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Solutions for neurophysiological research

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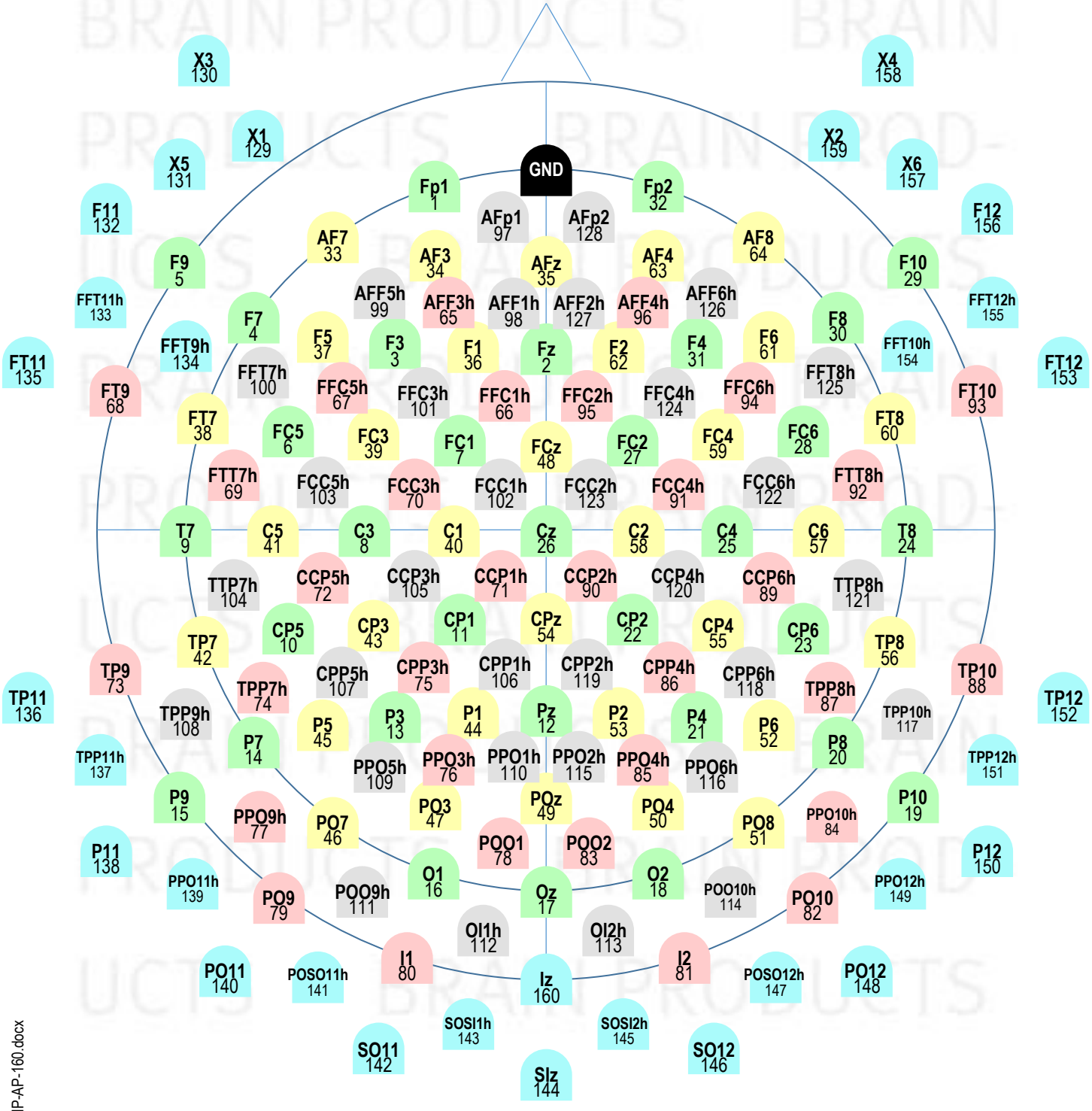
160Ch Wet-Sponge R-Net, Layout optimized for actiCHamp Plus

Electrode Layout and Channel Assignment



RNP-AP-160.docx

Details for Users

Ordering Information

For ordering please give **Article Number** and **Size** (e.g. RNP-AP-160*, 57*):

- Article Number: ***RNP-AP-160***
- Size (given in cm head circumference):

  61 Adult XL
  59 Adult L
  57 Adult M
  55 Adult S
  53 Child/Adolescent L
  51 Child/Adolescent M
  49 Child/Adolescent S

The catalogue-number comprises the cap as described (without cable-set to connect to actiCHamp Plus, see below), serial number, this document; a memory-stick with manual and bvef-file, and the saltwater net accessory kit SNAK, consisting of 35 spare sponges and 5 pedestals, all packed in a labelled cardboard box. For further information about accessories or consumables, please visit our website or contact our local distributor.

Please adhere to Manual

The manual explains in detail how to prepare, mount, and adjust the cap. Maintenance, cleaning, and disinfection are covered, and what to do when repair is needed. There are several features to improve fit. Please adhere to manual.

Layout

The layout for this R-Net for actiCHAmp Plus differs from R-Nets for other amplifiers because it comes without a dedicated Ref-Electrode and the electrode-site FCz is equipped with a normal electrode (Ch48).

Electrodes

The electrodes have Ag/AgCl sensors. They are number-labelled at the sensor end. The cables leave the net occipitally, pointing downwards. The length of cable tree is approx. 120 cm.

Termination and Cables to actiCHamp Plus

The cable tree is terminated into a connector box. From here the caps are connected to actiCHamp Plus with one flat-ribbon-cable per 32 channels plus one Gnd-cable. These cables are needed once per amplifier, not per net. For a first R-Net choose catalogue-number BP-130-5241 (Brain Products) / RNPA-AP-160 (Easycap) which comes **with** cables, for further nets choose BP-330-5241 / RNP-AP-160 which come **without** cables.
If further cables are needed they can be re-ordered from Brain Products or Easycap:

	Brain Products Cat-No.	Easycap Cat-No.
Gnd Cable	BP-245-1500	BP-245-1500 CABLE B4P
Flat-cable for Ch 1-32	BP-245-1100	E81-22
Flat-cable for Ch 33-64	BP-245-1110	E81-25
Flat-cable for Ch 65-96	BP-245-1120	E81-29
Flat-cable for Ch 97-128	BP-245-1130	E81-32
Flat-cable for Ch 129-160	BP-245-1140	E81-36

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 RNP-AP-160

Name	Nr.	Theta	Phi
Fp1	1	-90	-72
Fz	2	45	90
F3	3	-60	-51
F7	4	-90	-36
F9	5	-113	-36
FC5	6	-69	-21
FC1	7	-31	-46
C3	8	-45	0
T7	9	-90	0
CP5	10	-69	21
CP1	11	-31	46
Pz	12	45	-90
P3	13	-60	51
P7	14	-90	36
P9	15	-113	36
O1	16	-90	72
Oz	17	90	-90
O2	18	90	-72
P10	19	113	-36
P8	20	90	-36
P4	21	60	-51
CP2	22	31	-46
CP6	23	69	-21
T8	24	90	0
C4	25	45	0
Cz	26	0	0
FC2	27	31	46
FC6	28	69	21
F10	29	113	36
F8	30	90	36
F4	31	60	51
Fp2	32	90	72
AF7	33	-90	-54
AF3	34	-74	-68
AFz	35	67	90
F1	36	-49	-68
F5	37	-74	-41
FT7	38	-90	-18
FC3	39	-49	-29
C1	40	-23	0
C5	41	-68	0
TP7	42	-90	18
CP3	43	-49	29
P1	44	-49	68
P5	45	-74	41
PO7	46	-90	54
PO3	47	-74	68
FCz	48	21	90
POz	49	67	-90
PO4	50	74	-68
PO8	51	90	-54
P6	52	74	-41
P2	53	49	-68
CPz	54	22	-90
CP4	55	49	-29
TP8	56	90	-18
C6	57	68	0
C2	58	23	0
FC4	59	49	29
FT8	60	90	18
F6	61	74	41
F2	62	49	68
AF4	63	74	68
AF8	64	90	54
AFF3h	65	-62	-67
FFC1h	66	-35	-73
FFC5h	67	-62	-35
FT9	68	-113	-18
FTT7h	69	-79	-10
FCC3h	70	-35	-19
CCP1h	71	-16	45
CCP5h	72	-57	12
TP9	73	-113	18
TPP7h	74	-81	29
CPP3h	75	-46	48
PPO3h	76	-62	67
PPO9h	77	-101	45
POO1	78	-79	82
PO9	79	-113	54
I1	80	-112	72
I2	81	112	-72
PO10	82	113	-54
POO2	83	79	-82
PPO10h	84	101	-45
PPO4h	85	62	-67
CPP4h	86	46	-48
TPP8h	87	81	-29
TP10	88	113	-18
CCP6h	89	57	-12

CCP2h	90	16	-45
FCC4h	91	35	19
FTT8h	92	79	10
FT10	93	113	18
FFC6h	94	62	35
FFC2h	95	35	73
AFF4h	96	62	67
AFp1	97	-79	-82
AFF1h	98	-57	-82
AFF5h	99	-72	-55
FFT7h	100	-81	-29
FFC3h	101	-46	-48
FCC1h	102	-16	-45
FCC5h	103	-57	-12
TTP7h	104	-79	10
CCP3h	105	-35	19
CPP1h	106	-35	73
CPP5h	107	-62	35
TPP9h	108	-101	27
PPO5h	109	-72	55
PPO1h	110	-57	82
POO9h	111	-101	63
OI1h	112	-101	81
OI2h	113	101	-81
POO10h	114	101	-63
PPO2h	115	57	-82
PPO6h	116	72	-55
TPP10h	117	101	-27
CPP6h	118	62	-35
CPP2h	119	35	-73
CCP4h	120	35	-19
TTP8h	121	79	-10
FCC6h	122	57	12
FCC2h	123	16	45
FFC4h	124	46	48
FFT8h	125	81	29
AFF6h	126	72	55
AFF2h	127	57	82
AFp2	128	79	82
X1	129	-122	-54
X3	130	-145	-54
X5	131	-129	-45
F11	132	-136	-36
FFT11h	133	-125	-27
FFT9h	134	-101	-27
FT11	135	-136	-18
TP11	136	-136	18
TPP11h	137	-125	27
P11	138	-136	36
PPO11h	139	-125	45
PO11	140	-136	54
POSO11h	141	-125	63
SO11	142	-136	72
SOSI1h	143	-125	81
SIz	144	136	-90
SOSI2h	145	125	-81
SO12	146	136	-72
POSO12h	147	125	-63
PO12	148	136	-54
PPO12h	149	125	-45
P12	150	136	-36
TPP12h	151	125	-27
TP12	152	136	-18
FT12	153	136	18
FFT10h	154	101	27
FFT12h	155	125	27
F12	156	136	36
X6	157	129	45
X4	158	145	54
X2	159	122	54
Iz	160	112	-90
Fpz	GND	90	90

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

The signs follow this convention: