



# **Quickstart Guide**



Connect the unit to the electrode pads

Conecte la unidad a los parches de
electrodos

Connectez l'appareil aux électrodes Verbinden Sie das Gerät mit den Elektroden Collegare l'unità agli elettrodi





Press and hold the power button Mantenga apretado el botón de encendido Appuyez sur le bouton d'alimentation et maintenez-le enfoncé

Drücken und halten Sie die Einschalttaste Tieni premuto il pulsante di accensione





Select a programme by pressing the P button Seleccione un programa pulsando el botón P Sélectionnez un programme en appuyant sur le bouton P

Wählen Sie ein Programm, indem Sie die P-Taste drücken

Selezionare un programma premendo il pulsante P





Place the electrodes on the area to be treated Coloque los electrodos en el área a tratar Placez les électrodes sur la zone à traiter Platzieren Sie die Elektrodenpads auf dem zu behandelnden Bereich

Posizionare gli elettrodi sulla zona da trattare

4



Select a mode by pressing the button MODE Seleccione un modo pulsando el botón M Sélectionnez un mode en appuyant sur le bouton M

Wählen Sie einen Modus durch Drücken die M-Taste

Scegli una modalità premendo il pulsante M

6



Regulate the intensity for each channel Regule la intensidad para cada canal Régler l'intensité pour chaque canal Regulieren Sie die Intensität für jeden Kanal Regolare l'intensità per ciascun canale Dear Customer,

Thank you for choosing Unipro. TensCare stands for high-quality, thoroughly tested products for the applications in the areas of gentle electrotherapy, muscle toning, continence management and pain relief during labour.

Please read these instructions for use carefully and keep them for later use, be sure to make them accessible to other users and observe the information they contain.

Best regards,

Your TensCare Team

# Contents

| 01. | Introduction                           | 4   |
|-----|--|-----|
| 02. | Contents                               | 2   |
| 03. | Safety Guidelines                      | 5   |
| 04. | Unipro Device                          | 8   |
| 05. | Directions for Use                     | g   |
| 06. | TENS Programmes                        | 13  |
| 07. | EMS Programmes                         | 115 |
| 08. | IFT Programmes                         | 16  |
| 09. | Microcurrent Programmes                | 19  |
| 10. | Pad Placement                          | 20  |
| 11. | Other Functions                        | 25  |
| 12. | Charging Unipro                        | 25  |
| 13. | Cleaning & Storage                     | 27  |
| 14. | Replacement Parts                      | 28  |
| 15. | Warranty                               | 28  |
| 16. | Troubleshooting                        | 29  |
| 17. | EMC                                    | 30  |
| 18. | Disposal of Electronic Products (WEEE) | 30  |
| 19. | Technical Specification                | 3   |

# 01. Introduction

### Intended Use

Unipro is a multitherapy medical device that combines the treatment capabilities of TENS, EMS, Microcurrent and Interferential Stimulation.

TENS stands for Transcutaneous Electrical Nerve Stimulation. TENS can be used to provide symptomatic pain relief including chronic pain, postoperative pain and joint pain.

EMS stands for Electrical Muscular Stimulation. EMS is used for muscle training, toning and bulking, as well as rehabilitation post-injury.

Microcurrent provides symptomatic pain relief and is used for wound healing.

Interferential Stimulation settings are indicated for symptomatic relief of chronic intractable pain, joint pain and constipation/bowel dysfunction.

Unipro is designed to be used in both the hospital and home healthcare environment. Do not use the device for any purpose other than it's intended use.



Warning: Not suitable for use in children without medical supervision.

# 02. Contents

The pack contains:

1 x Unipro unit

2 x Lead wires (L-CPT)

4 x 50x50mm electrodes (E-CM5050)

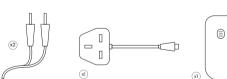
1 x Charging adaptor (EU/UK) (X-UNICH)

1 x Detachable belt clip

1 x Storage pouch

1 x Instructions for use





# 03. Safety Guidelines



# Contraindications

- Do not use if you have a pacemaker (or if you have a heart rhythm problem) or with any electronic medical devices. Using this unit with electronic medical devices may cause erroneous operation of the device. Stimulation in the direct vicinity of an implanted device may affect some models.
- Do not use during the first three months of pregnancy. It is not known whether TENS and EMS may affect foetal development.
- Do not use on the abdomen in the later stages of pregnancy. Stop using immediately if you experience unexpected contractions.



# Warnings

- Do not use when driving, operating machinery, or similar actions needing muscular control. Loose electrode pads, damaged leads, or sudden changes in contact may cause brief involuntary muscle movements.
- Do not use to mask or relieve undiagnosed pain. This may delay diagnosis of a progressive condition.
- Do not use if you have, in the area being treated: active or suspected cancer or undiagnosed pain with a history of cancer. Stimulation directly

- through a confirmed or suspected malignancy should be avoided as it may stimulate growth and promote spread of cancer cells.
- Do not use simultaneously with high frequency hospital diagnostic/ therapeutic equipment. Doing so may result in burns at the site of the electrodes and possible damage to device
- Do not use electrodes on the front of the neck. Stimulation on the front of the neck can affect your heart rate or cause contraction of the throat.
- Do not use electrodes across the chest. Very strong stimulation across the chest may cause an extra heartbeat and/or rhythm disturbances to your heart, which could be lethal.
- Do not use in close proximity (e.g. 1 m) to a shortwave or microwave as this may produce instability in the stimulator output.
- Do not apply near the thorax because the introduction of electrical current may increase the risk of cardiac fibrillation.
- Stimulation should not be applied across or through the head, directly on the eyes, covering the mouth, on the front of the neck (especially the carotid sinus), or from electrodes placed on the upper back or crossing over the heart.
- Stop using the device and consult a health care professional if you experience any adverse reactions from the device

# ( Cautions

- Caution should be used if you have a bleeding disorder as stimulation may increase blood flow to the stimulated region.
- Caution should be used if you have suspected or diagnosed epilepsy as electrical stimulation may affect seizure threshold
- Caution should be observed when using the device at the same time as being connected to monitoring equipment with body worn electrode pads. It may interfere with the signals being monitored.
- Caution should be used following recent surgical procedures.
   Stimulation may disrupt the healing process.
- Keep the unit away from sources of high magnetic fields such as TV's, microwave ovens and hi-fi speakers as these may affect the LCD screen.
- Do not permit use by children unable to understand the instructions or persons with cognitive disabilities, i.e.;
   Alzheimer's disease or dementia.
- Keep away from children under 5 years of age, pets and pests. Long lead wires and charging cables - risk of strangulation in infants.
- Caution should be observed when using Unipro at high strength settings.
   Prolonged use at high settings may cause muscle injury or tissue inflammation. Unipro is capable of delivering outputs in excess of 10

- mA (RMS) or 10 V averaged over any period of 1 sec.
- Not intended for use in an oxygen rich environment.
- Not intended for use in conjunction with flammable anaesthetics or flammable agents.
- The patient is an intended operator.
- Do not service and maintain the device while in use with a patient.
- Maintenance and all repairs should only be carried out by an authorized agency. The manufacturer will not be held responsible for the results of maintenance or repairs by unauthorized persons.
- If necessary, we will provide circuit diagrams, component part lists or other information that will assist authorized service personnel to repair the device.
- Do not immerse your device in water or place it close to excessive heat such as a fireplace or radiant heater or sources of high humidity such as a nebulizer or kettle as this may cause it to cease to operate correctly.
- Keep the device away from sunlight, as long-term exposure to sunlight may affect the rubber causing it to become less elastic and crack.
- Keep the device away from lint and dust, as long-term exposure to lint or dust may affect the sockets or cause the battery connector to develop a bad contact
- Temperature & Relative Humidity of storage: -10°C-+45°C (≤ 3 months),

15%-75% R.H. Temperature & Relative Humidity of transportation: -10°C-+60°C, 15%-75% R.H.

- There are no serviceable user parts. Do not attempt to open or modify the unit. This may affect the safe operation of the unit and will invalidate the warranty.
- Unipro has no essential performance characteristics. Device failure will not cause unacceptable clinical risk for the user.

Note: There are no known side effects to use and long-term use is not harmful. However, the device works your muscles and unaccustomed amounts of exercise may produce muscle ache. If this happens, simply reduce the strength of the machine or allow your muscles to rest until the aching disappears.

### **Electrode Pad Cautions**

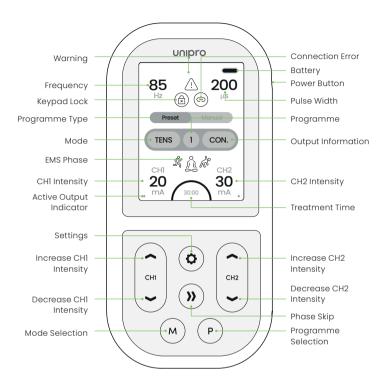
- Do not ignore any allergic reaction to the electrode pads: If a skin irritation develops, stop using the device, as this type of electrodes may not be suitable for you. Alternative electrode pads specially made for sensitive skin are available (see E-ULSTIM-X).
- Do not use this device with leads or electrode pads other than those recommended by the manufacturer.
   Performance may vary from specification. Electrodes with smaller surface area may cause tissue irritation.
- Do not use electrodes smaller than 50x50mm.

 Do not use electrodes if they have lost their adhesion. Treatment effectiveness may be reduced.

### Do not place electrode pads:

- On skin, which does not have normal sensation. If the skin is numb too great a strength may be used, which could result in skin inflammation.
- On broken skin. The electrode pads could encourage infection.
- On the front of the neck. This could cause the airway to close, giving breathing problems. May cause sudden drop in blood pressure (vasovagal response).
- Over the eyes. May affect eyesight or cause headaches.
- Across the front of the head. Effect on patients who have had strokes or seizures is not known. May affect your sense of balance. The effects of stimulation on the brain are unknown.

# 04. Unipro Device



#### Power

To turn the device on, press and hold the power button for I second.

To turn the device off, press and hold the power button for 3 seconds.

### Channel Increase/Decrease

Increase and decrease the intensity of

each channel using the increase and decrease buttons.

CHI ▲ CHI ▼ control the intensity of the left-hand lead/electrode pads.

CH2 ▲ CH2 ▼ control the intensity of the right-hand lead/electrode pads. Each press of the ▲ and ▼ buttons will adjust the intensity by ImA. The intensity can

be increased or decreased quickly by pressing and holding the  $\blacktriangle \blacktriangledown$  buttons.

#### Mode

Press the mode selection button to switch between modes (TENS, EMS I, EMS II, EMS III or Massage).

### Programme

Press the programme to change the selected programme.

### Settings

Press the settings button to change the settings of selected programmes. See full directions for changing settings in section 5.

#### Phase Skip

In EMS programmes, press phase skip button to skip to the next phase of the programme.

### Lock / Unlock

If no key is pressed for 30 seconds, Unipro will auto-lock. To unlock the keypad, press either CH1- or CH2-.



### Keypad Lock Icon

When the keypad is unlocked, the icon will be grey. When the keypad is locked, the icon will be coloured. If the icon is flashing, this means a button has been pressed whilst the device is locked.



### Warning Icon

The warning icon will flash in EMS manual programmes if the Rest period is less than Rest Time=Work Time\*(WorkHz-16.66)/16.66 seconds.



### Connection Error Icon

If the device is incorrectly connected to the body, this the connection error icon will flash

# 05. Directions for Use

# Connecting the Lead Wires and Pads

- Insert the lead wire plug into the base of the unit.
- 2. Attaching the electrode pads to the lead wire. Push the pin ends firmly into the pigtail ends of the electrode pads.
- Before applying the electrode pads to your body, make sure your skin is clean and dry.
- 4. Place the electrode pads on the skin (see Pad Placement).

Warning: Ensure Unipro is switched off before applying the electrode pads on the skin.

### **Turning Unipro On**

To turn the unit on, press the Power button on the side of the device for approximately 1 second until the display shows. The unit will start with the programme you used last.

Unipro will automatically turn off if both strength controls are set to zero for 5 minutes.

# Mode and Programme Selection

- Press the mode selection button to scroll through and select the desired mode.
- Once you have selected the mode, press the programme selection button to scroll through and select the programme of choice.

Each time you change the mode or programme, the intensity level will revert to zero. This is a safety feature to alleviate any sudden feeling of a surge, as each programme gives a different sensation.

### Selecting Treatment Time

The default treatime time for preset programmes is shown. For relevant programmes, treatment time can be changed by pressing the settings button. Use CH2 ▲▼ to select the preferred treatment time. You can select between 5 - 90 minutes or continuous (marked as C).

### Setting the Intensity

Once the electrode pads have been connected and applied to the body and the programme has been selected, the intensity levels can be adjusted. Unipro has 99 levels of intensity.

CHI ▲ CHI ▼ control the intensity of the left-hand lead/electrode pads. CH2 ▲ CH2 ▼ control the intensity of the right-hand lead/electrode pads. Each press of the ▲ and ▼ buttons will adjust the intensity by ImA. The intensity can be

increased or decreased quickly by pressing and holding the  $\blacktriangle \blacktriangledown$  buttons.

At low intensity levels, it is common for no sensation to be felt. Continue to increase the intensity until the sensation is strong but comfortable.

During a session, your body can beome used to the sensation. If this is the case, increase the intensity levels.

The intensity controls will not operate unless the Unipro has been properly conencted to the body. If the Unipro detects a disconnection on either channel, the intensity will rest to 0mA and the connection error icon will flash. This is a safety feature designed to prevent sudden surges in stimulation.

When a green circle is displayed next to the intensity levels, this means the output is high enough be harmful if not used correctly. Please use with caution.

### **Manual Setting Selection**

In most cases, the programmes settings are preset. These programmes are identified by 'P'. When a programme has manual settings available, 'M' will be displayed.

In these programmes you are able to select and change the following parameters:

Frequency (Hz)

Pulse Width (µs)

Treatment Time (min)

Work Time (EMS programmes only) (s)

Rest Time (EMS programmes only) (s)

Ramp Time (EMS programmes only) (s)

Cycle Time (IFT programmes only) (s)



**Note:** Treatment time can be adjusted for all TENS programmes.

- To adjust the settings of a programme, press the settings button.
- Use the CHI ▲▼ buttons to cycle between the different settings you wish to change. The selected setting will flash.
- Use CH2 ▲▼ to increase or decrease these settings.
- To confirm your manual settings, press the settings button again. Alternativelty, the device will automatically confirm your settings if no button is pressed for 5 seconds.

Warning: In the EMS manual programmes a warning triangle will be displayed if the Rest period is less than Rest Time=Work Time\*(WorkHz-16.66)/16.66 seconds

To reset programmes settings to default, press the settings button to adjust the settings. Then press and hold the mode and programme buttons simultaneously for 3 seconds

### Completing a Session

Once you have correctly connected the device, electrode pads, selected the mode, programme and intensity, the treatment session will be underway.

Note: If the sensation becomes uncomfortable, reduce the intensity

The session will run for the selected treatment time.

### **After Your Session**

Upon completion of the session, the device will automatically switch off after 15 seconds. Should you wish to start a new session select mode, programme and intensity as before.

To turn the Unipro off at any stage, press and hold the power button for 3 - 5 seconds.

After the session is complete and Unipro is switched off, remove the electrode pads from your skin by holding the electrode pad itself and gently pulling. Do not pull on the lead wires or the pigtail wire of the electrode pad.

Replace the electrode pads to their protective plastic shield and return them to the re-sealable plastic bag. Ensure the bag is sealed.

### **Usage Memory**

To view the usage memory, press and hold the settings and phase skip buttons for 3 seconds.

To return to the home screen, press and hold the settings and phase skp buttons for I second.

The device memory can be reset by holding the mode and programme buttons simultaenously for 3 seconds. This can only be done whilst viewing the memory screen.

# 06. TENS Programmes

Transcutaneous Electrical Nerve Stimulation provides a natural solution to pain relief in one of two ways:

#### Pain Gate

Stimulates sensory nerves to block pain signals from being received from the brain.

Pain Gate Stim provides pain relief whist being used.

#### Endorphin Release

Low frequency TENS promotes the release of endorphins, the body's natural pain killer.

Endorphin Release builds up over 40 minutes and will last several hours after stimulation is ended.

#### · Programme Selection

There is not one programme for a particular condition, and the best choice varies from each person, even if they have the same type of pain. The "Recommneded Use" are suggestions to help with programme selection. However, each user needs to select both the programme and the positioning of the electrode pads that is best for them.

#### · Intensity Selection

The stimulation sensation should be strong but comfortable. Further increases during use may be necessary if your body becomes used to the sensation.

#### · Frequency of Use

TENS can be used for as long as it is necessary. Continuous treatment is safe, but electrode pads should be repositioned regularly (at least every 12 hours) to allow the skin to be exposed to the gir.

The Endorphin Release programmes work best when the strength is high enough to cause small muscle contractions. Best results are achieved with a session duration between 20 and 40 minutes. Longer use may cause muscle ache.

| Prog | Type of Relief              | Sensation                      | Recommended Use  |
|------|-----------------------------|--------------------------------|--|
| 1    | Pain Gate                   | Smooth, constant sensation     | For first use of TENS. These programmes have slightly different  |
| 2    | Pain Gate                   | Smooth, constant sensation     | parameters so choose the one that works best for you.  |
| 3    | Endorphin                   | Tapping                        | For chronic pains such as back pain and arthritis  |
| 4    | Pain Gate +<br>Endorphin    | Pulsing                        | For radiating pain in arms and<br>legs and deep muscular pain<br>(Osteoarthritic pain in the knee,                     |
| 5    | Pain Gate +<br>Endorphin    | Pulsing                        | Sciatica central pain). These programmes have slightly different parameters so choose the one that works best for you. |
| 6    | Pain Gate +<br>Endorphin    | Alternating tapping / constant | For maximum production of the two<br>central opioid peptides associated<br>with pain relief. These programmes          |
| 7    | Pain Gate +<br>Endorphin    | Alternating tapping / constant | have slightly different parameters so choose the one that works best for you.  |
| 8    | Pain Gate +<br>Endorphin    | Relaxing message sensation     | Settings modulate to prevent accomodation occuring.  |
| 9    | Pain Gate +<br>Endorphin    | Relaxing message sensation     | Settings and intensity modulate to prevent accomodation occuring.  |
| 10   | Pain Gate                   | Smooth, constant sensation     | Treating nerve rich areas (e.g. facial pain, neck pain)  |
| 11   | Pain Gate or<br>Endorphin   | Constant sensation             | For received pattings continued  |
| 12   | Pain Gate +/or<br>Endorphin | Pulsing                        | For manual settings control.   |

For full programme parameters, please see section 19 Technical Specification

# 07. EMS Programmes

Before selecting an EMS programme, you will need to select an EMS Mode:

### EMS I

For small muscles such as those in the hands.

### **EMS II**

For medium sized muscles such as arms and feet.

### **FMS III**

For large muscles such as thighs, buttocks and abdomen.

### **EMS IV**

Advanced muscle mass mode for large muscle mass.

With the mode selected, please choose from one of the following programmes.

| Prog | Application            | Description  |
|------|------------------------|--|
| 1    | Muscle<br>Calming      | Relax the muscles as much as possible and to promote the body's natural endorphins to promote pain relief and to improve the blood circulation and provide oxygen into the muscle.   |
| 2    | Resume<br>Training     | Promotes slow twitch fibres to build muscle strength to help reduce muscle atrophy ready for resuming training activities.   |
| 3    | Resume<br>Training     | Progress from programme 2 as tolerance increases.  |
| 4    | Resistance<br>Training | Improving the capacity to develop very high level of muscle force over a long period of time. Improving the efficacy of oxygen consumption at the muscle level and the capacity to withstand toxin accretion, such as lactic acid. For sports activities that require very high levels of prolonged muscle activity: Rowing, Cycling, Middle distance running. |

| Prog | Application                            | Description   |
|------|--|---|
|      |  | Progress from programme 4 as tolerance increases.   |
|      | Davistana a                            | Alternative application: Lipolysis  |
| 5    | Resistance<br>Training                 | Increasing blood circulation and modifying the metabolism of the lipocytes. This helps to stimulate the subcutaneous deposits of fat, reducing or eliminating the 'Orange Peel' effect of the skin surface  |
| 6    | Maximum<br>Muscle<br>Contraction       | To increase muscle bulk and volume and to improve muscle force. Searching for muscular hypertrophy.   |
| 7    | Muscle<br>Toning                       | Strengthening the muscles, improving blood circulation and capillary bed density. Ideal for applying to the Thigh, Legs, Bottom and Abdomen.  |
| 8    | Muscle<br>Toning                       | Similar to programme 7, but adding bulk in preference to endurance  |
| 9    | Force Output,<br>Anaerobic<br>Activity | Increasing the muscle capacity to a level of instantaneous maximum muscle force, changing muscle force into explosive action. Used for all activities requiring maximum muscle output in a very short space of time, such as Judo, short distance sprinting, throwing the discus or shot-put. |
| 10   | Manual                                 | Select the frequency, the pulse width, the work and active rest time. At first use, the default values are shown. Note: There are   |
| 11   | Manual                                 | two manual programmes as the device will remember your previously selected settings. This allows you to create two custom programmes.   |
| 12   | Manual                                 | This programme provides asynchronous stimulation and requires use of both channels. Stimulation is delivered through CHI for the work period and then CH2 for the work period, creating an asynchronous work/rest cycle. Select the frequency, pulse width, work and active rest time.        |

For full programme parameters, please see section 19 Technical Specification

# Work / Rest Selection

When selecting work and rest times for manual programmes, the Warning triangle is displayed if the Active Rest period is less than:

Rest Time = Work Time \* (WorkHz-16.66) /

This is because muscle fibres can only activate a limited number of times a minute (about 1000) without becoming fatiqued.

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.

### **Intensity Selection**

The aim of EMS is to produce powerful, visible muscle contractions. The intensity should be increased to roughy 3x the level at which you can first feel tingling, or to as high as you can stand without causing pain.

Use a low intensity for the first session to help you to understand how the machine works. Intensity should be increased throughout a session and gradually over time. This will help produce effective, pain-free contractions.

# Combining Voluntary Activity

Voluntary muscular activity is more

effective than stimulation, and it may improve progress if you combine voluntary contraction with stimulation. For best results, always try to contract voluntarily during the work phases.

### Frequency of Use

Use EMS programmes once every two days for each muscle with a day of rest in between. It is possible to work on pairs of muscles, for example thighs and abdominal muscles, treating one set one day and the other the next day.

Regular use over a period of 4 - 6 weeks should give good initial results, depending on body shaping, toning, sports training or rehabilitation and recovery needs.

# 08. IFT Programmes

IFT works in the same way as TENS but delivers a continuous stimulation deep into the affected tissue. In addition to providing pain relief by the same mechanism that TENS uses, most physiotherapists consider that IFT's major role is to accelerate the inflammatory or healing rate. IFT is used to treat almost any condition where inflammation is a problem. For example, sports injuries; arthritic conditions; bruising and swellings, back pain, arthritis and muscular pain.

IFT achieves this deep penetration by using a 4000 Hz carrier wave to overcome the skin impedance. TENS signals travel around the top 1cm of the skin surface. IFT signals travel almost directly between

the electrodes. Interferential Therapy uses two medium frequency 4000 Hz currents that 'interfere' with each other to produce a beat frequency that the body recognises as a low frequency energy source.

The range of this beat frequency in the Unipro is 1 to 160Hz.

2Hz - Around this frequency the metencephalins are stimulated which will result in short term pain relief.

10Hz - This frequency has a beneficial effect on the immune system and tends to make patients wakeful yet relaxed.

130Hz - This frequency stimulates the production of endorphins and results in longer term pain relief and some local anaesthesia.

1-100Hz - This frequency sweep will increase the inflammatory rate.

45-90Hz - This frequency sweep will depress the sympathetic nervous system so allowing increased activity of the parasympathetic system and increase the blood supply.

There are two IFT modes in Unipro, IFT4 and IFT2.

### IFT4

Both channels are linked, with 4 pads being required for the treatment area. Only one intensity is displayed on the device.

### IFT2

The frequency interference required for IFT is modulated by the machine. This means only two pads are required per treatment area, allowing the user to treat small regions and also two areas simultaneously. Two intensities are displayed on the device and each channel intensity can be adjusted independently.

The programmes for IFT4 and IFT2 modes can be seen on the next page.

# **Programme Selection**

There is not one programme for a particular condition, and the best choice varies from each person, even if they have the same type of pain.

# **Intensity Selection**

To ensure safety, Unipro displays a warning icon when the intensity reaches 40mA. User should check electrode pads are positioned correctly and safely before any further action is taken. To increase further, press the phase skip button to override this safety limit. We recommend intensities over 40mA should be under the supervision of your healthcare professional.

### **IFT Programmes**

| Prog | Output                         | Frequency<br>Range | Cycle Time                            | Default<br>Treatment Time |
|------|--------------------------------|--------------------|---------------------------------------|---------------------------|
| 1    | Constant                       | 2 – 160Hz          | N/A                                   | 20 minutes                |
| 2    | Frequency Sweep                | 2 – 10Hz           | 5 seconds (default)<br>5 - 30 seconds | 20 minutes                |
| 3    | Frequency Sweep                | 2-100Hz            | 5 seconds (default)<br>5 – 30 seconds | 20 minutes                |
| 4    | Frequency Sweep                | 80 – 150Hz         | 5 seconds (default)<br>5 - 30 seconds | 20 minutes                |
| 5    | Pulse Width Sweep<br>(Gradual) | 2 – 160Hz          | 5 seconds (default)<br>5 – 30 seconds | 20 minutes                |
| 6    | Pulse Width Sweep<br>(Abrupt)  | 2 – 160Hz          | 5 seconds (default)<br>5 - 30 seconds | 20 minutes                |

For full programme parameters, please see section 19 Technical Specification

# 09. Microcurrent Programmes

Microcurrent Stimulation (MIC) is a type of therapy where very low current is sent into the cells of the body. The current delivered is in a similar range to the currents generated by human cells. As such, it does not stimulate the sensory nerves, meaning it is likely no sensation will be felt.

MIC is a physiological electric modality that increases ATP (energy) production in the cells of your body. This dramatically increases the tissue's healing rate. MIC has also shown to give very effective pain relief. Results can often be noticed after just a minute of treatment.

# Programme and Setting Selection

For most conditions, use a low frequency 1-10 Hz, starting at 0.5Hz in programme Pl. A higher frequency up to 100 Hz may give faster results when treating inflammatory problems (e.g. arthritis, tendonitis, etc.).

However, you should always follow this up with a short treatment at low frequency.

Set the current intensity level at the highest comfortable position. This is usually 500 to 600  $\mu$ A, which most people can barely feel.

If you have a very sensitive condition like neuralgia, you can start with a very low current unlike TENS there is no lower threshold

### **Treatment Time**

Start with 10 minutes, then pause to reevaluate your pain. Stop treatment when the pain is completely gone or when there is no further improvement. This could take an hour or more. However, continuing to treat after the pain has gone may cause it to return. More is not necessarily better when using microcurrent to relieve pain.

### Frequency of Use

Although results will usually be seen immediately, in some people the effects will be delayed, continuing to improve from several hours to over a day or two after the treatment. In others, it may take several treatments before you start to see noticeable improvement. The effects of microcurrent therapy are cumulative.

Use daily for 1-2 weeks, then switch to every other day.

| Prog | Waveform Frequency Range   |            | Pulse Width | Default<br>Treatment Time |  |
|------|----------------------------|------------|-------------|---------------------------|--|
| 1    | Square                     | 0.5Hz      | 998ms       | 20 minutes                |  |
| 2    | Saw                        | 30Hz       | 10ms        | 20 minutes                |  |
| 3    | Manual                     | 0.5 - 50Hz | 10 - 998ms  | 20 minutes                |  |
| 4    | DC (max 99µA, CHI<br>only) | N/A        | N/A         | 20 minutes                |  |

For full programme parameters, please see section 19 Technical Specification

### **Advice**

While microcurrent therapy can provide a noticeable improvement on more than 90% of users, it will not work for everyone. Where there appear to be no effects, try the following:

- Increase your fluid intake. If you are dehydrated you may not respond well.
- Some people who have had a significant exposure to strong electrical current may be poor candidates for microcurrent

therapy. If you have had a severe electric shock in the past, or have used TENS for a long time, microcurrent may not work as quickly for you. You may need prolonged treatment to gain results.

- Microcurrent electrical therapy works through very small electrical flows in the body. These can be affected by earlier surgical scars traumatic injuries distance from the present pain. It is possible to clear the body of these "blocks". Try covering the scar with the electrodes or, on larger scars, putting one electrode at each end, and treating for 10 minutes four days in a row. As this treatment "unblocks" your body's electrical flow, you may feel increased energy and the pain may also temporarily increase. After treating the scar. allow time to treat the painful area as well.
- Try using a lower current setting of 100 µA for longer - an hour or more.

# PadPlacement

### **TENS Pad Placement**

The easiest way is to apply the electrode pads around/near the source of the pain.

TENS activates the nerves best if it travels along the nerve rather than across it. So, place one pad further from the spine than the source of the pain, and one closer. If the pain is in, or close to, your

spine you can place one pad either side of the spine.

Note: See examples of positioning in the instructions enclosed with your electrode pads.

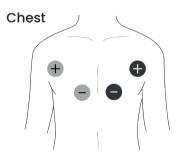
### **EMS Pad Placement**

Electrode placement for EMS is important for obtaining the best results.

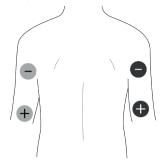
Place two electrode pads over the bulk of the muscle, with one electrode over the muscle's motor point. The motor point is the area on the skin that is located closest to the motor nerve's entry into the muscle – about 1/3 of the way down the muscle from the spine. Here, it is easiest to trigger a contraction by electrical stimulation.

Experiment by moving the electrode pads across the skin until you locate the point over the muscle that gives the cleanest contraction

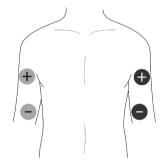
Note: The + electrode pad needs to be plugged in to the red lead wire connector, the - pad to the black lead wire connector.



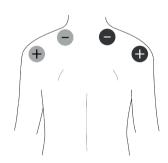
# Triceps



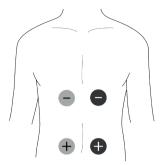
# **Biceps**



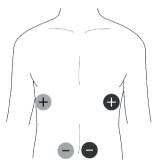
Shoulders & Trapezius



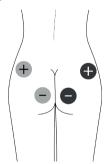
# **Abdominals**



**Abdominals** 



Glute



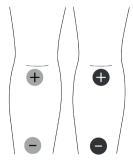
### Hamstrings



# Quadriceps



# Calves



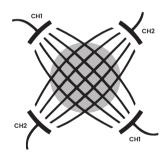
### IFT2 Pad Placement

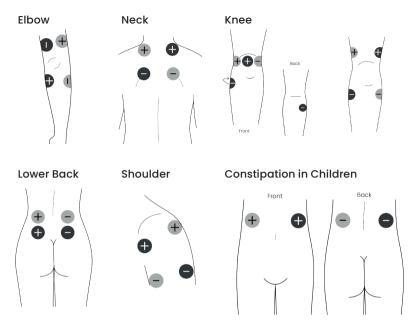
The stimulation of IFT2 travels in a straight line between electrodes. Therefore, electrodes should be placed either side of the area of pain.

### IFT4 Pad Placement

The diagrams on the following pages shows how pads can be placed in various body areas. They all follow the same principles.

The interferential electrical signal is created by the interaction of the signals from all four pads (i.e. between the pads of each channel). So, the pads need to apply in positions so that the signals from each channel cross over the point to be treated.

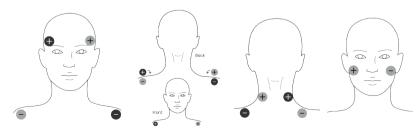




### MIC Pad Placement

Pad positioning is not like TENS and is closer to Interferential. The pads should be placed so that a straight line between them passes through the problem area. This is different to TENS, where the aim is to stimulate the correct sensory and motor nerves.

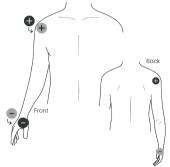
Since the body is three dimensional, this often means going from front to back, and side to side. The four alternatives for headache below show how many possibilities there are:



There is no single correct placement, and the best position may vary from day to day.

Warning: Positions 1 & 4 on the head must not be used in other modes.

Arm pain treatment:



Microcurrent seems to work better if you also treat the opposite side of the body to where the pain is felt (with the second pair of pads). Also try connecting both sides of the body by placing one pad at the site of the pain, and the other on the opposite side (i.e. left hand to right hand), for 10 mins.

### **Pad Advice**

- The electrode pads supplied are reusable but for single patient use.
   The adhesive is a peelable hydrogel (water based).
- In order to obtain the best conductivity through the electrode 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 electrode pads on the plastic liner and inside the re-sealable plastic bag.
- If the electrode pads dry out, it is recommended to buy a replacement pack. It is possible to restore some of the adhesion of the pad by adding a tiny drop of water on each pad and spreading around. If too much water is added, the electrode pad will become too soft. If that happens, place the electrodes sticky side up in a refrigerator for a few hours. This should help restore some adhesion.
- In very hot weather the gel on the electrode pads may become soft.
   In such cases place them, still on their plastic liners and in their resealable bag, into a fridge until they return to their normal condition.
- The electrode pads provided are latex-free.
- Replace the electrode pads when they lose their stickiness. Poor connection may cause discomfort and skin irritation.
- The electrode pads must always be used in pairs (two electrode pads on each channel), so that the signal can flow in a circuit.
- You may feel more sensation in one pad than the other. This is normal –

it depends on where the electrode pads are in relation to your nerves.

### 11. Other Functions

### Language Selection

Upon first use, you will be required to select your preferred language. Cycle through the available languages using Ch1 ▲ CH1 ▼. Select your language by pressing the settings button.

To change the language setting, press and hold the settings and power buttons for 3 seconds. This will access the language selection screen. Cycle and select language as above.

### **Usage Memory**

To view the usage memory, press and hold the settings and phase skip buttons for 3 seconds.

To return to the home screen, press and hold the settings and phase skip buttons for I second.

The device memory can be reset by holding the mode and programme buttons simultaneously for 3 seconds. This can only be done whilst viewing the memory screen.

# 12. Charging Unipro

Unipro is powered by a built-in rechargeable Li-ion battery. The battery should last at least 10 hours at 50mA, 300us. 50Hz in TFNS mode.

A charging adapter is included in the kit. To fully charge the battery it will take about 2 hours

The battery status can be seen in the top right corner of the display. When the remaining battery life is below 20%, the battery icon turns red. Please charge your Unipro device at this stage.

Warning: Only use the charging adapter supplied. Use of other chargers could be hazardous and will negate the warranty.

### To charge the battery:

Connect the charger to the unit and plug it into a mains socket. A charging screen will be displayed, showing the battery percentage level. Charge the device until the battery level is 100%.

Due to the high-power requirements of IFT mode, the device can be operated whilst connected to the charging adapter and mains power supply.

USE OF CHARGING ADAPTERS OTHER THAN THE ADAPTER PROVIDED WITH THE KIT COULD BE EXTREMENLY HAZARDOUS.

DO NOT USE IFT MODE WHLST CONNECTED TO THE MAINS POWER SUPPLY UNLESS THE CORRECT ADAPTER IS BEING USED.

Note: Only IFT mode can be used whilst connected to the main power supply. The device will restrict access to other modes. To use TENS, EMS and MIC modes, please disconnect from the charging adapter.

- Note: The device should be charged at least once every 3 months to ensure the battery life is maintained.
- Note: The device cannot be used while being charged.
- Note: Charging voltage: DC 5V, charging current: 90mA.
- Note: Charging adapter specifications:
- Output: DC 5 V; 1A
- Rated input voltage shall not exceed 240 V
- Classification of protection against electric shock: Class II
- IP classification: at least IP21
- The adapter need to comply with IEC 60601-1 or IEC 60950-1

# (!) Battery Warnings

- This product is equipped with a Lithium-ion battery. Failure to follow these instructions could cause the lithium-ion battery to leak acid, become hot, explode or ignite and cause injury and /or damage:
- Do not pierce, open, disassemble, or use in a humid and/or corrosive environment
- Do not expose to temperatures over 60°C(140F).
- Do not put, store or leave near sources of heat, in direct strong sunlight, in a high temperature location, in a pressurized container or in a microwave oven.

- Do not immerse in water or sea water, or get wet.
- Do not short-circuit
- Do not transport and store the battery together with sharp metal objects that could pierce the battery, i.e. necklaces, hairpins, nail etc.
- Do not strike at pack with any sharp edge or throw the pack.
- To avoid the risk of electric shock, this equipment must only be connected to a supply mains with a protective earth connection.
- Do not position the equipment during charging such that it is difficult to use the charging adapter. The provided charging adapter is used to isolate the equipment circuits from the mains power supply.
- Only use the battery charger provided for recharging batteries.
   Do not connect the pack to an electrical outlet.
- Keep batteries out of the reach of children to prevent them from swallowing them by mistake.
   If swallowed by child, contact your healthcare professional immediately.
- If battery leakage occurs and comes in contact with the skin or eyes, wash thoroughly with lots of water and immediately seek medical attention.



# **Battery Cautions**

- Do not use in a location where there is a large amount of static electricity, otherwise, the safety devices in the battery pack may be compromised.
- If the battery pack creates an odour, generates heat, becomes discoloured or deformed, or in any way appear abnormal during use, recharging or storage, immediately remove it from the device or battery charge and stop using it.
- Disposal: Always dispose of batteries and device responsibly according to local government guidelines. Do not throw batteries onto a fire. Risk of explosion.

# 13. Cleaning & Storage

Clean the case and lead wires at least once a week by wiping with a damp cloth and a solution of mild soap and water. Wipe dry.

- Do not immerse your Unipro unit in water.
- Do not use any cleaning solution other than soap and water

Storage life of an unopened pack of electrode pads is 2 years. This may be affected by very high temperatures or very low humidity.

The unit has no fixed shelf life.

# 14. Replacement Parts

#### **Expected Service Life**

- The machine will often last for more than 5 years, but is warrantied for 2 years. Accessories (lead wires, electrode pads, and batteries) are not covered by the warranty.
- Lead wire life depends greatly on use. Always handle the leads with care. We recommend to replace the lead wires regularly (about every 6 months).
- Electrode pads should last 12 to 20 applications, depending on skin condition and humidity.

The following replacement parts may be ordered from your supplier or distributor (see back cover for contact details) or from TensCare at www.tenscare.co.uk or +44(0) 1372 723434.

| E-CM5050     | Square electrode pads (pack of 4)               |
|--------------|---|
| E-CM50100    | Large electrode<br>pads (pack of 4)             |
| E-ULSTIM-X   | Hypoallergenic<br>electrode pads<br>(pack of 4) |
| L-CPT        | Lead wire                                       |
| X-BX-UR      | Belt clip                                       |
| X-UNICH      | Charging adaptor                                |
| X-MULTIPA-UK | UK socket                                       |

**FU socket** 

X-MULTIPA-USA

US socket

# 15. Warranty

This warranty refers to the unit only. It does not cover, electrode pads, charging adapter or the lead wires.

This product is warranted to be free from manufacturing defects for 2 years from date of purchase.

This warranty is void if the product is modified or altered, is subject to misuse or abuse; damaged in transit; lack of responsible care; is dropped; if incorrect battery has been fitted; if the unit has been immersed in water; if damage occurs by reason of failure to follow the written instruction booklet enclosed; or if product repairs are carried out without authority from TensCare Ltd.

We will repair, or at our option replace free of charge, any parts necessary to correct material or workmanship, or replace the entire unit and return to you during the period of the warranty. Otherwise, we will quote for any repair which will be carried out on acceptance of our quotation. The benefits conferred by this warranty are in addition to all other rights and remedies in respect of the product, which the consumer has under the Consumer Protection Act 1987.

Our goods come with guarantees that cannot be excluded under the UK consumer Law. You are entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality.

### Before you send your unit for service

Before sending in your unit for service, please take a few minutes to do the following:

Read your manual and make sure you follow all the instructions.

### Returning your unit for service

Should repair be needed within the warranty period, enclose the tear off section of the warranty card and your proof of purchase receipt. Please ensure all relevant details are completed before sending your unit in for service. Please ensure your contact details are still current and include a brief description of the problem you are experiencing together with your purchase receipt.

Please return the unit and warranty card at your cost to:

TensCare Ltd 9 Blenheim Road, Epsom, Surrey, KT19 9BE, U.K.

Should you require any further information please do not hesitate to contact us by calling our number:

+44 (0) 1372 723 434.

# 16. Troubleshooting

If your Unipro is not working properly, please check the following:

| Problem   | Possible causes   | Solution  |  |  |  |  |
|---|---|---|--|--|--|--|
| No display  | Flat battery  | Charge battery. See section 12  |  |  |  |  |
|   | Damaged battery   | Contact supplier. There is not maintenance or calibration other that replacement of gel pads and batter charging. Do not modify the device a this may reduce safety or effectiveness. |  |  |  |  |
| Low battery<br>display                            | Low batteries   | Charge battery  |  |  |  |  |
| Controls will not work                            | Keypad is locked  | If the lock icon is shown, press either of the - buttons to unlock the device.  |  |  |  |  |
| No sensation                                      | Intensity is not strong enough  | Increase the intensity until you feel a strong but comfortable sensation.   |  |  |  |  |
| Intensity setting returns to 0mA.                 | There is a connection error leading to an open-circuit.                     | Ensure the pads are correctly attached to your body and lead wire inserted to both the pads and device.   |  |  |  |  |
|   | Faulty pads or lead wires.  | Try using the other lead wire or electrode pads. If problem occurs, it may be necessary to purchase replacements.   |  |  |  |  |
| Intensity setting<br>won't increase<br>above 40mA | This is a safety feature whilst using IFT mode to prevent harm to the user. | To increase up to 60mA, press the phase skip button. This disables the intensity lock, allowing you to increase intensity.  |  |  |  |  |

| Warning icon is  | EMS manual  | Continue treatment with caution and stop  |
|------------------|---|---|
| flashing         | mode WORK/REST  | if stimulation becomes uncomfortable.   |
|                  | settings have been adjusted outside the recommened ratio. | Manual programme settings can be reset by pressing and holding the mode and programme buttons simultaneously. |
| Cannot access    | The device is being                                       | Disconnect the device from the charging   |
| TENS, EMS or MIC | used whilst connected                                     | adapter. Restart the device and access  |
| modes            | to a mains power  | the desired mode and programme as   |
|                  | supply.   | specified in section 5.   |

If the above review has failed to resolve your problem, or to report unexpected operation or events, or to provide feedback call TensCare or your local supplier or distributor (address on back cover) for advice.

Contact TensCare customer service on +44 (0) 1372 723 434. Our staff are trained to assist you with most issues you may have experienced, without the need to send your product in for service.

European Medical Device Regulation requires that any serious incident that has occurred in relation to this device should be reported to the manufacturer and the competent authority in your country. This can be found at:

https://ec.europa.eu/docsroom/documents/36683/attachments/1/translations/en/renditions/pdf

### 17. FMC

Wireless communications equipment such as wireless home network devices, mobile phones, cordless telephones and their base stations, walkie-talkies can affect this equipment and should be used no closer than 30cm (12 inches) to any part of the device.

(Note. As indicated in 5.2.1.1(f) of IEC 60601-1-2 for ME EQUIPMENT).

**Note:** See end of user manual for full EMC tables

# 18. Disposal of Electronic Products (WEEE)

One of the provisions of the European Directive 2012/19/EU 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 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 process your old device for components recovery and recycling to help conserve the world's resources and minimise adverse effects on the environment.



# 19. Technical Specification

# **Programme Parameters**

### **TENS Programmes:**

| Prog | Preset /<br>Manual | Frequency (Hz)      | Pulse Width (µs) | Output    | Prog time<br>(min) |
|------|--------------------|---------------------|------------------|-----------|--------------------|
| 1    | Preset             | 80                  | 150              | Constant  | С                  |
| 2    | Preset             | 100                 | 200              | Constant  | С                  |
| 3    | Preset             | 2                   | 250              | Constant  | 30                 |
| 4    | Preset             | 100 (in 2 Hz burst) | 150              | Burst     | 30                 |
| 5    | Preset             | 150 (in 2 Hz burst) | 200              | Burst     | 30                 |
| 6    | Preset             | 2/80                | 200/100          | Han       | 30                 |
| 7    | Preset             | 2/100               | 200/150          | Han       | 30                 |
| 8    | Preset             | 10/100              | 250              | PFM       | С                  |
| 9    | Preset             | 2/120               | 200/100          | FM        | С                  |
| 10   | Preset             | 100                 | 75               | DTENS     | С                  |
| 11   | Manual             | 2-150               | 50-300           | Constant  | 5-90/C             |
| 12   | Manual             | 2-150               | 50-300           | Burst 2Hz | 5-90/C             |

### EMS Programmes:

| 0         | lar             |         | Work           |                  |      | Work |       |          |             |                 | Active Rest<br>(Train Phase Only) |          |                  | (uir |   |
|-----------|-----------------|---------|----------------|------------------|------|------|-------|----------|-------------|-----------------|-----------------------------------|----------|------------------|------|---|
| Programme | Preset / Manual | Phase   | ıcy (Hz)       | Pulse Width (µs) |      |      | % epn |          | ссу (нz)    | ith (µs)        | (s)                               | % əpr    | Phase Time (min) |      |   |
| Pre       | Pres            |         | Frequency (Hz) | 1                | Ш    | Ш    | IV    | Time (s) | Amplitude % | Frequenccy (Hz) | Pulse Width (µs)                  | Time (s) | Amplitude %      | Phas |   |
|           | et              | Warm    | 6              | 200              | 280  | 340  | 400   | 300      | 100         |                 |                                   |          |                  | 5    |   |
| 1         | Preset          | Train   | 10             | 200              | 280  | 340  | 400   | 9        | 80          | 4               | 200                               | 2        | 50               | 41   |   |
|           | <u> </u>        | Cool    | 3              | 200              | 280  | 340  | 400   | 600      | 70          |                 |                                   |          |                  | 10   |   |
|           | #               | Warm    | 6              | 200              | 280  | 340  | 400   | 120      | 100         |                 |                                   |          |                  | 2    |   |
| 2         | Preset          | Train   | 22             | 200              | 280  | 340  | 400   | 7        | 80          | 4               | 200                               | 11       | 70               | 18   |   |
|           | _               | Cool    | 3              | 200              | 280  | 340  | 400   | 180      | 70          |                 |                                   |          |                  | 3    |   |
|           | #               | Warm    | 6              | 200              | 280  | 340  | 400   | 120      | 100         |                 |                                   |          |                  | 2    |   |
| 3         | Preset          | Train   | 25             | 200              | 280  | 340  | 400   | 7        | 80          | 4               | 200                               | 11       | 50               | 21   |   |
|           | ۵.              | Cool    | 3              | 200              | 280  | 340  | 400   | 180      | 70          |                 |                                   |          |                  | 3    |   |
|           | jt.             | Warm    | 6              | 200              | 280  | 340  | 400   | 120      | 100         | 4               | 200                               | 11       | 50               | 2    |   |
| 4         | Preset          | Train   | 40             | 200              | 280  | 340  | 400   | 7        | 80          |                 |                                   |          |                  | 18   |   |
|           | _               | Cool    | 3              | 200              | 280  | 340  | 400   | 180      | 70          |                 |                                   |          |                  | 3    |   |
|           | ŧ.              | Warm    | 6              | 200              | 280  | 340  | 400   | 120      | 100         | 4               |                                   | 11       |                  | 2    |   |
| 5         | Preset          | Train   | 55             | 200              | 280  | 340  | 400   | 5        | 80          |                 | 235                               |          | 50               | 27   |   |
|           | _               | Cool    | 3              | 200              | 280  | 340  | 400   | 180      | 70          |                 |                                   |          |                  | 3    |   |
|           | #               | Warm    | 5              | 200              | 280  | 340  | 400   | 300      | 100         |                 |                                   |          |                  | 5    |   |
| 6         | Preset          | Train   | 60             | 200              | 280  | 340  | 400   | 4        | 80          | 5               | 200                               | 10       | 50               | 41   |   |
|           | _               | Cool    | 3              | 200              | 280  | 340  | 400   | 600      | 70          |                 |                                   |          |                  | 10   |   |
|           | )t              | Warm    | 5              | 200              | 280  | 340  | 400   | 300      | 100         |                 |                                   |          |                  |      | 5 |
| 7         | Preset          | Train   | 65             | 200              | 280  | 340  | 400   | 4        | 80          | 4               | 200                               | 11       | 25               | 20   |   |
|           | _               | Cool    | 3              | 200              | 280  | 340  | 400   | 600      | 70          |                 |                                   |          |                  | 10   |   |
|           | t l             | Warm    | 6              | 200              | 280  | 340  | 400   | 120      | 100         |                 |                                   |          |                  | 2    |   |
| 8         | Preset          | Train   | 75             | 200              | 280  | 340  | 400   | 4        | 80          | 4               | 200                               | 14       | 50               | 25   |   |
|           | _               | Cool    | 3              | 200              | 280  | 340  | 400   | 180      | 70          |                 |                                   |          |                  | 3    |   |
|           | #               | Warm    | 5              | 200              | 280  | 340  | 400   | 300      | 100         |                 |                                   |          |                  | 5    |   |
| 9         | Preset          | Train   | 100            | 200              | 280  | 340  | 400   | 6        | 80          | 4               | 200                               | 36       | 25               | 28   |   |
|           | _               | Cool    | 3              | 200              | 280  | 340  | 400   | 600      | 70          |                 |                                   |          |                  | 10   |   |
|           |                 | Warm    | 6              | 200              | 280  | 340  | 400   | 120      | 100         |                 |                                   |          |                  |      |   |
| 10        | Manual          | Train   | 10-120         |                  | 100- | 400  |       | 1-30     | 80          | 4               | 200                               | 1-60     |                  | 1-90 |   |
| 10        | Mar             | Cool    | 3              | 200              | 280  | 340  | 400   | 180      | 70          |                 |                                   |          |                  |      |   |
|           |                 | Default | 35             |                  | 28   | 30   |       | 5        |             | 4               | 200                               | 9        |                  | 20   |   |
|           |                 | Warm    | 6              | 200              | 280  | 340  | 400   | 120      | 100         |                 |                                   |          |                  |      |   |
| ,,        | nua             | Train   | 10-120         |                  | 100- | 400  |       | 1-30     | 80          | 4               | 200                               | 1-60     |                  | 1-90 |   |
| 11        | Manua           | Cool    | 3              | 200              | 280  | 340  | 400   | 180      | 70          |                 |                                   |          |                  |      |   |
|           |                 | Default | 50             |                  | 30   | 00   |       | 5        |             | 4               | 200                               | 9        |                  | 20   |   |

| 12 |    |             | Warm    | 6      | 200 | 280  | 340 | 400 | 120  | 100 |   |     |      |      |
|----|----|-------------|---------|--------|-----|------|-----|-----|------|-----|---|-----|------|------|
|    |    | 8 8         | Train   | 10-120 |     | 100- | 400 |     | 1-30 | 80  | 4 | 200 | 1-60 | 1-90 |
|    | 12 | Mar<br>(ASY | Cool    | 3      | 200 | 280  | 340 | 400 | 180  | 70  |   |     |      |      |
|    |    |             | Default | 50     |     | 30   | 00  |     | 5    |     | 4 | 200 | 9    | 20   |

### IFT Programmes

| Prog | Output                         | Frequency<br>Range | Cycle Time                            | Default Treatment<br>Time |  |
|------|--------------------------------|--------------------|---------------------------------------|---------------------------|--|
| 1    | Constant                       | 2 – 160Hz          | N/A                                   | 20 minutes                |  |
| 2    | Frequency Sweep                | 2 – 10Hz           | 5 seconds (default)<br>5 - 30 seconds | 20 minutes                |  |
| 3    | Frequency Sweep                | 2-100Hz            | 5 seconds (default)<br>5 – 30 seconds | 20 minutes                |  |
| 4    | Frequency Sweep                | 80 – 150Hz         | 5 seconds (default)<br>5 - 30 seconds | 20 minutes                |  |
| 5    | Pulse Width Sweep<br>(Gradual) | 2 – 160Hz          | 5 seconds (default)<br>5 – 30 seconds | 20 minutes                |  |
| 6    | Pulse Width Sweep<br>(Abrupt)  | 2 – 160Hz          | 5 seconds (default)<br>5 - 30 seconds | 20 minutes                |  |

### Microcurrent Programmes

| Prog | Waveform                   | Frequency<br>Range | Pulse Width | Default Treatment<br>Time |
|------|----------------------------|--------------------|-------------|---------------------------|
| 1    | Square                     | 0.5Hz              | 998ms       | 20 minutes                |
| 2    | Saw                        | 30Hz               | 10ms        | 20 minutes                |
| 3    | Manual                     | 0.5 - 50Hz         | 10 - 998ms  | 20 minutes                |
| 4    | DC (max 99µA, CH1<br>only) | N/A                | N/A         | 20 minutes                |

# **Device Specification**

### TENS & EMS

| Amplitude            | 99mA zero to peak in 99 steps +/- 10%   |  |  |  |  |
|----------------------|---|--|--|--|--|
| Waveform             | Symmetrical rectangular bi-phasic   |  |  |  |  |
| IFT                  |   |  |  |  |  |
| Amplitude            | IFT4: 0-60mA peak to peak at 5000hm load, 60 steps IFT2: 0-90mA peak to peak at 5000hm load, 90 steps |  |  |  |  |
| Carrier Frequency    | 4000Hz fixed  |  |  |  |  |
| Modulating Frequency | 4004 – 4160Hz, in steps of 4Hz  |  |  |  |  |
| Pulse Width          | 125µs   |  |  |  |  |
| Waveform             | Symmetrical balanced sine wave  |  |  |  |  |
| Microcurrent         |   |  |  |  |  |
| Amplitude            | 0 – 700μA in 10μA steps   |  |  |  |  |
| Frequency            | 0.5Hz, 1Hz, 1.5Hz, 2Hz, 3Hz, 4Hz, 5Hz – 50Hz  |  |  |  |  |
| Pulse Width          | 10-999ms  |  |  |  |  |
| Waveforms            | Continuous, Square Unipolar, Sawtooth Unipolar  |  |  |  |  |
| Waveform             | Symmetrical balanced sine wave  |  |  |  |  |
| General              |   |  |  |  |  |
| Output               | Constant current 500-1000 Ohm<br>Constant voltage > 1000 Ohm  |  |  |  |  |
|                      |   |  |  |  |  |

Total output limited to 25  $\mu$ C per pulse

Built-in lithium-ion polymer battery Ratings: 1500mAh, 5.5Wh , 3.7V

Fully shielded: touch proof

Dual channel

128.5g

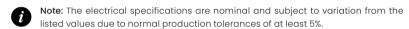
Max Pulse Energy

Output plug

Channels Battery

Weight

| Dimensions                   | 125 x 62 x 28mm   |
|------------------------------|---|
| Safety Classification        | Internal power source Designed for continuous use No special moisture protection  |
| Software Version             | R3_00   |
| Applied Part                 | Skin surface electrode pads   |
| Environmental Specifications |   |
| Operating Conditions         | Temperature range: 5 to 40°C<br>Humidity: 15 to 90% RH non-condensing<br>Atmospheric pressure: 700 hPa to 1060 hPa  |
| Storage Conditions           | Temperature range: -10-+60°C (≤ 1 month) -10-+45°C (≤ 3 month) -10-+28°C (≤ 1 year) Humidity: 15 to 75% RH non-condensing Atmospheric pressure: 700 hPa to 1060 hPa |





**Note:** At least 30min required for the device to warm / cool from the minimum / maximum storage temperature between uses until it is ready for intended use.

# Symbols Table



TYPE BF APPLIED PART: Equipment providing a degree of protection against electric shock, with isolated applied part. Indicates that this device has conductive contact with the end user.



This symbol on the unit means "Refer to instructions for use".



Temperature Limitation: indicates the temperature limits to which the medical device can be safely exposed.



Humidity Limitation: indicates the humidity limits to which the medical device can be safely exposed.



Atmospheric Pressure: indicates the atmospheric limits to which the medical device can be safely exposed.



Lot Number: indicates the manufacturer's batch code so that the batch or lot can be identified.

SN

Serial Number: indicates the manufacturer's serial number so that a specific medical device can be identified.



Catalogue Number: indicates the manufacturer's catalogue number so that the device can be identified.



Do not dispose in household waste.



Manufacturer Symbol



Date of Manufacture: indicates the date which the medical device was manufactured. This is included within the serial number found on the device (usually on the back of the device), either as "E/Year/Number" (YY/123456) or "E/Month/Year/Number" (MM/YY/123456).



CE Mark



Medical Device



This medical device is indicated for home use.



Importer Symbol

IP22

This medical device is not water resistant and should be protected from liquids.

The first number 2: Protected from touch by fingers and objects greater than 12 millimeters.

The second number 2: Protected from water spray less than 15 degrees from vertical.



Authorized representative in the European Community / European Union



Unique Device Identified : Indicates a carrier that contains Unique Device Indentifie information



Keep away from sunlight



Not suitable for use under dust



Keep dry



Notes are used to provide clarification or recommendation.



A Warning is used when failure to follow the instructions may result in serious injury or death.



A Caution is used when failure to follow the instructions may result in a minor or moderate injury, or damage to the device or other property.



A Contraindication is used when a device should not be used because the risk of use clearly outweighs any foreseeable benefits and may result in serious injury or death.

### **Warranty Card**

# RETURN THIS PORTION ONLY WHEN YOU RETURN YOUR PRODUCT FOR REPAIR UNDER WARRANTY

| PRODUCT FOR REPAIR UNDER WARRANTY |  |
|-----------------------------------|--|
| Name:                             |  |
| Address:                          |  |
| Postcode:                         |  |

E-Mail: Model:

Telephone:

Date of Purchase:

# ATTACH PROOF OF PURCHASE DO NOT SEND IN LEADS OR ELECTRODE PADS

Retailer's Name

Retailer's Address:

Retailer's Postcode:

Brief description of the probelm you are experiencing:

# WARRANTY IS VOID UNLESS THE ABOVE INFORMATION IS COMPLETED AND CORRECT