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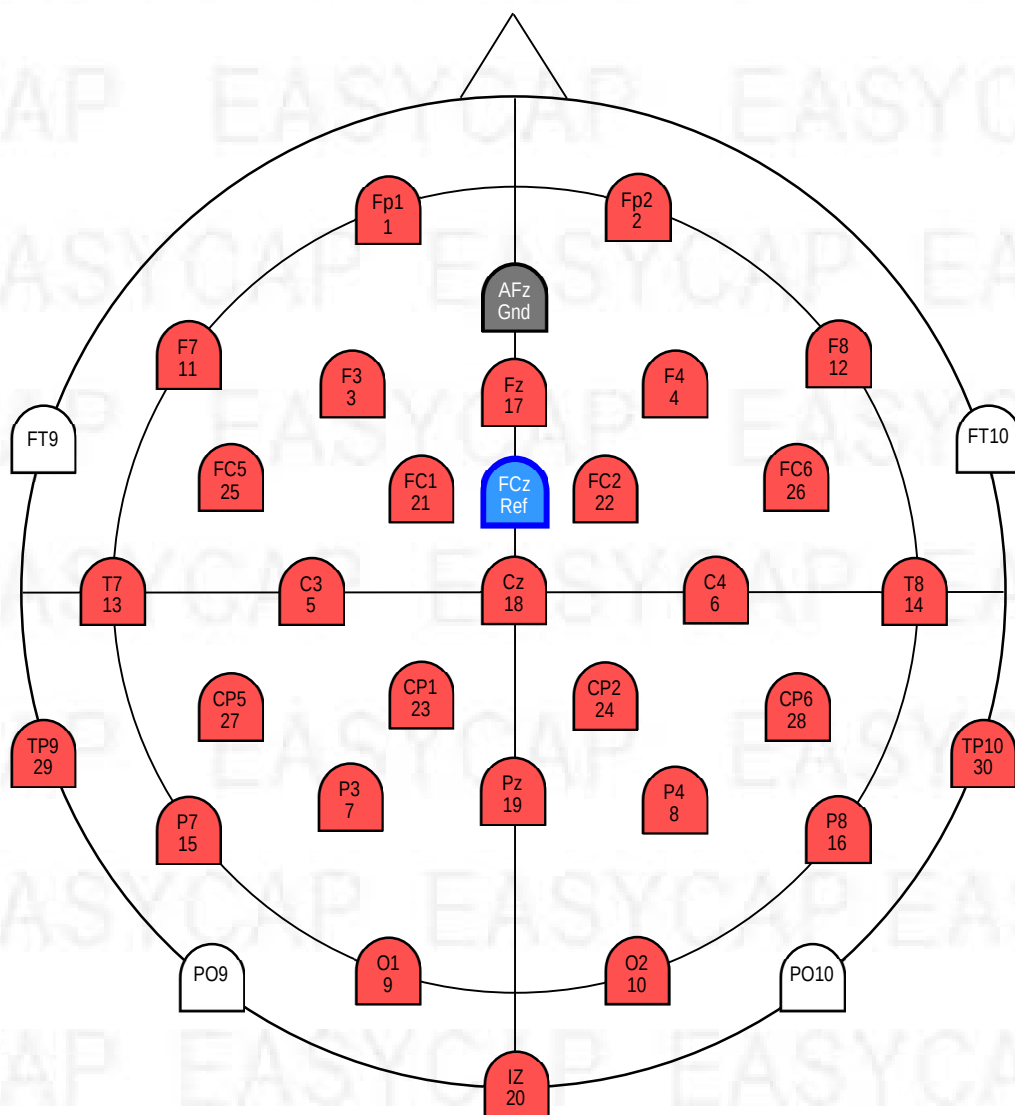
EEG Recording Caps and Related Products

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32Ch-Standard-BrainCap for TMS with Multitrodes

Electrode Layout and Channel Assignment



Details

Ordering Information

For ordering please give Article Number, Cap Cut, and Size (e.g. *BC-TMS-32, C-Cut, 56*):

- Article Number: *BC-TMS-32*
- Cap Cut: *C-Cut or A-Cut*
- Size (given in cm head circumference):
 - Adult caps: *54, 56, 58, 60, 62, 64* (average male: 58, average female: 56)
 - Children caps: *50* (3-4 years), *52* (5-10 years), *54* (11-14 years)
 - Infant caps: *34, 36* (newborn), *38, 40* (3 months), *42, 44* (7 month), *46, 48* (2 years)

The catalogue-number comprises the cap with 30 + 2 built-in but removable electrodes, 2 additional spare electrodes, and 32Ch electrode input box as described. For further information on accessories or consumables, please visit our website or contact our local distributor.

Cap

Standard: Subtemporal Cap with integrated chin belt, white.

Sizes 54 – 60 made from High Precision Fabric, Sizes 50 and smaller made from High Comfort Fabric

Options: *C-Cut or A-Cut, Size. For further variations, contact us.*

Electrodes

All electrodes are Multitrodes for TMS with sintered Ag/AgCl sensors (total height approx. 3 mm). They are buttoned directly into the cap or can be attached to the skin with washers (= double-sided adhesive rings).

All electrodes are:

- Name-labelled near sensor and number-labelled near connector according to the figure, spare electrodes are labelled as 31, 32.
- The electrode wires are very loosely attached to the cap with velcro straps that can be opened. Thus each electrode can be rotated 360°.
- The cables leave the cap plait-like behind the ears. Cable trees are held together with only a few velcro straps that can be opened. Length of cable trees is approx. 120 cm.
- Plugged into Electrode Input Box EIB32.
From here the caps are connected to BrainAmp with a 30 cm-flat-ribbon-cable. This can be re-ordered from BrainProducts (Cat-No. BP-02400-NN) or from EasyCap (Cat.-No. E80).

Hints when performing TMS and EEG simultaneously

Unused electrodes can be buttoned out of the cap, and their connections can be removed from the EIB.

To minimize the TMS artefacts onto the EEG signal, electrode cables should be led away from the TMS stimulation point. To be able to do so, the electrode cables are not attached to the cap and can be rotated 360° in their cap holes. You may secure a certain cable geometry with the enclosed cable clips and velcro straps.

Depending on the site of the TMS stimulation, it may be advisable to move the REF electrode away from the stimulation point to another position further away

Table of Coordinates for BC-TMS-32

Channel-Number	Name	Theta	Phi
1	Fp1	-90	-72
2	Fp2	90	72
3	F3	-60	-51
4	F4	60	51
5	C3	-45	0
6	C4	45	0
7	P3	-60	51
8	P4	60	-51
9	O1	-90	72
10	O2	90	-72
11	F7	-90	-36
12	F8	90	36
13	T7	-90	0
14	T8	90	0
15	P7	-90	36
16	P8	90	-36
17	Fz	45	90
18	Cz	0	0
19	Pz	45	-90
20	Iz	113	-90
21	FC1	-31	-46
22	FC2	31	46
23	CP1	-31	46
24	CP2	31	-46
25	FC5	-69	-21
26	FC6	69	21
27	CP5	-69	21
28	CP6	69	-21
29	TP9	-113	18
30	TP10	113	-18
	FT9	-113	-18
	FT10	113	18
	PO9	-113	54
	PO10	113	-54
Ref	FCz	23	90
Gnd	AFz	67	90

These values are standardized to a Theta of 90° for the plane through Fpz, T7, T8, Oz.

The signs follow this convention:

