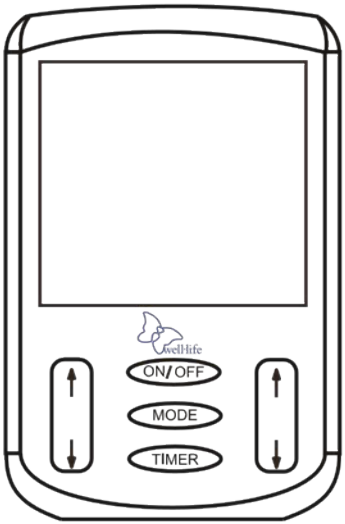
TENS & EMS Stimulator Instruction Manual

Model no. WL-2502C



Please keep this instruction manual safe for future use.

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Chapter 1: INTRODUCTION TO TENS / EMS

(1) GENERAL DESCRIPTION

The device is a battery operated pulse generator that sends electrical impulses through electrodes to the body to reach nerves causing pain. Electrical impulses can be adjusted by changing the pulse width and rate. The strength is individually adjusted using the 2 channels. A slide button (button lock function) protects the device from accidental changes while in use.

(2) EXPLANATION OF PAIN

Pain is the body's natural warning mechanism and is intended to prevent additional injury. Pain is important, as without it, vital parts of our body might be injured or damaged without our knowledge. While ointments, drugs or even surgery can be used to treat chronic pain, these are all utilized with varying degrees of success, as each individual patient and condition is different. TENS offers a unique alternative method of pain relief with no potentially harmful side effects.

(3) WHAT IS A TENS / EMS COMBO UNIT

A TENS / EMS combo unit is a 2 channel electrical stimulator with 2 stimulation modalities modes: TENS and EMS which are explained in more detail below.

(4) WHAT IS TENS

TENS, Transcutaneous Electrical Nerve Stimulator, is a battery powered electrical unit which uses electrodes placed onto the skin over a painful area to deliver electrical impulses to the nerve fibers which lie underneath the skin surface. It provides pain relief by blocking pain signals to the brain via the spinal cord and peripheral nervous system. TENS also stimulates production of endorphins, the body's own "painkillers".

(5) COMMON APPLICATIONS FOR TENS

Although dependent on your specific pain problem, TENS devices have been used successfully to treat many conditions, including:

CHRONIC PAIN

Cervical (Neck) – Amputation – Phantom Limb – Headache – Lower Back – Lumbago – Leg Pain – Arthritis

ACUTE PAIN

Post Operative – Muscle and Joint – Tendonitis – Fractures – Tennis Elbow

(6) WHAT IS EMS

EMS, Electrical Muscle Stimulation (also called Neuromuscular Electrical Stimulation / NMES), is a battery powered electrical unit which uses electrodes placed on the skin to stimulate muscles.

(7) COMMON APPLICATIONS FOR EMS

Relax muscle spasms – Prevent or retard disuse atrophy – Increase local blood circulation – Reeducate muscles – Maintain or increase the range of motion.

Chapter 2: INDICATIONS / CONTRAINDICATIONS / WARNINGS

CAUTION: Federal law (USA) requires this device to be sold only by or on the order of a physician (or licensed practitioner).

Read the operation manual in its entirely before using the device.

INDICATIONS:

This device may be used, with a physician/clinician's prescription, for the symptomatic relief and management of chronic (long term) pain and for the treatment of post-operative and post-traumatic pain.

CONTRAINDICATIONS:

- **Heart Disease – Use caution prior to using this device on patients suspected of having heart disease.**
- **Cardiac pacemakers – Do not use this device if you have a demand-type cardiac pacemaker or any implanted defibrillato .**
- **Trans cerebral stimulation – Do not apply electrical stimulation trans cerebrally (through the head).**
- **Epilepsy – Use caution for patients with suspected or diagnosed epilepsy when using this device.**
- **Carotid sinus – Do not apply electrical stimulation to carotid sinus region of the neck.**
- **Unknown etiology – Do not use this device if pain symptoms are undiagnosed. Use only after the origin / caused of pain has been determined by your doctor.**
- **Hemorrhages – Use caution when there is a tendency to hemorrhage, such as following acute trauma or fracture.**
- **Post-surgical use – Use caution following recent surgical procedures when muscle contraction may disrupt the healing process.**
- **Uterus – Do not use electrical stimulation during menstruation.**
- **Sensory loss – Do not use electrical stimulation where sensory nerve damage is present by a loss of normal skin sensation.**
- **Skin irritation – If patient experiences skin irritation due to electrical stimulation, stop using the device and consult the clinician. Irritation may be reduced by an alternative conductive medium or an alternative electrode placement. Isolated cases of skin irritation may occur at the site of electrode placement following long term application.**
- **Adverse reactions – In addition to skin irritation, inflammation and burns beneath the electrodes are potential adverse reactions. Follow directions carefully.**
- **Do not use this device if you have a cardiac pacemaker, implanted defibrillators or any other implanted metallic or electronic device. Such use could cause electric shock, burns, electrical interference, or death.**
- **Do not use this device if you have undiagnosed chronic pain.**
- **Do not use this device if you are pregnant. The safety of electronic muscle stimulation over the pregnant uterus has not been established.**
- **Do not use this device if you suffer from cancer. The effects of electronic stimulation on cancerous tissue are known.**

- **Do not use this device if you are under medical supervision for cognitive dysfunction as you may not be able to comply with safety instructions.**

⚠ WARNINGS:

- **Pregnancy – The safety of using electrical stimulation during pregnancy or birth has not been established.**
- **Central origin pain – This device is not effective for pain of central origin (including headaches).**
- **Prescription – Use electrical stimulation only in the prescribed manner and for the prescribed reason. Symptomatic treatment – This device is a symptomatic treatment and, as such, suppresses the sensation of pain which would otherwise serve as a protective or warning mechanism of your body.**
- **Keep out of reach of children – Do not store or use this device near children.**
- **Electronic equipment – Electronic monitoring equipment (such as ECG and EKG alarms) may not operate properly when electrical stimulation devices are in use.**
- **Machinery operation – Never operate potentially dangerous machinery such as power saws, automobiles, etc. while using this device.**
- **Uncomfortable stimulation – If the stimulation levels are uncomfortable or become uncomfortable, reduce the intensity (amplitude) to a comfortable level. Contact your physician /clinician if this does not resolve the problem or if the problem persists or re-occurs at your next prescribed treatments session.**
- **Neck stimulation –Do not place electrodes across the neck or mouth. Severe spasm of the laryngeal and pharyngeal muscles may occur. This may be strong enough to close off the airway or cause breathing difficult .**
- **Long-term effects – The long-term effects of chronic use of electrical stimulation are unknown.**
- **Damage from liquids – Do not immerse the stimulator unit in water or other liquids.**
- **High frequency surgical devices – Simultaneous connection of a patient to a high frequency surgical device while using this device may result in burns at the site of the electrodes andpossible damage to the stimulator. Discontinue use before surgery.**
- **Microwave or radio frequency sources – Operation in close proximity to shortwave ormicrowave therapy equipment may shut the stimulator off.**
- **Flammable – Do not use the device in an environment where flammableor explosive fumes may exist.**
- **External use – This device is for external use only**
- **Lead connection – Do not connect the lead wires to an alternating current (AC) power source or other equipment not**
- **The system is internally powered (power from battery pack), IP 22, continuous operation.(Please refer to technical specification section more about the battery information and explanation of the symbol).**
- **Do not use this device if it is in close proximity to shortwave or microwave diathermy equipment.**
- **The stimulation should not be applied across or through the head, directly on the eyes.**
- **Do not use the device closer than 30cm (12 inches) to any part of the [ME EQUIPMENT or ME SYSTEM], including cables specified by the manufacture.**

- **Choking resulting from a child swallowing a small part that has become detached from the device.**
- **Don't be exposed to the sun or the dusty environment.**

Conditions that may affect your Well Life TENS/EMS System.

Since the stimulator is a battery-operated electronic System, its output performance and safety may be affected greatly in extreme humidity. Therefore, it is very important to keep the system device(s) dry to ensure the safety and performance of the stimulator.

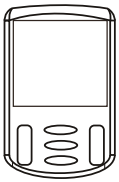
The patient may also be an intended operator.

- **Education level at least 15 years old and 8 years intensive reading experience(school), no maximum.**
- **The patient can replace the battery by itself, but it must be placed in accordance with the direction of the battery symbol on the device.**
- **The patient should not disassemble the device without authorization, If there is any problem, please consult or return the device to your distributor, do not try to repair a defective device.**
- **The patient can only carry out the maintenance of the device or accessories Exterior.**
- **This system is for home use, indoor, not intended for professinal use.**
- **This system is for daily use, no operation time limit on device but it is recommended not exceeding 60 minutes per day.**

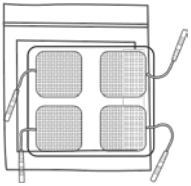
⚠ WARNING:

- **No modification of this system is allowed.**
- **Other cables and accessories may negatively affect EMC performance .**
- **Do not stack and store theis system closed to other equipment.**
- **Use of other accessories results in non-complince.**

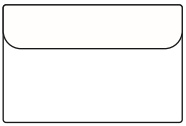
Chapter 3: CONTENTS



Combo unit × 1

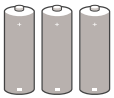


4 Self Adhesive Electrodes
Size: 50x50mm

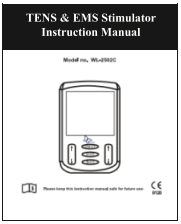


Soft bag × 1

2 lead wires per bag.
Length : 120 cm



3 AAA batteries × 2



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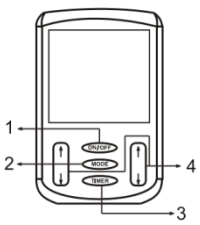
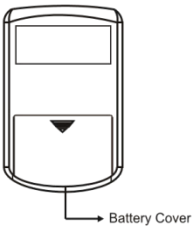
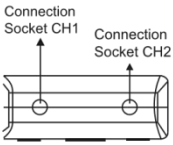
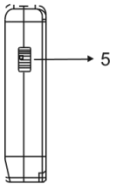
Chapter 4: DESCRIPTION OF DEVICE AND FUNCTIONAL BUTTONS





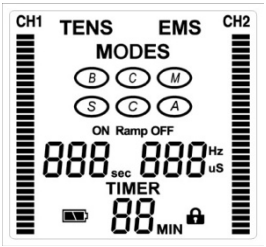




1. ON/OFF Button: Turns the power on and off.
2. MODE Button: Used to program the device.
3. TIMER Button: Used to program timer, 5 - 95 minutes or continuous (5 minute increments).
4. ↑ ↓ Buttons:
   (i) Adjust MODE settings.
   (ii) Adjust TIMER settings.
   (iii) Increase / decrease the level of intensity for CH 1 and CH 2.
5. Sliding Switch: Lock / unlock buttons

The LCD Display:

1. Intensity level for Ch1 & Ch2 (30 levels)
2. System function (TENS or EMS)
3. Modes (6 different Modes)
4. Parameter setting (pulse rate / width, ON / Ramp / Off by "sec")
5. Timer (5-95 min. and continuous)
6. Symbol of button lock function
7. Low battery indicator



Chapter 5: EXPLANATION OF TREATMENT MODES

TENS Modes:

B: Burst mode consists of seven pulses at 100 Hz pulse rate. Burst occurs twice every second.
C: Constant mode keeps pulse rate and width at a constant level.
M: Modulation mode modulates between the control setting and 60% below control setting.

EMS Modes:

S: Synchronous: Ch1 and Ch2 are on at the same time. Pulse active and inactive times are controlled by Cycle on-time and Cycle off-time. Cycle on-time must by >= (Ramp time (up) + Ramp time (down))
C: Continuous: Ch1 and Ch2 are continuous and pulse width / pulse rate is adjustable. On/Off/Ramp can't be changed.
A: Alternating: Ch1 and Ch2 alternate, while Ch1 is active, Ch2 is inactive and vice versa. Cycle ontime must be > on-time.

Chapter 6: EXPLANATION OF PARAMETER CONTROLS

Pulse Width:
Wider pulse duration settings will deliver stronger stimulation for any given intensity setting. The choice of which pulse duration to use is partially dependent upon the treatment mode selected.

Pulse Rate:
The pulse rate determines hertz or impulses per second.

ON Time (EMS function): Adjustable from 1 - 30 seconds

OFF Time (EMS function): Adjustable from 1 - 60 seconds

RAMP Time (EMS function):
Adjustable from 1 - 30 seconds

Chapter 7: PREPARATION FOR USE

Insert batteries:
Your device operates with 3 AAA batteries. Please install batteries with polarities as indicated. Make sure the battery strip is placed below the batteries.

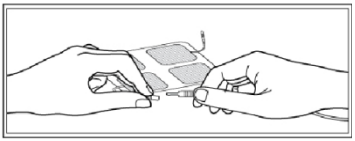
CAUTION: Never force a battery into the battery compartment. A battery that does not fit can damage the stimulator. This device requires 3 AAA batteries, never attempt to use any other battery type.

Preparing the Skin for a Therapy Session:
Proper preparation of the skin is essential to prolong electrode life and reduce the risk of skin irritation.
To prepare your skin at the electrode placement sites:

1. Determine the placement sites for the electrodes. Follow your clinician's instructions.
   NOTE: Your clinician generally has you place the electrodes above and below (or surrounding) the area of pain or along the "pain path" of your arm or leg.
2. Wash the area with mild soap and water (do not use alcohol). Rinse and dry thoroughly.
3. Trim excess body hair from the area with scissors (do not shave).
4. Optionally, apply skin prep to the area to form a protective barrier on your skin.
5. When removing electrodes, always remove by pulling in the direction of hair growth. Do NOT pull on the wire.
6. It may be helpful to apply skin lotion on electrode placement area when not wearing electrodes.

Connecting the electrodes to the device:
Hold the insulated portion of the electrode connector and push the plug end of the lead wire into the electrode connector. Repeat for all 4 electrodes. After connecting each electrode, plug the other end of the lead wire into the TENS device.

Caution: The device should be OFF before connecting the lead wire to the TENS device.



Note: Use care when you plug and unplug the wires. Pulling on the lead wire instead of its insulated connector may cause wire breakage.

Caution: Never insert the plug of the lead wire into an AC power supply or other equipment not specified as safe for the lead wires

Chapter 8: ELECTRODES AND ELECTRODE PLACEMENT

General electrode information:
Electrodes should be routinely replaced when they start to lose their adhesive nature. If you are unsure of your electrode adhesive properties, order replacement electrodes. Replacement electrodes should be re-ordered through your local dealer or call authorized distributor(s). Follow application procedures outlined on electrode packaging to maintain optimal stimulation and to prevent skin irritation.

Electrode Placement:
The placement of electrodes can be one of the most important parameters in achieving success with TENS / EMS therapy. Of utmost importance is the willingness of the clinician to try the various styles of electrode placement to find which method best fits the needs of the individual patient. Every patient responds to electrical stimulation differently and their needs may vary from the conventional setting suggested here. If the initial results are not positive, feel free to experiment. Once an acceptable placement has been achieved, mark down the electrodes sites and the settings, so that the patient can easily continue treatment at home.

Contiguous Electrode Placement:
This is the most common placement technique. It involves pacing the electrodes alongside the area of localized pain sites, in such a way as to direct the flow of current through or around the area of pain. In a single channel application, this would involve placing each electrode on either side of the

pain site if the pain is localized on the limb and deep within the tissue. Electrode placement on the posterior and anterior aspects of the affected limb will allow the current to flow completely through the limb and thus through the endogenous pain site. With a 2 channel application, the clinician may either direct the current flow to cross through the pain site or in what is called the “bracket” method allowing the current flow on either side of the painful area, generally through the nerve branches that feed into the pain site.

Note: Electrodes should be placed between 0.5” – 2” apart from each other.

Caution: The device should be in the OFF position before placing the electrodes on your skin.

⚠ WARNING:

- The loosened electrodes, which can degrade performance.
- You may experience potential allergic reactions to accessible materials used in the electrodes.

Chapter 9: PROGRAMMING YOUR DEVICE AS A TENS

1. **Turn the device ON**
   - Press “ON/OFF” button to turn the unit ON.
   - The most recently selected treatment status is displayed.
2. **Turn the device OFF**
   - The device turns off automatically after the therapy session time has elapsed.
   - The device will turn off after 60 seconds if no button is pushed.
   - To turn the unit off manually, press “ON/OFF” button for 3 seconds.

Note: To prevent unpleasant electric shocks, never move the lead wires or electrodes while the device is still turned on.

3. **System Function Selection**

To select the stimulation modality (TENS, EMS), follow these steps:

- Press the “MODE” button. The device will show your current settings.
- To make changes, press “MODE” again and TENS or EMS will start flashing depending on your previous setting.
- To make changes, press the “UP” or “DOWN” button.
- Once you have selected TENS, press “MODE” again and the modes start flashin . Continue with step 4.

4. **Mode Selection for TENS**

The device features 3 different modes for a TENS treatment: Constant (C), Burst (B), Modulated Width (M).

- The last selected Mode setting is flashing
- To make change, press the “UP” or “DOWN” button.
- Once you have selected your Mode, press the “MODE” button again and the pulse rate starts flashing. Continue with step 5.

5. **Parameter Setting (pulse rate and width)**

To adjust the pulse width and pulse rate settings, follow these steps:

- To adjust the pulse rate (Hz), push the “UP” or “DOWN” button (1 – 150Hz).

- Press the “MODE” button and the pulse width starts flashing (uS). Press the “UP” or “DOWN” button to change the pulse width (30 – 300uS).
- Once you are done changing the pulse rate and pulse width, press the “MODE” button and the display stops flashing indicating your programming is finished. The display will show your final programming.

Chapter 10: PROGRAMMING YOUR DEVICE AS AN EMS

2. Turn the device ON
- Press “ON/OFF” button to turn the unit ON.
- The most recently selected treatment status is displayed.

3. Turn the device OFF
- The device turns off automatically after the therapy session time has elapsed.
- The device will turn off after 60 seconds if no button is pushed.
- To turn the unit off manually, press “ON/OFF” for 3 seconds.

Note: To prevent unpleasant electric shocks, never move the lead wires or electrodes while the device is still turned on.

4. System Function Selection

To select the stimulation modality (TENS, EMS), follow those steps:
- Press the “MODE” button. The device will show your current settings.
- To make changes, press “MODE” again and TENS or EMS will start flashing depending on your previous setting.
- To make changes, press the “UP” or “DOWN” button.
- Once you have selected EMS, press “MODE” again and the modes start flashing. Continue with step 4.

4. Mode Selection for EMS

The device features 3 different modes for an EMS treatment: Synchronous (S), Constant (C), Alternating (A).
- The last selected Mode setting is flashing
- To make changes, press the “UP” or “DOWN” button.
- Once you have selected your Mode, press the “MODE” button again and the ON (sec) starts flashing. Continue with step 5.

5. Parameter Setting (Treatment time, ON (sec), OFF (sec), Ramp (sec), Pulse rate & Pulse width)
- ON (sec) time is flashing. Press the “UP” or “DOWN” button to make changes (1 – 30 sec). Press “MODE”.
- OFF (sec) is flashing. Press the “UP” or “DOWN” button to make hanges (1 – 60 sec). Press “MODE”.
- RAMP (sec) is flashing. Press the “UP” or “DOWN” button to make changes (1 – 30 sec). Press “MODE”.
- Pulse rate is flashing (Hz). Press the “UP” or “DOWN” button to change the setting (1 – 150Hz). Press “MODE”.
- Pulse width is flashi g (uS). Press the “UP” or “DOWN” button to change the pulse width (30 – 300uS).

- Once you are done changing the pulse rate and pulse width, press the “MODE” button and the display stops flashing indicating your programming is finished. The display will show your final programming.

Note 1 to TENS and EMS programming:
When the device is in use and the “MODE” button is pushed 1 time, it will show the current programming. To make changes, press the “MODE” button again, all intensity levels will turn to “0” and the system function will start fl shing (TENS or EMS). Please follow above steps to make changes.

Note 2 to TENS and EMS programming:
If no button is pushed for 10 seconds while in programming mode, the device will stop flashing. To return into programming mode follow steps above by pressing the “MODE” button.

Note 3 to TENS and EMS programming:
If the device is in programming mode (intensity bars are at “0”), the device will automatically turn OFF after 60 seconds if no button is pushed.

Chapter 11: PROGRAMMING THE TIMER

To program the timer, follow these steps:

- Press the “TIMER” button and the timer will start flashing.
- Press the “UP” or “DOWN” button to adjust the time.
- Press the ”TIMER” button to save the changes or wait 10 seconds until the timer stops flashing

Chapter 12: USING THE DEVICE

1. Connect the electrodes to the TENS/EMS control unit.
2. Place electrodes on your skin.
3. Turn the Device ON by pressing the “ON/OFF” button.
4. Using the intensity control buttons, change the intensity for each channel (Note: intensity will increase at a lower rate for the first 10 intensity levels and increase at a faster rate from level 11 to 30).
5. The device will turn off automatically if the timer was set (count down minutes are shown on the display). If it was set to C (continuous) the device has to be turned OFF manually.
6. To turn the device OFF manually, press the “ON/OFF” button for 3 seconds.
7. 30 minutes, the batteries used Number of times for 2 times.

Chapter 13: ENDING YOUR TREATMENT SESSION

After the device shuts off, use the following steps as a quick reference for ending your session:

- Disconnect the lead wire(s) from the control unit.

- Remove electrodes from skin and place them back on the transparent liner. When removing electrodes, always pull in the direction of hair growth. DO NOT REMOVE ELECTRODES WHILE THEY ARE CONNECTED TO THE UNIT TO AVOID ANY ELECTRIC DISCHARGE. Do NOT pull on the wires, but peel off on the corner of the electrode.
- Disconnect the lead wire(s) from the electrodes.
- Store the components in the storage bag.

Chapter 14: SPECIAL FEATURES

Button Lock Function:
Slide the sliding switch to lock or unlock. The lock feature will lock all buttons so that no accidental changes can be made during a treatment.

Automatic Shutoff
- The device turns off automatically when not in use and no button is pressed for 60 seconds.
- The device will turn off automatically when the timer reaches “0” minutes.

Intensity Level Reset
1. For your safety and comfort, the intensity level will reset to 0 each time the device is turned off, including after a therapy session.
2. For your safety and comfort, the intensity level will reset to 0 in case the device is changed into programming mode (pressing the “MODE” button 2 times).

Low Battery Indicator
The low battery indicator is displayed whenever the battery is low. The battery needs to be changed.

Programming Recall
The last treatment and timer setting is automatically saved and will appear on the display when the device is turned on for the next treatment.

Chapter 15: CARING FOR YOUR DEVICE

The device may be cleaned by gently wiping it with a damp cloth moistened with mild soap and water.

Never immerse the device in water or other liquids.
Wipe lead wires with a damp cloth as described above if they become soiled.
To properly store the device for an extended period of time, remove the battery from the device. Put the device and accessories in the storage bag and store in a cool dry location.

If you’re in doubt about the integrity of the pads, order fresh pads please contact authorized distributor(s).

Chapter 16: CHANGING THE BATTERY

- When the low battery symbol is displayed, the battery is too weak to power the device and it is time to change it. At this point, the device will shut off until a fresh battery is inserted. If you decide to install a new battery before the device has shut itself off, be sure to turn the power off before you undertake to change the battery.
- To change the battery, open the battery compartment as you did when you first installed it. Pull out the old batteries and insert new ones according to directions.

CAUTIONS:

1. **Do not connect the stimulator to any electrical outlet.**
2. **Remove batteries from the device during storage to prevent battery leakage. Failure to do so may damage the device.**
3. **Replace battery if device was immersed in water or liquid.**
4. **Never recharge alkaline batteries. An explosion may result.**
5. **Dispose of all batteries according to current federal, state, and local regulations.**

Chapter 17: TROUBLE SHOOTING

If your device does not function properly:

Problem	Possible Cause	Solution
Stimulation is weak	1. Low Batteries. 2. Poor electrode contact. 3. Worn electrodes.	1. Change Batteries 1. Reapply electrodes, secure Firml. 2. Replace electrodes.
Stimulation stops	1. Low Batteries. 2. Poor electrode contact 3. Damaged or worn lead wires and/or electrodes. 4. Therapy time complete.	1. Change Batteries 2. Reapply electrodes, secure Firml. 3. Replace lead wires and/or electrodes. 4. Restart device.
Stimulation weakens with minutes after start	Normal “adaptation” response.	Increase intensity.
Unintentional muscle contractions	Intensity too high.	Decrease intensity.
Stimulation uncomfortable	1. Intensity too high. 2. Improper electrode placement. 3. Poor electrode contact.	1. Decrease intensity. 2. Reposition electrodes. 3. Reapply electrodes, secure Firml.
Stimulation ineffective	Improper electrode placement.	Reposition electrodes.

Chapter 18: TECHNICAL SPECIFICATIONS

Channel: Dual, Isolated between channels
Modes of operations: TENS Burst(B), Continuous(C), Modulation(M)
EMS Synchronous(S)、Constant(C)、Alternating(A)
Max. output voltage: 7 Vrms (50 Vpp) (Load 500Ω±10%)
Pulse Intensity: Adjustable 0-100mA peak into 500ohm load each channel, constant current
TENS
Pulse Rate: 1Hz~150Hz (adjustable)
Pulse Width: 30μS~300uS (adjustable)
Burst Mode (TENS): Burst consists 2 Burst per sec at 100Hz
EMS
Pulse Rate: 1Hz~150Hz (adjustable)
Pulse Width: 30μS~300uS (adjustable)
On Time(Contraction) : 1~30 sec (adjustable)
Off Time(Relaxation) : 1~60 sec (adjustable)
Ramp Time : 1~30 sec (adjustable)
Timer: 5~95 min and Continuous
All electrical specifications are ±20% at 500Ω load.
Wave Form: Asymmetrical Bi-Phasic square pulse
Power Source: 4.5 volt battery (AAA x3)
Dimensions: 102(L) x 63(W) x 24(H)mm
Weight: 118 grams (battery included)
Operating Conditions: + 50°F (10℃) to +104° (40℃), 40-90% max. Relative humidity
Transport and Storage Conditions: +14°F (-10℃) to +140° (60℃), 30-95% max. Relative humidity
Operation altitude: 3000m.
Operating Atmospheric pressure range: 700~1013 hPa
Transport and Storage Atmospheric pressure range: 500~1060 hPa

DESCRIPTION OF SYMBOLS:

SN	This Symbol means "Serial number"
	This symbol means "attention, consult the accompanying documents"
	This symbol means "Manufacture"
	This symbol means type BF equipment; this device offers protection against electrical shock by standard compliance to leakage currents of electrode pad.
	This device shall be disposed in accordance with national laws after their useful lives.

There is a label on the package of electrode explained as follows:

	This symbol means “used before”, represent as “YYYY-MM” (for year and month).

There are a number of technical symbol on your system, explained as follows:

Chapter 19: Information about electromagnetic compatibility

The TENS stimulator is designed to be used in typical approved environments in accordance with the safety standard EMC EN60601-1-2.
The TENS stimulator is designed to support anticipated disturbance originating from electrostatic discharge, magnetic fields for the power supply or radiofrequency emitters.
However, it is not possible to guarantee that the stimulator will not be affected by powerful RF field (radio frequency) originating from other sources.

ELECTROMAGNETIC COMPATIBILITY INFORMATION

Recommended separaon distances between portable and mobile RF communications equipment and the ME equipment

The EMS Electrical Smulator is intended for use in an electromagnec environment in which radiated RF disturbances are controlled. The customer or the user of the EMS Electrical Smulator can help prevent electromagnec interference by maintaining a minimum distance between portable and mobile RF communicaons equipment (transmiers) and the EMS Electrical Smulator as recommended below, according to the maximum output power of the communicaons equipment.

Rated maximum output power of transmier W	Separaon distance according to frequency of transmier m		
	150 kHz to 80 MHz $d=\left[\frac{3,5}{V_1}\right]\sqrt{P}$	80 MHz to 800 MHz $d=\left[\frac{3,5}{E_1}\right]\sqrt{P}$	800 MHz to 2.5 GHz $d=\left[\frac{7}{E_1}\right]\sqrt{P}$
0.01	0.1	0.1	0.2
0.1	0.4	0.4	0.7
1	1.2	1.2	2.3
10	3.7	3.7	7.4
100	11.7	11.7	23.3

Declaration – electromagnetic emissions

The EMS Electrical Smulator is intended for use in the electromagnec environment specified below. The customer or the user of the EMS Electrical Smulator should assure that it is used in such an environment.

Emissions test	Compliance	Electromagnetic environment - guidance
CE emissions CISPR11	Group 1	The Wireless Electrical Stimulator 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.
RE emissions CISPR11	Class B	The Wireless Electrical Stimulator is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic	Class A	
Voltage fluctuations/	Complies	

Declaration – electromagnetic emissions and immunity –
for EQUIPMENT and SYSTEMS that are use in the professional healthcare facility environment or in the home
healthcare environment

The EMS Electrical Smulator declaraon – electromagnec immunity

The EMS Electrical Smulator system is intended for use in the electromagnec environment specified below. The customer or the user of the EMS Electrical Smulator system should assure that it is used in such an environment.

Immunity test	IEC 60601 test level		Compliance level		Electromagnec environment - guidance
Conducted RF IEC 61000-4-6	3 Vrms ; 6 Vrms 150 kHz to 80 MHz		N/A		Portable and mobile RF communicaons equipment should be used no closer to any part of the EQUIPMENT or SYSTEM including cables, than the recommended separaon distance calculated from the equaon applicable to the frequency of the transmier. Interference may occur in the vicinity of equipment marked with the following symbol. 
Radiated RF IEC 61000-4-3	3 V/m ; 10V/m 80 MHz – 2.7 GHz 80%		3 V/m ; 10V/m 80 MHz – 2.7 GHz 80%		
Proximity fields from RF wireless Communicaons equipment IEC 61000-4-3	27 V/m	385 MHz	27 V/m	385 MHz	
	28 V/m	450 MHz	28 V/m	450 MHz	
	9 V/m	710 MHz	9 V/m	710 MHz	
		745 MHz		745 MHz	
		780 MHz		780 MHz	
	28 V/m	810 MHz	28 V/m	810 MHz	
		870 MHz		870 MHz	
		930 MHz		930 MHz	
	28 V/m	1720 MHz	28 V/m	1720 MHz	
		1845 MHz		1845 MHz	
		1970 MHz		1970 MHz	
	28 V/m	2450 MHz	28 V/m	2450 MHz	
	9 V/m	5240 MHz	9 V/m	5240 MHz	
		5500 MHz		5500 MHz	
		5785 MHz		5785 MHz	

Declaraon – electromagnec immunity

The EMS Electrical Smulator system is intended for use in the electromagnec environment specified below. The customer or the user of the EMS Electrical Smulator system should assure that it is used in such an environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnec environment - guidance
Electrostac discharge (ESD) IEC 61000-4-2	±8 kV contact ±2 kV , ±4 kV , ±8 kV , ±15 kV air	±8 kV contact ±2 kV , ±4 kV , ±8 kV , ±15 kV air	Floors should be wood, concrete or ceramic le. If floors are covered with synthec material, the relave humidity should be at least 30 %.
Electrical fast transient/burst IEC 61000-4-4	±2 kV for power supply lines ±1 kV for input/output lines	N/A	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	±0.5 kV ±1 kV differenal mode ±2 kV common mode	N/A	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interrupons and voltage variaons on power supply input lines IEC 61000-4-11	0 % U_T ; 0 , 5 cycle At 0° , 45° , 90° , 135° , 180° , 225° , 270° and 315°0 % U_T ; 1 cycle and 70 % U_T ; 25/30 cycle Single phase: at 0°	N/A	Mains power quality should be that of a typical commercial or hospital environment. If the user of the EQUIPMENT or SYSTEM requires connued operaon during power mains interrupons, it is recommended that the EQUIPMENT or SYSTEM be powered from an uninterrupble power supply or a baery.
Power frequency (50/60 Hz) magnec field IEC 61000-4-8	30 A/m	30 A/m	Power frequency magnec fields should be at levels characterisc of a typical locaon in a typical commercial or hospital environment.

WARRANTY

This TENS/EMS device carries a two-year warranty from the date of purchase.
The warranty applies to the TENS/EMS device and necessary parts and labor relating thereto.

The distributor reserves the right to replace or repair the unit at their discretion.

The warranty does not apply to damage resulting from failure to follow the operating instructions, accidents, abuse, alteration or disassembly by unauthorized individuals The distributors reserve the right to replace or repair the unit at their discretion.

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