## PACK CONTENTS

- “itouch tone” Pain Relief unit
- Mono Lead wire
- Belt Cradle
- Pack of 4, 50x50mm, superior self-adhesive electrode pads (item code: E-CM5050)
- AA 1.5v (Type LR6) batteries (2)
- Instruction Manual
- Storage Pouch

## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Introduction</td>
<td>1</td>
</tr>
<tr>
<td>2 Special Features</td>
<td>1</td>
</tr>
<tr>
<td>3 How EMS works</td>
<td>3</td>
</tr>
<tr>
<td>4 How TENS works</td>
<td>5</td>
</tr>
<tr>
<td>5 The Programmes</td>
<td>6</td>
</tr>
<tr>
<td>6 Choosing the right strength</td>
<td>7</td>
</tr>
<tr>
<td>7 Programme Information</td>
<td>8</td>
</tr>
<tr>
<td>8 Programme Settings</td>
<td>11</td>
</tr>
<tr>
<td>9 Controls and Screen Information</td>
<td>12</td>
</tr>
<tr>
<td>10 Installation of Batteries</td>
<td>19</td>
</tr>
<tr>
<td>11 Connecting Mono Lead wire</td>
<td>20</td>
</tr>
<tr>
<td>12 Positioning of Electrode Pads</td>
<td>22</td>
</tr>
<tr>
<td>13 General Pad Advice</td>
<td>23</td>
</tr>
<tr>
<td>14 Pad Alarm</td>
<td>24</td>
</tr>
<tr>
<td>15 The Belt Cradle</td>
<td>24</td>
</tr>
<tr>
<td>16 Troubleshooting</td>
<td>24</td>
</tr>
<tr>
<td>17 Caution and Warnings</td>
<td>25</td>
</tr>
<tr>
<td>18 Cleaning</td>
<td>27</td>
</tr>
<tr>
<td>19 Consumables and servicing</td>
<td>27</td>
</tr>
<tr>
<td>20 Guarantee</td>
<td>28</td>
</tr>
<tr>
<td>21 WEEE</td>
<td>28</td>
</tr>
<tr>
<td>22 Technical Specifications</td>
<td>29</td>
</tr>
<tr>
<td>23 Electrode Placement</td>
<td>31</td>
</tr>
</tbody>
</table>
1. INTRODUCTION

The “itouch tone” is a multi-purpose combination unit that offers the latest in electro muscle stimulation and TENS. It is the result of considerable research and represents a new generation in such units.

2. “itouch tone” FEATURES:

- **Large selection of muscle stimulation and TENS programmes**
  The “itouch tone” is supplied with 8 preset muscle stimulation programmes, which can be used for muscle training, well being, massage and beauty. It also has 2 programmes which can have all their parameters - such as frequency, pulse width, ramp up and down, work and rest time - set and saved to your personal needs. There are a further 3 TENS programmes for pain relief, which can be set and saved to suit your personal needs.

- **Comfortable Strength Control**
  Each step in strength is very small thereby maximising the comfort level.

- **One Touch Memory Start**
  The “itouch tone” has intelligent memory allowing it to remember the last programme and strength that was used. On start up, at the touch of only ONE button, the “itouch tone” will automatically return to the last programme used and to around 50% of the strength. The strength gently “ramps” up to this level. The strength can be stopped at any time by pressing any button. The 50% level takes into account accommodation that the body may have experienced.

- **Pad Alarm**
  Perfect pad contact and condition is important to obtain maximum benefit. To ensure best performance the “itouch tone” has been fitted with a “Pad Alarm” that shows you if the contact of any of the four pads to your body is lost. This eliminates any unknown break in contact which could interrupt the benefit being obtained from the unit.

- **Mono Lead Wire**
  To ease set up and use, a new unique mono lead wire has been developed.

- **Usage Diary**
  The “itouch tone” has a built in usage diary which enables you to monitor your use of the unit. It records and saves the total time that the unit has been used while connected to the body. This gives “true” information which can be of great help to you and your physician.

- **Backlit LCD screen**
  Whenever a button is pressed the screen will light up making the screen easy to read and very clear.
3. E.M.S. What it is and how it works

EMS stands for Electrical Muscle Stimulation.

3.1 EMS successfully rebuilds and tones muscles.

Different levels of muscle contraction are achieved by sending electrical impulses of various types, depending on the programme selected, into the body. These muscle contractions retrain the muscles, increase their effectiveness and improve their condition. This is beneficial where muscles - for whatever reason - have not been in regular use and have lost condition (muscle atrophy). For sports, the benefit is to increase the effect of training and enhance performance.

3.2 Muscle wastage:

EMS is used in the treatment of:

- Neuromuscular facilitation - Muscle reeducation - Muscle training - Prevention of atrophy/hypotrophy - Preventing postoperative muscle weakness - Reduction of spasticity - Maintaining or increasing range of motion - Training of partial peripheral nerve damage with signs of reinnervation - Treatment of scoliosis - Incontinence treatment

Sports:

EMS is used in:

- sports training, covering - warm-up, strength, speed, power, resistance, endurance and recovery and also for rehabilitation in relation to sports injury.

EMS works as an excellent complement to regular training.

3.4 Mode of operation

EMS uses external electrical impulses that act through the skin to stimulate the nerves supplying a specific muscle group. The muscle reacts in different ways depending on the strength of current and duration and frequency of the electrical impulse.

Muscles are made up of two different types of fibre:

- Red fibre is slower contracting and aerobic working.
- White fibre is faster acting and capable of anaerobic working.

The proportions of red and white fibres depend on the way the muscle is used. Fibre can be converted from one type to the other, depending on the signals it receives. This is known as the Trophic effect. Different frequencies have different effects: Low (1-10 Hz) frequencies coupled with long impulse times have a purifying and relaxing effect through individual contractions, whereby the circulation in the treated muscle is simultaneously improved and removal of metabolic end products is supported (lymphatic drainage). The oxygen supply to the muscle is improved. In contrast, medium (20-50 Hz) frequencies can put a high level of strain on the muscle, thus promoting the muscular structure. Very high frequencies (60-90 Hz) can be used to promote muscle definition and bulk. The body maps at the back of this guide show pad positioning in order to stimulate specific muscle groups.

3.5 Treatment time and treatment interval

Treatment by EMS can vary between 15-60 minutes stimulation twice a week to treatment several times per day.
4. HOW “TENS” WORKS

TENS stands for Transcutaneous Electrical Nerve Stimulation. TENS stimulates your body’s own natural defences against pain, namely the release of endorphins. TENS is totally safe, 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.

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

POSITIONING THE ELECTRODES FOR TENS
Electrodes are usually first placed where the greatest pain is felt. Try different positions until you find the best for you. Try moving the electrodes short distances to establish the positions that are most effective for you.

5. THE PROGRAMMES

The unit has 8 pre-set EMS programmes A, B, C, D, E, F, G, and H
2 Manually selectable programmes M and N
3 Manually selectable TENS programmes. S, T, and W

The choice of programme depends on the results you wish to achieve. Each programme has a different feel and a pre-set default duration.

Programmes may be locked by your physician:
If this has happened, a message:- Loc M (or N, S, T or W) will appear on the display if you attempt to change programmes.

PROGRAM OUTPUT SENSATIONS
Programmes A to H produce a combination of tingling or pulsing/ tapping sensations associated with muscle contractions. In EMS a period of muscle contraction (Work) is alternated with a period of rest.

Programmes S, T and W are TENS programmes.

In programmes S and W, the output is Continuous. Strength should be set so that there is a strong tingling feeling WITHOUT muscle contraction.

Programme S can be used until the pain relief effect starts to wear off - up to 2 hours.

In programme T the stimulus is delivered in bursts, i.e. a group of pulses rather than a single pulse. You should set strength so that muscle contractions just start to appear, and use for not more than 60 mins.
6. CHOOSING THE RIGHT STRENGTH

The object of EMS treatment is to produce powerful muscle contractions. The strength of the current should be increased to about three times the level at which you can first feel the tingling, or to as high as you can stand without causing pain.

You will probably feel that electrical contraction is being more powerful than a voluntary contraction, because the current also stimulates your sensory nerves. The signals have a pain-relieving effect.

You may find the sensation uncomfortable to start with, so that you may not get up to therapeutic strength at the start of treatment. The strength can be increased during the course of the treatment, as you become accustomed to the sensation.

Voluntary muscular activity is more effective than stimulation, and it may improve progress if you combine voluntary contraction with stimulation.

The powerful muscle contractions caused by electrical stimulation give rise to training aches, which usually disappear within a week.

After treatment tingling sensations may continue or your skin may feel numb, this is normal.

7. PROGRAMME INFORMATION

- **Frequency (measured in Hz - pulses per second)**
  - EMS 1-110Hz.
  - See section 4 How EMS works.
  - TENS 1-150Hz.
  - A frequency of 110 Hz is good at blocking pain signals. A low frequency of 4 or 10 Hz allows for the release of endorphins, the body's natural morphine-like substances. 1-110.

- **Pulse Width (measured in μS - millioths of a second)**
  - EMS 50-300 μS depending on Frequency*
  - TENS 50 to 250 μS.
  - A higher Pulse Width is more likely to activate muscles. Larger muscles need higher Pulse Width.

- **WORK** is the time in seconds that muscle is stimulated (not including Ramp time). The “Tone” offers a range of work periods from 1-40 sec.

- **REST** is the time in seconds at zero strength in between stimulation. The “Tone” offers a range of rest periods from 1-40 sec.

- **RAMP** is the time in seconds taken to move up and down between zero and the set stimulation strength. The “Tone” offers a range of ramp times from 1 -5sec in steps of 1 sec. Up time = Down time.

- **Synchronous / Alternating (SYN/ALT)** In Alternating mode output from Ch2 is delayed. Set CH2 Delay Time 0 to 40 seconds in steps of 1 second.
Setting Work/Rest Periods

WORK is the time in seconds when the muscle is contracting.

REST is the time in seconds when there is no stimulus.

RAMP is the time it takes to go from zero to set strength.

If Alternating (ALT) is selected, the Ch2 stimulus occurs after Ch1. You can set this delay in seconds.

Ch1 Work + Ch1 Rest = Delay + Ch2 Work.
Ch2 Work is calculated from the other three variables, which can be set.

NOTE: An “ERROR” message will be displayed if CH2 Delay time is not set greater than or equal to CH1 Work time.

TENS PROGRAMMES

• 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 the frequency sweeps across range of settings. This enables the body to receive many different signals and can be very beneficial and lessen any effect of accommodation. See programmes W.

WARNING
Consult your healthcare professional before altering these settings. Correct settings depend on your muscle tone and exercise goals. Inappropriate settings could cause discomfort, undesired muscle balance, or even muscle injury.
## 8. PROGRAMME SETTINGS

<table>
<thead>
<tr>
<th>Prog</th>
<th>Muscle</th>
<th>Aim</th>
<th>Stage</th>
<th>Freq Hz</th>
<th>Pulse Width μS</th>
<th>Work sec</th>
<th>Rest sec</th>
<th>Ramp sec</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>All</td>
<td>Warm Up</td>
<td>All</td>
<td>10</td>
<td>250</td>
<td>Continuous</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>All</td>
<td>Endurance</td>
<td>All</td>
<td>20</td>
<td>250</td>
<td>5</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>C</td>
<td>Large</td>
<td>Power</td>
<td>Start</td>
<td>50</td>
<td>300</td>
<td>3</td>
<td>6</td>
<td>2</td>
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<tr>
<td>D</td>
<td>Large</td>
<td>Power</td>
<td>Improve</td>
<td>50</td>
<td>300</td>
<td>5</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>E</td>
<td>Large</td>
<td>Bulk</td>
<td>Advanced</td>
<td>75</td>
<td>300</td>
<td>5</td>
<td>15</td>
<td>1</td>
</tr>
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<td>F</td>
<td>Small</td>
<td>Power</td>
<td>Start</td>
<td>50</td>
<td>100</td>
<td>3</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>G</td>
<td>Power</td>
<td>Improve</td>
<td></td>
<td>50</td>
<td>150</td>
<td>5</td>
<td>10</td>
<td>1</td>
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<td>Advanced</td>
<td></td>
<td>75</td>
<td>150</td>
<td>5</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>M</td>
<td>Selectable</td>
<td>Selectable</td>
<td>Range</td>
<td>1 - 110</td>
<td>50-300</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td>Selectable</td>
<td>Range</td>
<td>1 - 110</td>
<td>50-300</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S</td>
<td>Pain Relief</td>
<td>Selectable</td>
<td>Range</td>
<td>1 - 110</td>
<td>50-250</td>
<td>Continuous</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T</td>
<td>Pain Relief</td>
<td>Selectable</td>
<td>Range</td>
<td>1 - 110</td>
<td>50-250</td>
<td>Continuous</td>
<td></td>
<td></td>
</tr>
<tr>
<td>W</td>
<td>Pain Relief</td>
<td>Modulated</td>
<td>Selectable</td>
<td>20 - 100</td>
<td>50-250</td>
<td>Frequency Modulation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### CUSTOMISED SETTINGS

Programmes M and N allow you to select the frequency and pulse width to suit your own requirements. This means that whatever type of pain you are suffering from, you or your doctor can set the unit in order to obtain maximum pain relief. See under controls how to set the unit. Ch2 Work is calculated from the other three variables, which can be set.

## 9. CONTROLS AND SCREEN INFORMATION

- **Lock Button**
- **Channel 2 strength selected**
- **Programme Selector**
- **Channel 2 strength UP**
- **Channel 2 strength DOWN**
- **Channel 1 strength selected**
- **Channel 1 strength UP**
- **Channel 1 strength DOWN and OFF**
- **Time selector**
- **Mode Selector scroll UP**
- **Mode Selector scroll DOWN**
- **Set Button**
- **Clock, Alarm and LCD screen Selector**
ON / Channel 1 Strength UP button

**NOTE:** Channel 1 controls the output through the white leads

**To switch unit on:**
Press and hold down for 3 seconds.
When the unit is switched ON an audible “Beep” will be heard.
Press and hold down until required strength is achieved. The strength increases in very small steps to give a soft and comfortable sensation. See section 6 on choosing the right strength. The body acclimatizes to the feeling through the pads, so increases in strength may be necessary to keep the sensation constant.
To allow you to set the strength accurately, the Channel you are not adjusting will temporarily go to zero, and the Programme will remain in the WORK phase while you are adjusting.

**One Touch Memory Start**
When switched on the unit will automatically start in the programme which was being used when it was switched off.
The strength increases to about 50% of the level when the unit was last used. To stop the increase in strength at any time, press any key once.

Channel 1 Strength DOWN / OFF button

**To lower the strength:** Press and release this button. The strength reduces by 2.0 each time (four times the rate of increase).
When the strength gets down to zero the unit will then switch off. Alternatively to switch the unit off press and hold down this button for 3 seconds.

Channel 2 Strength UP button

**NOTE:** Channel 1 controls the output through the black leads.

**To increase Strength:** Press and hold down until required strength is achieved.

Channel 2 Strength DOWN button

**To lower the strength:** Press and release this button. The strength reduces by 2.0 each time (four times the rate of increase).
**Programme Selector button**

The “itouch tone” has 8 medically proven preset programmes. The programme selected will appear in the top left hand corner of the screen. To select the next programme press the Programme Selector button and release. The programmes are shown as A, B, C, D, E, F, G, H, M and N, S, T and W.

**Time Selector button**

Each time the unit is switched on it defaults back to continuous mode, known as TIMER OFF. Time periods available are: 5, 10, 15, 20, 30, 40, 50 and 60 minutes. In order to set any of these time periods press and release the Time Selector button until the required time period is shown in the screen. During use within the four time periods, the unit counts down the minutes set and switches off when it reaches zero.

**Lock button**

In order to lock the keypad press and hold down the Lock button until the word “LOCK” appears on the screen. To unlock the keypad press the button and hold down the button again until the word “LOCK” is no longer on the screen. The Lock button is situated on the right hand side of the unit.

**Inner Keypad**

To access the “Inner Keypad” slide the upper half of the “itouch tone” upwards. The inner keypad allows you to use the Customised Settings, Usage Diary, Clock and Medication Alarms.

**Mode Selector scroll UP**

To activate the Customised Settings, select programme M or N.

Use mode UP and DOWN buttons to select Frequency (FREQ), Pulse width (PULS) Work time (WORK), Rest time (REST), Ramp time (RAMP), or Alternating (SYN/ALT) modes.

**Mode Selector scroll DOWN**

This button operates in the same way as the Mode Selector scroll UP button but in the opposite direction, (CONST, PULS and FREQ).
Scroll UP Selector

Having selected the mode you wish to adjust, use the Scroll UP and DOWN buttons to select the desired setting. Then press the SET to lock in the setting.

Set Button

Press and release this button to save the setting shown on the LCD screen into the programme. When a new choice is required simply select the new choice and press the SET button again.

NOTE: SYN/ALT work slightly differently. When you select SYN it flashes. Use Scroll to change to ALT and press SET. 0 will then flash. Use scroll to adjust the Delay Time.

Scroll DOWN Selector

This button operates in the same way as the Mode Selector scroll UP button but in the opposite direction.

Hash Button (#)

for Usage Diary and LCD screen selection

Press and release the Hash Button to step through the options: Usage Diary (MEM) and LCD.

Programme Lock Facility

To lock any programme into the unit so that ONLY that programme can be used press the “SET” button AND the “MODE DOWN” button and hold down for 3 seconds until the screen displays “LOC P”. To unlock the programme simply repeat the procedure holding down the same two buttons until the screen no longer displays “LOC P”.

Settings Lock Facility

To lock your chosen settings in programme M or N press the “SET” button AND the “MODE UP” button and hold down for 3 seconds until the screen displays “LOC M”. To unlock the settings simply repeat the procedure holding down the same two buttons until the screen no longer displays “LOC M” or “LOC N”. This feature also applies to Programmes N, S, T and W.

LCD screen display

The LCD function allows for illumination of the screen to be turned off or on.

Usage Diary

Press the Hash Button until the symbol MEM is displayed on the screen. The screen will also display: - The hours that the unit has been used on the bottom left hand side. Please note that the Usage Diary is only activated
when the unit is properly attached to the body and working at a strength above 4.5. To reset the Usage Diary to zero press and hold both Scroll UP and DOWN buttons together for 3 seconds until the bottom line shows 000 000. This needs to be repeated for each programme.

10. INSTALLATION OF BATTERIES

Remove Battery Cover
Press down in centre of battery cover and slide backwards in direction of raised arrows.

Insert batteries
Ensure that the ribbon goes behind the batteries to aid removal.

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

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

Rechargable batteries
It is possible to use rechargable batteries.

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.

11. CONNECTING MONO LEADWIRE

Insert the Mono leadwire plug into the base of the unit. Please note that it has been designed to only insert one way.

Attaching the electrode pads to Mono Lead wire
At the other end of the Mono Lead wire, the lead wire splits into four pin ends, 2 white and 2 black. Push the pin ends into the pigtail ends of the electrode pads. The mono lead wire can be split as required and adjust the toggle as necessary.
**Mono Lead wire colour coding**

L-IT … Mono Lead wire (dual channel), as supplied with the unit, has FOUR wires for use with four pads. Two of the wires are white and the other two are black. Channel 1 controls the output to the white wires and Channel 2 to the black wires.

It is also possible to use L-IT Mono Lead wire (dual channel) with only two pads using only the white lead wires. In which case the black lead wires, as they are not in use, can safely be put to the side - There is no risk from the exposed pins.

L-IT-1 Mono Lead wire (single channel) can be purchased as an accessory. This lead is for those who only wish to use two pads through Channel 1.

**12. POSITIONING OF ELECTRODE PADS**

Electrode placement for electrical muscle stimulation is very important for obtaining the best results. It is often easiest to activate muscles by stimulating the motor nerve.

Usually the bipolar technique is used, in which two electrodes are placed over the bulk of the muscle, with one electrode over the muscle’s motor point. The motor point is the area on the skin that is located closest to the motor nerve’s entry into the muscle. Here it is easiest to trigger a contraction by electrical stimulation.

The cleanest and, for the patient, the most comfortable contractions are obtained most easily if the motor point is localized. Work with movable electrodes to find motor points. A motor point map can be helpful in localizing motor points.

Move the electrode across the skin and locate the point over the muscle that gives the cleanest contraction

Large muscle groups may require stimulation with two channels, that is, four electrodes simultaneously.

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.
13. 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. If too much water is added the pads will become too soft then it is suggested in order to try to re-establish some adhesiveness to place them sticky side up in a refrigerator for a few hours.
- 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.

14. PAD ALARM

Perfect pad contact and condition is important to obtain maximum benefit from any TENS unit. To ensure best performance the “itouch tone” has been fitted with a “Pad Alarm”.

If the contact between any of the pads and the skin or the quality of the pads is below the required standard the pad alarm will be triggered. An audible bleep will be heard and at the top of the screen the word “PADS” will flash.

15. THE BELT CRADLE

A belt cradle is supplied to allow you to wear the “itouch tone” at the waist.

Attaching the belt cradle

To attach the belt cradle push the “itouch tone” upwards into the cradle so that it slides between the two sides of the cradle and slots into it with the two notches on the inside of the cradle going into the two holes in the top of the unit.

Removing the belt cradle

To remove the cradle push a finger through the hole at the back of the cradle whole holding onto it.

NB: Do not attach the mono leadwire before attaching the belt cradle to the unit. Detach the mono leadwire before removing the cradle.

16. TROUBLESHOOTING

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

BATTERIES:

i) Have they been fitted correctly?
ii) Do they need replacing?
PADS:
If PADS signal is flashing:
   i) Have you applied both electrode pads (per lead wire) to ensure a complete circuit?
   ii) Are the lead wires properly connected at both ends?

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

17. CAUTIONS & WARNINGS

Do not use TENS or EMS:
- 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, as this may encourage infection.
- 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, on the front of the neck, as these may affect heart rate.
- over the eyes, or 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.
- start your TENS or EMS 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 unit in water or place it close to excessive heat.
- attempt to open up the 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.
18. 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.

19. 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-IT Mono Lead wire (dual channel):
L-IT-1 Optional single channel lead
B-AA Batteries 1.5V AA batteries
X-IT-BC Replacement belt cradle
X-IT-BAT Replacement Battery cover
Rechargeable batteries and charger are available. Contact us for details.

20. 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
i) incorrect batteries have been fitted
ii) the unit has been immersed in water, maltreated or tampered with.

21. 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 above. To comply with the Directive you can return your old electro-therapy 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.
### 22. TECHNICAL SPECIFICATION

#### GENERAL SPECIFICATION

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>waveform</strong></td>
<td>Asymmetrical Bi-Phasic</td>
</tr>
<tr>
<td><strong>Amplitude</strong> (over 500 ohm load)</td>
<td>Constant voltage 50V zero to peak +ve in steps of 0.25V over range 470 -2000 Ohm</td>
</tr>
<tr>
<td><strong>Output plug</strong></td>
<td>Fully shielded: touch proof mini USB</td>
</tr>
<tr>
<td><strong>Channels</strong></td>
<td>Dual Channel</td>
</tr>
<tr>
<td><strong>Batteries</strong></td>
<td>2 x AA Alkaline (Two AA batteries) OR rechargeable NiMH</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>90 gms without batteries</td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
<td>110 x 53 x 30 mm</td>
</tr>
<tr>
<td><strong>Safety Classification</strong></td>
<td>Internal power source. Type BF Designed for continuous use. No special moisture protection.</td>
</tr>
</tbody>
</table>

**Environmental Specifications:**
- **Operating:** Temperature range: 0 to 35°C
- **Storage:** Humidity: 20 to 65% RH

**TYPE BF EQUIPMENT**
- Equipment providing a degree of protection against electric shock, with isolated applied part.

**NB** The electrical specifications are nominal and subject to variation from the listed values due to normal production tolerances.

This symbol on the unit means “Refer to Instructions for use”
23. ELECTRODE PLACEMENT

O.O  M. orbicularis oculi
z.m  M. zygomaticus major
o.f  M. occipito frontalis, pars frontalis
L.L  M. levator latii
s.c.m. M. sternocleido-mastoideus
d.  M. deltoideus
b.  M. biceps brachii
fl.  Underarm flexors:
     M. flexor carpi radialis et ulnaris
     M. flexor digitorum superficialis
     M. palmaris longus
p.m. M. pectoralis major
r.a. M. rectus abdominis
s.  M. sartorius
r.f. M. rectus femoris
v.l. M. vastus lateralis
v.m. M. vastus medialis
p.l. M. peroneus
     (fibularis) longus
t.a. M. tibialis anterior

s.s. M. supraspinatus
i.s. M. infraspinatus
t. M. triceps brachii
ex. Extensors on the underarm:
     M. extensor carpi radialis
     M. extensor carpi ulnaris
     M. extensor digitorum
b.f.+st. M. biceps femoris
     + M. semitendinosus
g.c. M. gastrocnemius
     (+ M. soleus)