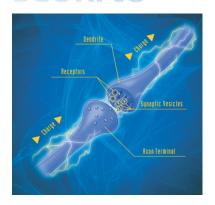


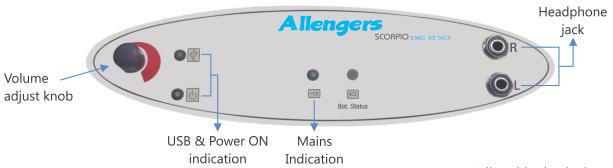
# **SCORPIO**



Find diseases that damage muscle tissue, nerves, or the junctions between nerve and muscle (neuromuscular junctions). These disorders may include a herniated disc, Amyotrophic Lateral Sclerosis (ALS), or Myasthenia Gravis (MG).

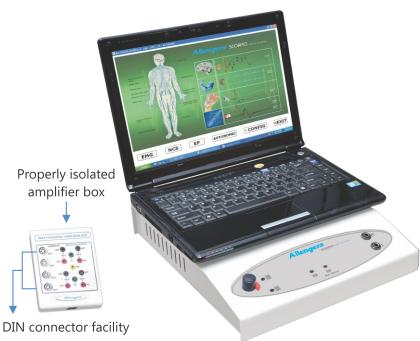
Allengers Scorpio Series of EMG, EP test system are designed using state-of-art technology and more than 30 years experience in design and manufacturing of medical equipment are highlights of Allengers EMG.

Innovation of using computer technology to record the EMG, EP, NCS and Autonomic has brought diagnostic neurology to the edge of the 21st century. Digital processing is providing the technology to physician with greater flexibility in the recording and interpretation of the EMG, EP, NCS and Autonomic.



### SALIENT FEATURES OF SHOCK STIMULATOR

- FND for display current value on shock stimulator.
- Live average on stim handle.



# Current adjustable knob Option for DIN electrode

#### TRULY PORTABLE

- Battery backup of 4 hrs. which provides ease of portability and avoid grounding and EMI effects.
- NCV, EMG, BERA and VEP test on battery backup.

# FEATURES OF EMG, EP, NCV & AUTONOMIC SYSTEM

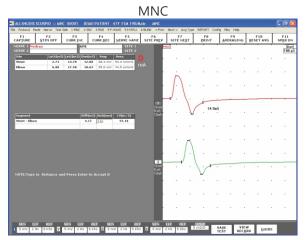
- Large amount of EMG data can be stored, reviewed and replayed with audio.
- Sweep speed and sensitivity can be changed after acquisition.
- Sweep speed can be changed in following steps i.e. 1, 1.5, 2, 3, 5, 7.5, 10, 15, 20, 30, 50, 75, 100, 150, 200, 300, 500, 1000ms/D.
- Screen separator for viewing M and F or H waves side by side, with separate sensitivities.
- Patient isolation for patient safety provided by optically isolating acquisition module from input box.
- User programmable rates for all stimulators.
- Display of current on shock stimulator.
- 14 different check sizes which can be viewed for visual stimulation.
- LED goggles and Flash stimulators.
- User definable maker names. All markers are automatic.
- Individual setting for all nerves.
- Double buffered averaging for easy understanding of EP replication.
- Auto protocol for BERA test where you can define intensities for different traces.
- Tones / Envelopes stimulation for different audio tests such as LLR, MLR, P-300.
- Facility of selecting dB in NHL or SPL.
- Compatible with TDS 39/49 headphones.
- Latency / Intensity graph.
- Simultaneous display 2/4 channel EMG acquisition.
- Easy muscle scoring with pre-defined groups.
- Detailed list of muscles for easy selection.
- Stored EMG can be played on a multimedia speaker or laptop speaker.
- Automatic averaging by the software for all EP's test.
- Interface with USB 2. So easily use as portable machine with laptop.
- Battery backup of 4 hrs. helps to avoid grounding artifacts and ease of portability.
- Work on all Microsoft's Windows platform.
- Online support/online update/print to PDF/Email PDF through software only.
- Optional SpO2, HR and Pleth recording facility.
- Digitally certified software and drivers from Microsoft authorized certifying authority to ensure reliability and security.
- Facility to send EMG data in DICOM format to PACS Server.
- Facility to export data to MATLAB/LAB view or compatible software.
- Facility to define user defined protocols.
- EMG data storage up to 5 minutes.
- Amplitude artifact rejection facility.

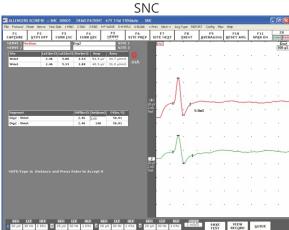
## **SCREEN SHOTS GALLERY**

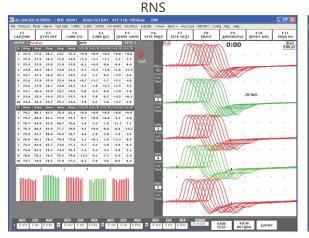


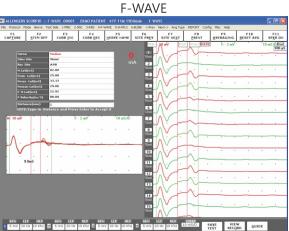
#### **EVOKED POTENTIAL**

- Visual Evoked Potential.
- Auditory Evoked Potential.
- MLR, LLR and P-300.
- Markers can be customized.
- Options for LED goggle and Flash stimulator.
- Guide detailed for showing various electrode placements in all EPs along with expected waveforms.







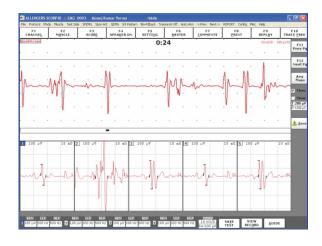


# **NERVE CONDUCTION STUDIES**

- Motor Nerve Conduction.
- Sensory Nerve Conduction.
- Auto latency / Ampltude marking with user definable measurements.
- F-Wave, H-Reflex, Blink Reflex.
- RNS study.
- Customized setting for individual nerve.

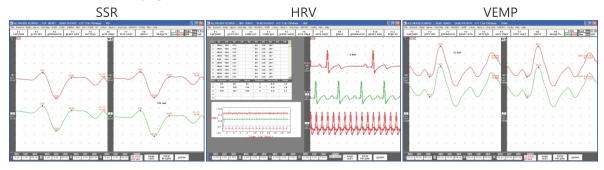
# **ELECTROMYOGRAPHY (EMG)**

- Needle and surface EMG.
- EMG, Spontaneous activity, Interference pattern.
- Potential, Turn / Amplitude analysis can be done on a single screen.
- Manual / Auto MUPs selection for analysis.
- 2/4 channel simultaneous acquisition.



#### **AUTONOMIC**

- Sympathetic Skin Response (SSR).
- Heart Rate Variability (HRV).
- Vestibular Evoked Myogenic Potential (VEMP).



#### **AUDITORY STIMULATOR**

Type Normal, insert and bone conduction headphones

Stimulus Click (Rare, Comp, Alt), Pips

Frequency 250 Hz to 8000 Hz

Intensity 0 - 110 dB nHL or 30 - 140dB SPL with minimum variation of dB (user

selectable)

Presentation Left, right or both ears

Click duration 100µs square wave clicks. Rarefaction, Condensation or alternating polarity

Envelopes Linear, Gausian, Black man, Hanning

White Noise Contra lateral masking from 0dB to 80 dB nHL

Rate User definable

#### **ELECTRICAL STIMULATION**

Duration 0.02, 0.05, 0.10, 0.20, 0.50, 1.0 ms

Repetition Rates 0.5, 1, 3, 5, 7, 10, 15, 20, 25, 30 PPS standard or any user definable value

#### **ELECTRICAL STIMULATOR**

Type Handheld, constant current electrical stimulator with stimulus intensity

trigger on handle. Start / Stop and Capture switches are provided on stim

handle. Compatible with adult and pediatrics tests

FND FND for display current value on shock stimulator Handle
Isolation Electrically isolated stimulator with independent controls

0 - 100 mA with adjustable duration, intensity and repetitive rate

#### VISUAL STIMULATOR

VEP Monitor (optional) VEP monitor for black and white or color with user programmable colors,

pattern reversal check board stimulation, vertical bars, horizontal bars. Features center fixation target, independent quadrant and half field

stimulation

Square Sizes 1, 2, 3, 4, 5, 7, 8, 9, 11, 13, 16, 21, 32, 64 of full screen

Flash Mode Available
Rate User definable

LED Goggles Flash / Pattern stimulus selectable for right, left or both eyes

LED Flash Stimulator Optional

#### **TECHNICAL SPECIFICATION**

Channels 2,4

Sensitivity 0.1, 0.2, 0.5, 1, 2, 5, 10, 20, 50, 100, 200, 500µV/div; 1, 2, 5, 10, 20mV/div. LPF 2 pole (12 db/octave) filter. Selectable at 100, 200, 500 Hz, 1, 2, 3, 5, 10 KHz

HPF Selectable at 0.2, 2, 20, 30, 100, 200, 500 Hz

Sweep Speeds (NCS & EP) 1 to 1000ms /div in 19 steps (1, 1.5, 2, 3, 5, 7.5, 10, 15, 20, 30, 50, 75, 100, 150, 200, 300,

500, 750, 1000)

Sweep Speeds (EMG) 2 to 500ms/div in 13 steps (2, 4, 6, 10, 20, 30, 50, 75, 100, 150, 200, 300, 500)

CMRR >100dB

Input Impedance > 100M Ohms (common mode) Noise  $< 0.5 \mu V \text{ rms } (1\text{Hz to } 10\text{kHz})$ 

A/D Convertor / Averager 16 bit analog-digital conversion / Number of averages per channel up to 9999

#### STANDARD ACCESSORIES

Surface Disk Electrodes 05 Nos. MNC Electrode 02 Nos. Sensory Ring Electrodes 02 Nos. **EMG Needle Connector** 01 No. **EMG Needles** 03 Nos. **Electrical Stimulator** 01 No. **BAR Electrode** 01 No. BERA Head Phone 01 No. Ground Wire 01 No. Ground Electrode (disk / wrap) 01 No. each Conductive Paste & Gel 01 No. Measuring Tape 01 No. **CPU Interface Cables** 02 Nos. Sticking Tape Roll 01 No. Software Backup on CD 01 No. Battery Charger (with portable) 01 No.

Mobile Cart : Heavy duty wheel, locking facility with flexible arm stand

PC System with Printer : Optional

#### **ALLENGERS OTHER PRODUCTS**

■ CARDIOLOGY: - Tread Mill Test (TMT) - Electrocardiogram (ECG 3, 6 & 12 CH) - Cathlab Fixed/Mobile

- Multi Para Monitor (MPM)

■ **NEUROLOGY**: - Electroencephalograph (EEG) - Polysomnograph (PSG)

■ UROLOGY : - Holmium Laser System - Lithotripter (E.S.W.L.)
■ RADIOLOGY ■ ORTHO & GASTRO ■ HEALTHCARE IT SOLUTIONS

# MANUFACTURED & MARKETED DOMESTICALLY BY:

# ALLENGERS GLOBAL HEALTHCARE (P) LTD.

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