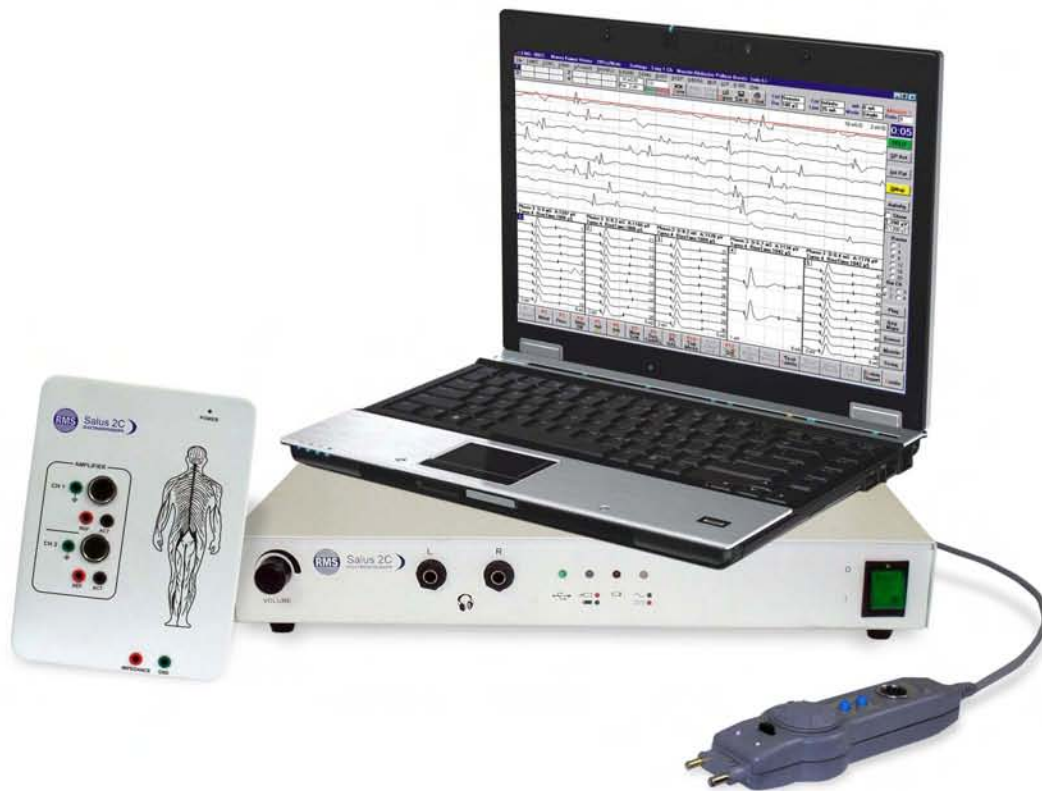




Salus  
ELECTROMYOGRAPH



## Portable EMG.NCV.EP with 2 and 4 channel

- Compact, light weight operational panel
- Data communication through single USB
- Battery operated machine
- On-Screen Impedance check
- In-built speaker for EMG test
- Suitable for use in bedside recording
- Reports can be e-mailed or transferred across a network



**RMS Salus Series** is clinically customized for quick and flexible operation. Machine can be totally customized for various tests, nerves, muscles and sites with complete choice of amplifier, filter & sweep settings and also analytical settings like markers, their normative values for auto searching on one time basis.

Hardware is fully controlled by Software allowing complete settings to be implemented for each test automatically without bothering the user. This makes the machine fastest of its kind without compromising the flexibility to perform large variety of tests with extremely detailed customization.

## Portability Solution



PDF



MS WORD



MS EXCEL



E-MAIL



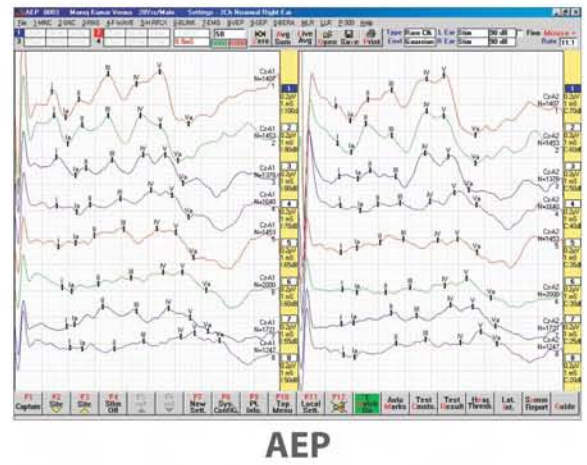
AUTO-RUN CD/DVD



NETWORK STORAGE

## EPs (Evoked Potentials)

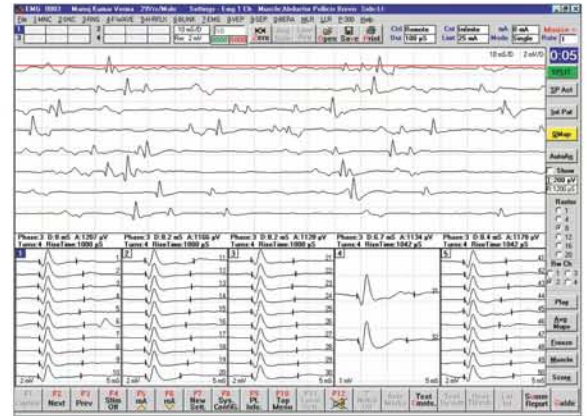
- Up to 16 waves can be recorded
- Left/Right sides can be compared on single screen
- Double buffered (odd/even) averaging technique. Both odd/even or normalized average can be viewed
- User definable marks which gets auto marked on the wave
- SEP, VEP, BERA, MLR, LLR, P-300
- Auto Protocol with user defined intensities is provided for fast Hearing Threshold measurements along with Latency-Intensity graph
- Guide detailed for showing various electrode placements in all EPs along with expected waveforms



AEP

## EMG (Electromyography)

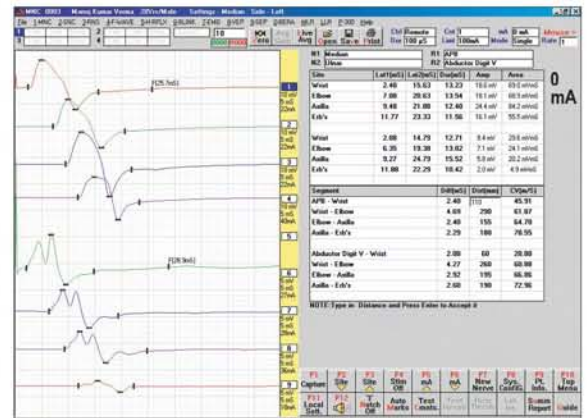
- Two / Four channel acquisition
- Large amount of data storage which can be replayed with audio
- Easy to choose muscle from a well organized list for testing and scoring. Scoring options are user definable
- Continuous/Rasterized display.
- Surface EMG, SP Activity, Interference Pattern, Triggered EMG, Single Motor Unit Potential, Turn/Amplitude analysis can be done on a single screen
- Advanced quantitative EMG for classifying MUPs into different bins depending upon morphology
- Manual/ Auto MUPs selection for analysis
- Transfer data in MS-EXCEL, TXT OR CSV file (optional)
- Guide for commonly used muscles describing its location and needle insertion positions



EMG

## NCS (Nerve Conduction Studies)

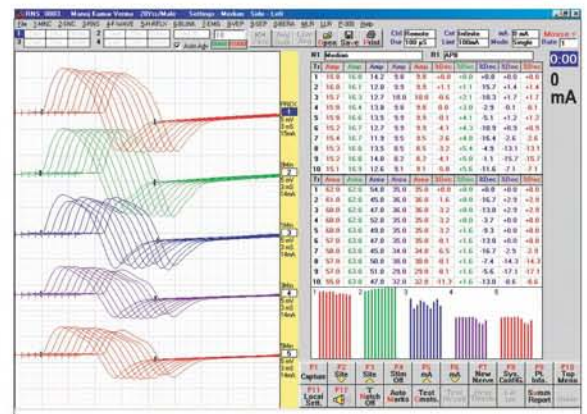
- Auto Latency/Amplitude marking with user definable measurements
- Separate test customization for each Nerve
- More than one nerve can be tested on a single screen
- Individual sweep and sensitivity for each trace which is adjustable even after acquisition
- Direct dragging of markers and traces with mouse
- Motor and sensory tests can be done on the same screen. F latencies can be marked while doing MNC test its self
- Multiple sets for recording RNS/Decrement waves
- Definable number of traces in all tests
- Split Screen for viewing Ipsi and Contra recordings in Blink Reflex test
- Built in wizard for help on electrode placements and stimulus sites for various nerves
- Fully isolated shock stimulator and amplifiers for patient safety



NCS

## Optional Tests

- **SSR:** (Sympathetic Skin Response)
- **VEMP:** (Vestibular Evoked Myogenic Potential)
- **RR (HRV):** (RR Interval or Heart Rate Variability)



RNS

# Salus - Technical Specifications

## Models

RMS Salus 2C	: 2 channels
RMS Salus 4C	: 4 channels

## Technical Specifications

Channels	: 2 or 4
Sensitivity	: 0.1, 0.2, 0.5, 1, 2, 5, 10, 20, 50, 100, 200, 500 $\mu$ V/div; 1, 2, 5, 10, 20 mV/div
Highcut	: 2 pole (12 dB/octave) filter. 100, 200, 500 Hz; 1, 2, 3, 5, 10 kHz
Lowcut	: 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 500 ms/div in 13 steps (2, 4, 6, 10, 20, 30, 50, 75, 100, 150, 200, 300, 500)
C M R R	: > 100 dB
Input Impedance	: > 100 M Ohms (common mode)
Noise	: < 0.5 $\mu$ V rms (1 Hz to 10 kHz)
LED Indicators	: Battery status, AC /DC, data transfer

## A/D Convertor

16 bit analog-digital conversion

## Averager

Number of averages per channel upto 9999

## Electrical Stimulator

Type	: Hand held, constant current electrical stimulator with stimulus intensity dial and stimulus trigger on handle. Save and Start/Stop switches are provided on Stimhandle
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
Isolation	: Electrically isolated stimulator with independent controls
Electrical range	: 0-100 mA with adjustable duration, intensity and repetitive rate

## Auditory Stimulator

Type	: Headphone
Stimulus	: Click(Rare, Comp., Alt), Pips
Frequency	: 0.5 Hz to 8000 Hz
Intensity	: 0-110 dB nHL or 30-140 dB SPL
Presentation	: Left, right or both ears
Click duration	: 100 $\mu$ s square wave clicks. Rarefaction, condensation or alternating polarity
Envelopes	: Linear, Gaussian, Black man, Hanning
White Noise	: Contra lateral masking from 0 dB to 80 dB nHL
Rate	: User definable

## Visual Stimulator (optional)

VIDEO MONITOR	: monochrome 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	: 2, 3, 4, 5, 7, 8, 9, 11, 13, 16, 21, 32, 64
Flash mode	: Available
Rate	: User definable

## LED GOGGLES

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

## PHOTIC FLASH STIMULATOR (optional)

## KEYPAD (optional)

## HIGH QUALITY HEADPHONE (optional)

## Power Supply

Power supply :  $\text{---}$  19V DC , 3.4A through Adaptor

## EMG Cart\*

Two tier, heavy duty cart made of pre-laminated 18 mm thick board with

Dimensions : 745 (H) x 765 (W) x 465 (D) in mm

- Castors having locking arrangement
- One pull out shelf for computer keyboard
- One pull out shelf for accessories etc
- Bottom shelves for printer, PC tower
- Mounting bracket for flexible arm EMG stand

\*Optional

## Minimum PC/laptop Configuration

OS: Windows XP Pro/Windows7 Professional 32bit, Processor: Core2Duo or higher, RAM: 2GB or higher, 40 GB harddisk or higher, CD/DVD Optical Drive, Screen Resolution 1024x768 or higher

## Start Up Kit

EMG/NCV Disc Electrodes, Sensory Ring Electrodes, EMG Needle Electrodes, Stimulating Electrodes, Ground Electrode, Bar Electrode, EP Electrode, Jumper Cable, Conductive Gel & EP Paste, Measuring Tape & Marker

## Remote Service Program

Online technical support is available from RMS Head office. Customer has to provide Internet connection.

Since R&D is a continuous process, to make changes in product features, specifications, aesthetics and/or to discontinue the same at any time without notice or obligation



Certified ISO 9001:2015, EN ISO 13485:2016 company

Recorders & Medicare Systems (P) Ltd.

H.O. & Works: 196, Industrial Area, Phase 1, Panchkula - 134113 Haryana, INDIA

Ph.: +91-172-2564196, 2565196, Fax: +91-172-2566196, T: 1800-1200-767

www.rmsindia.com, sales@rmsindia.com

Regd. Office: 181/5, Industrial Area, Phase 1, Chandigarh-160002, INDIA

