Neuropack *S3*

The Epitome of EMG/EP Excellence

We understand all your needs
for routine clinical EMG/EP testing

NIHON KOHDEN

F1   F2   F3   F4   F5

SINGLE STIM

L / R   STIM DURATION

STIM RATE   RESET

INTENSITY

MONITOR STIM/SWEEP ANALYSIS

POWER

F11

/ INDV

SELECT

7 8 9
4 5 6
1 2 3
0 . BS

Fighting Disease with Electronics

NIHON KOHDEN

You deserve better and more...

For decades, Nihon Kohden has been striving to be the one
who understands your routine clinical EMG/EP testing needs best.
Our goals are never stop evolving and deliver you a smarter platform
to get the job done more smoothly, flexibly and efficiently.

A better panel, a smoother workflow

The main unit with a new design helps you to complete your daily routine in a much
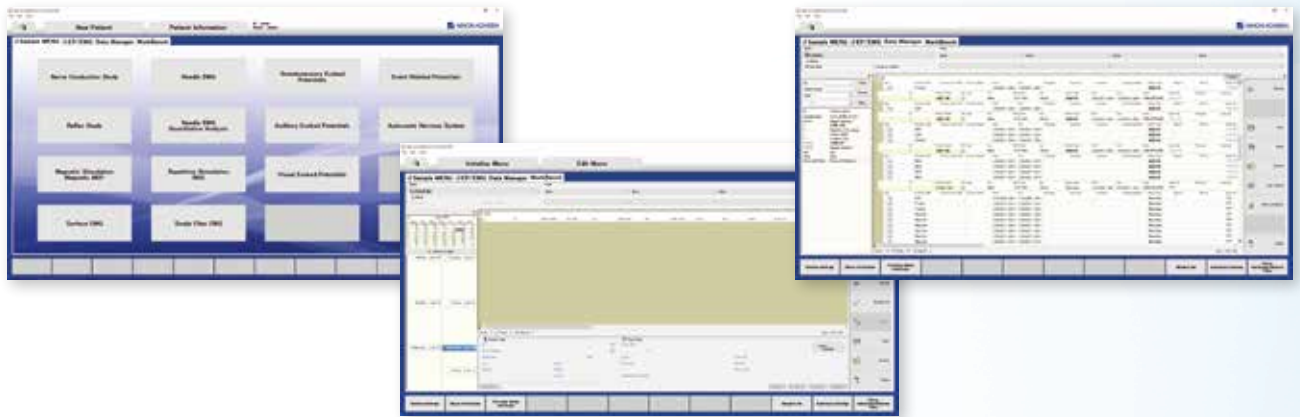smoother way.

A better stimulator, more flexibility

Select either a small stimulator or an angle adjustable one. You can always keep your own
style for performing NCS.

A better platform, more efficiency

Improved examination programs provide all you need to have a more efficient workflow.

Neuro Report

- In addition to a large variety of default templates, fast and easy-to-operate Neuro Report Template Editor enables you to customize your report of diagnostic result with more ease.
- Just click one button for report generation.
- Two formats (PDF and hardcopy review print) formats are available.
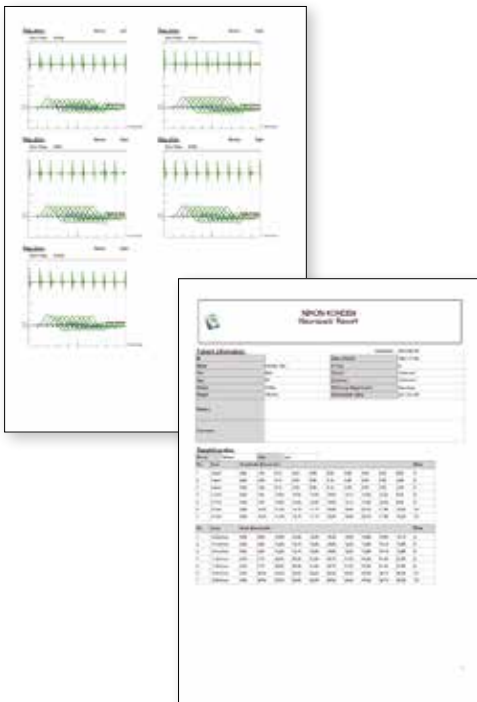
Stress-free Testing

Always looking for a way to struggling with stimulus artifact?
Let iSAF surprise you and get rid of your headaches.

▶ **iSAF** intelligent Stimulus Artifact Filter
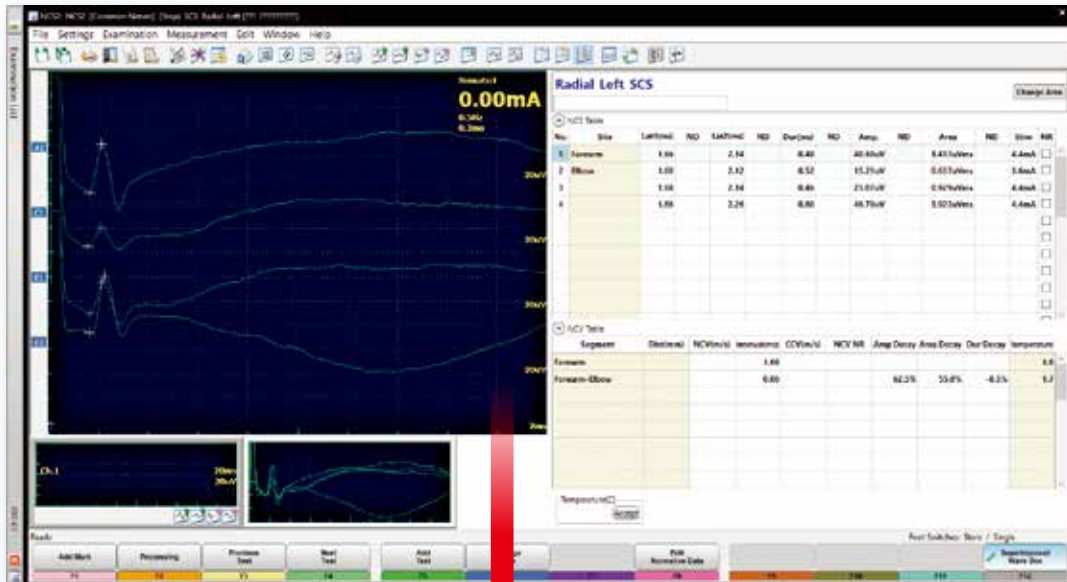
This breakthrough mathematical signal processing technology provides an excellent solution,
with which you won't suffer from electrical stimulus artifacts anymore.

Quick Check

Tired of looking up technical books for reference while testing?
A brand-new NCS examination guide and improved NeuroNavi. will be your perfect assistants.

▶ NCS Examination Guide
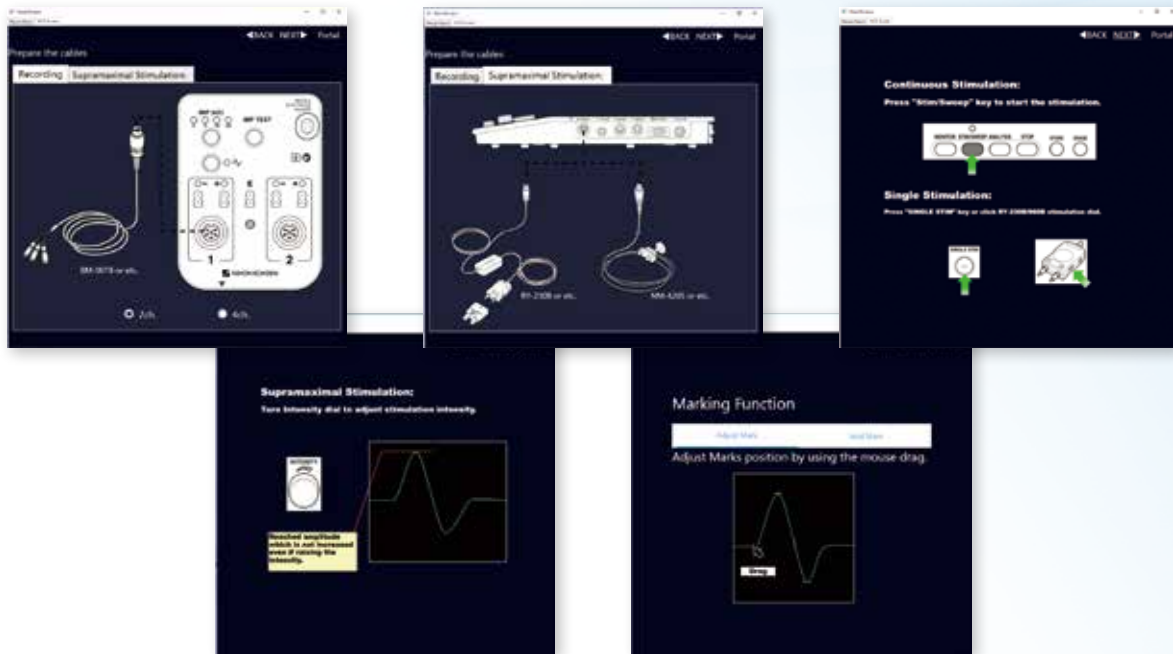
The easy-to-understand NCS examination guide will lead you step by step to perform NCS without any hesitation.

▶ Neuro Navi.
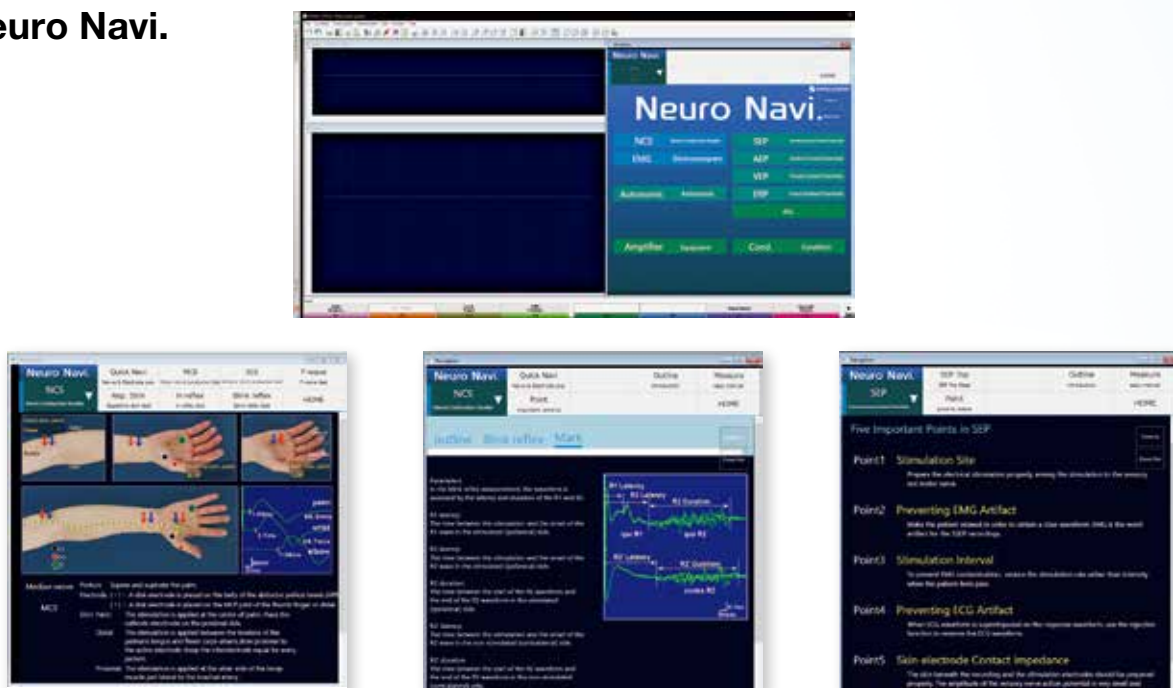
With the improved built-in anatomical instructions including more details, you can now view the pages and get started without moving away from the examination window.

You can either keep the style that you have become used to or choose a new one.
Just select the most comfortable way for both you and your patient.

Nerve Conduction Study
### MCS, SCS, F-wave, Rept.Stim., H-Reflex, Blink Reflex

▶ NCS2

- **Trace fix mode** allows you to flexibly decide the order of stim site and test.
- **Superimposed waveform window** assists you to compare the amplitudes of the waveforms easily and thus you can judge the quality of the stimulation results in real time.
- **Real-time monitoring window** always shows the raw waveform, which enables you to know if noise occurs.
- **Side comparison mode** helps a lot when R & L comparison is necessary, such as in ENoG.
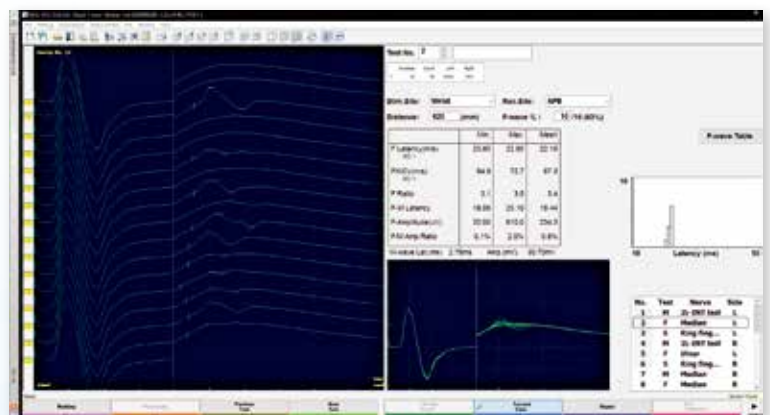- **Normative data** on the same window let you check the result quickly.
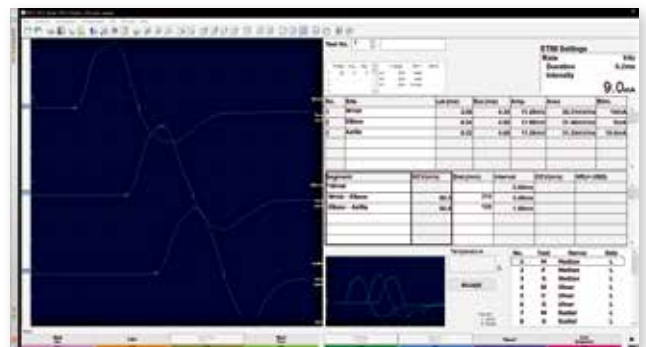
MCS
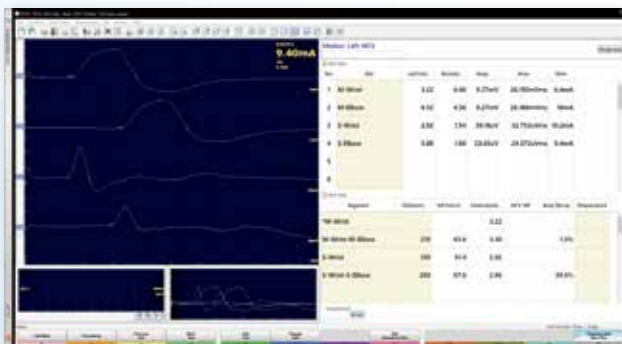
NCS2
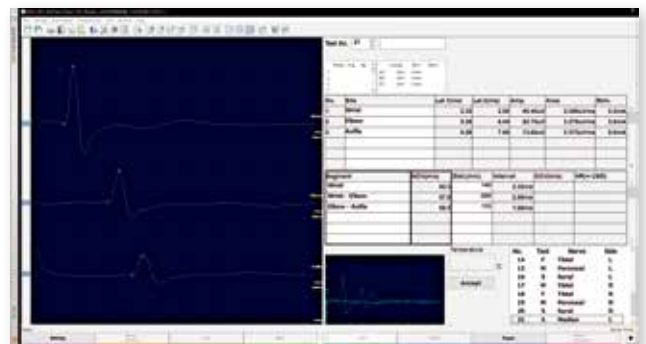
SCS

▶ F-wave

- With dual sensitivity function, proper amplitudes of both M-wave and F-wave display at the same time.
- F-wave latency can be measured more easily with the superimposed waveforms.
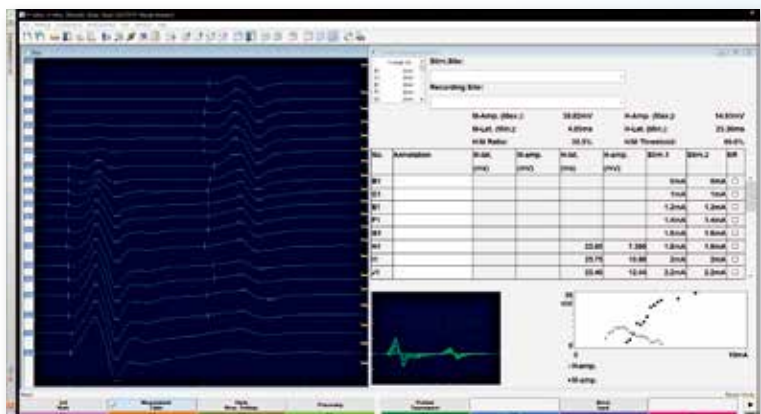
▶ Rept.Stim.

- Up to 12 sequences can be set for automatic testing.
- Everything you need—Raw data, bar graph and table summary—show in the same screen, in this way you can get a full picture of the result simply and quickly.
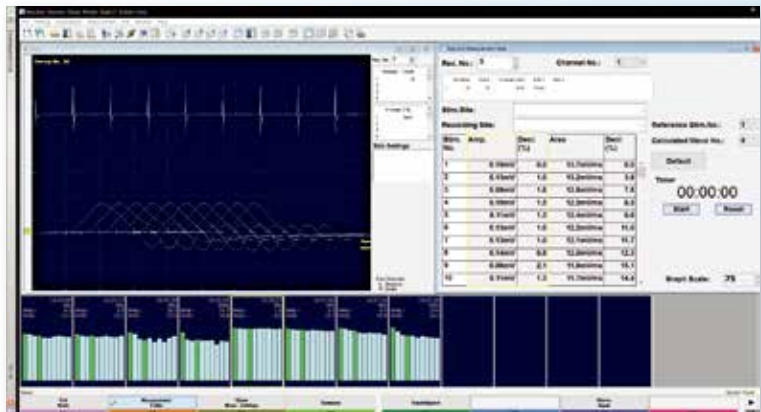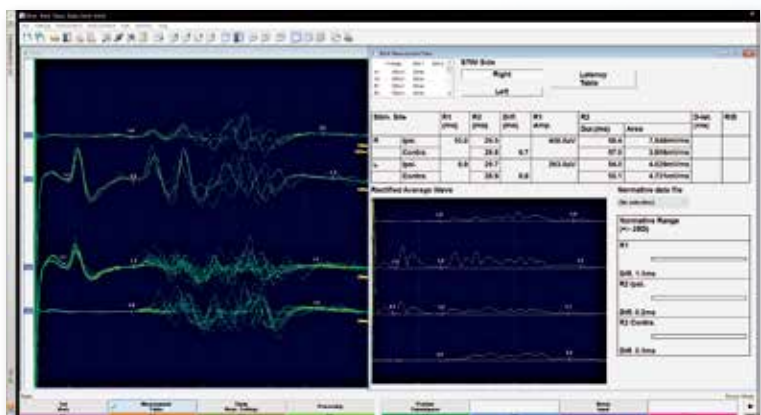

▶ H-Reflex

- With the intensity-amplitude graph and superimposed waveforms, you can check the result without effort.

▶ Blink Reflex

- Stim side separation and auto positioning functions provides a better view of the results.
- With the auto stage input function, every detail in the summary table can be obtained once the mark setting is done.

The examination programs cover a wide range of routine EMG testing from needle EMG to SFEMG to meet your clinical needs.
Programs with clear layouts and improved examination modes save your valuable test time.

Electromyography

Needle EMG, Single Fiber EMG, Quantitative EMG, Macro EMG, Surface EMG

▶ EMG

- With the Playback function, you can easily replay up to 600 seconds of acquired waveforms along with EMG sound right after testing.
- Up to four MUP waveforms for each site can be analyzed automatically in the Manual MUP window.
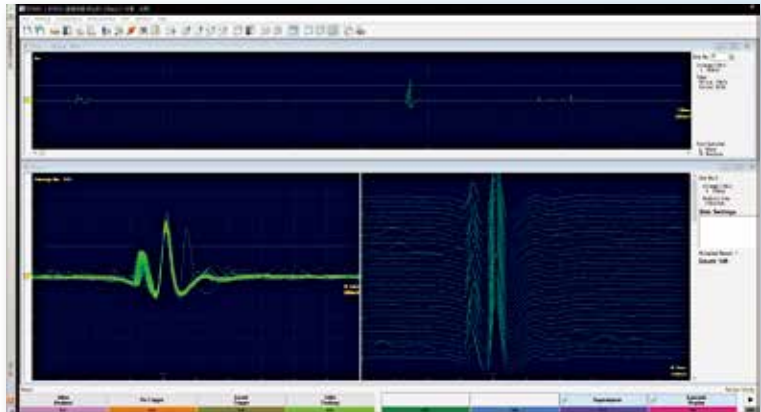

▶ EMG2

1. **Insertion mode**
2. **Spontaneous mode**
3. **MUP mode**
4. **Interference mode**

- The 4 measurement modes are designed to assist you to sequentially perform routine EMG.
- Auto MUP detection & classification, and real-time turns/amp analysis for interference help you to visualize the result more easily.
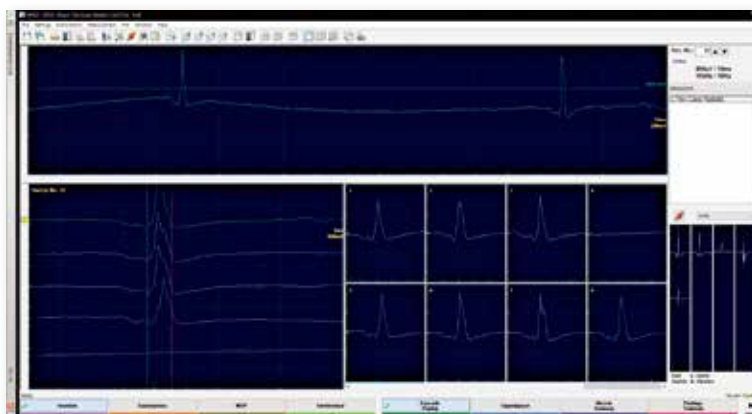
▶ SFEMG

- Jitter analysis can be easily done with the Re-Trigger function and Reject Wave function, which are very helpful for clinical practice.
- Voluntary SFEMG and stimulated SFEMG are available.
- Accurate and reliable jitter results can be automatically analyzed.

▶ **EMG2** Muscle Summary

- By simply clicking the Muscle Summary button, saved waveforms together with measurement results can be displayed in one screen, and an area for EMG findings input is also available, enabling you to complete the summary efficiently and quickly.
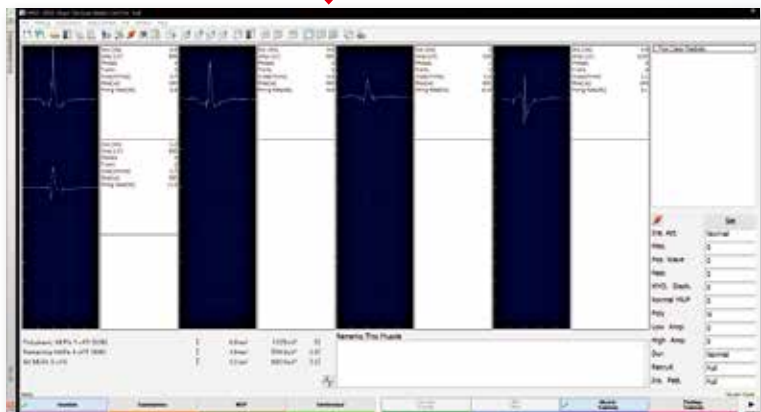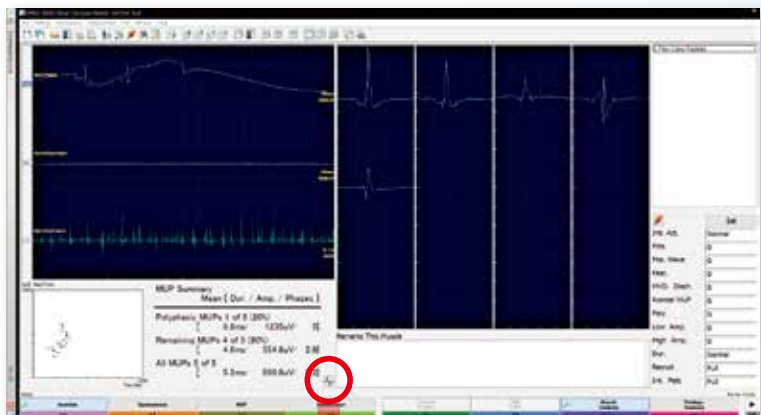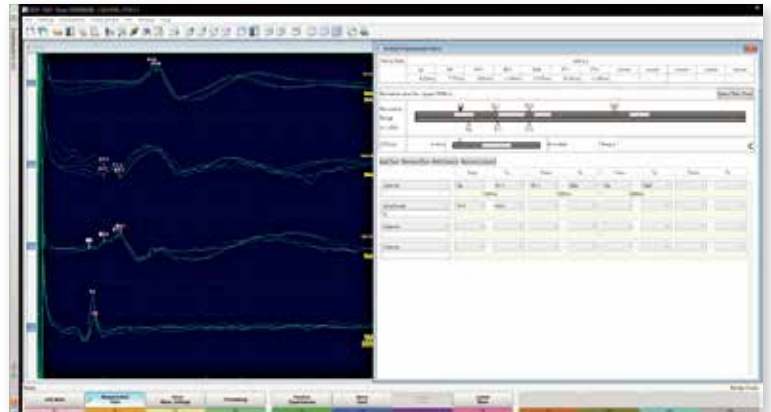
The dedicated programs for EP testings are well designed to offer you the best solutions and outcomes.

Somatosensory Evoked Potential

SSEP, SEP

▶ SSEP

- Side comparison mode allows you to perform left and right side measurements separately in a split display mode, and check the difference or diff. % on the same screen.

Visual Evoked Potential

PR-VEP, LED-VEP, ERG

▶ VEP

- Dedicated LCD monitor with 4 to 128 divisions provides selectable stimulation patterns (full, half, quater visual field) to perform pattern reversal VEP.
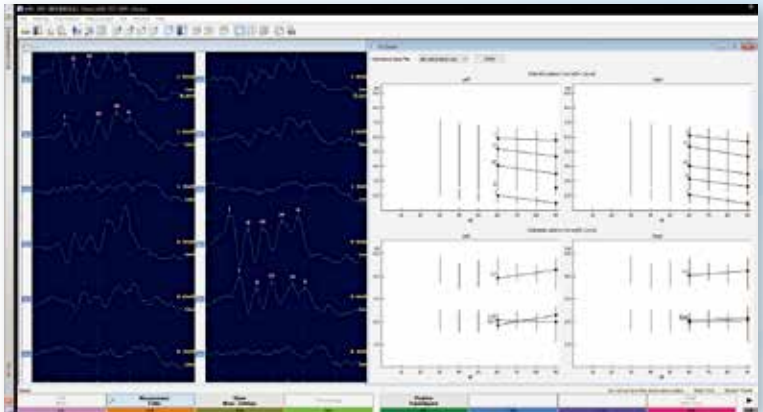
Auditory Evoked Potential

ABR, MLR, SVR, EcochG

▶ ABR

- Up to 26 steps of sequences for automatic ABR testing.
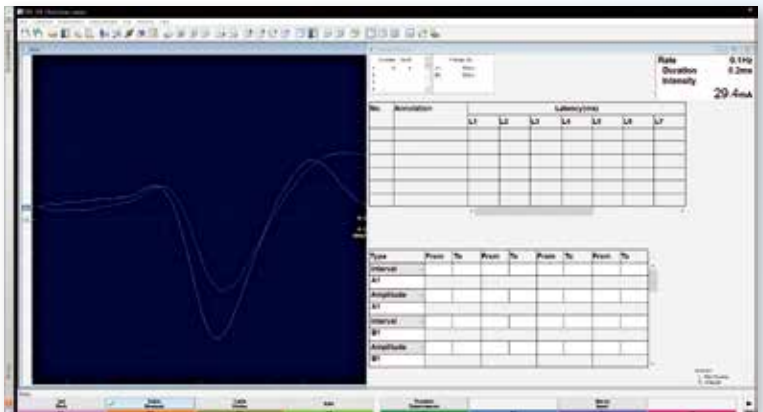- The auto marking function allows time-saving measurements of waveform latency, amplitude and interval.
- The I-L curve gives a visualized view of the relationship between intensity and latency so that you can see the result quickly.

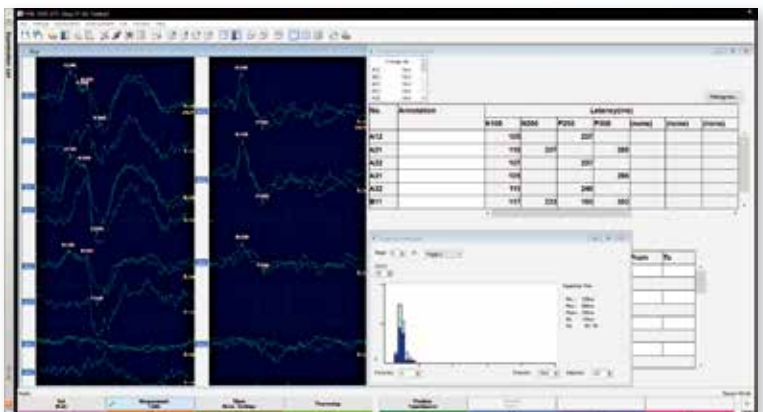# Autonomic Nervous System

SSR, Micro-N, R-R Interval

▶ SSR

Event Related Potentials

P-300, MRCP, CNV

▶ P-300

Composition examples

<table>
<tr><th colspan="2">Desktop system</th></tr>
</table>

Main unit	DC-960B
Electrode junction box, 2 or 4 ch	JB-962B or JB-964B
Control unit, desktop	GG-961BK
Power supply	SC-230BK
Cart	KD-026A
Arm	KH-960A
Holder	DI-961B
Somato control box	RY-960B
LCD display	Local purchase
Printer	Local purchase

<table>
<tr><th colspan="2">Laptop system</th></tr>
</table>

Main unit	DC-960B
Electrode junction box, 2 or 4 ch	JB-962B or JB-964B
Control unit, laptop	GG-962BK
Power supply	SC-900BK
Cart	KD-107E
Arm	KH-960A
Holder	DI-960B
Somato control box	RY-960B
Printer	Local purchase

Specifications

Number of channels	2 or 4
Input impedance	Common mode: >100 MΩ Differential Mode: >200 MΩ
CMRR	Differential Mode: >106 dB Isolation Mode: >112 dB
Noise level	0.6 µVrms
Sampling Resolution	18 bit
Sensitivity	1 to 500 µVrms/div., and 1 to 10 mVrms/div.
Low-cut filter	0.01 Hz to 3 kHz
High-cut filter	10 kHz to 20 kHz
Analysis time base	0.1 ms/div to 1 s /div

Software options

SEP	QL-971BK
AEP	QL-972BK
VEP	QL-973BK
EMG	QL-974BK
NCS	QL-975BK
QEMG	QL-976BK
SFEMG & Macro EMG	QL-977BK
ANS	QL-978BK
ERP	QL-979BK

For a full list of options and consumables, please refer to the technical data sheet separately available.

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