natus®
newborn care

ORDERING INFORMATION

DESCRIPTION	CATALOG#
Olympic Brainz Monitor Kit Without Roll Stand (Not available in the USA) - NA (Includes: Monitor, starter kit, power cord, DAB) 110V	OBM60001
Olympic Brainz Monitor Kit Without Roll Stand - UK (Includes: Monitor, starter kit, power cord, DAB) 220V	OBM60003
Olympic Brainz Monitor Kit - NZ/AUS Wtihout Roll Stand (Includes: Monitor, starter kit, power cord, DAB) 110V	OBM60004
Olympic Brainz Monitor Kit - NA (Includes: Monitor, roll stand, starter kit, power cord, DAB and hard copy manuals)	OBM70001
Olympic Brainz Monitor Kit - EU (Includes: Monitor, roll stand, starter kit, power cord, DAB)	OBM70002
Olympic Brainz Monitor Kit - UK (Includes: Monitor, roll stand, starter kit, power cord, DAB)	OBM70003
Olympic Brainz Monitor Kit - NZ/AUS (Includes: Monitor, roll stand, starter kit, power cord, DAB)	OBM70004

SOFTWARE OPTIONS	CATALOG#
RecogniZe Seizure Detection Software License Kit	OBM00092
Background Pattern Classification Software License Kit	OBM00093

CONSUMABLES	CATALOG#
Neonatal Sensors – 12 sets (1 set = 5 sensors) in a re-sealable pouch	OBM00042
Low Impedance needle electrodes - 6 sets (1 set = 4 needles)	OBM00046
Wrap Hats (pack of 10 w/ dots)	OBM00043
Skin Markers (box of 10)	OBM00044
NuPrep Skin Preparation Gel - 4oz Tubes (3-pk)	102566N
Positioning Strips - Term and Pre-Term, pack of 20 (10 of each)	OBM00047

GENERAL SPECIFICATIONS

TOUCH SCREEN MONITOR

Weight	14.33 lbs (10 kg)
Dimensions	16.46 x 13.46 x 4.53 in (418 x 342 x 115 mm)

DATA ACQUISITION BOX (DAB)

Weight	10 oz (280 g)
Dimensions	2.98 x 5.75 x 1.23 in (75.7 x 146.1 x 31.2 mm)

ROLL STAND

Weight	40 lbs (20 kg)
Dimensions	61.5 in height, 25 in base dia. (1562 mm height, 635 mm base dia.)

OPERATION (ALL COMPONENTS)

Temperature	0 to 40 °C (32 to 104 °F)
Relative humidity	25 to 90% at 40 °C (non-condensing)
Display	Real-time EEG Waveform Rapid pens (aEEG, Impedance - Computed Rapid numeric (Impedance) - Computed Histogram distribution over 15-second intervals (aEEG, Impedance) Color TFT LCD with resistive touchscreen, 15" (381 mm) diagonal, TFT color, 1024 x 768 pixel native resolution

POWER SUPPLY (INTEGRATED)

Power supply unit	Integrated AC, medical grade
Power supply input voltage	100 - 240 VAC, 50/60 Hz, 4A - 2A
EEG specifications sensitivity	50 µVpk full scale maximum sensitivity (< 1µV/mm)
Dynamic range	0.30 - 10000 µVpp (1-20 Hz)
Update rate	200 Hz (EEG Waveform)

DATA ACQUISITION BOX (DAB) SPECIFICATIONS

Differential channels	3
Frequency response	0.5 Hz ~ 450 Hz
Analogue to digital converter	SAR ADC (16x oversampling)
Sampling rate	2000 Hz
Resolution	16 bits
Sampling quantization	300 nV
Input impedance (DC)	> 50 MΩ

[1] ACNS Guidelines from the journal of clinical neurophysiology. 2011 December; Vol 28 No. 6.
[2] Utility of prolonged bedside amplitude-integrated encephalogram in encephalopathic infants. Mathur AM, Morris LD, Teteh F, Inder TE, Zempel J. Am J Perinatol. 2008 November; 25(10):611-5. Epub 2008 Oct 7.
[3] Effects of treatment of subclinical neonatal seizures with aEEG: Randomize, Control Trial. Van Rooij LGM, Tost MC, Van Huffelen AC, et al. Pediatrics 2010; 125:e358-e366.
[4] Atlas of amplitude integrated EEGs in the Newborn, 2nd Edition. Lena Hellström-Westas, Ingmar Rosen, Linda S. de Vries, pp. 81 and pp. 82.
[5] Sleep-Wake Cycling on Amplitude-Integrated Electroencephalography in Term Newborns With Hypoxic-Ischemic Encephalopathy. Damjan Osredkar, MD, Mona C. Toet, MD, Linda G. M. van Rooij, MD, Alexander C. van Huffelen, MD, PhD, Floris Groenendaal, MD, PhD, Linda S. de Vries, MD, PhD. Pediatrics 2005 February; Vol. 115 No. 2, pp. 327-332.
[6] NeoReviews. Hellstrom-Westas, Rosen, deVries, Greisen. 2006 February; Vol 7 No. 2.

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CFM
OLYMPIC BRAINZ MONITOR

CONTINUOUS BEDSIDE CEREBRAL FUNCTION MONITORING – PROVIDING ACTIONABLE INFORMATION WHEN YOU NEED IT MOST…

www.natus.com

THE OLYMPIC BRAINZ MONITOR IS THE LATEST TECHNOLOGY IN CEREBRAL FUNCTION MONITORING (CFM), ALLOWING YOU TO BEGIN MONITORING IN 3 EASY STEPS:

- PLUG IN UNIT
- APPLY ELECTRODES
- START RECORDING

Understanding an infant's brain health is a critical part of your treatment decisions. Use of continuous Cerebral Function Monitoring provides vital information to clinicians to assist with earlier diagnosis and treatment[2] – the Olympic Brainz Monitor is the optimal CFM solution for fast & simple routine bedside monitoring.

Amplitude-integrated EEG is the most commonly used digital trend for newborns and it's use has been integrated as a customary practice for assessment of EEG background in many intensive care nurseries.[1]

MONITOR NEUROLOGICAL STATUS SOONER – HELP THE NEWBORN FASTER

The Olympic Brainz Monitor provides aEEG, real time EEG and continuous measurement of impedance in up to 3 channels. The NICU friendly interface allows real time monitoring of brain function, providing vital data that may assist in predicting outcomes.

CLINICAL USAGE OF aEEG MONITORING

MEDICAL LITERATURE REPORTS THAT aEEG MONITORING CAN BE USED TO:

- Monitor general neurological status
- Monitor and record seizures[3]
- Monitor during hypothermic treatment to measure the effectiveness of treatment[4]
  - The time to normal trace (TTNT) has prognostic value and is a good predictor of neurodevelopment outcome in term infants with Hypoxic-Ischemic Encephalopathy (HIE) undergoing hypothermic treatment[5]
- Monitor aEEG patterns to indicate the presence of sleep wake cycling (cyclicity) in term and preterm infants, which is associated with better outcomes in HIE patients[6] and may add value in developmental care

EASE OF OPERATION

- System-based online help feature provides a step-by-step guide for setting up both the system and patient prep – allowing staff to start monitoring in minutes
- Intuitive navigation allows access to information fast when you need it most
- Versatile patient settings
  - Easily add a channel to an existing single channel setup
  - Cross cerebral, right and left hemisphere with up to 3-channel monitoring simplifies patient hook up and provides additional data when needed
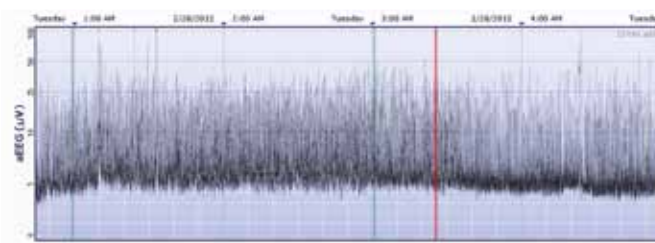
CFMsight

- Provides enhanced signal display for easier trace interpretation

Without CFMsight:
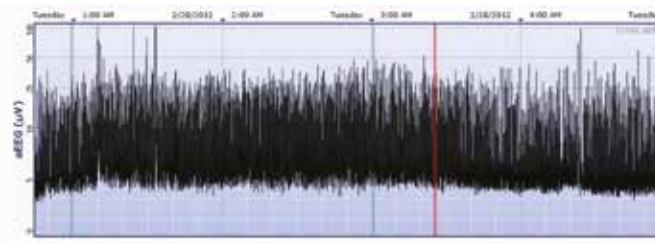
Trace appears CNV based on margins (however SWC is absent)

With CFMsight:

- The same trace with CFMsight enabled displays a narrow dark band in the lower margin, suggesting the possibility of a falsely elevated lower margin due to EKG artifact
- With the confirmation of EKG artifact in the raw EEG, the actual lower margin would be interpreted as being close to zero, which would be more consistent with severe injury and a burst suppression pattern

EASE OF INTERPRETATION AND COLLABORATION

AUTOMATIC DETECTORS

- RecogniZe™ Seizure Detection is now a standard feature that automatically identifies areas of suspected seizure activity for easy review and confirmation.
- Background Pattern Classification (BPc) is an optional software package that automatically scores the aEEG with the suggested BPc for review and confirmation by a qualified clinician.

CFM VIEWER

- CFM Viewer software implements similar functionality to the bedside unit, permitting review and analysis of recorded CFM data away from the bedside
- Remote review and consultation – offers remote viewing of active or stored recordings from any location
  - Simplifies consultation
  - Provides remote review and annotation of patient recordings with marked events appearing at bedside
- Web-based

EVENT MARKERS

- User-customizable, time-stamped markers keep track of when medications are administered, making the review process more efficient and easier for cross collaboration
- Different colors designate whether markers were placed at bedside or using Viewer from a remote location

FILE MANAGEMENT AND PRINTING OPTIONS

- Network archiving feature allows transfer of sessions and facilitates file management by increasing speed of transfer
- Network printer connectivity simplifies charting and record keeping, saving cost by allowing printing onto standard paper
- Archive, restore and review patient files via USB, allowing data management even when not connected to the hospital network

CONSUMABLES

ELECTRODES

- Both hydrogel and needle electrodes are supported through standard touch-proof connectors located on the amplifier housing