

Hi-Dow

Wireless TENS & EMS System Instruction & User Manual

Please read this user manual before using this device



Contents

GENERAL DESCRIPTION	4
WARNINGS & PRECAUTIONS	5
INTRODUCTION TO TENS	6
CONTENTS & GENERAL INFORMATION	8
INSTRUCTIONS FOR USE	10
STEP BY STEP TREATMENT	11
PROGRAMME CHOICE AND TREATMENT RECOMMENDATIONS	13
ELECTRODE PLACEMENT	14
TROUBLESHOOTINGS	15
MAINTENANCE, TRANSPORTATION AND STORAGE OF TENS DEVICE	16
TECHNICAL SPECIFICATIONS	17
PATIENT ACCESSORIES	18

GENERAL DESCRIPTION

The Med-Fit Wireless TENS/EMS System is a battery operated wireless pulse generator that sends electrical impulses from a REMOTE control to RECEIVER (round) with ELECTRODE attached to them that are placed on the body to stimulate the nerves causing pain. When this happens, the nerves "FEEL" gentle electrical sensations instead of the pain.

The Wireless REMOTE controls the ON/OFF of the system, the INTENSITY and the MODE functions of the RECEIVER.

The RECEIVER with the electrode attached to it adheres easily and firmly to the skin. Because the System is Wireless - Needing No Lead Wires - you must use only Med-Fit SNAP PIN Electrodes.

Lead wire electrodes will not work with this Wireless system.



WARNINGS & PRECAUTIONS

PLEASE NOTE:

It is imperative that patients read and understand the warnings and precautions before using this device. Do not allow your machine or electrodes to be used by anyone else, as they are designed for single patients use only. It is recommended that proper medical advice on the use of TENS is sought from a Qualified Practitioner (Physiotherapist, Doctor or Nurse) prior to use, in order to ensure safe and effective treatment. If you are taking any medication please carry on as normal but seek advice from your Doctor/Healthcare Professional before using the device.

WARNING! PATIENTS WITH PACEMAKER MAY NOT BE TREATED WITH TENS

- Do not use during pregnancy except during labour
- Do Not place electrodes over the Carotid Sinus
- Do Not use on broken or damaged skin
- Do Not place electrodes close to the eyes or in the mouth.
- Do Not use TENS whilst driving or operating machinery.

Tens is unsuitable and should not be used in the following situations.

- Persons suffering from conditions where the circulation is impaired.
- Epilepsy, Heart Condition or any form of Malignancy.
- Patients with poor skin sensation and non-compliant patients who are emotionally disturbed or have dementia.
- Over metal implants or in conjunction with sleep apnea or heart monitors.

You should be aware that TENS units provide symptomatic relief only and are not considered curative.

INTRODUCTION TO TENS

What is TENS?

Transcutaneous electrical nerve stimulation is a pain control treatment. It is often called TENS for short.

A TENS unit is a portable, pocket-sized, battery-powered device.

The TENS unit uses mild, safe electrical signals to help control pain and delivers the electrical signal to the body through a connection of a lead wire and self adhesive conductive electrode.

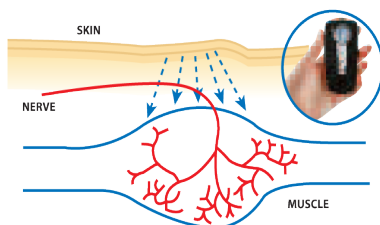
How does TENS work?

The most common TENS programs use high-frequency stimulation, which is the first choice for both acute and chronic pain.

High-frequency stimulation sends impulses to the nervous system's own pain-inhibiting mechanisms, which block the pain. You can use it as often and as long as you like, but each treatment should last at least 1 hour.

Another type of TENS is low-frequency stimulation. Low-frequency TENS treatment can alleviate pain by stimulating muscles to release the body's own morphine-like substances, endorphins.

Place the electrodes on a muscle in the painful area so that a visible contraction occurs.



INTRODUCTION TO TENS

During the TENS treatment

If your muscles start to twitch. This may mean that the TENS signals are too strong or too fast. If you cannot feel any tingling at all. This may mean that the signal is too weak or too slow.

The electrodes should be removed at least once a day if the TENS treatment is used around the clock. The skin under the electrodes must be checked to see if it is red or tender. The skin should also be cleaned and dried while the electrodes are off. Put lotion on your skin where the electrodes were placed. The electrodes should be put in a new place for each new treatment. This will help prevent the skin from becoming red or sore.

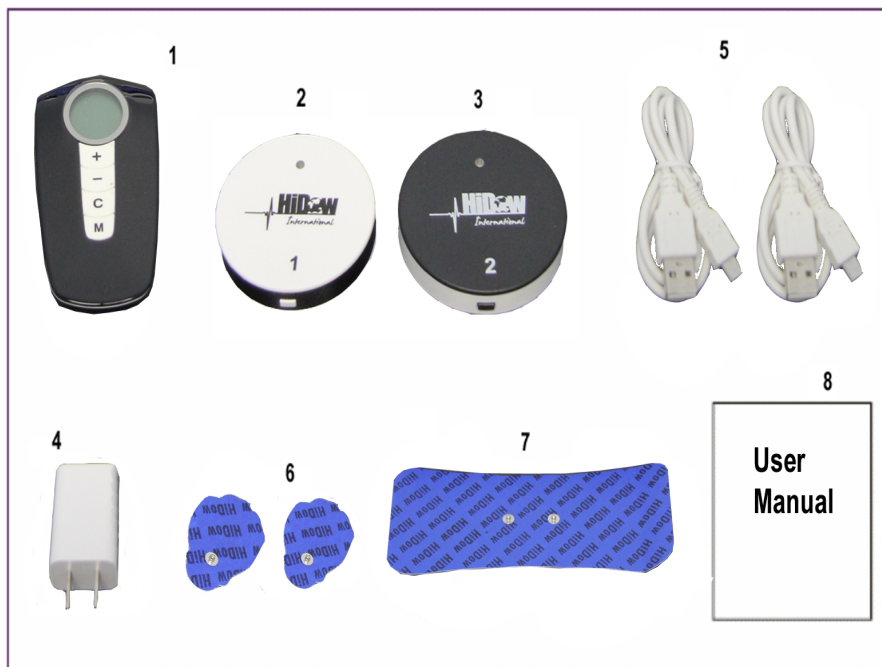
TENS can be used for

TENS can be used to treat most types of pain where the cause has been determined including:

- Arthritis Period Pains
- Back Pain Post Herpatic
- Bruising Neuralgia
- Calf Strain Pregnancy/
- Dead Leg Labour Pains
- Fibrositis Finger Pain
- Rheumatism
- Sciatica
- Headaches
- Migraines
- Shoulder Pain
- Sleeplessness
- Knee Pain Spondylosis
- Lumbago Muscle
- Stress
- Sports Injuries
- Tennis Elbow
- Neck Pain Tenosynovitis
- Neuralgia Wrist Pain
- Osteo-arthritis

CONTENTS & GENERAL INFORMATION

Please check carefully the contents of the Hi-Dow wireless TENS



1. Remote Control Unit
2. White TENS Module
3. Black TENS Module
4. AC adaptor
5. USB and AC Adaptor Charging Leads x2
6. Self Adhesive Electrode x4
7. Self Adhesive Electrode (Lumbar)
8. Instruction & User Manual

CONTENTS & GENERAL INFORMATION

Battery Charging

Please fully charge the batteries in both the remote unit and TENS modules before using this device.

Charging the Remote Using the AC Adaptor

Connect the small end of the USB cable to the remote and the larger end to the AC adaptor (as shown in Fig 1)

Plug the adaptor into any standard mains socket.

When the remote has finished charging the battery icon indicates full.



Fig 1

Charging the TENS Modules

Connect the USB cable as already described to the TENS modules and plug the AC adaptor into any mains socket.

A red light indicates the TENS module is now charge mode, once fully charged the red light will go out indicating that the TENS module is fully charged.



Charging your devices via a computer USB port

You may charge your TENS remote and tens modules through a computer by using the USB port (See Fig 2).

Please note your computer must be switched on to perform this function.

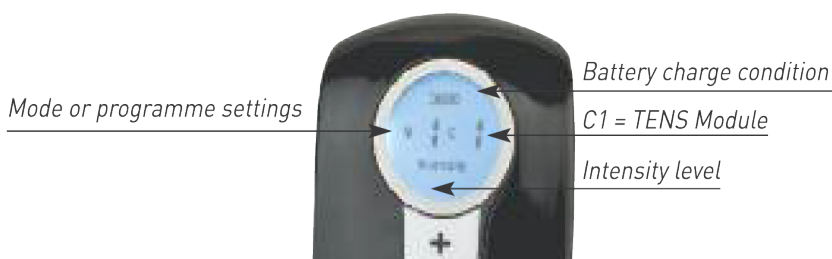


Fig 2

INSTRUCTIONS FOR USE

The Remote Control Features and Functions

Switch remote on by pushing the small black control on the left hand side of the remote the display.



There are four modes or treatments settings available M1, M2, M3, and M4. By pressing the M button on your remote will change the mode from M1 through to M4 (an explanation of the choice of modes is under section ???)

Pressing the C button changes the display from 1,2 or 3 for example

This setting would indicate the remote is set for m mode/programme 1 and TENS module 1.



Intensity Controls

Pressing the + or - buttons will increase and decrease the intensity level and is displayed as shown.

Please note you can only increased and decreased the intensity once you have turned on your TENS module you are now ready to use your TENS device.

Please follow these simple steps for your first TENS treatment.

STEP BY STEP TREATMENT

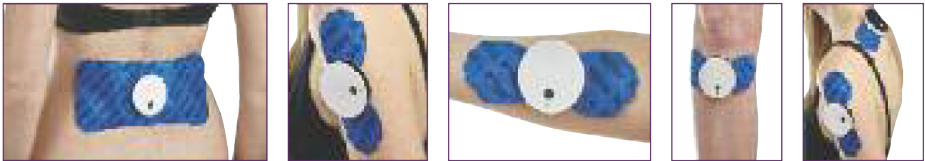
Set up guide

Switch on the remote unit and the white (no1) TENS module.
(Green Light Indicates the unit is on).

Connect either the large lumbar electrode or two pad electrodes to the module as shown



Now firmly place the unit on to the painful site of your body to be treated see examples shown.



Please start by using

Mode/Programme 1 and c1 as displayed on the remote. Now press the + button until the sensation is strong but pleasant,

Do not over stimulation by increasing the intensity level which is uncomfortable.

Mode/programme, 1 is the ideal setting for pain block and is recommended as you start up programme.

It is advised to use this programme for the first 3 to 4 days for a minimum of one hour per session with 3 to 4 sessions per day. You may increase the length of time per session if required to block pain as required.

STEP BY STEP TREATMENT

Set up for using two TENS modules

This unique TENS device allows you to treat larger areas or two different body parts at the same time see examples



To use a second TENS module (Black TENS Module Number 2) simply press the M button on your remote so that the display shows.



Connect the self adhesive electrodes to the black module and place over the painful site.

Switch the module on (a green light will be displayed).

Now increase the intensity as already described previously.

You should now have two modules treating simultaneously to switch off the TENS modules first turn down the intensity using the [-] button, now turn the remote unit off by using the ON/OFF button.

Carefully remove the TENS modules from the treatment site switch off the TENS modules and place the self adhesive electrodes back on to the plastic protective film.



PROGRAMME CHOICE AND TREATMENT RECOMMENDATIONS

What is TENS?

The more precise term is Transcutaneous (meaning "through the skin") Electrical Nerve Stimulation (TENS). A TENS unit is an electrically powered device used to apply an electrical current to electrodes on a patient's skin to relief pain associated with sore or aching muscles. TENS stimulates the nerves and confuses the pain signal they send to reduce pain.

What is EMS?

EMS stands for Electrical Muscle Stimulation. An EMS device is used to stimulate healthy muscles in order to improve muscle performance. EMS stimulates muscles and promotes blood flow that will improve muscle condition, reduce muscle atrophy and reduce pain.

MODES:

The Hi-Dow Wireless Tens/EMS system uses a proprietary combination of Tens/EMS stimulations. Each mode provides a different combination of TENS and EMS signals designed to give a range of options for the user. While each mode is tuned for a different purpose, the user is encouraged to use the mode that works best for them regardless of the recommendations below.

The Four (4) Modes (1, 2, 3, 4 on Remote): Each Channel or Receiver (C on Remote) *can be programmed with the same or different modes.*

The MODE (M on Remote) button controls the Four (4) Modes as follows:

Mode 1 - Massage Wave - Head and neck

Mode 2 - Acupuncture Wave - Low Back, Hip, Chest, Stomach Shoulder and Upper Back

Mode 3 - Tapping Wave - Leg, Arms, Hands and Foot

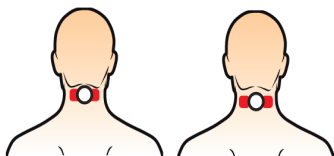
Mode 4 - Combination Wave - All Pain Conditions

NOTE

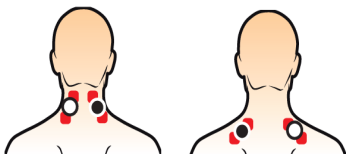
Electrical stimulation is felt differently by each person and some programmes / Mode may work better for some of your conditions than others please try all four modes for your pain condition to see what works best for you.

ELECTRODE PLACEMENT

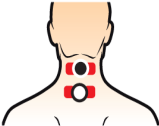
Cervical Pain



Chronic Cervical Spine Pain (Postlaminectomy)



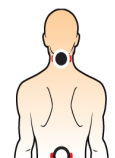
Chronic Cervical Strain



Frozen Shoulder



Degenerative Arthritis: Cervical and Lumbar



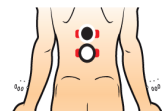
Shoulder Pain



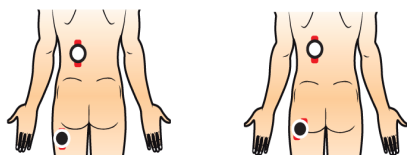
Chronic Hip Pain



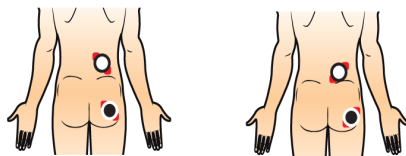
Low Back Pain



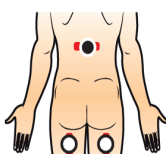
Hip Neuralgia



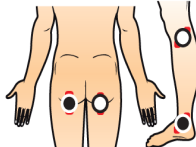
Phantom Limb, Lower Extremity



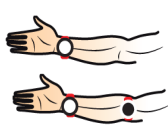
Sciatica



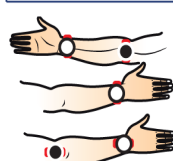
Low Extremity Pain



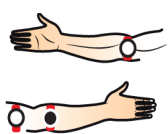
Carpal Tunnel Syndrome



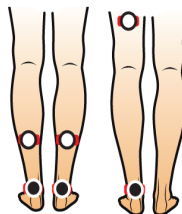
Wrist Pain



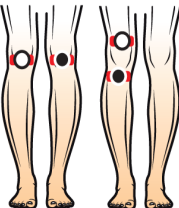
Elbow & Forearm Pain



Lower Leg Pain



Knee Pain - Post-Op



Degenerative Arthritis - Knee Pain



TROUBLESHOOTINGS

1. The REMOTE is not turning on or I can't see anything on the screen.
 - Make sure the REMOTE has been fully charged.
2. The power light of RECEIVER flashes continuously.
 - Charge the RECEIVER soon or it will turn off automatically.
3. The REMOTE and/or RECEIVER do(es) not seem to be charging.
 - Ensure the USB cable is firmly in the REMOTE/RECEIVER on one side and plugged into the AC adapter into the electrical socket on the other side - Isolate whether there is a problem with the AC adapter by plugging the USB cable from the REMOTE/RECEIVER into a computer.
4. Adhesive electrode pads do not stick to skin even after cleaning and moistening their surface.
 - Replace the adhesive gel pads. Pads can be purchased from your distributor or from www.thetenscompany.co.uk.
5. During use the skin feels a painful burning sensation or the stimulation becomes weakened.
 - Apply a few drops of water to adhesive surface of the pads and make sure the pads are pressed firmly to the skin during application.
6. When pressing M" (Mode) and "+" "-" (Intensity adjustor) of the REMOTE, there is no any reaction.
 - Make sure both REMOTE and RECEIVERS are turned on, and the Channel number matches the RECEIVER number correctly.
 - If still no any reaction, the user should match the REMOTE and RECEIVERS as to following steps: Press the "C" button on the REMOTE for more than 3 seconds, you will see "C" and Number (1, 2 or 3) flashing, and then quickly double click the power switch of the RECEIVER. At this moment, you could see the Number on the REMOTE stops flashing, which means this RECEIVER is matched successfully. And also you could match the other RECEIVERS as to the above steps.
7. The REMOTE can't control the RECEIVER well.
 - Make sure the distance between the REMOTE and RECEIVER is less than 10 meters under the open environment.

MAINTENANCE, TRANSPORTATION AND STORAGE OF TENS DEVICE

1. Non-flammable cleaning solution is suitable for cleaning the device.

Note: Do not smoke or work with open lights (for example, candles, etc.) when working with flammable liquids.

2. Stains and spots can be removed with a cleaning agent.

3. Do not submerge the device in liquids or expose it to large amounts of water.

4. Return the device to the carrying box with sponge foam to ensure that the unit is well-protected before transportation.

5. If the device is not to be used for a long period of time, remove the batteries from the battery compartment (acid may leak from used batteries and damage the device). Put the device and accessories in carrying box and keep it in cool dry place.

6. The packed EMS device should be stored and transported under the temperature range of $-20^{\circ}\text{C} \sim +60^{\circ}\text{C}$, relative humidity 20% ~ 95%, Atmosphere pressure 500hPa ~ 1060hPa.



TECHNICAL SPECIFICATIONS

Channels: Dual channel

Waveform: Asymmetric biphasic square pulse.

Pulse Amplitude: 0~110mA = 0~55 volts, adjustable (at 500 ohm load)

Pulse Frequency: (Hz) 3-140

Pulse Width: (μs) 110 - 260

Power Supply: Lithium ion rechargeable battery (internally powered)

Device: Lithium ion rechargeable battery

Remote Control: Lithium ion rechargeable battery

Modulation Modes:

Mode 1 = Pulse Width and Pulse Rate Modulations

Mode 2 = Pulse Width and Amplitude Modulations

Mode 3 = Pulse Rate and Amplitude Modulations

Mode 4 = Pulse Rate, Pulse Width and Amplitude Modulations

Size:

Remote

Weight(including battery): 6oz

Receiver 2" round

Safety Standards: IEC/EN/UL 60601-1, IEC/EN 60601-1-2, IEC 60601-2-1, CAN/CSA C22.2 No. 601.1, EN 300200 / EN 301498-3

Limitations of Use and Storage



CE
1083
European
Conformity


European
Directive
2002/96/EC


Type BF
Applied Part

EC	REP
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Physio-Stock
Stockport
UK