PhysioMed 3 SERIES

STIM, TENS & TENS/EMS

INSTRUCTION BOOKLET

A Practical Guide to TENS Therapy

INDEX

INTRODUCTION

EXPLANATION OF PAIN

Pain is a warning system and the body's method of telling us that something is wrong. Pain is important; without it abnormal conditions may go undetected , causing damage or injury to vital parts of our bodies. Even though pain is a necessary warning signal of trauma or malfunction in the body, nature may have gone too far in its design. Aside from its value in diagnosis, long-lasting persistent pain serves no useful purpose. Pain does not begin until a coded message travels to the brain where it is decoded, analysed, and then reacted to. The pain message travels from the injured area along the small nerves leading to the spinal cord. Here the message is switched to different nerves that travel up the spinal cord to the brain. The pain message is then interpreted, referred back and the pain is felt.

WHAT IS TENS?

Transcutaneous Electrical Nerve Stimulation is a battery powered electrical unit which uses electrodes placed onto the skin to deliver electrical impulses to the nerve fibres which lie underneath the skin surface. It is used to provide pain relief by blocking pain signals to the brain via the spinal cord and peripheral nervous system, and also stimulates the production of endorphins, the body's own pain relieving mechanism. Usually the electrodes are placed around the pain area or on acupressure points.

Unlike medication, TENS does not produce side effects such as nausea or drowsiness. It can be administered while the client is going about normal activity and is not addictive.

HOW DOES TENS WORK?

The TENs Machine can work in two ways but firstly it is important to understand how the body feels pain. Messages are sent from the brain to all areas of the body and back again by the nerves, which run from the brain down the spinal cord spreading out to the trunk, arms and legs. If you touch something hot a message will flash along the nerves, up the spinal cord and into the brain. A second message would immediately be sent back to the same area telling you to move your hand away. This process takes only a fraction of a second.

TENs works by a method called pain gating where the stimulation of the TENs machine blocks the messages to the brain telling it the body is experiencing pain. It also encourages the brain to produce the bodies own natural painkilling hormones known as endorphins.

ARE THERE ANY DANGERS OR SIDE-EFFECTS WITH T.E.N.S.?

Remember, the current travels through the skin between pairs of electrodes and only penetrates to a depth of 1-2 inches (to the level of the underlying nerve fibres). Such a small electrical current does not pose any danger. However, if you have a cardiac condition, a pacemaker or are pregnant, consult your doctor before using your TENS. For any conditions requiring electrode placement around the neck or head a health care professional should be consulted.

WHAT CAN TENS BE USED FOR?

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

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

HOW IS IT USED?

The Standard TENS treatment (convention or high frequency settings) is performed when the Pulse Rate is set to 60 pulses per second or more. The sensation produced will be a steady buzzing or tingling feeling between the electrodes. Because the TENS signal is perceived as stronger than the pain signal being produced by the body, it effectively blocks the pain signal from travelling along nerves to the brain. Most clients find that high-frequency treatments produce the quickest relief from pain, as well as providing several hours of relief after the treatment.

Treatment duration - 30 - 60 minutes, or continuous if required. Most modern units are portable and can be clipped to the belt while going about normal activities.

Low-frequency or burst type of treatment is produced when the Pulse Rate setting on the TENS unit is set manually below 10 pulses per second (or as with some units, at automatic burst mode. Low-frequency treatments produce visible muscle twitching often described as a tapping or pulsating sensation. In reaction to this type of stimulation the body releases endorphins (pain-killing chemicals produced naturally in the body). These endorphins act as a chemical nerve block to reduce pain by interrupting the pain signals along the nerves to the brain. Often this type of treatment can take longer to be effective but the results last longer.

nerves to the brain. Often this type of treatment can take longer to be effective but the results last longer.

POSITION OF THE ELECTRODES

Best results are achieved by placing the electrodes directly over the pain site. With dual machines, additional electrodes can be positioned to surround the site. Electrodes can also be used to stimulate traditional acupressure points if required.

HOW DO I KNOW IT'S TIME TO REPLACE MY ELECTRODES?

It is very important that the self-adhesive electrodes (pads) be replaced when they no longer stick well or if you begin to feel a "stinging" sensation on your skin. The usual life-span is approximately 3-6 weeks, depending on skin type and weather conditions— humidity will effect how long they last.

Although most of these pre-gelled reusable electrodes are considered hypoallergenic, in some cases people with sensitive skin may develop an allergy to a particular type of electrode, just like some people who are allergic to certain band-aids or tapes. One solution is to change the electrode and there are also products available to help act as a skin "barrier" in these situations.

CAUTIONS

1. Read operation manual before use of TENS.
2. We emphasize that patient with an implanted electronic device (for example, a pacemaker) should not undergo TENS treatment without first consulting a doctor. The same applies to patients with any metallic implants.
3. If TENS therapy becomes ineffective or unpleasant, stimulation should be discontinued until its use is re-evaluated by the physician or therapist.
4. Avoid adjusting controls while operating machinery or vehicles.
5. Turn the T.E.N.S off before applying or removing electrodes.
6. Series 3 T.E.N.S. devices have no AP/APG protection. Do not use it in the presence of explosive atmosphere and flammable mixture.

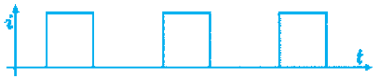
WARNINGS

1. Caution should be used in applying TENS to patients suspected of having heart disease. Further clinical data is needed to show there are no adverse results.
2. Electrical stimulation safety has not been established during pregnancy. Do not use TENS during pregnancy.
3. Do not place electrodes on the front of the throat as spasm of the Laryngeal and Pharyngeal muscle may occur. Do not stimulate over the carotid nerve, particularly with patients with known sinus reflex sensitivity.
4. Care should be taken so that when operating potentially dangerous machinery the stimulator controls are not changed abruptly.
5. Cases of skin irritation at the electrode site have been reported. Stimulation should be stopped and electrodes removed until the cause of the irritation can be determined.
6. Electrodes should not be placed over the eyes, in the mouth, or internally.
7. Keep this device out of the reach of children.

PLEASE NOTE!! Before using your TENS Machine, or for further information on its operation. Please read the manufacturers instructions carefully.

PROGRAMMES/SETTINGS

CONVENTIONAL



Suitable for pain relief. The Therapy consists of short electrical pulses where the stimulation may never be so strong that any muscle contractions occur. Electrodes are usually placed on the nerve paths around the pain site.
TENS stimulation can be used for pain therapy for the following:

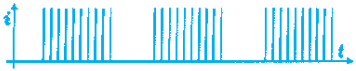
Muscle pain • arthralgia
tennis elbow • arthritis
osteoarthritis • gout
fibromyalgie • tenosynovitis
capal tunne hip • and back pain
muscle tension(myalgia)
sinusitis • neuritis etc.

MODULATION

Stimulation pulses vary for both pulse width and stimulation current. The variation is random and built up as: pulse width multiplied by stimulation current being constant. This modulated TENS prevents any habituation to a set pulse width and has the following variables: frequency, pulse width and treatment time.

Modulated TENS stimulation can be used for pain therapy as mentioned for conventional mode. However, for chronic conditions where long-term treatment is required modulated TENS is recommendable.

BURST



Stimulation form consisting of short series of pulses with high frequency that are repeated with low frequency. BURST stimulation is used for general pain relief and stimulation must be so strong that muscle contraction is perceived. In general terms the electrode is placed on a large muscle near the pain location. BURST has the following variables: frequency, pulse width and treatment time.

The effect of the stimulation has to be strong to achieve visible muscle movement; the muscle tension will be affected an forced to movement. A long-cycle pain relief is given with BURST stimulation due to the fact that the body increases its own production of the natural painkillers, the endorphins.
BURST stimulation can be used for relief of radiating pain such as...

Sciatic pain • back pain • scleroses
tinnitus • circulatory disturbances
whiplash etc.

Physio Med

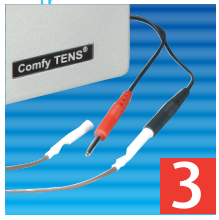
PREPARING YOUR TENS

PREPARING YOUR TENS

1. Retract the sliding lid. Insert the battery and replace the lid.

2. Lift protective cover (1 and 2) and connect the lead wires to the output channels on the device.

3. Connect the lead wires to the electrodes.



4. Clean the skin. Remove the plastic cover from the electrodes before attaching to the skin. The electrodes must not touch each other.

5. Switch on the TENS Machine by turning the on/off button clockwise.

6. Choose programme and adjust the stimulation level.

7. The stimulation automatically stops when treatment time expires.

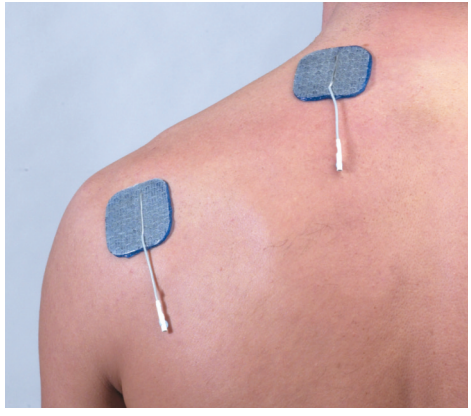
ELECTRODES PLACEMENT - NECK

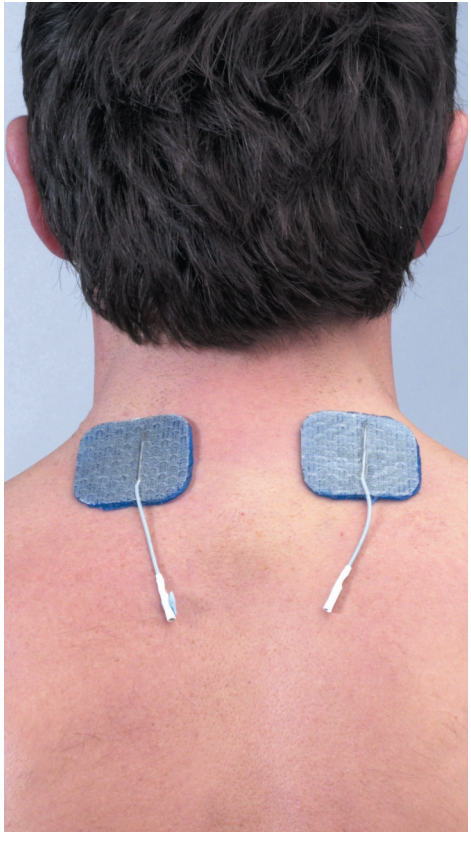
NECK

Muscle tension in shoulder & neck cervical syndrome

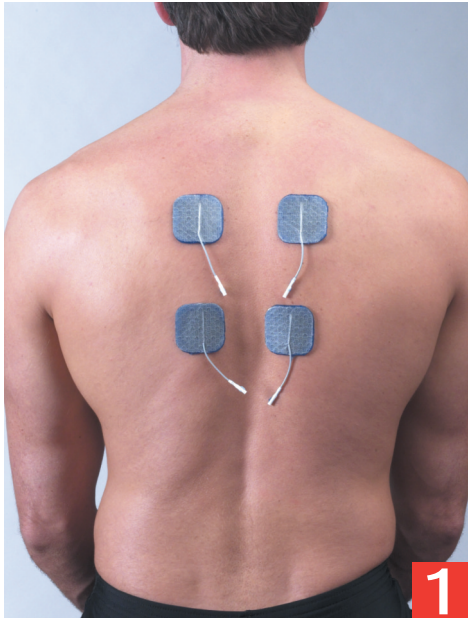
INDICATIONS:

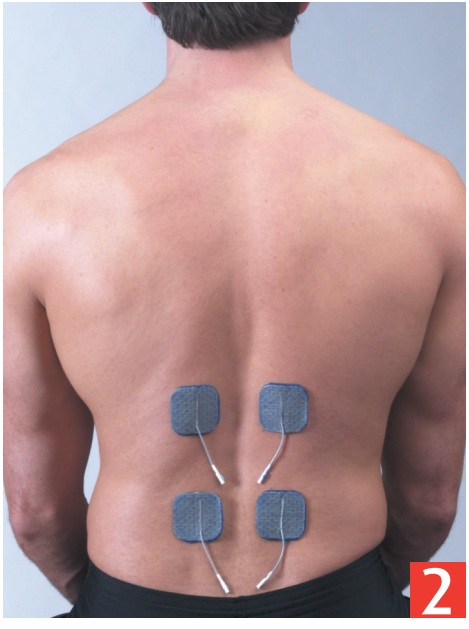
- Rheumatism
- Whiplash
- Slipped disk
- Cervical strain
- Head ache
- Arthritis





ELECTRODES PLACEMENT - BACK





BACK

INDICATIONS:

- Back pain
- Scolisosis
- BWS syndrome
- Bilateral radiation
- Dysmenorrhoea
- Labour pain
- Slipped disk

1) Back pain & muscle insufficiency

If reinforcement of muscles is needed, use TENS on both channels. In order to get the movements try treatment for the stomach.

2) Lower back pain & dysmenorrhoea

The area above Os Sacrum is a junction of the sensory nerve pathway for the lower back and the abdomen.

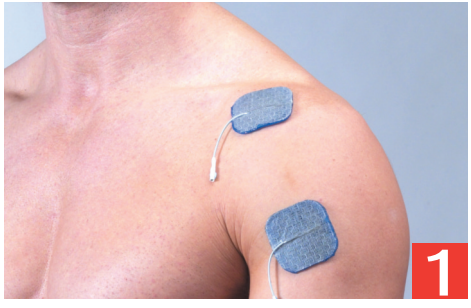
ELECTRODES PLACEMENT - SHOULDER

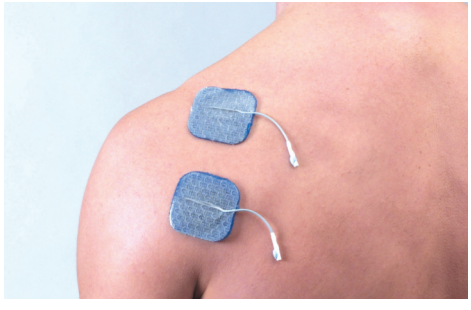
SHOULDER

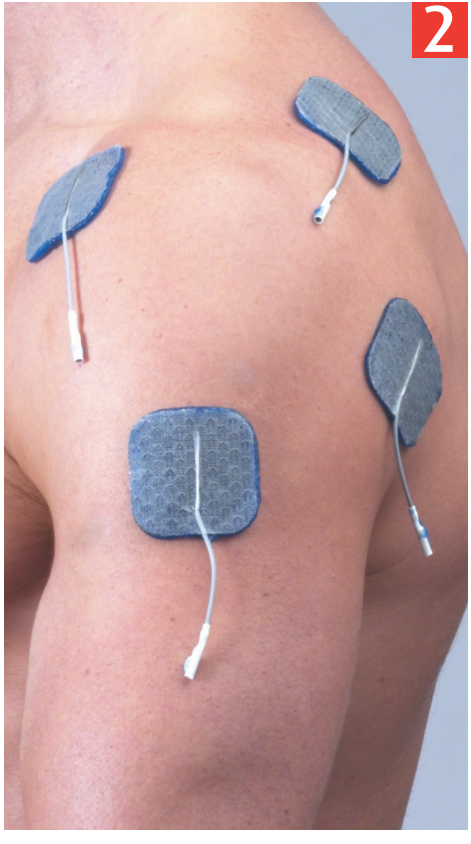
INDICATIONS:

- Rheumatism
- Subluxation
- Shoulder dislocation
- Shoulder sprain
- Arthritis
- Frozen shoulder

If the shoulder feels cold, B is particularly beneficially as BURST stimulation increases the blood circulation.

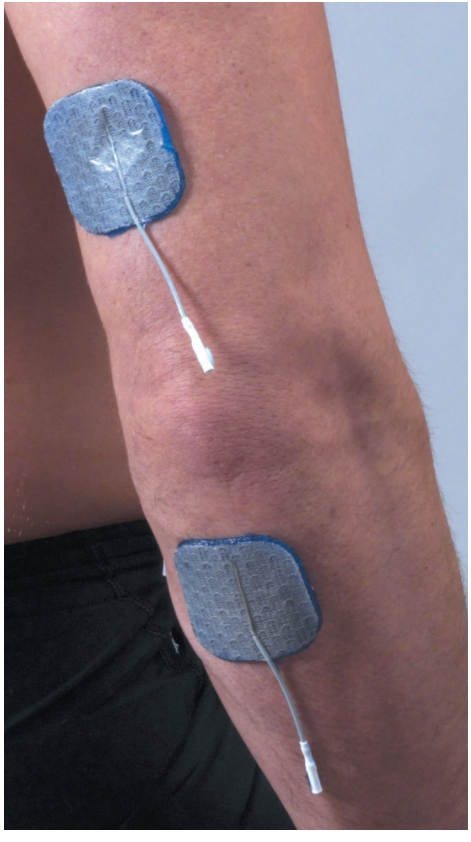






1) Shoulder Pain
2) Shoulder Subluxation

ELECTRODES PLACEMENT - ELBOW



ELBOW

INDICATIONS:

- Rheumatism
- Tennis elbow
- Golf elbow
- Sports injuries
- Arthritic pain
- Pain radiation

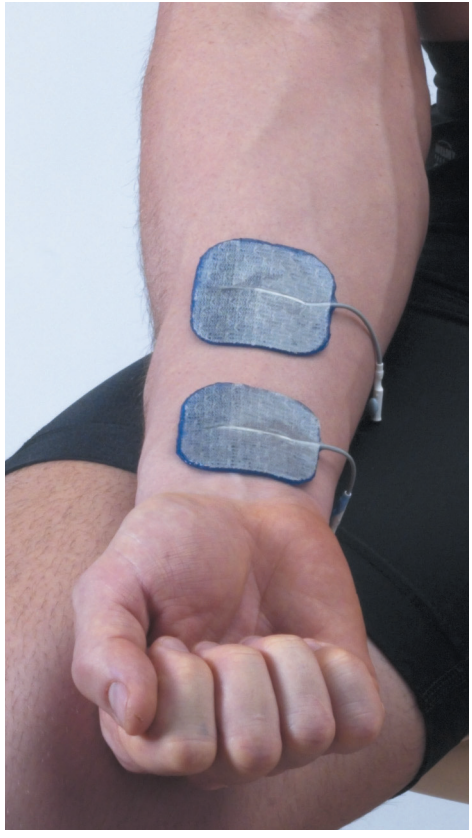
ELECTRODES PLACEMENT - ARM, HAND & WRIST

ARM, HAND & WRIST

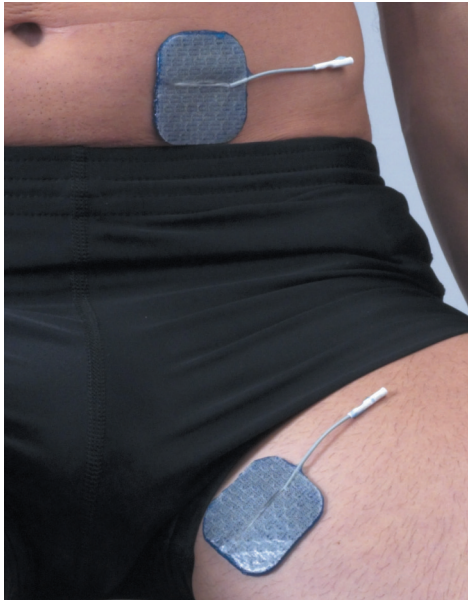
INDICATIONS:

- Tendonitis
- Carpal tunnel
- Rheumatism
- Spasm and spasticity

1) Pain relief & Hand Paralysis (Apoplexy):



ELECTRODES PLACEMENT - GROIN



GROIN

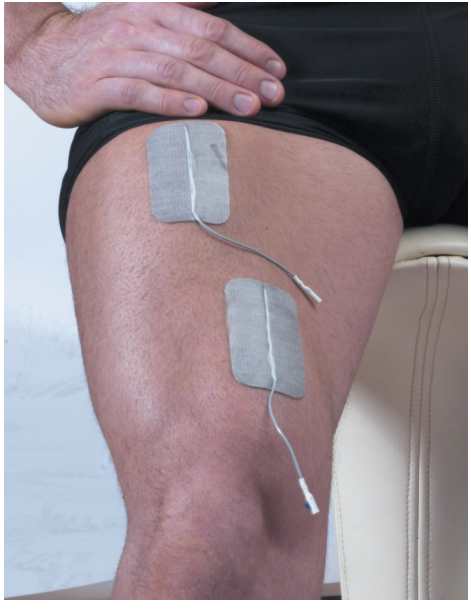
INDICATIONS:

- Sports injury
- Overworked muscles and ligaments
- Dysmenorrhoea

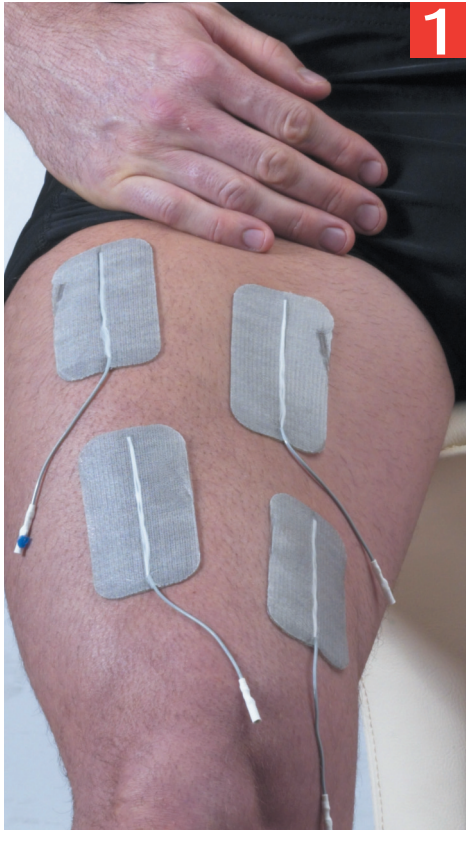
QUADRICEPS

INDICATIONS:

- Low back radiating pain
- Sensibility



1) Quadriceps insufficient



ELECTRODES PLACEMENT - KNEE & ANKLE

1) Knee pain

If the pain is located on the inner side of the leg, use the electrode placement shown on the left knee

2) Pain at the joint of the ankle

At lateral pain, place the electrode as on the right ankle; left ankle shows the electrode placements to threat medial pain

SCIATIC PAIN

INDICATIONS:

- Sciatic pain
- Post-Herpetic neuralgia of sciatic nerve
- Arthritic pain of sacrolliac joint

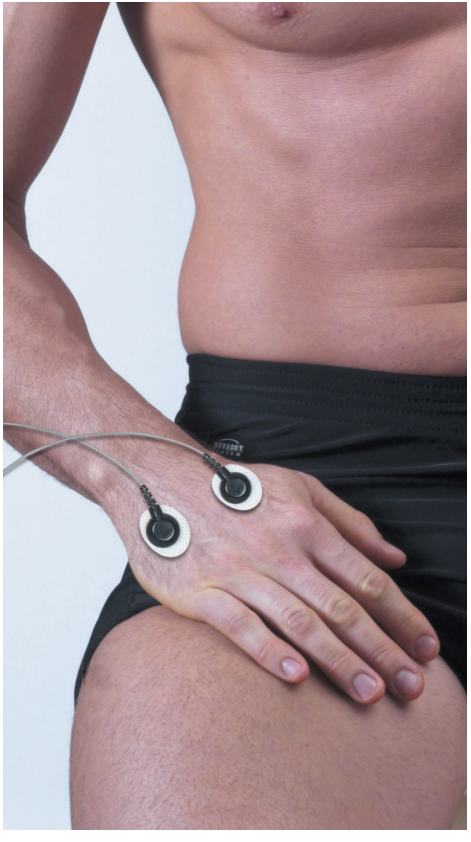
Channel A:

Negative electrode (black) placed posterior on the upper thigh and positive electrode (red) below poplitae crease.

Channel B:

Bilaterally at L5 - S1 level.

ELECTRODES PLACEMENT - GENERAL PAIN & HEAD



GENERAL PAIN TREATMENT WITH BURST

INDICATIONS:

- General pain
- Tinnitus
- Raynaud's phenomenon
- Fibromyalgie
- Circulatory disturbances
- Gout
- Cold hand etc.

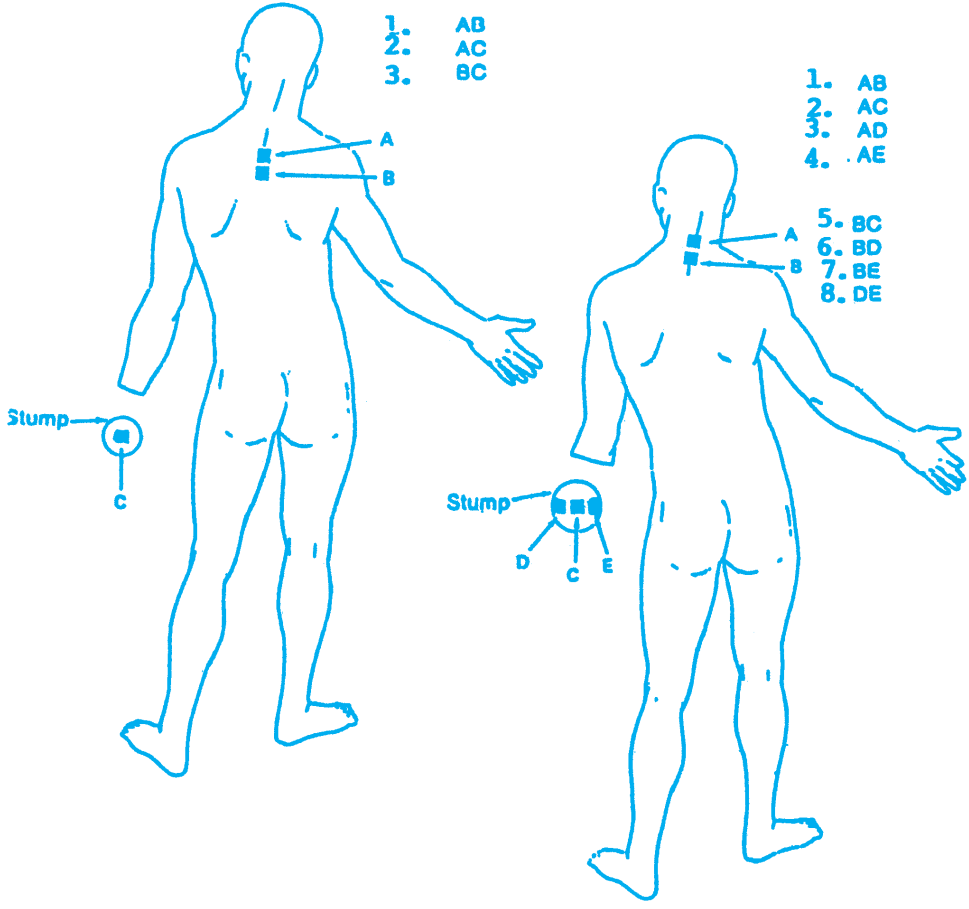
HEAD

INDICATIONS:

- Trigeminus
- Sinusitis
- Frontal headache

PHANTOM PAIN

Electrodes can be placed on painful trigger points, correlated to peripheral nerves and spinal cord segments that innervates the painful area. For general pain management the BURST therapy as shown at page 17 is recommended.



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GRAPHIC SYMBOLS

1. Degree of Electrical Protection BF
2. Do not insert the plug into AC power supply socket
3. Direct Current (DC power source)
4. Timer
5. Low Battery
6. Increase Parameters
7. Decrease Parameters
8. Consult Instructions for use
9. Manufacturer
10. SN Serial Number

MALFUNCTIONS

Should any malfunctions occur while using the EV-806 Digital TENS/EMS, check

- whether the parameters are set to the appropriate form of therapy. Adjust the control correctly.
- whether the cable is correctly connected o the device. The cables should be inserted completely onto the sockets.
- whether the LCD reveals the menu. If necessary, insert a new battery.
- for possible damage to the cable. Change the cable if any damage is detected.

* If there is any other problem, please return the device to your distributor. Do not try to repair a defective device.

CONFORMITY TO SAFETY STANDARDS

The Physio-Med 3 Series Digital TENS/EMS devices are in compliance with the EN 60601-1-2:2001 and EN 60601-1:1990+A1:1993+A2:1995+A13:1996 safety standards.

WARRANTY

All Physio Med TENS/EMS models carry a lifetime warranty from the date of delivery. The warranty applies to the stimulator only and covers both parts and labour relating thereto.

The warranty does not apply to damage resulting from failure to follow the operating instructions, accidents, abuse, alteration or disassembly by unauthorized personnel.

Manufacturer:

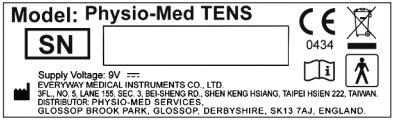
Everyway Medical Instruments Co., Ltd.
3FI., No.5, Lane 155, Sec. 3, Peishen Rd,
Shen Keng Hsiang,
222 Taipei Hsien, Taiwan, R.O.C.

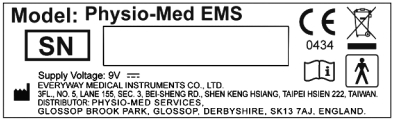
Representative in the EU:

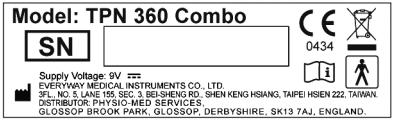
Physio-Med Services
Glossop Brook Business Park,
Surrey Street, Glossop,
Derbyshire, SK13 7AJ, England.

INFORMATION FOR DISTRIBUTOR:
Please contact the above mentioned manufacturer for technical support and documentation when necessary.

The label attached to the back of device contains important information about this device-model, supply voltage and caution. Please do not remove.







PHYSIO-MED SERIES 3 TENS/EMS COMBO

1. Lead Connector
2. Intensity Control (on/off switch)
3. Panel Cover
4. Liquid Crystal Display
5. Mode Control
6. Set Control
7. Increment Control
8. Decrement Control
9. Battery Case
10. Belt Clip
11. Protective Cover

TECHNICAL SPECIFICATIONS

The technical specification details of Physio Med Series 3 Stim are as follows:

MECHANISM	TECHNICAL DESCRIPTION
Channel	Dual, isolated between channels
Pulse Amplitude	Adjustable, 0-100 mA peak into 500 ohm load each channel.
Wave Form	Asymmetrical Bi-Phasic Square Pulse
Voltage	0 to 50V (Load: 500 ohm) Power source One 9 Volt Battery.
Size	10.1cm(L) x 6.1cm(W) x 2.45cm(H)
Weight	150 grams with battery.
Pulse Rate	Adjustable, from 2 to 150 Hz, 1 Hz/step
Pulse Width	Adjustable, from 50 to 300µS microseconds,10µS/step
On Time	Adjustable, 2~90 seconds , 1 Sec./ step
Off Time	Adjustable, 0~90 seconds , 1 Sec./ step
Ramp Time	Adjustable, 1~8 seconds, 1 Sec./ step, The "On" time will increase and decrease in the setting value.
Mode	Five TENS Modes: B(Burst), N(Normal),M(Modulation), SD1(Strength Duration), SD2 Two EMS Modes: S(Synchronous), A(Alternate)
Burst Mode	Burst rate: Adjustable, 0-5 – 5Hz Pulse width adjustable, 50~300µS Frequency fixed = 100 Hz
Normal Mode	The pulse rate and pulse width are adjustable. It generates continuous stimulation based on the setting value.
Modulation Mode	Modulation mode is a combination of pulse rate and pulse width modulation. The pulse rate and width are automatically varied in a cycle pattern. The pulse width is decreased by 50% from its original setting in 0.5 second, then the pulse rate is decreased by 50% from its original setting in 0.5 second. Total cycle time is 1 second. In this mode, pulse rate(2-150Hz) and pulse width(50-300µs) are fully adjustable.
SD1 Mode	The SD1(Strength-Duration) mode consists of automatic modulation intensity and pulse width in 40% range. The intensity is always increasing while the pulse width is decreasing and vice-versa. The intensity is decreased by 40% while the pulse width is increased by 40% in 5 seconds. In the next 5 seconds, the intensity is increased by 40% while the pulse width is decreased by 40%. Total cycle time is 10 seconds. Pulse rate(from 2~150Hz) and pulse width (from 50~300µs) are fully adjustable.

TECHNICAL SPECIFICATIONS

The technical specification details of Physio Med Series 3 Stim continued:

MECHANISM	TECHNICAL DESCRIPTION
SD2 Mode	The SD2(Strength-Duration) mode consists of automatic modulation intensity and pulse width in 70% range. The intensity is always increasing while the pulse width is decreasing and vice-versa. The intensity is decreased by 70% while the pulse width is increased by 70% in 5 seconds. In the next 5 seconds, the intensity is increased by 70% while the pulse width is decreased by 70%. Total cycle time is 10 seconds. Pulse rate(from 2~150Hz) and pulse width (from 50~300μs) are fully adjustable.
Synchronous Mode	Stimulation of both channels occurs synchronously. The "ON" time including "Ramp Up" and "Ramp Down" time. Therefore, the setting of ON Time should be no less than two times of the "Ramp" time in this mode. ON TIME ≥ Ramp up + Ramp down.
Alternate Mode	The stimulation of the CH2 will occur after the 1st contraction of CH1 is completed. In this mode, the setting of ON Time should be no less than two times of the "Ramp" time. The OFF Time should be equal or more then ON Time. ON TIME ≥ Ramp up + Ramp down. OFF TIME ≥ ON TIME.
Timer	Adjustable, from 1 to 60 minutes or Continuous. Adjustable in 5 minutes each step. Treatment time countdown automatically.
Patient Compliance Meter	This unit can store 60 sets of operation records. Total recorded time is 999 hours.
Low Battery Indicator	A low battery indicator will show up when the battery is low.
Operating Condition	Temperature: 0˚~40˚C Relative Humidity: 30%~75˚% Atmosphere Pressure: 700Hpa~1060Hpa
Remark	There may be up to a +/-5% tolerance of all parameters and a +/-10% tolerance of amplitude and voltage.

PHYSIO-MED SERIES 3 TENS/EMS COMBO - Code: TPN 360

OPERATING INSTRUCTIONS

Physio-Med Stim

Switch unit on using intensity controls (1)

Tens Mode

Press mode button (5) until Tens is displayed, press mode button to choose B = Burst, N = Constant, M = Modulation SDI, SD2. After selecting your choice press the Set Button (6) to select Pulse Width, Pulse Rate, and Timer. Adjustment of all these parameters is made by using the up/down buttons (7/8). Once all parameters are set increase the intensity control (2) to the desired level.

EMS Mode

Press mode button (5) until EMS is displayed, press mode button to select S=(Synchronous) or A = (Alternating). Now press set button (6) to select your Pulse Width, Pulse Rate, Ramp Time, On Time, Off Time and Treatment Time. All these parameters can be changed by using the up/down buttons, (7/8). Once all parameters are set turn the intensity control (2) to the required level.

PHYSIO-MED SERIES 3 TENS

1. Lead Connector
2. Intensity Control (on/off switch)
3. Panel Cover
4. Liquid Crystal Display
5. Mode Control
6. Set Control
7. Increment Control
8. Decrement Control
9. Battery Case
10. Belt Clip
11. Protective Cover

TECHNICAL SPECIFICATIONS

The technical specification details of Physio-Med 3 Series Tens are as follows:

MECHANISM	TECHNICAL DESCRIPTION
Channel	Dual, isolated between channels
Pulse Amplitude	Adjustable, 0-100 mA peak into 500 ohm load each channel.
Wave Form	Asymmetrical Bi-Phasic Square Pulse
Voltage	0 to 50V (Load: 500 ohm)
Size	10.1cm(L) x 6.1cm(W) x 2.45cm(H)
Weight	150 grams with battery.
Pulse Rate	Adjustable, from 2 to 150 Hz, 1 Hz/step
Pulse Width	Adjustable, from 50 to 300µS microseconds,10µS/step
Modes	B(Burst), N(Normal), M(Modulation), SD1(Strength Duration), SD2
Burst Mode	Burst rate: Adjustable, 0-5 – 5Hz Pulse width adjustable, 50~300µS Frequency fixed = 100 Hz
Normal Mode	The pulse rate and pulse width are adjustable. It generates continuous stimulation based on the setting value.
Modulation Mode	Modulation mode is a combination of pulse rate and pulse width modulation. The pulse rate and width are automatically varied in a cycle pattern. The pulse width is decreased by 50% from its original setting in 0.5 second, then the pulse rate is decreased by 50% from its original setting in 0.5 second. Total cycle time is 1 second. In this mode, pulse rate(2-150Hz) and pulse width(50-300µs) are fully adjustable.
SD1 Mode	The SD1(Strength-Duration) mode consists of automatic modulation intensity and pulse width in 40% range. The intensity is always increasing while the pulse width is decreasing and vice-versa. The intensity is decreased by 40% while the pulse width is increased by 40% in 5 seconds. In the next 5 seconds, the intensity is increased by 40% while the pulse width is decreased by 40%. Total cycle time is 10 seconds. Pulse rate(from 2~150Hz) and pulse width (from 50~300µs) are fully adjustable.

TECHNICAL SPECIFICATIONS

The technical specification details of Physio-Med 3 Series Tens continued:

MECHANISM	TECHNICAL DESCRIPTION
SD2 Mode	The SD2(Strength-Duration) mode consists of automatic modulation intensity and pulse width in 70% range. The intensity is always increasing while the pulse width is decreasing and vice-versa. The intensity is decreased by 70% while the pulse width is increased by 70% in 5 seconds. In the next 5 seconds, the intensity is increased by 70% while the pulse width is decreased by 70%. Total cycle time is 10 seconds. Pulse rate(from 2~150Hz) and pulse width (from 50~300μs) are fully adjustable.
Timer	Adjustable, from 1 to 60 minutes or Continuous. Adjustable in 5 minutes each step. Treatment time countdown automatically.
Patient Compliance Meter	This unit can store 60 sets of operation records. Total recorded time is 999 hours.
Low Battery Indicator	A low battery indicator will show up on the LCD when the battery is low.
Operating Condition	Temperature: 0˚~40˚C Relative Humidity: 30%~75˚% Atmosphere Pressure: 700Hpa~1060Hpa
Remark	There may be up to a +/-5% tolerance of all parameters and a +/-10% tolerance of amplitude and voltage.

OPERATING INSTRUCTIONS

Physio-Med 3 Series Tens

Switch unit on using intensity controls (1)

Press mode buttons (5) to select Burst, Normal (Constant) modulation SD1, SD2, once selected press Set Button (6) to set parameters for Pulse Width, Pulse Rate, and Treatment Time. To change these settings press the Up/Down buttons (7/8). Once all parameters are set, turn Intensity controls (2) to the required level

PHYSIO-MED SERIES 3 TENS - Code: TPN 350

1. Lead Connector
2. Intensity Control (on/off switch)
3. Panel Cover
4. Liquid Crystal Display
5. Mode Control
6. Set Control
7. Increment Control
8. Decrement Control
9. Battery Case
10. Belt Clip
11. Protective Cover

TECHNICAL SPECIFICATIONS

The technical specification details of Physio-Med 3 Series EMSs are as follows:

MECHANISM	TECHNICAL DESCRIPTION
Channel	Dual, isolated between channels
Pulse Amplitude	Adjustable 0-100 mA into 500 ohm load each channel.
Output Voltage	Adjustable 0-50V, Max output 50V peak to peak into 500ohm load each channel.
Wave Form	Asymmetrical rectangular biphasic pulse.
Power Supply	One 9 Volt Battery, type 6F22
Size	10.1cm(L) x 6.1cm(W) x 2.45cm(H)
Weight	150 grams (battery included)
On Time	Adjustable, 2~90 seconds , 1 Sec./ step
Off Time	Adjustable, 0~90 seconds , 1 Sec./ step
Ramp Time	Adjustable, 1~8 seconds, 1 Sec./ step, The "On" time will increase and decrease in the setting value.
Pulse Rate	Adjustable, 2~150 Hz , 1Hz / step
Pulse Width	Adjustable, 50~300μS , 10μS / step
Timer	Adjustable, 1-60 minutes or Continue. Adjustable in 5 minutes each step. Treatment time countdown automatically.
Output Mode	Constant ,Synchronous, Alternate
Constant	Constant stimulation based on setting value. Only pulse width, pulse rate and timer are adjustable in this mode. "Constant" is equal to the "Normal" mode of a TENS unit.
Synchronous	Stimulation of both channels occurs synchronously. The "ON" time including "Ramp Up" and "Ramp Down" time. Therefore, the setting of ON Time should be no less than two times of the "Ramp" time in this mode. ON TIME ≥ Ramp up + Ramp down OFF TIME ≥ ON TIME

TECHNICAL SPECIFICATIONS

The technical specification details of Physio-Med 3 Series EMS continued:

MECHANISM	TECHNICAL DESCRIPTION
Alternate	The stimulation of the CH2 will occur after the 1st contraction of CH1 is completed. In this mode, the setting of ON Time should be no less than two times of the "Ramp" time. The OFF Time should be equal or more than the ON Time. ON TIME ≥ Ramp up + Ramp down OFF TIME ≥ ON TIME
Compliance Meter	This unit can store 60 sets of operation records. Total recorded time is 999 hours.
Low Battery Indicator	A low battery indicator will show up on the LCD when Indicator battery is low.
Operating Condition	Temperature:0°~40°C
	Relative Humidty:30%~75%
	Atmosphere Pressure : 700Hpa~1060Hpa
Tolerance	There may be a +/-10% tolerance of all settings and +/-20% tolerance of output of intensity.

OPERATING INSTRUCTIONS

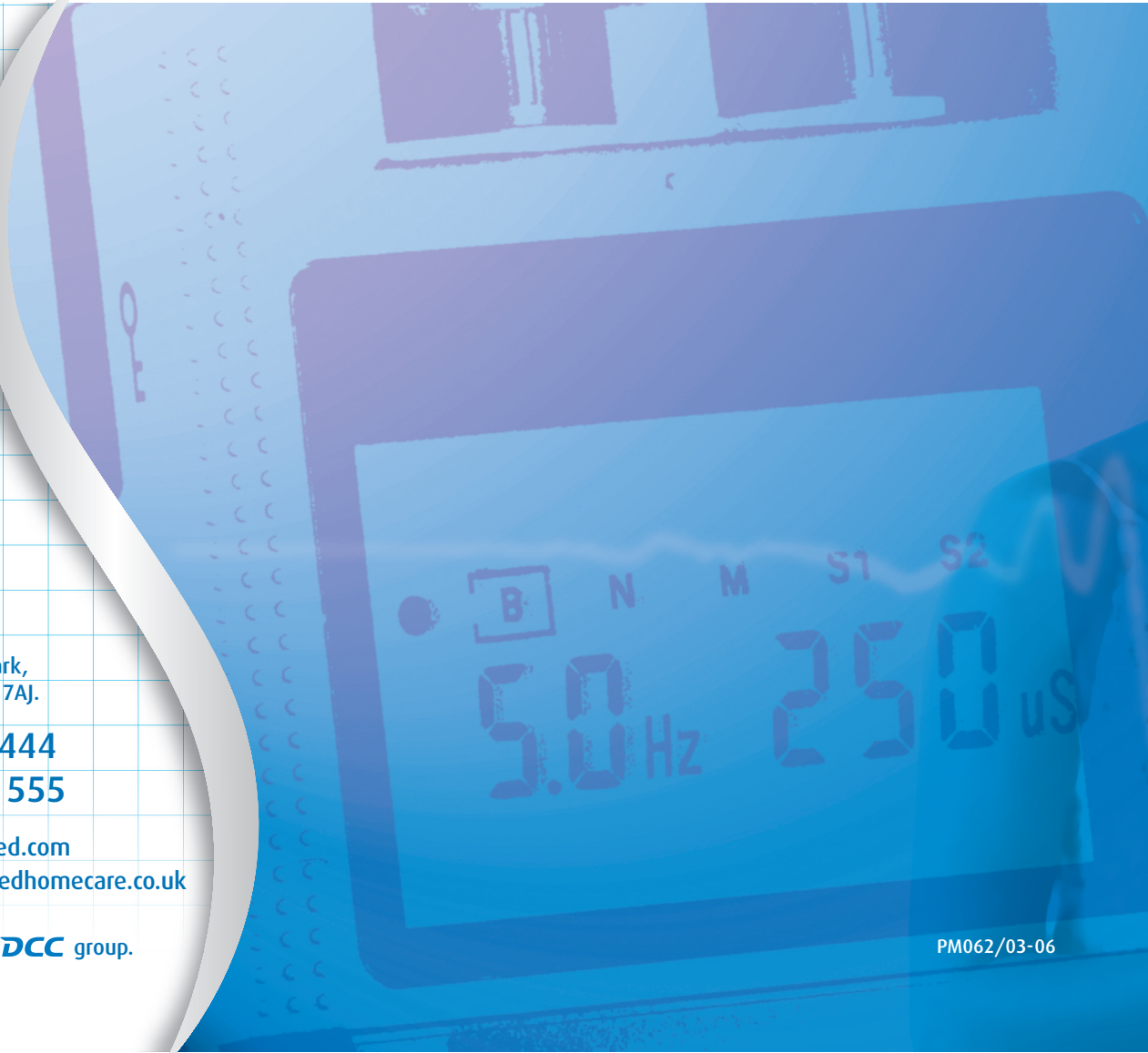
Physio-Med 3 Series EMS

Switch unit on using Intensity Controls (1)

Press mode button (5) to select Constant, Synchronous, Alternate,

Press set button (6) to select Pulse Width, Pulse Rate, Ramp Time, On Time, Off Time, and Treatment Time. Once adjusted by using the Up/Down buttons (7/8) set the intensity level required using intensity controls (2)

01457 860444 01457 860555 www.physio-med.com sales@physio-med.com



Physio-Med Services Ltd.
Glossop Brook Business Park,
Glossop, Derbyshire, SK13 7AJ.

Tel: 01457 860 444
Fax: 01457 860 555

Email: sales@physio-med.com
Website: www.physiomedhomecare.co.uk

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