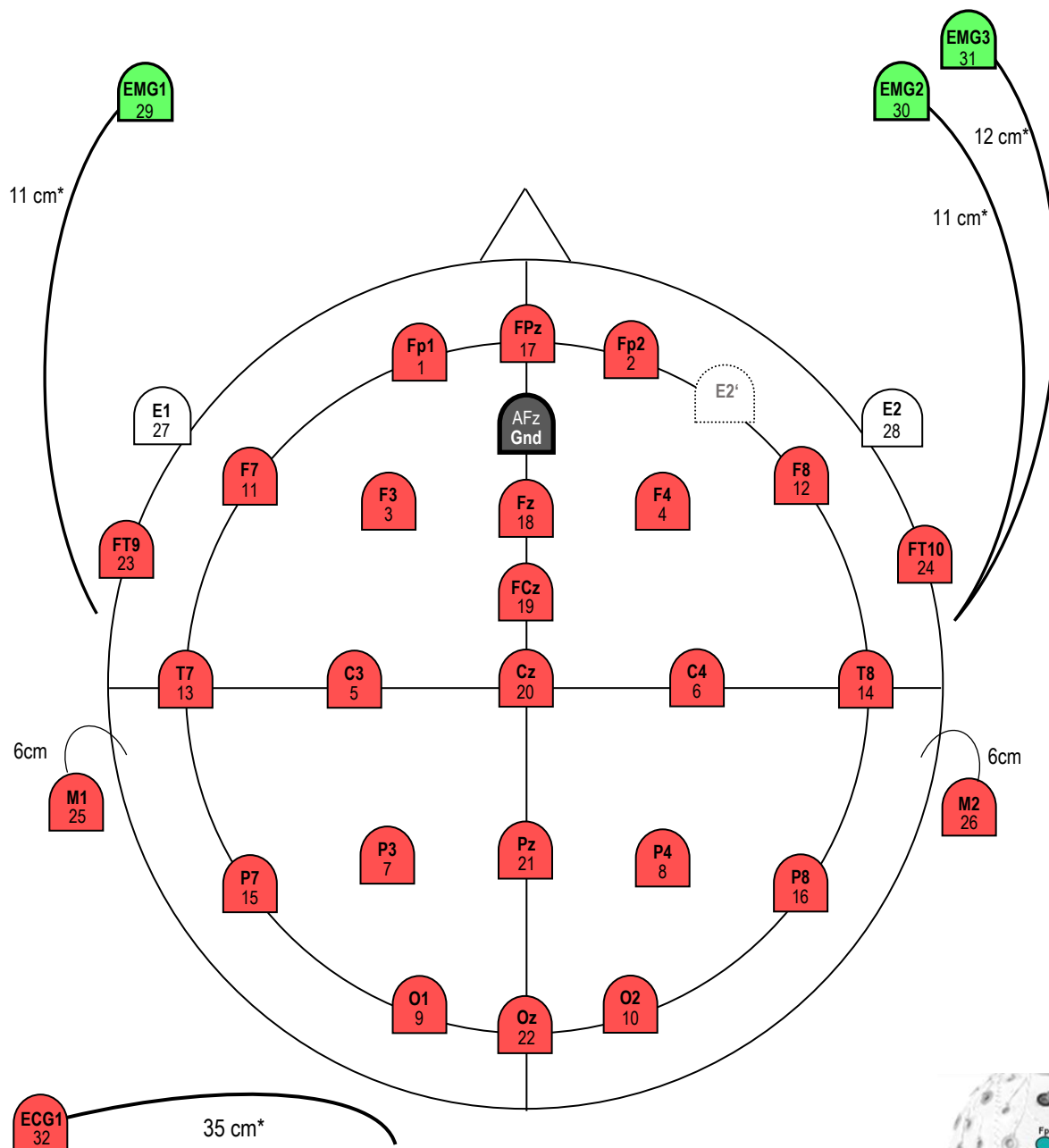


## 32Ch Standard BrainCap for actiCHamp for Sleep Recordings with Multitrodes

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

### Electrode Layout and Channel Assignment

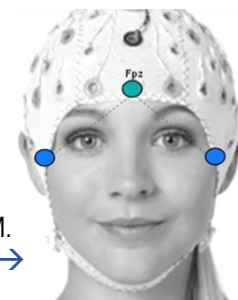


FCz can serve as online recording reference.

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

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

\*Drop-down lengths may be adjusted for smaller children sizes



## Details

### Ordering Information

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

- Article Number: **BCA-SL-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 as described and an electrode input device ("EIB64-DUO"). Flat ribbon and GND connecting cable for quick-connect to actiCHamp is an extra item ("AP-Connect-Set DUO"), best purchased once per amplifier. 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**

All Sizes made from High Comfort Fabric

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

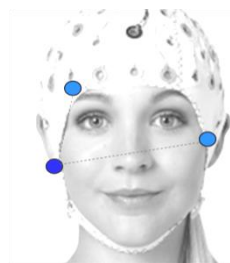
### Electrodes

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).

All electrodes are name-labelled at the sensor and number-labelled at the socket end.  
The cable colours correspond to the above figure.

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

EOG positions E1 / E2 in the cap are approximated with F9' / F10' , bilateral at the lower outer canthus of the eyes.



*EOG: For alternative EOG recording against right mastoid M2, please move the E2 electrode from position F10', close to the cap rim, to position E2' (AF8'), located ABOVE the right eye. Then please reference your two EOG channels offline to the right mastoid, M2. This will result the EOG recording situation as also recommended in AASM.*

Both alternative positions for recording of the EOG are integrated with openings in the cap for ease of application and better signal quality.

The cables are attached to the cap with nylon threads. Two cable trees leave the cap plait-like behind the ears, pointing downwards. 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

Cables end with name-labelled 1.5mm safety sockets, inserted in electrode input box EIB64-DUO.

Table of Coordinates for BCA-SL-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	FPz	90	90
18	Fz	45	90
19	FCz	23	90
20	Cz	0	0
21	Pz	45	-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
	E2' (AF8')	105	54
29	EMG1	-	-
30	EMG2	-	-
31	EMG3	-	-
32	ECG	-	-
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:

