



# MINI MUSCLE STIMULATOR WITH TENS

**WS TPS - 515**

**USER MANUAL**



**Western Surgical**  
AN ISO 9001 : 2008 CERTIFIED COMPANY

[www.westernsurgical.in](http://www.westernsurgical.in) Email : [westernsurgical@gmail.com](mailto:westernsurgical@gmail.com)

Email : [info@westernsurgical.in](mailto:info@westernsurgical.in) Ph. : +91-281-2232871 / 2243159

# CONTENTS

Sr. No.	PARTICULARS	Page
01.	Introduction -----	03
02.	Control Panel -----	04
03.	Operating Sequence -----	06
04.	Technical Specification -----	08
05.	Placement of Electrodes -----	09
06.	Indication & Contra Indication -----	10
07.	Precaution -----	13
08.	Caution -----	15
09.	Warrantee Card -----	16

\* Carrying Warranty at Rajkot Office only on site warranty not provided free of cost.

\* Due to constant upgradation design, price and features are subject to change any time without prior notice.



**Western Surgical**

[www.westernsurgical.in](http://www.westernsurgical.in)

Email : [westernsurgical@gmail.com](mailto:westernsurgical@gmail.com)

Ph. : +91-281-2232871 / 2243159

# 01. INTRODUCTION :

**Mini Muscle Stimulator** is particularly useful in peripheral nerve injuries, disuse atrophy of muscles. By direct stimulation of selected muscle, physiotherapist can stimulate direct muscle action even though the normal neurostimulation is not there.

## **Transcutaneous Electrical Nerve Stimulator (TENS) :**

**TENS** is based on gate theory of pain formulated by world-renowned scientist Melzack and wall. it is used to relieve acute and chronic pain.

**Mini Muscle Stimulator with TENS** has been designed to provide, TENS, (IG) Interrupted Galvanic and (SF) Surge Faradic currents.

- **TENS :**

It is used to relieve acute and chronic pain.

- **IG :**

Interrupted Galvanic (IG)

It is used for the treatment of paralysis and dysfunctions.

\* Carrying Warranty at Rajkot Office only on site warranty not provided free of cost.

\* Due to constant upgradation design, price and features are subject to change any time without prior notice.



**Western Surgical**

[www.westernsurgical.in](http://www.westernsurgical.in)

Email : [westernsurgical@gmail.com](mailto:westernsurgical@gmail.com)

Ph. : +91-281-2232871 / 2243159

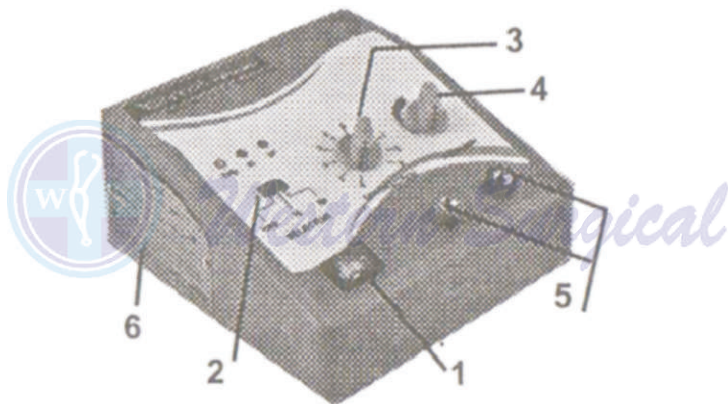
## ● SF :

### Surge Faradic (SF)

It is used for the treatment of correlated atrophy paralysis & dysfunctions especially suitable for treatment in the case of paralytic children.

## 02. CONTROL PANEL :

### FRONT & SIDE VIEW



1. **Mains ON / OFF Switch** : This switch is used to switch **ON** or **OFF** the machine.
2. **Selector Switch** : This switch is used to select the current from **TENS, IG, SF**
3. **Contraction Period Knob** : This knob is used to select the contraction period between **1 to 9 Sec.**

\* Carrying Warranty at Rajkot Office only on site warranty not provided free of cost.

\* Due to constant upgradation design, price and features are subject to change any time without prior notice.



**Western Surgical**

[www.westernsurgical.in](http://www.westernsurgical.in)



Email : [westernsurgical@gmail.com](mailto:westernsurgical@gmail.com)

Ph. : +91-281-2232871 / 2243159



4. **Intensity Knob** : This knob is used to select the intensity
5. **Output Sockets** : These are the output sockets where output cables are connected.
6. **Marking Plate** : This indicates Serial No., Model No., and warning
7. **Fuse Socket** : One fuse is placed in fuse socket.
8. **Mains Cord**

INPUT	: 230 VAC, 50HZ
INPUT POWER	: _____ W
● MODEL NO.	: _____ ●
SERIAL NO.	: _____



 THIS MEDICAL EQUIPMENT IS FOR THE USE ONLY BY QUALIFIED MEDICAL PERSON  
 MANUFACTURED BY : \_\_\_\_\_  
 MADE IN INDIA



\* Carrying Warranty at Rajkot Office only on site warranty not provided free of cost.

\* Due to constant upgradation design, price and features are subject to change any time without prior notice.



**Western Surgical**

[www.westernsurgical.in](http://www.westernsurgical.in)

Email : [westernsurgical@gmail.com](mailto:westernsurgical@gmail.com)

Ph. : +91-281-2232871 / 2243159

### 03. OPERATING SEQUENCE :

- Connect the mains cord **No. 8.**
- Connect the electrodes at output sockets **No. 5.**
- Make sure that mains **ON/OFF** switch **No.1** is in "**OFF**" position
- Turn intensity knob **No. 4** to its minimum anticlockwise direction.
- Turn on the equipment and select the required current **TENS, IG, SF** by selector switch **No. 2.**
- If the operator Chooses to use either **TENS** of **IG** current follow the following steps :
  - (1) Fasten the electrodes firmly to the treatment area on the patient.
  - (2) Turn on the intensity knob gently, turning it clockwise.
  - (3) Do not exceed the intensity beyond the capacity of the patient.
- If the operator wishes to use Surge Faradic current, follow the following steps,
  - (1) Fasten the electrodes firmly to the treatment area on the patients using straps provided with this unit.
  - (2) Select the desire parameters using the surge control and select a surge time by contraction period Knob **No. 3.**
  - (3) Turn on the intensity knob gently, turning it clockwise.
  - (4) Do not exceed the intensity beyond the capacity of the patient.
- As soon as the treatment is over, disconnect the pad electrode and clean all the accessories and turn **OFF** the equipment.

\* Carrying warranty at kajkot office only on site warranty not provided free or cost.

\* Due to constant upgradation design, price and features are subject to change any time without prior notice.



**Western Surgical**

[www.westernsurgical.in](http://www.westernsurgical.in)

Email : [westernsurgical@gmail.com](mailto:westernsurgical@gmail.com)

Ph. : +91-281-2232871 / 2243159

## 04. TECHNICAL SPECIFICATION :

- Input Supply : 230 V AC, 50 Hz
- Size : L 6" X W 5.5" X H 2.5"
- Weight : 1.3 Kg. (Approx)
- TNS : Pulse width : 400 micro sec.  
Frequency : 50 Hz
- IG : Pulse Width : 100 milli sec.  
Frequency : 1 per sec.
- SF : 1 to 9 sec. Duration.

### STANDARD ACCESSORIES :

- One pair plate electrodes.
- One pair Velcro Straps.
- One point electrode.
- Good Quality Cover

### FEATURES :

- Easy to Operate Design.
- Easy to Carry.
- Three Output Seliction.

(TENS, Interrupted Galvanic, Surge Faradic)

\* Carrying Warranty at Rajkot Office only on site warranty not provided free of cost.

\* Due to constant upgradation design, price and features are subject to change any time without prior notice.



**Western Surgical**

[www.westernsurgical.in](http://www.westernsurgical.in)

Email : [westernsurgical@gmail.com](mailto:westernsurgical@gmail.com)

Ph. : +91-281-2232871 / 2243159

## 05. PLACEMENT OF ELECTRODES :

- Immerse the electrodes in lukewarm water. Kindly check that the metal surface of electrodes is completely covered with moist lint. If the metal surface of the electrodes come in contact with the skin of the patient during treatment time, the patient shall experience severe burning sensation.
- Attach the electrodes firmly to the area of treatment using Velcro straps provided with this unit. In case of loose attachment of an electrode the patient shall experience an uneven flow of current, which may lead to discomfort.
- Connect the output cables to the output socket. Check that there is no loose connection.
- Ensure good contact between each electrode and the skin.
- Examine skin again after the treatment.
- Keep electrodes separated during treatment. Electrodes in contact with each other could result in improper stimulation or skin burns.

\* Carrying Warranty at Rajkot Office only on site warranty not provided free of cost.

\* Due to constant upgradation design, price and features are subject to change any time without prior notice.



**Western Surgical**

[www.westernsurgical.in](http://www.westernsurgical.in)

Email : [westernsurgical@gmail.com](mailto:westernsurgical@gmail.com)

Ph. : +91-281-2232871 / 2243159



# 06. INDICATIONS & CONTRA INDICATIONS :

## INDICATIONS :

Transcutaneous electrical nerve stimulation (TENS) devices are used for the symptomatic relief of chronic (long term) intractable pain and as an adjunctive treatment in the management of post surgical and post traumatic acute pain problems.

## CONTRAINDICATIONS :

TENS devices can affect the operation of demand type cardiac pacemakers. TENS is not recommended for the patients with known heart disease without physical evaluation of risk. Do not stimulate over the eyes or carotid sinus nerves. Do not apply TENS for undiagnosed pain syndromes until etiology is established.

## INDICATIONS FOR FARADIC CURRENT :

- Facilitation of muscle contraction
- Re-education of muscle action
- Training a new muscle action
- Neurapraxia of a motor nerve (In nerve injury)

\* Carrying Warranty at Rajkot Office only on site warranty not provided free of cost.

\* Due to constant upgradation design, price and features are subject to change any time without prior notice.



**Western Surgical**

[www.westernsurgical.in](http://www.westernsurgical.in)

Email : [westernsurgical@gmail.com](mailto:westernsurgical@gmail.com)

Ph. : +91-281-2232871 / 2243159

- Improved venous & lymphatic drainage
- Prevention & Loosening of adhesions.
- Movement re-education in cerebral palsy & brain injury.
- Strengthening weak muscles
- Deformity correction
- Trophic stimulation
- Functional electrical stimulation

### **INDICATIONS FOR GALVANIC CURRENT :**

- Stimulation of denervated muscle (axonotmesis)
- Re-education of muscle
- Iontophoresis

### **CONTRA INDICATIONS FOR FARADIC AND GALVANIC CURRENT :**

- Demand type cardiac pacemakers or arrhythmia
- Unconscious patients
- Recent Radiotherapy
- Carotid Sinus
- Areas of venous & arterial thrombosis & thrombophlebitis
- Pregnancy
- Early tendon transfer / repair.
- Malignancy
- Infected wound & skin lesions
- Hemorrhage.

\* Carrying Warranty at Rajkot Office only on site warranty not provided free of cost.

\* Due to constant upgradation design, price and features are subject to change any time without prior notice.



**Western Surgical**

[www.westernsurgical.in](http://www.westernsurgical.in)

Email : [westernsurgical@gmail.com](mailto:westernsurgical@gmail.com)

Ph. : +91-281-2232871 / 2243159

## 07. PRECAUTIONS :

- Care must be taken when operating this equipment around other equipments. Potentially electromagnetic or other interference could occur to this or to other equipments. Try to minimize this interference by not using other equipment in conjunction with it.
- Before administering any treatment to a patient, you should become acquainted with the operating procedure for each mode of treatment available, as well as the indications, contraindications and precautions. Consult other resources for additional information regarding the application of electrotherapy.
- To prevent electrical shock, disconnect the unit from the power source before attempting any maintenance procedures.
- Stimulation should not be applied over the anterior neck or mouth. Severe spasm of the laryngeal and pharyngeal muscles may occur and the contractions may be strong enough to close the airway or cause difficulty in breathing.
- Stimulation should not be applied transthoracically in that the introduction of electrical current into the heart may cause cardiac arrhythmia.

\* Carrying Warranty at Rajkot Office only on site warranty not provided free of cost.

\* Due to constant upgradation design, price and features are subject to change any time without prior notice.



**Western Surgical**

[www.westernsurgical.in](http://www.westernsurgical.in)

Email : [westernsurgical@gmail.com](mailto:westernsurgical@gmail.com)

Ph. : +91-281-2232871 / 2243159



- Stimulation should not be applied over swollen, infected and inflamed areas or skin eruptions, e.g., phlebitis, thrombophlebitis, varicose veins, etc.
- Stimulation should not be applied over, or in proximity to, cancerous lesions.
- TENS is not effective for pain of central origin. (This includes headache)
- This unit should be used only under the continuous supervision of a physician or a licensed practitioner.
- The user must keep the device out of the reach of children.
- Some patients may experience skin irritation or hypersensitivity due to the electrical stimulation or electrical conductive medium. Using an alternative conductive medium or alternative electrode placements can usually reduce the irritation.
- Electrode placement and stimulation settings should be based on the guidance of the prescribing practitioner.
- With TENS waveforms, isolated cases of skin irritation may occur at the site of electrode placement following long term application.

\* Carrying Warranty at Rajkot Office only on site warranty not provided free of cost.

\* Due to constant upgradation design, price and features are subject to change any time without prior notice.



**Western Surgical**

[www.westernsurgical.in](http://www.westernsurgical.in)

Email : [westernsurgical@gmail.com](mailto:westernsurgical@gmail.com)

Ph. : +91-281-2232871 / 2243159



## 08. CAUTION :

Hazardous electrical output. This equipment is for the use only by qualified medical person.

### NOTE :

Cardiac fibrillation can be induced by alternating low frequency currents of low magnitudes. In electrical shock, cardiac fibrillation is regarded as the main cause of death. Patients with myocardial weakness seem especially sensitive to low frequency currents. Therefore, the invariable rule is never to apply low-frequency current through the heart or with a technique that considerable current through the cardiac area.

### DANGER :

Stimulus delivered by the TENS waveform of this device, in certain configuration, will deliver a charges of few micro coulombs or greater per pulse and may be sufficient to cause electrocution. Electrical current of this magnitude must not flow through the thorax because it may cause a cardiac arrythmia.

\* Carrying Warranty at Rajkot Office only on site warranty not provided free of cost.

\* Due to constant upgradation design, price and features are subject to change any time without prior notice.



**Western Surgical**

[www.westernsurgical.in](http://www.westernsurgical.in)

Email : [westernsurgical@gmail.com](mailto:westernsurgical@gmail.com)

Ph. : +91-281-2232871 / 2243159

### 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 Throught 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.

\* Carrying Warranty at Rajkot Office only on site warranty not provided free of cost.

\* Due to constant upgradation design, price and features are subject to change any time without prior notice.



**Western Surgical**

[www.westernsurgical.in](http://www.westernsurgical.in)

Email : [westernsurgical@gmail.com](mailto:westernsurgical@gmail.com)

Ph. : +91-281-2232871 / 2243159

Date : 7-9-2016

# OUR OTHER PRODUCTS RANGE



\* Carrying Warranty at Rajkot Office only on site warranty not provided free of cost.

\* Due to constant upgradation design, price and features are subject to change any time without prior notice.

## Western<sup>®</sup> Surgical

AN ISO 9001 : 2008 CERTIFIED COMPANY

"Happy Home", 1st Floor, 23, Karanpara,  
 B/h. S.T. Bus Stand, Kanak Road,  
 Rajkot-360 001. Ph. : +91 281-2232871/2243159  
 Mo. : +91 98250 69069 - +91 98250 45997  
 Email : westersurgical@gmail.com  
 Email : info@westersurgical.in

\* [www.westersurgical.in](http://www.westersurgical.in) \*

