



# CerebAir

## Realize cEEG in critical care

Patients with an unclear mental status in ICU are under-diagnosed, a need for technology and routine are two of the reasons. Now with CerebAir we offer innovative technology to enable cEEG for everyone, leading to increased clinical and financial outcome.

The CerebAir EEG Headset is a telemetry EEG amplifier, developed for quick and easy cEEG monitoring, performed in a critical care setting – expertise in applying EEG electrodes is not required.

By using Bluetooth® communication, the patient is free from surrounding cables. This is ideal for an ICU setting where many cables from several medical devices are connected to the patient's body.



# CerebAir

## Anyone can apply cEEG quickly

Since there are only two buttons on CerebAir, operation is simple and reliable. Just apply the CerebAir with disposable electrodes attached beforehand to a patient's head - anyone can do it. Thanks to flexible arms, CerebAir fits various shapes of patient heads.

The EEG monitoring software displays various helpful information on the monitor screen, including visual fitting guidance and status information such as battery, and electrode status. CerebAir continuously monitors the condition of each electrode and if it detects a bad electrode, it notifies medical staff attending the patient to check these electrode.

## Pioneering technology for enhanced efficiency

Neurofax EEG systems, designed for high-acuity performance, feature cutting-edge technology to deliver superlative versatility for even the most demanding clinical requirements.

- **Polaris.one**, a powerful data management system, supports the straightforward administration and organization of diagnostic data. Modern communication interfaces (HL7 and GDT/BDT) enable integration into hospital and practice information system.
- **Digital Video Software** allows synchronized digital video for EEG systems using webcam, professional HD camera or picture-in-picture as per requirements.
- **EEG Mapping** offers amplitude with spectral and frequency online mapping during acquisition, even with single channels and montages.
- **Spike and Seizure detection** Software with a high sensitivity and a stunningly low false positive rate.

## Progressive presentation for smart monitoring

Neurofax EEG systems feature a smart active display that enhances ease of use for more effective monitoring.

- **EEG Trend Program** converts EEG signals into clear trend graphs making them easy to interpret (aEEG, DSA, CSA, Power FFT).
- **Smart vital signs interface** for holistic multi-modality assessment of patient, with capability to pull up 8 channels from bedside monitors.
- **Live View Panel** offers intuitive real-time management of diverse neuromonitoring data from a centralized location.

## Features for increased convenience

Neurofax has futuristic features that allow data integration with more flexibility, compatibility, and customization for efficient and convenient monitoring.

- **Customizable Main Menu** that allows registration of examination protocol buttons on the main menu. Each button has user-defined settings for an examination which can be adjusted for different examination conditions and methods
- **Note Window** offers to save up to 1,000 sections of waveforms for comparison by dragging and dropping. Up to 100 copied waveforms can be registered as sample data for comparison with other patients or teaching purposes.
- **NeuroReport**, which is integrated in all Nihon Kohden EEG systems, offers individually configured report templates, including adaptive auto text functions, for fast and simple reporting. It guarantees maximum flexibility and compatibility.

# Specifications

## AE-120AK

### Display

Display resolution	Up to 1920x1080 pixels
Display mode	Overwrite and page-by-page
Waveform display color	16 colors
Waveform display on/off/freeze	Provided
Waveform position adjustment	Provided
Waveform sweep speed	0.1, 0.2, 0.5, 1, 2, 5, 10, 15, 20, 30, 60 s or 5 min/page
Timing mark	0.1, 1s
Time scale	Off, 0.2, 1s
Event mark	Displayed
EEG scale	Provided
Multiple displays	Available

### Data acquisition

Sensitivity	0.1, 0.2, 0.5, 1, 2, 5, 10, 15, 20, 30, 60 s or 5 min/page
Time constant (Low frequency attenuation filter)	0.3 (0.53), 0.1 (1.6), 0.03 (5.3) sec (Hz) (-6dB/oct)
High frequency attenuation filter	15,30,35 Hz (-12 dB/oct) 50 RAPID,60 Hz (-18 dB/oct)
ECG elimination filter	Available in acquisition and review programs
Impedance check	Electrodes are displayed on the screen in electrode position layout. Impedance for each electrode is displayed and electrodes with impedance higher than the pre-set impedance threshold are highlighted
Pattern	36 sets of programmable montages combined with programmable individual amplifier settings

### Performance

Complies with IEC 60601-2-26:2012 201.12.1.101 ESSENTIAL PERFORMANCE requirements	
Accuracy of signal reproduction	Complies with IEC 60601-2-26:2012 201.12.1.101.1
Input dynamic range and differential offset voltage	Complies with IEC 60601-2-26:2012 201.12.1.101.2 (Withstanding polarization voltage: $\geq \pm 500$ MV)
Input noise	Complies with IEC 60601-2-26:2012 201.12.1.101.3 (5 $\mu$ V <sub>p-p</sub> or less, 0.53 to 60Hz)
Frequency response	Complies with IEC 60601-2-26:2012 201.12.1.101.4
Common mode rejection	Complies with IEC 60601-2-26:2012 201.12.1.101.5 (Discrimination factor: $\geq 90$ dB)

### Safety standard and electromagnetic compatibility

IEC 60601-1:2005+Amendment 1:2012
IEC 60601-1-2:2007
IEC 60601-1-6:2010+Amendment 1:2013
IEC 60601-1-9:2007+Amendment 1:2013
IEC 60601-2-26:2012
IEC 62304:2006
IEC 62366:2007+Amendment 1:2014
ISO 14971:2007
ISO 10993-1:2009

### Dimensions and weight

Dimensions	56 (W) x46 (H) x151 (D) mm
Weight	240g (without the belts, forehead pad and batteries)



Improving Healthcare with Advanced Technology



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