74-X1-# (replace # by cap size)

Cap sizes are given in cm head circumference:

- Adult caps: 54, 56, 58, 60, 62 (average male: 58, average female: 54)
- Children caps: 50 (5 years), 52 (7 years), 54 (11 years)

*Note:* *We supply caps with adjusted cuts for Asian head shapes. If requested, please mention it in your order.*

The catalogue-number comprises the cap as described, serial number, and this document; all packed in a labelled cardboard box. For a first order additional single, loose electrodes are required (see below: “Extra Electrodes”). For further information about accessories or consumables please visit our website or contact our local distributor.

Cap Fabric & Cap Style

Subtemporal Cap, medium elasticity fabric with integrated chin belt
AsiaCut upon request

Cap Electrodes

All electrodes are MEG-suited Multitrodes with sintered Ag/AgCl sensors. They are buttoned directly into the cap (total height 3.5 mm) or can be attached to the skin with washers (= double-sided adhesive rings).

All cap-electrodes are labelled with name (Fp1, …) AND channel number (1 thru 74) at the sensor end. The cable colours correspond to the above figure. The cables are attached to the cap with nylon threads. Three cable trees leave the cap at the indicated positions. There is a crossing-point of the cable-trees shortly before the connectors. The length of cable trees is approx. 180 cm.

Termination

Channels 1-32, 33-64, 65-74 are converted onto round cables inside a small box and then terminated into three push-pull-32Ch-connectors to match the Triux-Inputs.
Extra Electrodes (to be ordered separately)

For Ref, Gnd, and bipolar channels separate single electrodes are required. See here an example of a set of 12 electrodes:

![Diagram of electrode connections]

2 B18-MEG-HS-200 MEG-compatible Multitrode made with blue housing, 200 cm heavy duty leadwire blue, label „Ref“ on both ends, silver-plated 1.5mm touchproof safety socket
2 B18-MEG-HS-200 MEG-compatible Multitrode made with black housing, 200 cm heavy duty leadwire black, label „Gnd“ on both ends, silver-plated 1.5mm touchproof safety socket
8 B18-MEG-HS-200 MEG-compatible Multitrode made with transparent housing, 200 cm heavy duty leadwire, labels „EX20 thru EX27“ on both ends, silver-plated 1.5mm touchproof safety socket
cable colours 2 red, 2 green, 2 blue, 2 black

Hints for Handling MEG-compatible Electrodes

It is important to understand, that although MEG-compatible electrodes are and stay non-magnetic if handled correctly, they do contain soft metals, which will become magnetic, if exposed to a magnetic field. Therefore nobody ever may take them e.g. into a MR-scanner, and also other sources of electromagnetic fields as neon-bulbs, wall outlets, etc. should be avoided.

Further, cleanliness is important not only for hygienic but also for technical reasons: it is astonishing, how much ferro-magnetic particles are contained in ordinary household dust. Thus not only the cap but also the storage room should be kept clean.

As tap water can contain metallic particles the whole cleaning process should be done with purified water (pharmacy-available). If this is not possible, then at least the last step of each cleaning should be to rinse the electrodes with purified water.

In case electrodes become (slightly) magnetized, in most cases they can be made MEG-compatible again either by simple cleaning or else by de-magnetizing the electrodes with e.g. a hand-held degausser (among others available from us).