# Trolley EMG/EP System

**Product Name:** Trolley EMG/EP System        **Model No.:** NTS-2000-C34        **Channels: 4**

## 1. Features and Advantages:

(1) The amplifier and current stimulation are integrated into the main unit of EMG/EP system and makes the whole system compact and light-weight. Handy design for easy to carry;

Connected Amplifier to PC by USB Cable

(2) Digital isolation shield away interference from power line and environment, make it easy to collect data;
(3) The interfaces of NEW EMGEP System are few and simple, it is easy for operation and installation. And it has flexible configuration for choice, for example, customer can choose to buy A&V Stimulator for EP examination;
(4) It has USB interface to connect computer, EMG/EP program can work with Win 7 System and work with computer in different display size and resolution.

## 2. Specification for EMGEP System:

## Amplifier:

**Channels:** 4;
**Sensitivity:** 0.05μV/div -20 mV/div,
**Amplitude-frequency characteristic:** 1Hz-5kHz,
**Noise:** <0.4μV (VP-P RMS)
**Impedance:** >1000MΩ
**CMRR:** >110dB
**Gain Amplifier:** 50 times ~ 50 million times
**Max higher filters frequency:** 50Hz
**Min Lower filters frequency:** 0.1Hz
**A/D conversion rate:** 24Bit
**Sample Rate:** 200 KHz
**Stimulus frequency:** 0.1 - 50 Hz
**Analysis time:** 1 - 1000ms
**Splice time:** 1-5000 times

## Current Stimulator (Included in the Amplifier)

**Current intensity output range:** 0 ~ 100mA, error < ± 10%
**Stimulus modes:** single-current stimulator, dual-current stimulator
**Stimulus frequency:** 0.1 Hz ~ 100Hz, error < ± 10%
**Stimulus width:** 50-1000μs
**Pulse duration error:** 0.05ms, 0.1ms, 0.5ms, 1ms, Error < ± 10%
**Pulse mode:** single pulse, double pulse, three pulses.

## A/V Stimulator (optional)

**(1) Sound (Configured with headphone)**
Stimulus intensity: 30-120 dB
Stimulus frequency: 0.1-20H
Stimulation method: rare wave, dense wave, alternative wave

**(2) Pictures (Configured with Pattern reversal stimulator)**
a) Pattern mode: checkerboard, vertical grid, bar grid
b) Image Size: 64*32, 32*24, 16*12, 8*6, 4*4.
c) Vision: full vision, half-field (left), 1 / 4 view (I, II, III, IV quadrant)
d) Stimulation frequency: 1 ~ 20 times / sec
e) Free to edit, set the pattern or color pattern.

**(3) Flash (Configured with goggles)**
Stimulus frequency: 0.1 ~ 20Hz adjustable

## 3. Examination Protocols:

**Electromyography (EMG):**
Motor Unit Potential (MUP)
Interference phase (IP)
Scanning EMG (QEMG)

**Evoked potential (EP):**
Somatosensory Evoked Potential (SEP):
USEP; LESEP; TSEP; SCEP
**Acoustic evoked potential (AEP)**
BAEP, MAEP, LAEP, EoochG, 40HZ
**Visual evoked potential (VEP)**
PRVEP, FVEP, ERG, EOG

**Nerve Conductive Studies (NCV)**
Motor NCV (MCV)
Sensory NCV (SCV)
Short segment conduction （SSCT)
Repetitive nerve stimulation (RNS)
F-wave;
H-reflex;
Blink Reflex (BR)
Sympathetic Skin Response (SSR)

## 4. Software:

★ Can show the Nerve / Muscle color map in the software;
★ Can edit the nerve points/ muscle points freely in the software;
★ Have nerve detection guide including the direction of the record point and the normal waveform;
★ Have the function of waveform caching and can save more waveforms to one stimulation point;
★ Scan speed and the sensitivity can be adjusted with all waveforms Synchronously;
★ Can collect the signals of 4 channels Synchronously.

## 5. Other Configurations

**Computer (Desktop)**
Main requirements:
a) CPU with PII or above, memory is 128MB above and hard disk space is 1G or more;
b) USB 2.0 interface;
c) 17" LCD display supporting $1280 \times 1024$ resolution in 16-bit color display mode, with Windows XP as operating system;
d) Has 3C safety certification mark;
e) Microsoft Office 2003 installed;
f) East Asia language installed.
Dimension& Weight: 510*445*207(mm); 6.05kg

**Printer**
HP L1908w monitor
HP LaserJet 1018 printer
Min system requirements:
Win 2000(XP, Server 2003 32/64 bit)
Intel 2, celeron
128MB RAM
425MB HD
Microsoft internet explorer 5.01 SP2
CD-ROM
USB
Dimension& Weight: 349*195*344(mm); 6.15kg;

**Louder Speaker**
Input Sensitivity: 500mV
Frequency: 140Hz-20 kHz
Voltage: 200V/50Hz
Weight: 0.95Kg

**Video Monitor (For VEP Test)**
17" LCD display
Dimension& Weight: 1 carton;438*162*422（mm);4.7kg;

## 6. Quality system

ISO13485: 2003; CE (93/42/EMG)