

# INSTRUCTION MANUAL

Advanced TENS Therapy Unit: Digital Model - dyno pulse

Read These instruction carefully before using your <u>Computerized</u>
Tens Therapy and keep it carefully for future reference.

### Sun Medisys Inc.

An ISO 9001: 2008 Certified Company

An ISO 13485: 2003 Certified Products

347, Pocket-9, Sector-21, ROHINI New Delhi-110086 (INDIA) Ph.: 011-65712836, 9818045639 Email: sunmedisys@gmail.com

### INTRODUCTION

Congratulations for purchasing our next generation Computerized TENS Therapy Unit, designed to suit almost every clinical application to provides effective management for most of the musculo-skeletal painful / inflammatory conditions including degenerative pathologies.



The unit comprises of digital pulses generator with versatile parameter settings suitable for almost every clinical applications: its integrated digital cut-off timer adds to precision and convenience of treatments. This unit is suitable for both stationary clinical and mobile purposes. The unit comes with all necessary accessories for therapeutic application. Its user-friendly features are so set that they offer best of the treatment parameters in its class. The unit comes with our traditional assurance of quality and safety standards.

## SALIENT FEATURES OF THE UNIT

- Four independent output channels with indicator
- 0-80 mA pulse Amplitude on each channel
- 60 Minuts digital timer with start/pause key
- LED display for pulse mode & pulse frequency
- In use indicator
- Audio buzzer at end of treatment & for safety output control
- Light weight for carrying purpose

### STANDARD ACCESSORIES

•	Rubber electrodes (Round)	-	U8 Nos.
•	Electrode's Lead		04 Nos.
•	Velcro Fixation straps	-	02 set
•	Mains Lead	-	01 No.
	Heer's Manual		01 No.

01 No. Extra fuse

(available with in the AC Socket)

User's Manual

# CONTROLS & DISPLAY



The unit comes with user friendly features that ensure precised parameters setting and maximum therapeutic benefits: the control panel of the unit is equipped with:

Mains Spoker - On back panel of the Unit. It connects the unit to mains supply.

Mains switch

On back panel of the Unit. Makes and breaks mains connection to the unit. This switch also functions as circuit breaker in case of overload.

Mode Selection - Sets the output in CONT., BURST, PWM-C, PWM-L, SURGE & SWEEP

Digital Display

Intensity Control - It raises the output from nil to maximum intensity i.e. 0-30 mAmp.

Timer KFYS - Treatment time to Set Automatic shut-off power after the set time between 0-60 minutes.

Audio Buzzer - Alarms completion of treatment time.

- Indicates Modes/ Parameters of output and treatment time lefit.

## Timer: 60 Minutus Countdown timer

Treatment time can be select from 1 min. minimum upto 60 min. max. by using key

Key by using this key treatment time can be increase from 00 min. to 60 min.

Key by using this key treatment time can be decrease upto 1 min. minimum

#### Start/Pause Key

After selection of treatment time, user can start therapy by pressing this key In use indicator will start blinking. Now unit is in working mode.

By Pressing this key again therapy will be paused. Treatment can be start again with remaining time by using this key.

Treatment Time can not be select while unit is in working mode.

#### Intensity

For independent isolated output channel available with indicator and its intensity control.

#### Frequency

Six frequency option available i.e. 2hz, 20hz, 40hz, 80hz, 120hz and 150hz

#### Pulse Width

Pulse width - 150 us (except PWM mode)

#### Pulse Mode

Six prograam mode available i.e. CONT., Burst, PWM-C, PWM-I, SURGE and SWEEP.

## INDICATIONS

Indications for low frequency stimulator include the following:

- Arthritic Pain
- Neurogenic Pain
- Degenerative Joints
- Atrophy
- Denervation
- Edema
- Paralysis

- SDC and other Testing
- Sciatica
- Muscle stimulation
- Increased blood flow
- Reduction of edema
- Healing and repair
- Placebo

## CONTRAINDICATIONS

- Patients who do not comprehend the physiotherapist's instructions or are unable to cooperate should not be treated.
- Patients who are taking anticoagulation therapy or have a history of pulmonary embolism or deep vein thrombosis should not be treated with the vacuum electrode applications.
- Similarly, Patients whose skin may be easily damaged or bruised or ischemic / anesthetic.
- Applications over:
  - The trunk or pelvis during pregnancy
  - Active or suspected malignancy
  - The eyes
  - The anterior aspect of the neck
  - The carotid sinuses (stimulation in this area may cause a drop in blood pressure)
  - Patients with pacemakers
  - Dermatological conditions e.g. dermatitis, broken skin
  - Danger of haemorrhage or current tissue bleeding (e.g. recent soft tissue injury)
  - Avoid active epiphyseal regions in children

### **PRECAUTIONS**

#### Extra care must be in case

- The Unit must grounded during application.
- Do not use this unit near to other high frequency/electromagnetic device.
- If there is abnormal skin sensation, electrodes should be positioned in a site other than this area to ensure effective stimulation
- Patients who have abnormal circulation
  - For patients who have febrile conditions, the outcome of the first treatment should be monitored.
- Patients who have epilespsy, advanced cardiovascular conditions or cardiac arrhythmias should be treated at the discreation of the physiotherapist in consultation with the appropriate medical practitioner.
- Only the supplied / recommended accessory must be used with unit.
- Do not apply this unit in conditions of pregnancy.
- Keep the electrodes separate during the treatment.

## METHOD OF APPLICATION

- 1. Position the unit in a safe and convenient manner.
- 2. Fix the suitable electrode on to the treatment area.
- 3. Connect the mains Cord to source and turn it 'ON'.
- 4. Select the output pulse mode.
- 5. Select the frequency.
- Select Treatment time by pressing +/- keys.
- 7. Press start to commence the treatment.
- 8. Gradually increase the intensity to the prescribed / desired level.
- After the completion of set treatment time, the unit will automatically put the intensity OFF along with a audio buzzer.
- 10. Put the intensity knob to the ZERO.
- 11. Switch the mains supply OFF,
- 12. Remove the electrodes and save them safety.

In case the treatment needs to be terminated before the prescribed time press 'stop' button.

### REPLACEMENT OF FUSE

#### Remove the mains cord:

There is one mains fuse and one extra fuse in the within the mains fuse socked, the replace the mains fuse peel out the fuse socket with a finger nail and replace the fuse with the extra fuse push the fuse back into the socked until you hear a click.

### SPECIFICATIONS OF THE UNIT

Power Source : 90 to 240 v AC 50/60Hz

SMPS supply

Fuse : 1 AMP

Channel : Four independent output

Wave Form : Biphasic Rectangulor Balanced

wave

Pulse Frequency : 2Hz, 20Hz, 40Hz, 80Hz, 120Hz,

150Hz

Pulse Mode : Cont. (Continuous), Burst, PWM-C

(Pulse width Modulation-

continuous), PWM-I (Pulse width

Modulation-Intermittint), Surge,

Sweep

Pulse Amplitude : 0 - 80 mA/Channel

Pulse width : 150 us (except PWM-C & PWM-I

Mode)

Timer : 0 - 60 min.

Dimensions : 230x240x75 (LXBXH)(MM)

Weight : Kg./unit

# WARRANTEE CERTIFICATE

Customer Name :			
Address:			
Equipment Name :			
Serial No.:			
Warranty From :	То		

- \* The Instrument is warrantee by the manufacturer for one year from the date of purchase and during this period, the defective parts shall be replaced or repaired, free of charges, If it is due to faulty material or workmenship, subject to the following Terms and Conditions.
- \*The Instrument should be used properly in accordance with the instructions as given in the instruction manual.
- \* The warranty does not cover the Instrument attended by others excepting our authorised service centre / dealer.
- \*Replacement of parts made of Rubber Electrodes, VACCUME TUBES 813 & 833 A and Box are not covered by this Warranty.
- \*The cost incurred bringing the machine to our dealers premises or service centre and back are to borne by the customer.
- \*The Warranty does not cover the Instrument operated outside the range of stipulated Electric Supply i.e. below 198 volts and above 242 Volts.
- \*The decision of the manufacturer is final in all cases of warranty claims.

HERE CERTIFIED

Your's Truly For Sun Medisys Inc.