



EASYCAP

EEG Recording Caps and Related Products

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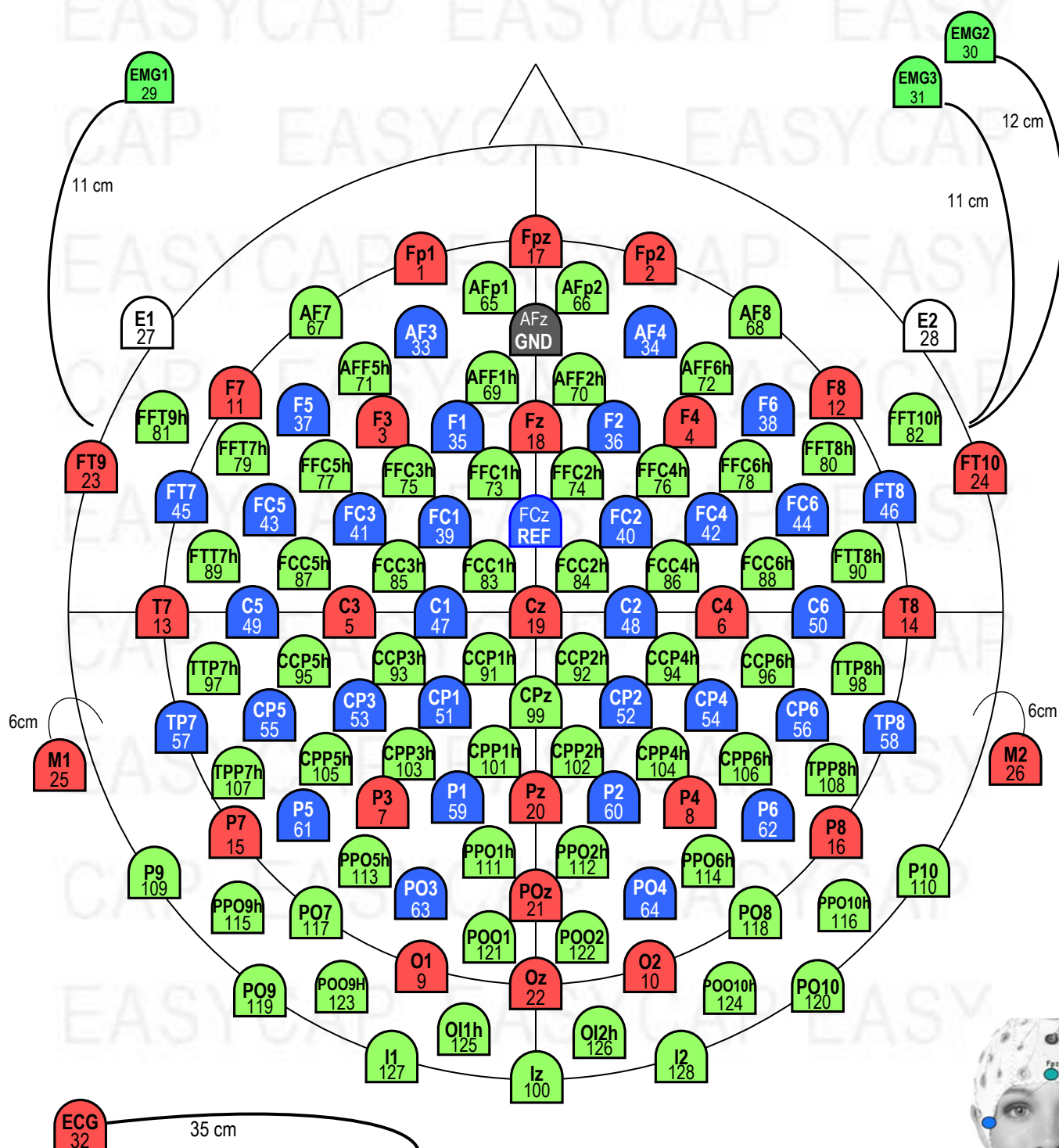
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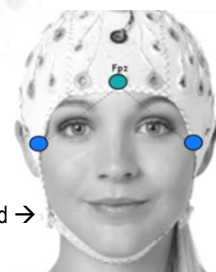
128Ch Standard BrainCap for Sleep Recordings with Multitrodes

Layout in accordance with "AASM manual for the Scoring of Sleep"

Electrode Layout and Channel Assignment



For EOG, please reference "E1" and "E2" offline to Fpz, as indicated →



Details for Users

Ordering Information

For ordering please give **Article Number, Cap Cut, and Size**:

(e.g. *BC-SL-128, C-Cut, 56*)

- Article Number: **BC-SL-128**
- 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: **52** (5-10 years), **54** (11-14 years)

The catalogue-number comprises the cap as described. For further information about accessories or consumables, please visit our website or contact our local distributor.

Cap

Standard: Subinion Cap with integrated chin belt, Black

Sizes 52 – 64 made from High Comfort Fabric

Options: *C-Cut* or *A-Cut*, *Size*

Electrodes

All electrodes are 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).

Mastoid positions M1/M2 in the cap are approximated at positions TP9' / TP10' , 1cm below TP9 / TP10.

For mastoid reference we suggest referencing the data *offline* to M1/M2 as recommended.

The EOG electrodes are integrated in the cap for ease of application and better signal quality.

The cables are attached to the cap with nylon threads. Four cable trees leave the cap plait-like in front of and behind the ears, pointing downwards. 20 cm before the connector-boxes there is a crossing-point. Cables are kept flat to the cap for better comfort. Cable trees are covered in soft fabric for better comfort.

The length of cable trees is approx. 120 cm

Termination

Each cable tree is led into a BrainCap-Box. From here the caps are connected to BrainAmp with flat-ribbon-cables. They can be re-ordered from BrainProducts (Cat-No. BP-02400-NN) or from Easycap (Cat.-No. E80).

Theta/Phi-Coordinates

Please find a table with Theta/Phi-Coordinates of all electrode sites at the end of this file.

Table of Coordinates for BC-SL-128

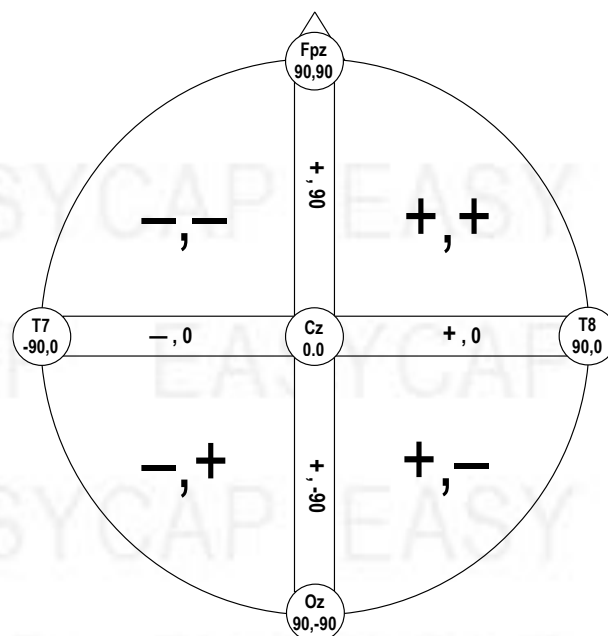
Channel-number	Name	Theta	Phi
1	Fp1	-90	-72
2	Fp2	90	72
3	F3	-60	-51
4	F4	60	51
5	C3	-45	0
6	C4	45	0
7	P3	-60	51
8	P4	60	-51
9	O1	-90	72
10	O2	90	-72
11	F7	-90	-36
12	F8	90	36
13	T7	-90	0
14	T8	90	0
15	P7	-90	36
16	P8	90	-36
17	Fpz	90	90
18	Fz	45	90
19	Cz	0	0
20	Pz	45	-90
21	POz	67	-90
22	Oz	90	-90
23	FT9	-113	-18
24	FT10	113	18
25	M1	-121	18
26	M2	121	-18
27	E1 (F9')	-121	-30
28	E2 (F10')	121	30
29	EMG1	-	-
30	EMG2	-	-
31	EMG3	-	-
32	ECG	-	-
33	AF3	-74	-68
34	AF4	74	68
35	F1	-49	-68
36	F2	49	68
37	F5	-74	-41
38	F6	74	41
39	FC1	-31	-46
40	FC2	31	46
41	FC3	-49	-29
42	FC4	49	29
43	FC5	-69	-21
44	FC6	69	21
45	FT7	-90	-18
46	FT8	90	18
47	C1	-23	0
48	C2	23	0
49	C5	-68	0

Channel-number	Name	Theta	Phi
50	C6	68	0
51	CP1	-31	46
52	CP2	31	-46
53	CP3	-49	29
54	CP4	49	-29
55	CP5	-69	21
56	CP6	69	-21
57	TP7	-90	18
58	TP8	90	-18
59	P1	-49	68
60	P2	49	-68
61	P5	-74	41
62	P6	74	-41
63	PO3	-74	68
64	PO4	74	-68
65	AFp1	-79	-82
66	AFp2	79	82
67	AF7	-90	-54
68	AF8	90	54
69	AFF1h	-57	-82
70	AFF2h	57	82
71	AFF5h	-72	-55
72	AFF6h	72	55
73	FFC1h	-35	-73
74	FFC2h	35	73
75	FFC3h	-46	-48
76	FFC4h	46	48
77	FFC5h	-62	-35
78	FFC6h	62	35
79	FFT7h	-81	-29
80	FFT8h	81	29
81	FFT9h	-101	-27
82	FFT10h	101	27
83	FCC1h	-16	-45
84	FCC2h	16	45
85	FCC3h	-35	-19
86	FCC4h	35	19
87	FCC5h	-57	-12
88	FCC6h	57	12
89	FTT7h	-79	-10
90	FTT8h	79	10
91	CCP1h	-16	45
92	CCP2h	16	-45
93	CCP3h	-35	19
94	CCP4h	35	-19
95	CPP5h	-62	35
96	CPP6h	62	-35
97	TTP7h	-79	10
98	TTP8h	79	-10

99	CPz	22	-90
100	Iz	112	-90
101	CPP1h	-35	73
102	CPP2h	35	-73
103	CPP3h	-46	48
104	CPP4h	46	-48
105	CCP5h	-57	12
106	CCP6h	57	-12
107	TPP7h	-81	29
108	TPP8h	81	-29
109	P9	-113	36
110	P10	113	-36
111	PPO1h	-57	82
112	PPO2h	57	-82
113	PPO5h	-72	55
114	PPO6h	72	-55
115	PPO9h	-101	45
116	PPO10h	101	-45
117	PO7	-90	54
118	PO8	90	-54
119	PO9	-113	54
120	PO10	113	-54
121	POO1	-79	82
122	POO2	79	-82
123	POO9h	-101	63
124	POO10h	101	-63
125	OI1h	-101	81
126	OI2h	101	-81
127	I1	-112	72
128	I2	112	-72
Gnd	Afz	67	90
Ref	FCz	23	90

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

The signs follow this convention:



FCz offers a reliable position for online recording reference.

For mastoid reference we suggest to reference the data *offline* to M2 as recommended in AASM.

For EOG, please reference the "E1" and "E2" channel offline to Fpz, for EOG left/right, as indicated →

