

# Neurofax $\mu$

Electroencephalograph  
EEG-9100J/K



*Fighting Disease with Electronics*

 **NIHON KOHDEN**

# EEG testing anywhere with

Neurofax  $\mu$  is a Windows® laptop PC based electroencephalograph that is efficient and easy to use with 8 ch DSA trendgraph, 3D mapping, high performance such as less susceptibility to artifact, and a USB electrode junction box.

Neurofax  $\mu$  is expandable with optional software such as mapping, sleep analysis and spike detector.

Nihon Kohden electroencephalographs are highly admired for their performance and you will surely be satisfied with the results of EEG testing with Neurofax.

With superb performance equipment, Nihon Kohden has established itself as the world's leading manufacturer of electroencephalographs.

Neurofax  $\mu$  has the high level function you need in the EEG lab, ICU or OR and the portability for flying doctors or bringing it to rural clinics.



## Innovative electrode junction box: JE-921A

**All-in-one solution: One junction box for routine EEG and PSG study**



This advanced junction box integrates 32ch EEG input and SpO<sub>2</sub>/CO<sub>2</sub> inputs. JE-921A provides the highest signal quality and maximum reliability.

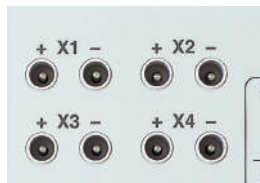
### Unique technology

Built-in SpO<sub>2</sub>/CO<sub>2</sub> inputs



### Extra PSG sensor capability

4 channel inputs with bipolar/monopolar sensors



### 4 channel of DC input

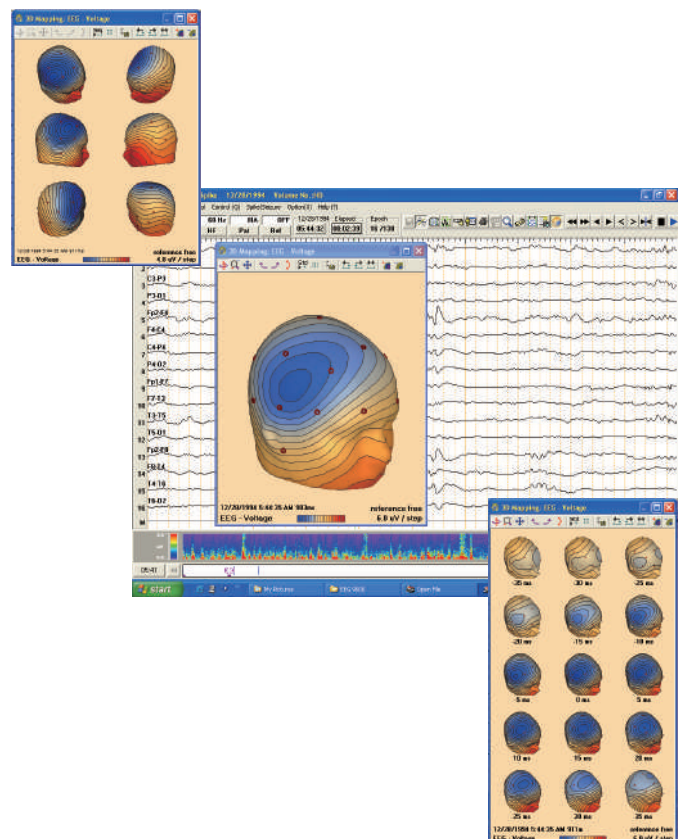
Inputs for analog signals from external instruments such as CPAP

## 3D voltage mapping

### Fast review and advanced EEG analysis

Whole head maps provide a complete overview and a better interpretation of the topography of EEG abnormalities. Just click on a detected pattern to obtain 3D whole head maps. Click on a particular view to obtain a series of maps showing the change over time.

- Six standard head views from different perspectives instead of just the conventional top view.
- Standard time series of 15 maps or user-defined time series.
- Whole head view with optimized color display and topographic lines to facilitate identification of the generating brain region.
- Maps can be rotated freely in 3D or set to standard views by fast rotation buttons.
- Variety of map types: Voltage and current source density (CSD)



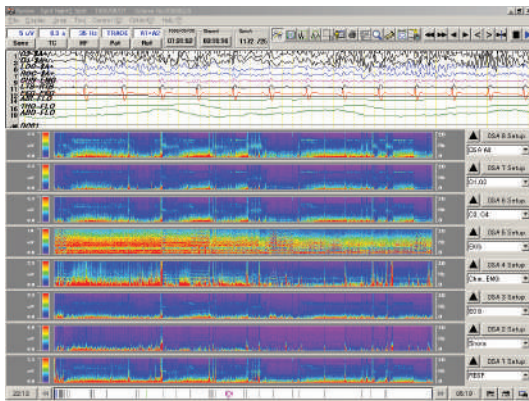


# High performance EEG recording

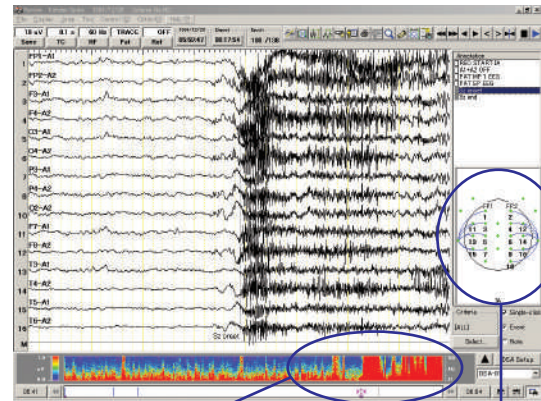
## Efficient user-interface for any EEG testing

### Up to 8 DSA trendgraph—You can find a specific EEG frequency band at a glance

Frequency components of EEG and the amplitudes of each frequency are displayed as a DSA (Density Spectral Array) trendgraph on the review screen and EEG scope. The DSA lets you find epileptic seizures of a specific EEG frequency band over a long period of time at a glance. A long term DSA window is also available to show detailed change in the extended trendgraph.



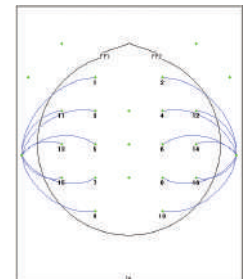
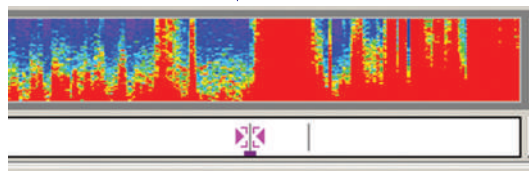
A mark indicates where the frequency components of the waveform suddenly change to high seizure region. Red shows the highest level while blue shows the lowest.



### Montage map display

The montage is displayed on the electrode position layout map. You can find the selected montage at a glance with this graphic montage.

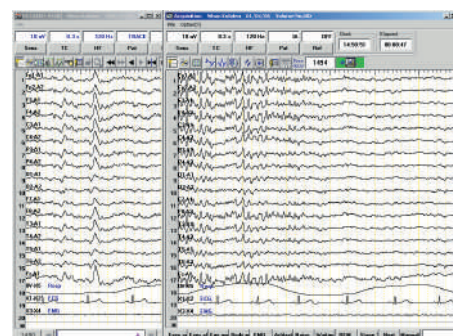
This graph shows DSA of the entire period of acquisition.



## Accurate and reliable EEG recording

### EEG Scope—Data review during acquisition

**Comparison Mode:** EEG Scope function lets you look back into and review previous EEG while simultaneously monitoring and acquiring new EEG. One side of a split screen shows previous EEG and the other side shows currently acquired EEG.



EEG Scope window

Acquisition window

# ding and review

## Convenient and efficient review

### Customizable 64 trace display

Up to 64 traces and one mark channel and 5 minutes of EEG can be displayed for easier recognition and comparison.

### Simultaneous 4 data display

Up to 4 EEG data files can be simultaneously opened and compared for easy tracking of a patient's progress.

### Note window—Simple copying of waveform parts

You can save up to 1000 parts of waveforms for comparison by dragging and dropping. Up to 100 copied waveforms can be registered as sample data for comparison with other patients.

### Zoom window

You can easily magnify the waveforms by dragging them. Amplitude and latency of magnified waveforms can be measured and printed.

### Selecting parts of waveforms

You can select up to 100 parts of waveforms to edit. Selected waveforms are shown in green between two cursors.

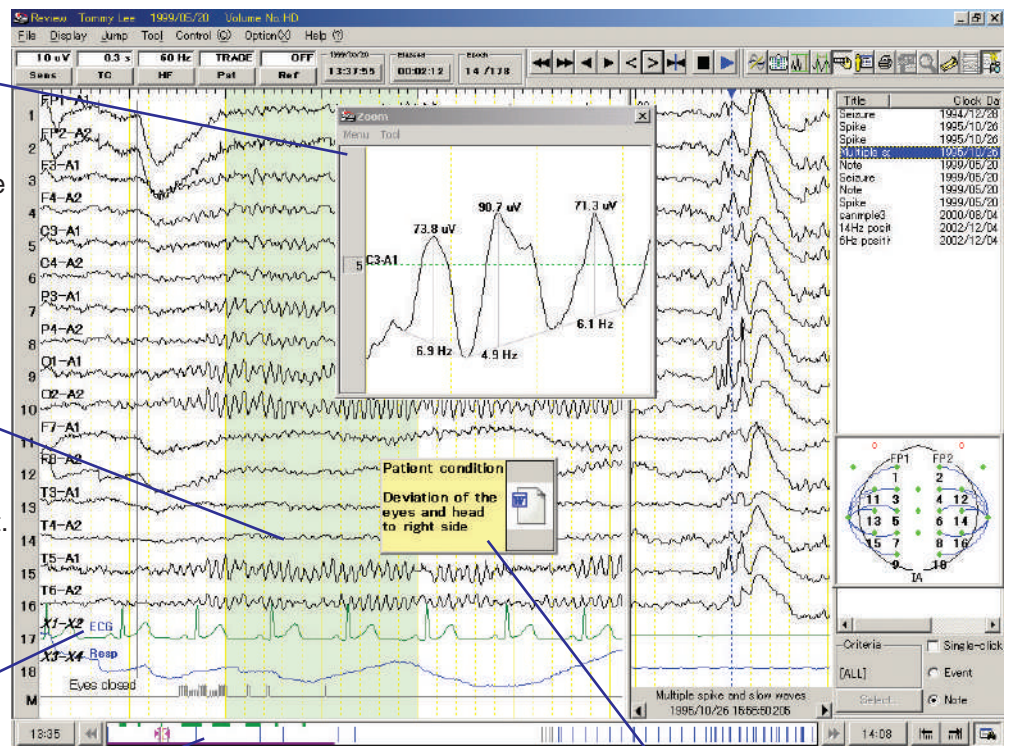
### Trace annotation

### Indication of reviewed or selected period

When you scroll or select the waveforms, color bars corresponding to the scrolled or selected period to edit are shown on the time bar to avoid unnecessary duplicate review or editing. Reviewed periods are shown in purple and selected periods are shown in green.

### Screen comment tags

Up to 100 tags can be attached to an EEG file for later reference or messages to the reviewer. The tags can include Word documents, Excel spreadsheets, images and other files.



## EEG PortaView

### Review EEG files on a Windows PC

- Review EEG data and patient image anywhere without special software
- Re-format and re-filter EEG data on your PC



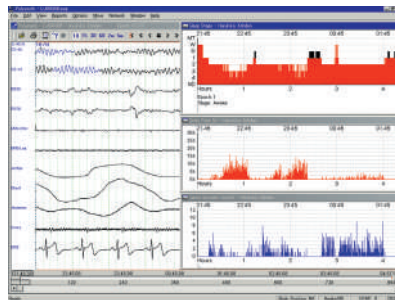
# High expandability with optional

## Sleep analysis software: POLYSMITH Nihon Kohden Station, PS-ONLINE

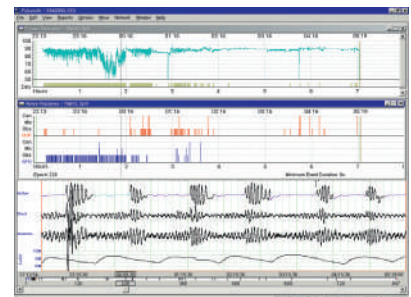
Diagnosis and study of sleep disorders and comprehensive reporting

- Display, store and analyze sleep data from sleep data files
- Reformatting of individual channel filters and sensitivities or montage
- Customize the system to best suit your needs
- Time-link trendgraphs superimposed on waveform data with epoch details

\*Product of Neurotronic, Inc.



Sleep stage, Delta activity and Spindles



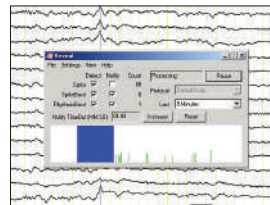
SaO<sub>2</sub>, Apnea and Respiration

## Spike detector software: SpikeDetector, QP-251AK

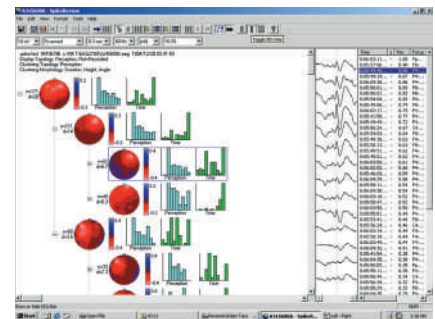
On-line and off-line spike and seizure detection vastly improved with detection accuracy

- Group spikes with hierarchical clustering
- Detailed topographic and morphologic distribution of selected group
- Spatial propagation of a spike over time
- Compare left and right hemisphere discharges with side by side traces
- Audible or visual notification of spike detection

\*Product of Persyst Development Corporation



On-line trend graph of spike and seizure

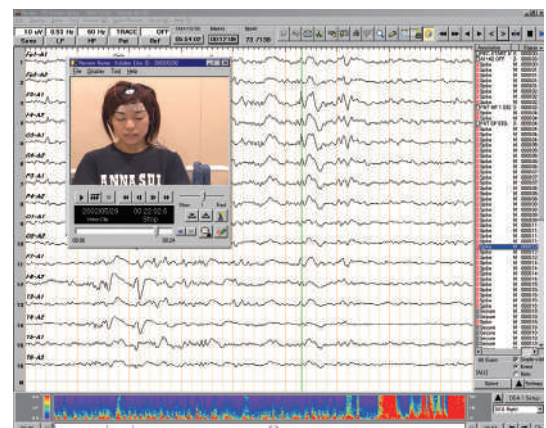


Group spikes with hierarchical clustering

## Digital video software, QP-110AK

Synchronized digital video for EEG systems

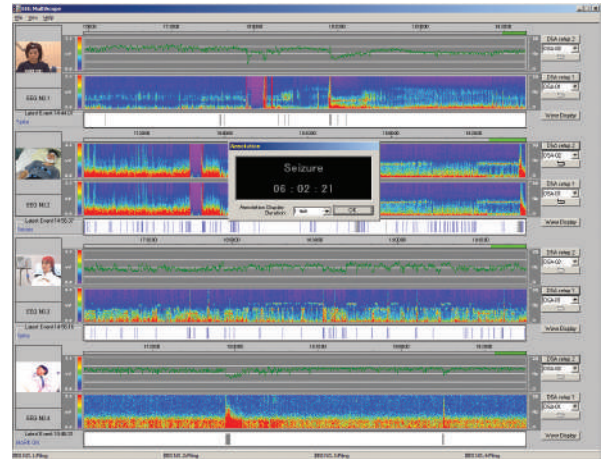
- Patient images synchronized with the EEG waveforms can be recorded.
- The EEG waveforms and patient images can be saved in a hard disk.
- A "Video clip" function and "snapshot" function are available.



## EEG examination support software: QP-150AK

Enjoy EEG as you have never seen it before—with comprehensive analysis software

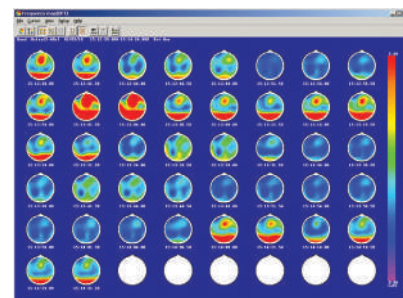
- Seizure detection and review
  - Easy online/offline detection
- Voltage mapping and waveform view
- EEG TrendScope
  - Innovative EEG central review station
    - Up to 32 instruments can be connected to one review station and up to 8 instruments can be displayed in one window.
    - EEG waveforms can be opened by double-clicking a DSA area.
    - A message box annotates when seizure and/or other event is detected. Sound annotation is also available.



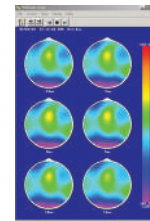
## EEG mapping software: QP-220AK

Realtime and basic EEG mapping software

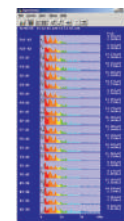
- Real-time and off-line mapping
- Display voltage maps of any time point by moving the cursor. The cursor can also be moved automatically with the cursor animation function.
- Up to eight frequency maps (seven power/voltage maps at seven different frequency bands and one map of all frequency bands).
- Trace and ratio mapping in frequency map program
- Power/Voltage spectra for up to 32 channels of EEG waveform data
- Edge frequency, average frequency, median frequency or peak frequency for each spectrum is indicated with a mark



Frequency mapping



Voltage mapping



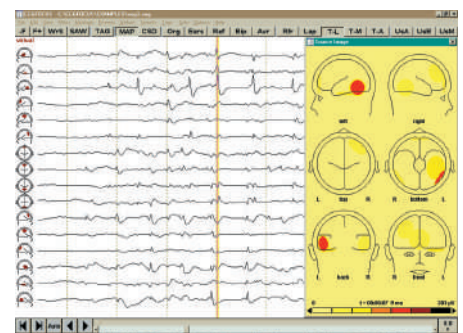
Power/Voltage spectra

## Analysis software: FOCUS, QP-211A

Review, mapping, remontaging, filtering and FFT

- Voltage and current source density mapping
- Automatic rejection of eye blink artifact without modifying the original data
- FFT frequency analysis and frequency and phase mapping
- Time lag and correlation analysis
- Automatic detection and averaging of similar waves
- Source imaging

\*Product of MEGIS Software GmbH



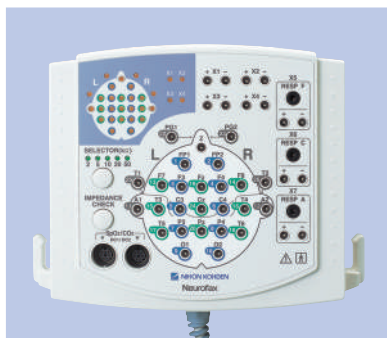
Source image

# Major options and related instruments

For full list of options and consumables, see the Technical Data separately available



Cart, KE-910A (shown with EEG-9100, flash lamp assembly, printer)



Electrode junction box, JE-921A



Mini junction box, JE-922A



SpO<sub>2</sub> adapter, JL-550T2 [Y095A](#)  
Reusable SpO<sub>2</sub> probe [P225F](#)



CO<sub>2</sub> sensor kit, TG-921T3 [P908](#)  
Disposable naso-oral adapter, YG-121T [V922](#), YG-122T [V923](#)



Photo control unit, LS-901AJ/AK



Flash lamp assembly, LS-703A



PSG input box, JE-912AK, includes mini junction box



Shielded EEG disk electrodes, BE-911A (24 pcs/set)  
BE-912A (12 pcs/set)



Carrying case, YE-910A



Carrying case, YE-911A

## Model Suffixes

EEG-9100 has the following suffixes:

J: 110 - 127 V AC operation K: 220 - 240 V AC operation

This brochure may be revised or replaced by Nihon Kohden at any time without notice.



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