

BS-100

**Brielle**®

Professional

DIGITAL  
**TENS**

Transcutaneous  
Electrical  
Nerve  
Stimulator



Operation Manual  
Manual de Operación  
Manuel d'utilisation  
Bedienungsanleitung  
操作手册  
オペレーションマニュアル  
사용 설명서

**Operation  
Manual**

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**CAUTION:**

USA Federal Law restricts TENS device to sale by or on the order of a physician.

**CONTRAINDICATIONS:**

1. The use of TENS on patients who have a demand type cardiac pacemaker.
2. For patients with known myocardial disease or arrhythmia, TENS should be used only with consultation and evaluation by a specialized physician.
3. Do not apply any electrode placement that causes current to flow trans cerebrally (through the head).
4. Do not use TENS on the eyelids. Do not place electrodes directly over the carotid sinus nerves or arteries, and laryngeal or pharyngeal muscles
5. Do not apply TENS for undiagnosed pain syndromes until aetiology is established.

**WARNINGS:**

1. This device should be used only under the continued supervision of a physician.
2. TENS is ineffective for pain of central origin. (This includes headache.)
3. TENS devices have no curative value; it is a symptomatic treatment and as such suppresses the sensation for pain which would otherwise serve as a protective mechanism on the outcome of clinical process
4. The safety of TENS devices for use during pregnancy or birth has not yet been tested.
5. Electronic equipment such as KG monitors and EGG alarms may not operate properly when TENS stimulation is in use.
6. The user must keep the device out of the reach of children.
7. Stimulus delivered by this device may be sufficient to Cause electrocution or burn and it may cause a cardiac arrhythmia.

**PRECAUTIONS:**

1. Isolated cases of skin irritation may occur at the site of electrode placement following long-term application.
2. Effectiveness is highly dependent upon patient selection by a person qualified in the management of pain patients.
3. Turn the stimulator off before applying or removing electrodes. If TENS therapy becomes ineffective or unpleasant, stimulation should be discontinued until its use is reevaluated by the physician or therapist. Use only for the specific pain problem prescribed by physician.

**ADVERSE REACTIONS:**

Possible allergic reaction to tape or gel may exist. Possible skin Irritation and electrode burns are potential adverse reactions. If skin irritation persists, discontinue use and consult the physician.

## WHAT IS TENS?

TENS stands for *Transcutaneous Electrical Nerve Stimulation*. TENS users should be instructed or prescribed by qualified health professionals prior to the application of the device. TENS is an economical way of pain management, but is of no curative values, as current scientific and clinical studies suggest. TENS devices work by producing low frequency electrical impulses that are applied to the skin via electrode pads to relieve pain.



### **INDICATION FOR USE:**

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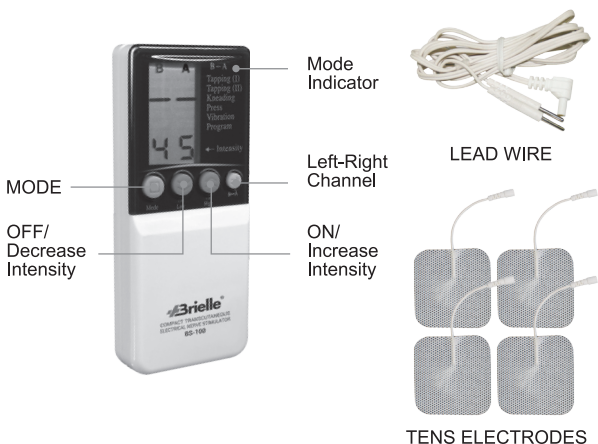
Specific indications: it is used for the symptomatic relief and management of chronic, intractable pain and as an adjunctive treatment in the management of post surgical and post traumatic acute pain problems.



### **CLINICAL SETTINGS:**

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The TENS only be used under therapy for the treatment of medical medical supervisions for adjunctive diseases and conditions.



## TECHNICAL SPECIFICATIONS

<b>Model:</b>	<b>BS-100</b>
<b>Power supply</b>	DC 4.5V (3 x AA dry cell batteries)
<b>Battery life</b>	3 months (30 minutes per day)
<b>Maximum Output frequency</b>	200 Hz
<b>Dimensions of unit</b>	52(w) x 120(h) x 17(d)mm
<b>Weight of Unit (w/battery)</b>	110g
<b>Accessories</b>	<ol style="list-style-type: none"> <li>1. Lead wire x 2</li> <li>2. Electrode x 4</li> <li>3. Battery x 3</li> <li>4. Instruction manual x 1</li> <li>5. Storage bag x 1</li> </ol>

1. Place the batteries provided & close the back cover.
2. Connect the lead wires to the adhesive electrodes. Then connect the other end to the device, channel A, channel B, or to both.
3. Apply the electrodes to the site of pain or at acupuncture points. Clean the skin surface before the application.
4. Switch ON the device by pressing the 'ON' button. Select the channel that you wish to operate on by pressing the Left/Right button.
5. Select the desirable stimulation with the MODE button. Then slowly increase the intensity to a comfortable level. Upon changing to another mode, the intensity will automatically return to "0" to prevent patients from any electrical surge. The blinking arrow indicates the type of stimulation in operation.
6. The device has a preset timer of 10 minutes. To turn off the device before the preset time, press the 'OFF' button until it reaches '0' & then off.

*Note : Each time the intensity level is changed, the preset time will reset itself. When no modes or intensity are selected, the device will automatically switch off after 1 minute.*

7. To move the electrodes to another site, turn the intensity to "0" before repeating step 3.
8. The adhesive electrodes can be replaced if it fails to adhere properly after multiple use.

It is recommended that fresh electrodes are used in order to optimize the performance of the device. For hygiene purposes, the electrodes are to be used for a single patient only.

1. Clean and wet the area that is to be treated.
2. Inspect the electrode Cords and electrode pads for wear and tear. If they are not in good condition, they should be replaced. If they are in good condition, then insert the cord pins into each electrode pad.
3. Make sure the electrode pads are firmly fixed in place to obtain effective conduction.
4. Use the electrode sites recommended by your prescribing physician.
5. Turn the Power control clockwise and slowly increase the intensity level to that recommended by your physician. Usually, that will mean increasing intensity until you can feel the tingling sensation (high pulse rates) or pulsing sensation (low pulse rates) of the stimulation. Your prescribing physician will tell you how far they wish you to turn up the intensity.
6. If at any time the electrical stimulation begins to feel uncomfortable, use the Power Controls to turn down the intensity or turn the device off.
7. After a few minutes, it may seem that the sensation of the stimulation is diminishing. This is entirely normal as your body adapts to the electrical current. Simply increase the Power Control slightly until the stimulation is once again at the proper intensity.
8. When you are finished using the unit, turn down each Intensity Control until an audible click is heard and the green lamplight is off. You may now remove the electrode pads from your body.



## Principles of TENS Treatment

TENS (Transcutaneous Electrical Nerve Stimulation) is a method of applying controlled, low-voltage electrical stimulation to large, myelinated peripheral nerve fibers via cutaneous electrodes for the purpose of modulating stimulus transmission and relieving pain. The tissues and cells of our bodies are always emitting electricity, which regulates the organs, nerves and muscle.

TENS is to use both positive and negative poles of electricity conducted by electrodes and affixed to the surface skin to have electric currents stimulate the peripheral nerve fibers.

TENS is believed to work by the following mechanism. The body has its own mechanism for suppressing pain. It does this by releasing non-addictive natural chemicals called endorphins in the brain which act as analgesics. TENS may activate this mechanism.

TENS treatment is not completely efficient in treating all pain syndromes. Experimentation with setting and electrode placement may be required for best results.

## TENS Treatment Application

In medical science terms, TENS treatment is suitable for symptomatic relief of chronic, intractable pain, post-traumatic and post surgical pain.

Notes:

- 1, The patient should use the modes and treatment times that are recommended by their physician.
- 2, Treatment frequency: 1 - 2 times per days.
3. Do not use TENS 45 minutes before and after meal.
4. TENS treatment is not a replacement for your usual medications; follow your physician to manage overall medication.



Do not use the device without an on-site guidance by qualified physicians and professionals.

1. Those who carry cardiac pace makers
2. Infants or children
3. Those with critical heart problems
4. Those in pregnancy
5. Those who have alcohol drinks
6. Those who are in weak health conditions
7. Those who are starving or ate too much
8. Those who have a fever
9. Those who in frightening or shocking status
10. Those who are exhausted or very tired
11. Those who just have strokes
12. Those who in cases lose blood such as blood donation
13. Those who have contagious or epidemic disease
14. Those who have been instructed by their physicians not to use electric treatments



Never use the device on external injuries, the head, neck or heart.



**SPECIAL WARNING:**

1. When using self-adhesive electrodes, make sure the product is CE-Marked.
2. Always turn the power control knob to off position. Whenever input power is off or down, it will prevent unexpected "strong" output voltage hazard.

Time and frequency of application:

Hours and times of exercise are different to everyone due to different physical conditions.



Do not use TENS 45 minutes before and after meals.



Do not start your exercise in a long period of time to ensure your comfort.



Do not start the process in high intensity.

Proper output has personal difference. Thinner people may be affected more by a lower output.



When pain increases, discontinue use of the device and consult your physician.



To avoid dangerous condition, do not use this device with other machine. This device passed the test of EMC, but needed to be care of the disturbance of high frequency device, for example TV and microwave etc.

If the device will not be used for a specified period of time, remove the battery from the compartment.

Alkaline batteries are suitable for the device.

## CARE & MAINTENANCE

1. Wipe the main unit with a soft cloth dampened with a neutral detergent solution. Thinner or benzene can damage the device and should not be used.
2. Do not immerse the device in water for cleaning.
3. The electrode pad can be washed in neutral detergent solution then rinsed in water. If the electrode pad becomes dirty, the electricity conduction can decrease. If the electrode pads are damaged, replacement can be purchase from your dealer.
4. When taking off plug from main device, do not pull cord, and it may cause break down of the cord
5. After application, bundle the cords neatly for storing attachment.

## TROUBLESHOOTING

If the device does not function correctly, never try to open the device and repair it by yourself and please check by steps as follows:

1. No Output:
  - a) Check the switch.
  - b) Check the battery in right place.
  - c) Check the leads or cord broken or not.
  - d) Check the pad cords.
  - e) Check the pads are moist or not.
  - f) Check whether direct conduction between electrodes resulted in short circuit.
2. The output is weak:
  - a) The battery is almost exhausted, and replaces the battery.
  - b) The insert and jack are in right condition or not.
  - c) One who has dry skin does not moisten the surface of the skin.
  - d) Refer back to the physician's instruction for proper pad placement.

If check all of the above conditions and still cannot settle down the problem, please contact your dealer for further help.

The Digital TENS uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.

Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.

Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.

According to IEC60601-1-2, the digital TENS is intended for use in the electromagnetic environment specified below. The customer or the user of the Digital TENS should assure that it is used in such an environment. Recommended distance from the following equipment is specified as follows:

For 80 MHz to 800 MHz equipment, such as wireless telephone, please keep it away 1.6 meter from the Digital TENS.

For 800 MHz to 2.5GHz equipment, such as mobile phone, please keep it away 3.2 meter from the Digital TENS.



## CAUTION

Please keep the distance specified above, otherwise, interference may occur and may cause the Digital TENS to shutdown, but with no harmful effects to the user.

This product is designed and manufactured to meet following safety principles and standards:

EN 1041:1998

EN 980:2003

ENISO 10993-1:2003

ENISO 10993-5:1999

ENISO 10993-10:2002+A1:2004,

ENISO 14971:2000+A1:2003

EN 60601-1:1990+A1:1993+A2:1995+413:1996

EN 60601-1-2:2001

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ISO 9001  
ISO 13485



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## Product Warranty Card

NAME:	DATE OF PURCHASE:
ADDRESS:	PURCHASE FROM:
MODEL: <b>DIGITAL TENS (BS-100)</b>	REGISTRATION DATE:

Inmed Corporation warrants this product to be free from defects in material or workmanship within 1 year from date of purchase under normal use. If fault is found, please return the equipment, freight prepaid, in its original packaging along with the purchase receipt to the address below. Inmed Corporation will repair or replace any defective parts free of charge subject to the terms and conditions stated herein.

**Warranty does not cover batteries,  
electrodes and normal wear and tear.**

*For service, the unit is to be returned freight prepaid to:*

### **Inmed Corporation**

5 Calle Industria, Bagumbayan,  
Quezon City 1110, Philippines  
Tel: +63.2.5711888 | Fax: +63.2.5719912

**Please register your unit online at:  
[www.inmed.com.ph](http://www.inmed.com.ph)**