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TensCare™

Digital TENS

INSTRUCTIONS FOR USE

Target TENS

Target TENS

Instructions for use

1. INTRODUCTION

The **Target TENS** is an accurate and versatile, digital TENS unit that is easy to use, with simple settings and rotating strength control knobs.

2. FEATURES

Digital Settings
Target TENS offers a wide range of settings with simple, intuitive controls. Digital settings are accurate and repeatable.

Large LCD display
The large, clear LCD display makes its easier for visually impaired to use

Two Burst, two Modulation modes, and Han stimulation
Offering a large choice of sensations for long term users

Treatment Timer
Automatically switches the unit off after the set time when activated.

Memory
Reverts to last setting used when switched on.

Intensity Lock
Intensity controls can be locked to avoid accidental change

Doctor Locking
Physician can lock settings to avoid accidental change

Power saving
Unit switches off if left at zero strength for more than 5 minutes

Economical
Uses AA batteries to give long life and low running costs

3. HOW "TENS" WORKS

TENS stands for **T**ranscutaneous **E**lectrical **N**erve **S**timulation.
It stimulates your body's own natural defences against pain. is totally safe, and has been used successfully by thousands of pain sufferers.

TENS sends a gentle stimulation through the skin which works in TWO ways:-

Pain Gate

Stimulating the sensory nerves, which carry touch and temperature signals. These nerves go to the same connections in the spine as the nerves carrying pain. A strong sensory signal will block the pain signal travelling up the spine to the brain, this is known as closing the "Pain Gate" and takes effect quite quickly after the unit is switched on. You can use TENS several times a day, for as long as you like.

Endorphin Release

At low frequency settings, and slightly stronger output, TENS drives the motor nerves to produce a small repetitive muscle contraction. This is seen by the brain as exercise, and this promotes release of Endorphins – your body's own natural pain killer. The relief builds up and normally takes about 40 minutes to reach a maximum level which can last for hours after the machine is switched off.

By using TENS you can expect to achieve a significant reduction in pain if not complete pain relief.

4. SIDE EFFECTS

There are no known side effects to TENS use and long-term TENS use is not harmful.

5. SETTINGS

There is no one setting appropriate for a particular condition, and the most appropriate varies from one person to another, even if they have the same type of pain. Therefore, the selection of both the settings and the positioning of the pads should be performed on an individual basis. You may need to try a few positions/settings before finding the one that suits you the best.

In addition to strength, the following parameters can be set: -

Pulse Frequency (measured in Hz – pulses per second)
A frequency of 80-150 Hz is good at blocking pain signals.
A low frequency of less than 10 Hz allows for the release of endorphins, the body's natural morphine-like substances.

Pulse Width (measured in µS – millionths of a second)
The **Target TENS** units offer a range of pulse widths from 50 to 250 µS. The feeling through the pads will vary depending on the pulse width. Pulses with higher pulse widths feel stronger and are more likely to stimulate muscle movement.

Constant and Burst Modes
Constant mode is when the sensation is continuous as against Burst mode when the sensation, is as its name implies, is one of on and off.

Modulation Modes
Modulation is when either the frequency or pulse width sweep across range of settings. This can lessen any effect of accommodation.

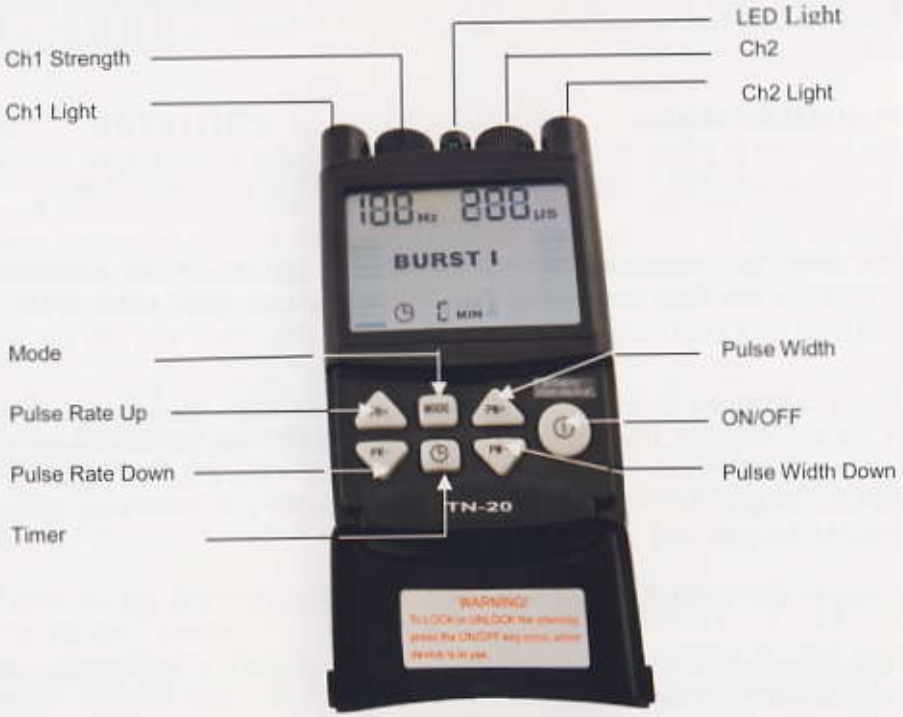
The Pain Gate is activated by signals of 80-150 Hz. If you are using TENS for the first time, it is recommended that you start with a setting of 110Hz 50 uS.

The Endorphin Release mechanism is activated by signals from 1 to 10 Hz with the strength and pulse width set high enough to cause small muscle contractions. Best results are achieved at between 20 and 40 minutes, but using for longer than this may cause lead to fatigue and cause aching muscles.

Burst Modes combine both Pain Gate and Endorphin release.

Han Stimulation alternates between 2Hz and 100 Hz, and is claimed to give optimum pain relief.

6. CONTROLS



This key switches the unit on and off. Press once to switch the unit on. The LED light (green color)and the LCD display located at the front of the unit will light up, there will be no feeling from either lead at this point as the strength always starts at zero. Press this key again and hold for 3 seconds to switch the unit off.

When the unit is turned on, it will automatically enter the mode that was used before it was turned off.

During use, pressing the ON/OFF button turns the Strength Lock on or off.

When activated, LOC appears on the display.

There are two knobs which adjust the strength : -

Turn clockwise to increase the strength.

Turn counter-clockwise to decrease the strength.

Automatic shut off: When the unit intensity levels are 0 on both channels, and it has not been in use for 5 minutes, the unit will be shut off automatically.

Stands for Pulse Rate Up, press this key to increase the frequency.

Stands for Pulse Rate Down, press this key to decrease the frequency.

Stands for Pulse Width Up, press this key to increase the Pulse Width.

Stands for Pulse Width Down, press this key to decrease the Pulse Width.

The pulse rate, pulse width and intensity adjustment has an auto-repeat function:- when the key is held down for more than 1 second, it will automatically increase/decrease 1 step per 1/4 seconds.

A locking feature is available which your physician may use to prevent adjustment of settings. If this is activated, a key symbol is shown at the bottom centre of the display.

Press the both  &  keys simultaneously to change the waveform from bipolar to unipolar and back. Waveform symbols will be displayed for 3 seconds when you press the key.

NOTE

In a very small percentage of people, using T.E.N.S. in Monophasic Rectangular waveform can exacerbate the symptoms of pain. If this occurs, stop treatment in this waveform immediately.

Press this key to select mode.
Six modes are available: Constant, Burst I, Burst II, Modul I, Modul II, and Han.
When mode is changed, the intensity automatically goes to zero.

In Han mode, strength is set independently for each frequency. When the strength control is turned, 100 Hz display will flash. Press TIMER key (See below) to confirm, and 2Hz display will flash. Adjust strength again, and press TIMER key to confirm.

Press this key to set the treatment time. When the treatment timer is set, it will begin to count down in minutes. Once it counts down to Zero, the unit will automatically shut off.

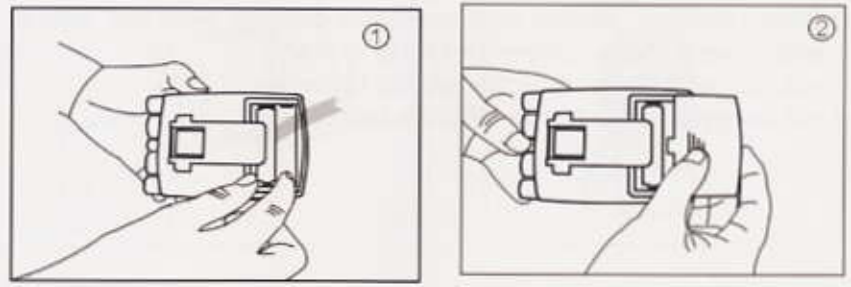
7. CONTENTS

Target TENS Pain Relief unit
2 Lead wires
Pack of 4, 50x50mm, superior self-adhesive electrode pads
(item code: E-CM5050)
AA 1.5v (Type LR6) batteries (2)
Instruction Manual
Storage Pouch

8. INSTALLATION OF BATTERIES

When the batteries are low, the battery symbol flashes at 2Hz indicating that the batteries should be replaced.

Remove Battery Cover



Insert batteries
Ensure that the batteries are inserted the right way as shown in battery compartment.

Note: Your unit will not function if the batteries are inserted incorrectly. To check, press the button once and the LCD display will start up. Having made this check, press the button again to switch the unit off.

When the batteries are running low a low battery indicator will show on the screen (battery symbol) and it is important to change the batteries as soon as possible.

Disposal of batteries

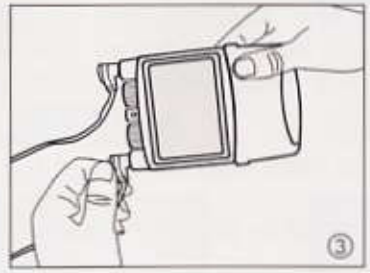
Always dispose of batteries safely.
Do not throw batteries onto a fire.

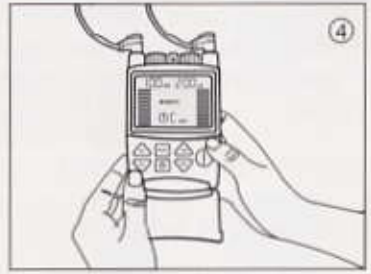
Warning

Keep batteries out of the reach of small children
If battery leakage occurs and comes in contact with the skin or eyes, wash thoroughly with lots of water.
Do not mix alkaline and rechargeable batteries
Do not attempt to recharge alkaline batteries

9. CONNECTING LEAD WIRES

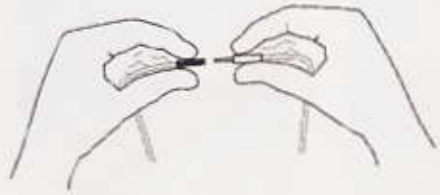
Decide whether you wish to use the unit with one lead or two
If using two leads, insert the plugs into both sockets in the unit. If only using one lead, insert into the **Ch1** socket as marked on the unit.





Attaching the electrode pads to the Lead wire

At the other end of the Lead wire there are pin connections.
Push the pin ends into the pigtail ends of the electrode pads.



10. POSITIONING OF ELECTRODE PADS

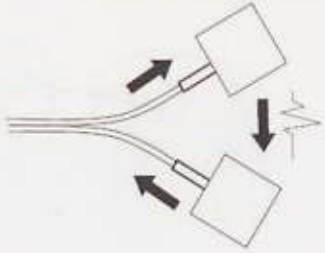
The following body maps in this instruction booklet will show you where to place the electrode pads for a range of common complaints, dependent on your symptoms.

Where only two pads are shown on the arm, shoulder, and leg, use the other two pads either on the opposite limb or place all four pads on the same limb in a square pattern with each pad being about 4 inches apart.

For symptoms not illustrated, apply the pads around/near to the source of the pain or seek advice from your doctor or physiotherapist.

The electrode pads must always be used in pairs, so that the signal can flow in a circuit.

NOTE:
Always check unit is OFF before attaching or removing pads



ELECTRODE PAD POSITIONS

Low Back Pain

Neck and Shoulder Tension

Sciatica

Shoulder Pain

Knee Pain

Elbow Pain

Ankle Pain

Wrist Pain

Leg Pain

11. GENERAL PAD ADVICE

The electrode pads supplied are reusable but are for single patient use.
In order to obtain the best conductivity through the pads always ensure that they are in good condition and tacky.
Before use make sure your skin is clean and dry.
Peel the electrode pads from their protective plastic shield by holding and lifting one corner of the pad and pulling. *Do* ***not*** pull on the pigtail wire of the pad.
After use always replace the pads on the plastic liner and replace in the re-sealable plastic bag.
If the pads dry out then it is best to buy a replacement pack of electrodes. In an emergency it may be possible to restore some of the tackiness of the pad by adding a tiny drop of water on each pad and spreading around.
In very hot weather the gel on the pads may become soft. In such cases place the pads, still on their plastic liners and in their bag into a fridge until they return to their normal condition.

12. CLEANING

The case and lead wires can be cleaned by wiping with a damp cloth and a solution of mild soap and water. Wipe dry.
Do not immerse your TENS machine in water.
Do not use any other cleaning solution than soap and water.

13. TROUBLESHOOTING

If your TENS machine is not working properly please check the following:

BATTERIES:
Have they been fitted correctly?
Do they need replacing?

LEADS
These may develop intermittent faults if roughly treated. Try changing the leads over. If this cures the problem in one channel, purchase a replacement lead.

If the above review has failed to resolve your problem, call TensCare or your local dealer (address on back cover) for advice.

14. CAUTIONS & WARNINGS

***Do not* use TENS :**

- if you have a heart pacemaker or have a heart rhythm problem
- if you have epilepsy
- during the first three months of pregnancy
- when driving or operating machinery
- if you are suffering from acute, feverish or infectious diseases
- to mask or relieve undiagnosed pain.

***Do not* place electrode pads :**

- on broken skin
- to skin which does not have normal sensation. If the skin is numb, too great a strength may be used, which could result in a minor burn.
- on the carotid arteries
- over the eyes
- across the front of the head
- on the abdomen at anytime when pregnant
- near malignant tumours

Do not:

- ignore any allergic reaction to the electrode pads: If a skin irritation develops.
- start your TENS treatment until the cause of pain has been diagnosed.

If you are in any doubt about any of these warnings please consult your medical adviser.

Also do not *:*

- immerse your TENS unit in water or place it close to excessive heat.
- attempt to open up the TENS unit. Such actions will void the guarantee.
- mix old, new or different types of batteries. Be sure to dispose of old batteries safely.

Caution:

Observe caution when using electrotherapy at the same time as being connected to electro-monitoring equipment with body worn electrode pads as interference may occur with the signals to the electro-monitoring equipment.

Do: Remove batteries from your TENS machine if the unit is unlikely to be used for a long period.

15. GUARANTEE

Your TensCare device is guaranteed for two years from the date of purchase. If a fault develops return the unit to TensCare at the address below, together with a copy of your invoice and details of the problem. The guarantee does not cover the batteries, electrode pads or mono lead wire.

Please note that the Guarantee is invalidated if incorrect batteries have been fitted the unit has been immersed in water, maltreated or tampered with.

16. CONSUMABLES AND SERVICING

Replacement electrode pads, new batteries and lead wires are available from your supplier or distributor (see back cover for contact details), by mail order from TensCare, by telephone using a credit or debit card, or through our website.

Accessories/Spares

The following replacement parts may be ordered from Tenscare

E-CM5050	Pack of 4 50x 50 Electrode pads
L-TN20	Lead wire
B-AA	Batteries 1.5V AA batteries

17. DISPOSAL OF WASTE ELECTRICAL AND ELECTRONIC PRODUCTS (WEEE)

One of the provisions of the European Directive 2002/96/CE is that anything electrical or electronic should not be treated as domestic waste and simply thrown away. To remind you of this Directive all affected products are now being marked with a crossed-out wheelie bin symbol, as depicted below.

To comply with the Directive you can return your old electrotherapy unit to us for disposal. Simply print a postage-paid PACKETPOST RETURNS label from our website www.tenscare.co.uk, attach this to an envelope or padded bag with the unit enclosed, and post it back to us. Upon receipt we will send your old device for components recovery and recycling to help to conserve the world's resources and minimise any adverse effects on the environment.

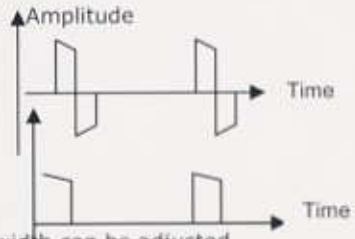
18. TECHNICAL SPECIFICATION

Channel:	Dual
Output:	Maximum 150mA(peak value) across 500Ω load ,20 steps of approx 7mA
Pulse Width:	From 50μS to 250μS adjustable in steps of 10 μS
Pulse Rate:	From 1Hz to 150 Hz adjustable. 1,2,3,4,5,10,12,14,16,18,20,25, 30, 35, 40, 50, 60, 70, 80, 90, 100,110,120,130,140,150,
Waveform:	Symmetrical Bi-phasic rectangular or Monophasic rectangular
Modes:	5 Modes are available
Mode A	Constant
Mode B	Burst I. Two trains per second, 250ms on, 250ms off; 25 pulses within one train, pulse width=200μS
Mode C	Burst II . Two trains per second, 250ms on, 250ms off; Pulse width and Pulse rate are selectable.
Mode D	Modul I , Pulse width modulation. Pulse width modulates from 100μS to 250μS within 6 seconds and then back to 100μS in the next 6 seconds. Pulse rate is selectable.
Mode E	Modul II, Pulse rate and Pulse width Modulation. Frequency increases from 50Hz to 100Hz while pulse width decreases from 200μS to 60μS within 5 seconds.
Mode F	HAN. 100Hz 50uS alternating with 2Hz 200uS every 3 seconds.
Treatment timer:	Continuous,15min,30min,45min,60min, 90min selectable.
Safety Classification	Internal power source. Type BF. Designed for continuous use. No special moisture protection.
Operating: Storage:	Environmental Specifications: Humidity: 20 to 65% RH, Temperature range: 0 to 35C Humidity:10 to 90% RH, Temperature range: 0 to 55C
TYPE BF EQUIPMENT	Equipment providing a degree of protection against electric shock, with isolated applied part.
⚠	This symbol on the unit means "Refer to instructions for use"
Statement:	This T.E.N.S. Unit has been tested for EMC requirement according to EN60601-1-2

Technical output information:

A. Waveform

There are 2 types of waveforms:
(1). Symmetrical Bi-Phasic rectangular waveform



(2).Mono-Phasic waveform

B. Pulse duration

By pressing PW+ or PW- key, the pulse width can be adjusted from 50μS to 250μS in steps of 10μS, except in Modes B, D, and E, for which pulse duration is fixed

C. Pulse frequency

By pressing PR+ or PR- key, the pulse width can be adjusted to one of the following values (Hz): 1,2,3,4,5,10,12,14,16,18,20,25, 30, 35, 40, 50, 60, 70, 80, 90, 100,110,120,130,140,150, except in Modes B and E, for which pulse rate is fixed.

D. Output voltage range

The output voltage of two channels can be adjusted individually in 20 steps.
The peak pulse output current of two channels can be adjusted individually in 20 steps.
For 500Ω load, the output voltage can be change from 12mA to 150 mA in steps of about 7 mA .

Doctor Locking

Press "timer key"for 2 seconds to lock the unit. A key symbol appears on the Display

While the unit is locked, only timer and intensity parameters can be adjusted. Pressing ON/OFF key does not release the lock.

Distributed by

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