

*Western Surgical*

# Four Channel Major Tens

## USER MANUAL

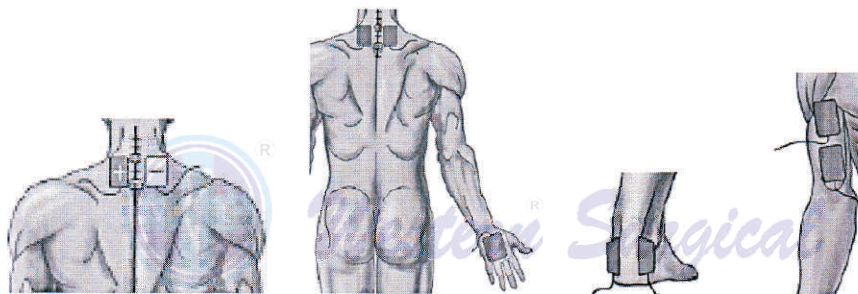
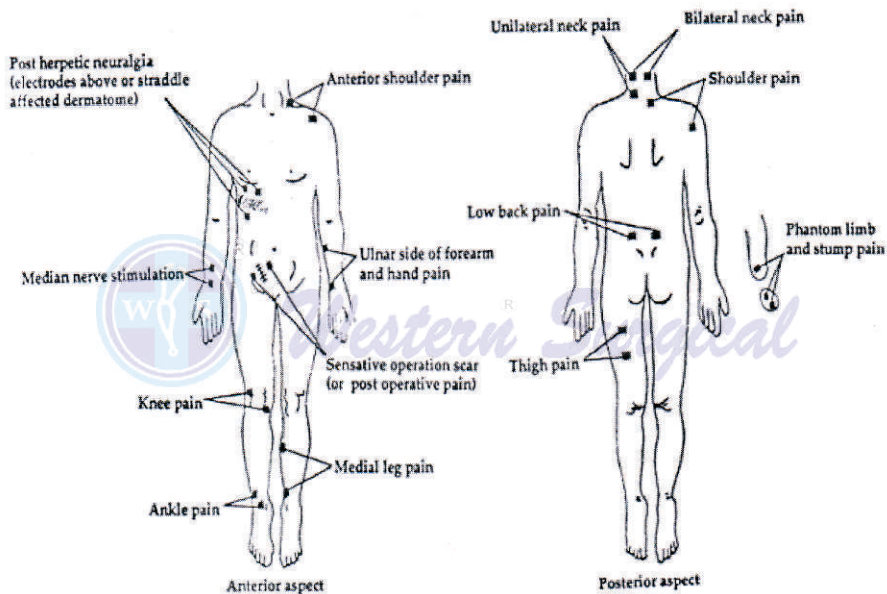


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AN ISO 9001 : 2008 CERTIFIED COMPANY

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## What is it?

It is a form of electrical stimulation with surface electrodes to modulate pain perception.

## Why do physical therapist use it?

- To reduce pain perception
- To reduce spasticity
- To reduce nausea and vomiting (cancer patients or post-op)

## What stages of healing can we use TENS?

1. acute stage
2. sub-acute
3. chronic

## What conditions would benefit from TENS?

- Arthritis
- Osteoarthritis
- Cervical spondylosis
- Low back pain Fibrositis / Myofascial pain syndromes
- Tendinitis/Bursitis
- Carpal Tunnel syndrome Radiculopathy
- Peripheral nerve injuries Phantom limb pain
- Post operative pain
- Spinal cord disorders
- Pain in the terminally ill Labour pain

## How does TENS reduce pain perception?

There are 4 theories about the physiological effects of TENS:

1. Gate control theory
2. Opiate-mediated control theory
3. Local vasodilatation of blood vessels in ischemic tissues
4. Stimulation of acupuncture points causes a sensory analgesia effect

## Does TENS increase blood flow or skin temperature?

It depends on whether muscle activity is induced.

Sensory TENS does not increase blood flow.

Low-frequency TENS applied above the motor threshold significantly increases local cutaneous blood flow.

Skin temperature does not change following sensory or motor stimulation.

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## CONTRAINDICATION

- Someone with a pacemaker
- Someone with undiagnosed pain
- Someone with a heart condition
- On head or neck of someone with epilepsy
- Someone with venous or arterial thrombosis or thrombophlebitis
- Someone with indwelling phrenic nerve or urinary bladder stimulators
- Near operating diathermy device
- Around the head
- On the eyes
- Over mucosal surfaces
- Using electrodes on infected (inflamed) skin
- Electrodes across the chest of a patient with cardiac disease
- Electrodes should not be placed near carotid artery (sinus) in the anterolateral region of the neck. There is a potential risk that stimulation at this site might cause heart block by exciting the vagus nerve.

## PRECAUTIONS

- Areas of skin irritation, damage or lesions
- Areas with impaired sensation
- Over abdominal, lumbosacral or pelvic regions during pregnancy other than for labor/delivery
- Tissues vulnerable to hemorrhage or hematoma
- Athletes should not be permitted to participate in sports while under the influence of TENS analgesia
- Extreme caution is needed with patients taking narcotic medication or who are known to have hyposensitive areas.
- Incompetent patients may not be able to manage the device and it must be kept out of reach of children.
- For patients with diagnosed malignancies that have been diagnosed as terminal, TENS can be used for pain control with informed consent of the patient. Otherwise, TENS should not be used when malignancies are present.

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## FEATURES

- Micro-controller based
- Modes available : Continuous, Burst, FM, PWM
- Four different Frequencies available
- 4 channels , 8 pads to cover a larger area with separate intensity controls
- 4 line LCD display, Feather touch keys
- ABS plastic shockproof body
- Aesthetic look, compact design, light weight, easy to use
- Treatment time : 0 – 99 min ( Two seven segment display)
- 20 PROGRAMS

### Tech specs:

- 1] Outputs : 4 channels
- 2] Frequency : 2, 5, 10, 20, 30, 50, 80, 100, 120, 150 Hz
- 3] Modes : Continuous  
Burst (7 sec on, 7 sec off)  
FM (2-5-10-20-30-50-80-100-120-150 Hz)  
PWM (variable pulse width of 100-300 us)
- 4] Waveshape: Biphasic
- 5] Timer : 0-99 min
- 6] Intensity : 0-100 Adjustable
- 7] Supply : 220-240 VAC, 50/60Hz

### ACCESSORIES

- Pair of cables - 04 pair
- Conductive Electrode Pads - 08 Nos.
- User's Manual - 01 No.
- Carry Pouch - 01 No.
- 3 pin Mains Cord - 01 No.
- Straps - 04 pairs

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## OPERATING INSTRUCTIONS

- Keep Intensity control at minimum position.
- Turn ON machine with power switch.
- Place electrodes on patient. Use gel for proper contact with skin.

1] Screen display when the unit is turned ON

GALTRON – GEMI  
MUMBAI, INDIA  
FOUR CHANNEL  
TENS

2] Then Press RST key ( make sure the intensity is minimum )

0 : 00M TREATMENT TIME  
  
CHECK INTENSITY CTRL  
PRESS INC KEY

3] Press INC key to adjust the treatment time and then wait for few seconds and the screen will change to : i) Pain relief ii) Fitness, cursor will blink on current selection.

0 : XXM TREATMENT TIME  
PAIN-RELIEF    FITNESS  
Press => to Change  
Press ENTER to select

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4] Press ==> key to change selection from Pain-relief to fitness and vice versa.

5] Press ENTER Key to select the desired function

6] Now display will show respective programs

0 : XXM P^XX NEURALGIA

Frq: XXX Hz Mode: XXXX

Pres INC to Sel Prog

Press STRT to start

7] Press INC key to select desired program and press STRT key to start.

Note : You can change Frequency and Mode any time between the treatment by pressing the → and ENTER keys and then press STRT key again to start the treatment.

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## ELECTRODE PLACEMENT

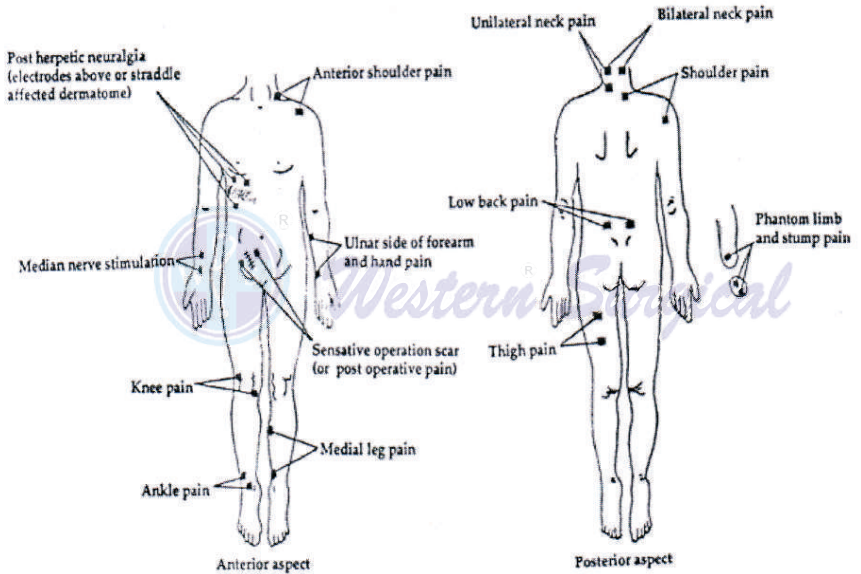
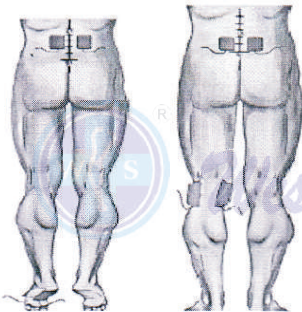


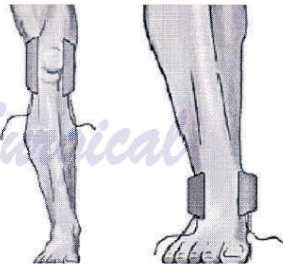
Figure 1.  
Some examples of electrode placement for various conditions adapted from Thompson J, 1995.

## ELECTRODE PLACEMENT

### Lower Limb



### ARTHRITIS



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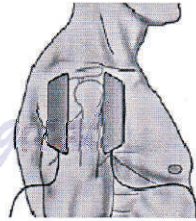
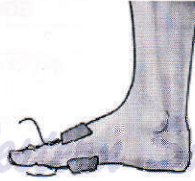
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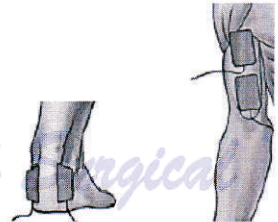
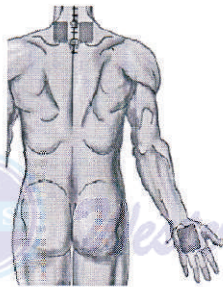
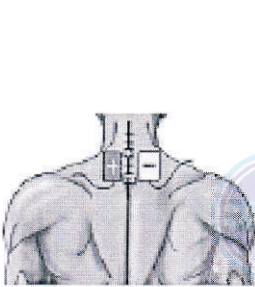


## ARTHRITIS



COMPLEX REGIONAL PAIN SYNDROME (CRPS)  
- SUDECK'S DYSTROPHY

POST OPERATIVE



MYALGIA

HYPOTONIA MUSCULAR



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## TENS TREATMENT GUIDE :

| PROGRAM NO. | PROGRAM NAME         | REMARKS     |
|-------------|----------------------|-------------|
| 0           | MANUAL MODE          |             |
| 1           | NEURALGIA            | PAIN RELIEF |
| 2           | SUDECK'S DYSTROPHY   | PAIN RELIEF |
| 3           | POST HEPATIC         | PAIN RELIEF |
| 4           | POST OPERATIVE       | PAIN RELIEF |
| 5           | MENSTURATION PAIN    | PAIN RELIEF |
| 6           | OEDEMA               | PAIN RELIEF |
| 7           | EPICONDYLITIS        | PAIN RELIEF |
| 8           | SHOULDER PAIN        | PAIN RELIEF |
| 9           | ACUTE CASE           | PAIN RELIEF |
| 10          | SHORTENED MUSCLES    | PAIN RELIEF |
| 11          | STRESS INCONTINENCE  | PAIN RELIEF |
| 12          | ENDORPHIN PRODUCTION | PAIN RELIEF |
| 13          | GATE THEORY          | PAIN RELIEF |
| 14          | FROZEN SHOULDER      | PAIN RELIEF |
| 15          | TENSION HEADACHE     | PAIN RELIEF |
| 16          | MUSCLE TIGHTENING    | FITNESS     |
| 17          | HIP MUSCLE           | FITNESS     |
| 18          | MUSCLE LIFT          | FITNESS     |
| 19          | THIGH MUSCLE         | FITNESS     |
| 20          | BREAST MUSCLE        | FITNESS     |

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### 7.3 WARRANTY CERTIFICATE

western surgical product is warranted to be free from electrical and mechanical defects in material and workmanship, under normal use. The western surgical product must not have been moved from the site of original installation. A new or remanufactured part to replace the defective part will be provided without charge for the part itself, through an authorized western surgical service dealer. The replacement part assumes the unused portion of the warranty.

#### WESTERN SURGICAL WILL NOT BE RESPONSIBLE FOR:

1. Damage or repairs required as a consequence of faulty installation or application by others.
2. Damage or repairs needed as a consequence of any misapplication, negligent handling, improper servicing, unauthorized alteration, or improper operations.
3. Failure to start due to voltage conditions, blown fuses, open circuit breakers or other damages due to the inadequacy or interruption of electrical service.
4. Damage as a result of floods, winds, fires, lightning, accidents, corrosive atmosphere, or other conditions beyond the control of western surgical
5. Parts not supplied or designated by western surgical.

|                            |              |
|----------------------------|--------------|
| Date of Installation       | Installed By |
| Model No.                  | Serial No.   |
| Warranty Period            |              |
| Name of Doctor & Address : |              |
|                            |              |
|                            |              |

Customer Sign. With Stamps

Marketed By: Western Surgical  
Sign. With Stamps

#### No Claim Warranty :

- 1) Any Defect Throughout Power Supply
- 2) Any Physical Damage

3) Under Warranty Standby Unit Not Provide

4) Under Warranty When Company Send Parts or Machine we Imidiat send to Buyer.

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Date : 21-4-2016

# OUR OTHER PRODUCTS RANGE



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## Western<sup>®</sup> Surgical

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