

Med-Fit

Premier TENS & Muscle Stimulator

Pain Relief
TENS Machine
Muscle Toning

EM6300A



Patient Instruction & User Manual

Tel: 0161 429 7330 email: sales@med-fit.co.uk

EM6300A



Thank you for purchasing a Premier Range Stimulator. These devices are manufactured to the highest of medical standards using the latest and most advanced technology. Each unit is fully tested in final assembly and inspection ensuring you receive the highest quality and an extremely reliable device.

Important information

Please read the following instructions

The Premier range of stimulators use soft touch control technology.

When increasing the intensity control, please press the button in single “light touch” actions. Each press increases the intensity by

1mA (max 99mA). This is a safety feature which ensures that you stimulate at a pleasant comfortable rate.

Contents:

1 x Premier TENS Unit

1 x Charger and USB Cable

4 x Packs of Self-Adhesive Electrodes (4 electrodes per pack)

1 x Pair of Patient Cables

1 x User Manual



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Contents

CONTROLS AND FUNCTIONS	4
STEP BY STEP GUIDE	5
CHARGING INSTRUCTIONS	7
WARNINGS AND CAUTIONS	8
GENERAL DESCRIPTION	10
INTRODUCTION TO TENS	10
INTRODUCTION TO EMS	11
WHICH PROGRAMME SHOULD I USE	12
HOW HIGH SHOULD I TURN THE INTENSITY	12
THE PREMIER PLUS TENS PROGRAMMES P1 - P12	13
MANUAL ADJUSTMENTS	16
HELPFUL TIPS	24
TENS ELECTRODE PLACEMENT	26
EMS & MASSAGE PROGRAMMES	30
THE PREMIER PLUS TENS PROGRAMMES P13 - P24	31
EMS ELECTRODE PLACEMENT	32
WARRANTY	36
SKIN PATCH TEST	36
ELECTRODE INSTRUCTIONS	37
TECHNICAL SPECIFICATION	38
EMC INFORMATION	42

CONTROLS AND FUNCTIONS

Left channel socket

Right channel socket

Red key lock button

Charging port

Mode button to change from TENS, EMS and Manual Adjustments

Intensity up channel 1

Intensity up channel 2

Intensity down channel 1

Intensity down channel 2

On / Off Button

Programme selector up and down

LED charging indicator



The set button is to select the desire parameters in manual mode only
it has no function when using the pre-set programmes.

STEP BY STEP GUIDE


STEP

1

Before using your premier TENS for the first time, please fully charge the battery see page 7.


STEP

2

Press the  button to switch on the TENS. This is located at the bottom left hand corner of the TENS device. Please push and hold down the button for 2 seconds to turn the unit on.

STEP

3

Pressing the  button will allow you to change from TENS to EMS Mode (we always recommend to start with a TENS programme (P1-P12).

STEP

4

To change the programmes please use the arrow keys directly below the set button this will allow you to choose the required programme.



STEP

5

Please refer to the programme charts supplied in this guide for details on each programme available, please remember that P1-P12 are TENS programmes and P13-P24 are EMS programmes.

STEP

6

The recommended programme to use for a first time TENS treatment is programme P1. This is a gentle TENS treatment with a good pain blocking effect and is an introduction to TENS stimulation.

STEP

7

You are now ready to use the TENS for the first time. (see step 8).

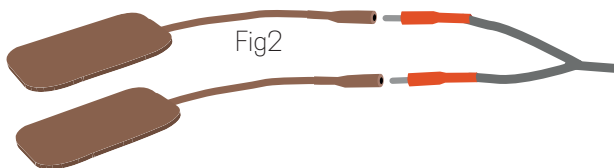
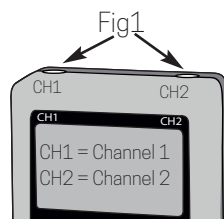
STEP BY STEP GUIDE

STEP 8

Connect one of the TENS lead cables supplied to the top of your TENS machine. As shown in Fig1.

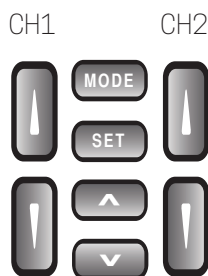
Now connect the other end of the TENS cable to the self-adhesive electrodes supplied. As shown in Fig2.

Next place the self-adhesive electrodes on to the painful site or as recommended by your healthcare professional. You are now ready to turn up the intensity on your TENS machine.



STEP 9

The intensity keys on your TENS are marked CH1 and CH2. To increase the intensity press the up arrow key, each press increases the intensity by 1mA and is displayed in the screen. It is recommended that you increase the intensity to a sensation which is comfortable and not too strong. As you use the TENS for longer periods it may be necessary to increase the intensity to higher levels. To control your pain more effectively. It is recommended the first treatment should be a minimum of 1 hour to 1½ hours to give the best possible results.



STEP 10

For a full explanation of all the settings and modes please refer to pages 13 to 15 for TENS settings or page 31 for EMS settings.

CHARGING INSTRUCTIONS

Important information The USB charging cable connects to TENS charging port as shown in fig 1 (Please ensure you connect the cable the right way round)



Before using your Premier TENS & Muscle Stimulator please charge the unit, as follows:

Charging your TENS device.

Connect the USB cable to the AC adaptor or USB port as shown in figure 1.

Now connect the USB cable directly into the USB socket, which is located on the right hand side of your Premier TENS.

A red indicating light will be seen in the bottom right hand corner of your TENS device. We recommend you charge the device for approximately 2 hours. Once fully charged the unit will be ready for use and the LED charging light will turn to green, this indicates the unit is fully charged. Remove the USB charging lead from your TENS device and disconnect from the mains supply or USB port. Please store your adaptor and cable in the carry case provided when not in use.

WARNINGS & PRECAUTIONS

PLEASE NOTE:

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

WARNING! PATIENTS WITH PACEMAKERS MAY NOT BE TREATED WITH TENS

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

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

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

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

WARNINGS

1. The long term effects of chronic electrical stimulation are unknown.
2. Stimulation should not be applied over the carotid sinus nerves, particularly in patients with a known sensitivity to the carotid sinus reflex.
3. Stimulation should not be applied over the neck or mouth. Severe spasm of the laryngeal and pharyngeal muscles may occur and the contractions may be strong enough to close the airway or cause difficulty in breathing.
4. Stimulation should not be applied transthoracically in that the introduction of electrical current into the heart may cause cardiac arrhythmias.
5. Stimulation should not be applied transcerebrally
6. Stimulation should not be applied over swollen, infected, inflamed areas or skin eruptions, eg, phlebitis, thrombophlebitis, varicose veins etc.
7. Stimulation should not be applied over or in proximity to cancerous lesions.

Contraindication

Electrical stimulators should not be used on patients with cardiac demand pacemakers.

Adverse Reactions

On rare occasions skin irritation and burns beneath the electrodes have been reported with the use of electrical stimulators. If irritation occurs, discontinue use and consult your Healthcare Professional.

CAUTIONS

1. Safety of powered muscle stimulators for use during pregnancy has not been established.
2. Caution should be used for patients with suspected or diagnosed heart problems.
3. Caution should be used in the presence of the following:
 - a. When there is a tendency to haemorrhage following acute trauma or fracture;
 - b. Following recent surgical procedures when muscle contraction may disrupt the healing process;
 - c. Over the menstruating or pregnant uterus; and
 - d. Over areas of the skin which lack normal sensation.
4. Some patients may experience skin irritation or hypersensitivity due to electrical stimulation or electrical conductive medium. Using an alternate conductive medium, or alternate electrode placement can usually reduce the irritation.
5. Electrode placement and stimulation settings should be based on the guidance of the prescribing practitioner.
6. Powered muscle stimulators should be kept out of the reach of children.
7. Powered muscle stimulators should be used only with the leads and electrodes recommended for use by the manufacturer.
8. Portable powered muscle stimulators should not be used while driving, operating machinery or during any activity in which involuntary muscle contractions may put the user at undue risk of injury.

GENERAL DESCRIPTION

The EM6300A Digital TENS/EMS is a battery operated pulse generator that sends electrical impulses electrodes to the body and reach the nerves and underlying muscle group. This unit is a combination stimulator of TENS and EMS which can be used for muscle stimulation and pain relief. The device is provided with four controllable output channels, each independent of each other. An electrode pair can be connected to each output channel. The intensity level is controlled by press buttons.

INTRODUCTION TO TENS

EXPLANATION OF PAIN

Pain is a warning system and the body's method of telling us that something is wrong. Pain is important; without it abnormal conditions may go undetected, causing damage or injury to vital parts of our bodies.

Even though pain is a necessary warning signal of trauma or malfunction in the body, nature may have gone too far in its design. Aside from its value in diagnosis, long-lasting persistent pain serves no useful purpose. Pain does not begin until coded message travels to the brain where it is decoded, analysed, and then reacted to. The pain message travels from the injured area along the small nerves leading to the spinal cord. Here the message is switched to different nerves that travel up the spinal cord to the brain. The pain message is then interpreted, referred back and the pain is felt.

EXPLANATION OF TENS

Transcutaneous Electrical Nerve Stimulation is a non-invasive, drug-free method of controlling pain. TENS uses tiny electrical impulses sent through the skin to nerves to modify your pain perception. TENS does not cure any physiological problem; it only helps control the pain. TENS does not work for everyone; however, in most patients it is effective in reducing or eliminating the pain, allowing for a return to normal activity.

INTRODUCTION TO EMS

EXPLANATION OF EMS

Electrical Muscle Stimulation is an internationally accepted and proven way of treating muscular injuries. It works by sending electronic pulses to the muscle needing treatment; this causes the muscle to exercise passively.

It is a product derived from the square waveform, originally invented by John Faraday in 1831. Through the square wave pattern it is able to work directly on muscle motor neurons. The EMS has low frequency and this in conjunction with the square wave pattern allows direct work on muscle groupings. This is being widely used in hospitals and sports clinics for the treatment of muscular injuries and for the re-education of paralysed muscles, to prevent atrophy in affected muscles and improving muscle tone and blood circulation.

HOW EMS WORKS

1. Relaxation of muscle spasms
2. Prevention or retardation of disuse atrophy
3. Increasing local blood circulation
4. Muscle re-education
5. Immediate post-surgical stimulation of calf muscles to prevent venous thrombosis
6. Maintaining or increasing range of motion

The EMS units send comfortable impulses through the skin that stimulate the nerves in the treatment area. When the muscle receives this signal it contracts as if the brain has sent the signal itself. As the signal strength increases, the muscle flexes as in physical exercise. Then when the pulse ceases, the muscle relaxes and the cycle starts over again, (Stimulation, Contraction and Relaxation.) Powered muscle stimulators should only be used under medical supervision for adjunctive therapy for the treatment of medical diseases and conditions.

WHICH PROGRAMME SHOULD I USE?

We always recommend you start with programme 1, as already mentioned in your step-by-step guide. The premier TENS has 12 programmes P1 to P12. Each programme has been shown to reduce and block pain in a wide range of conditions. It is very difficult to know which programme is best for you. It is therefore recommended that over a period of time you try all 12 programmes. To help get you started, we have included some common conditions with suggested electrode placements including treatment times and recommended programmes you may wish to try.

HOW HIGH SHOULD I TURN THE INTENSITY?

Everybody reacts differently to TENS Stimulation so it is important that you increase the intensity (sensation feeling) to the correct level.

Increase the intensity to a sensation which is comfortable and always perceptible; never turn up to a level which is strong and uncomfortable.

You may use TENS if required for long periods of time to combat long term chronic pain, however, please remember to place the electrodes in slightly different areas around the painful site, as this will help reduce skin irritation.

HOW LONG SHOULD A TYPICAL TREATMENT TIME LAST

The most up to date research in TENS treatment times, indicates that a minimum of 1 hour to 1½ hours is required for effective pain relief. Your TENS may be used for much longer periods and you may find treatment times of 3 to 4 hours may work best for you.

Please remember that the intensity level is always kept at a pleasant sensation, never increase the intensity to uncomfortable levels as this can possibly have a detrimental effect on your results.

MED-FIT PREMIER TENS PROGRAMMES

P1-P12 - 12 Clinically validated TENS programmes for drug-free pain relief. (All programmes run on a continuous time indicated by the letter [C] on your display.

Programme 1

Conventional TENS

Ideal for your first TENS treatment, for both acute, chronic and long-term use.

Suitable Conditions

Neck Pain - Shoulder Pain - Knee Pain - Lower Back Pain - Sciatica - Arthritic Pain

Programme 2

Sciatica - Pain Relief

Effective pain relief for irradiation of pain along the path of the sciatic nerve, for electrode placement please refer to page 19. Recommended treatment time 2 + hours or until pain alleviates.

Programme 3

Lower back Pain

Programme 3 is most effective for lower back pain and increased blood circulation. This programme alleviates the pain by stimulating muscles to release the body's own morphine-like substances for electrode placement please refer to page 19. Recommended treatment time 90 minutes or until the pain subsides.

MED-FIT PREMIER TENS PROGRAMMES

Programme 4

Knee Pain

This programme is ideal for treating knee injuries both acute and chronic including osteoarthritis rheumatoid arthritis and joint pain. for examples of electrode placement please refer to pages 20 & 21.

Programme 5

Shoulder Pain

Treating shoulder pain relief from heavy or repetitive lifting, arthritis, and tendinopathy. Please refer to page 18 for electrode placement.

Programme 6

Muscle Pain

This programme is pre-set for all types of muscle pain relief ideal for muscle tension in the neck, shoulder and lower back (lumbar spasms). Please refer to pages 18 to 21 for electrode placement.

Programme 7

Migraine/Headaches

Reduced pulse width ideal for treating nerve rich areas.

Suitable Conditions

Tension Type Headache, Facial Pain, Neck Pain, Postherpetic Neuralgia.

MED-FIT PREMIER TENS PROGRAMMES

Programme 8

Cervical (Neck) Pain

Cervical pain relief due to poor ergonomic work positions. Please see the electrode placement page 21 for more details.

Programme 9

Epicondylitis - (Elbow)

Pain relief for epicondylitis resulting from repetitive gripping and objects. Please see the electrode placement page 20 for more details.

Programme 10

Foot & Ankle Pain

This programme is most suited for foot and ankle pain and increases circulation. Please see the electrode placement page 21 for more details.

Programme 11

Arthritic Pain

This programme is ideal for arthritic pain as it can be used for long periods of time with little or no accommodation which offers superior pain relief on most areas of the body.

Programme 12

Joint Pain & Fracture Pain

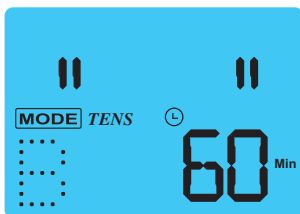
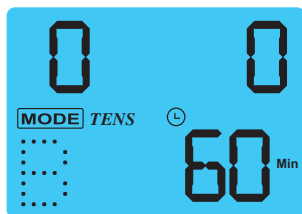
This programme is ideal for all common areas of joint pain, with this treatment we recommend that the stimulation is increased to a stronger level than the pain itself.

ADJUSTING THE CONTROLS USING THE MANUAL ADJUSTMENT

1. Power On/Off/Pause Button



The power of unit can be turned on by pressing the On/Off/Pause button. You may start to adjust the settings when the liquid crystal display is on. Press and hold for 2 seconds to switch off. To pause stimulation press the button once. To resume stimulation press the button again and stimulation will be restored in 2 seconds.

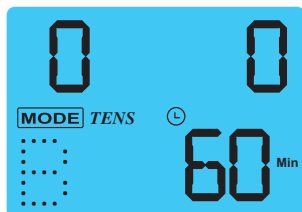


If the unit is not used (buttons not pressed or output level at 0) for 5 minutes, the power will be shut off automatically.

2. Mode Control

MODE

There are 5 TENS modes(B, N, M, S1, S2) and 3 EMS modes (C, S, A) available. The mode is selected by pressing the "Mode" control. When a TENS mode is selected, the LCD shows "TENS". When EMS mode is selected, the LCD shows "EMS"



ADJUSTING THE CONTROLS USING THE MANUAL ADJUSTMENT

3. Set Control

By pressing the "Set" control you select the setting you intend to adjust. The value is set by pressing the "Increment" or "Decrement" controls when the "Set" value is flashing.

4. Increment Control

This button controls the increase of settings.

5. Decrement Control

This button controls the decrease of settings.

6. Intensity Increase Control

There are 99 steps of intensity adjustment control.
Press the button until the desired intensity level is reached.



7. Intensity Decrease Control

There are 99 steps of intensity adjustment control.
Press the button until the desired intensity level is reached.



8. Key Lock Facility

Pressing the "Lock" buttons prevents the settings being changed but the output may be stopped by pressing the "On/Off/Pause".

Key Lock



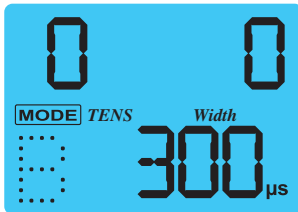
ADJUSTING THE CONTROLS FOR TENS


9. Steps to Set a TENS Program

The settings can be adjusted according to the following steps.



- a. Turn on the Power
- b. Select a Mode

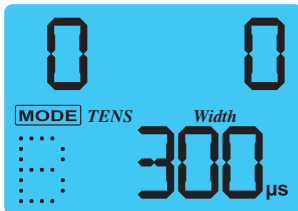
Select a mode by pressing the "Mode" control. The mode you selected will show up on the top of liquid crystal display. There are 5 modes of your option including - B(Burst), M(Normal), M(Modulation), S1, S2 and P. When a TENS mode is selected, it shows "TENS" on the liquid crystal display.



After a mode is selected, always press "Set" to enter next setting, and press " " or " " to adjust its value.



- c. Set Pulse Width

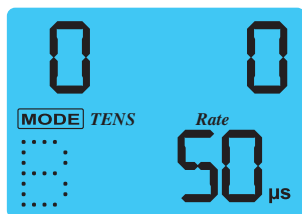
Pulse Width is adjustable from 50 μ s to 300 μ s. Press "SET" control to enter this menu, then press " " or " " to adjust the setting. If no instructions regarding the pulse width are given in therapy, set the control to the suggested 70-120 μ s setting.





ADJUSTING THE CONTROLS FOR TENS

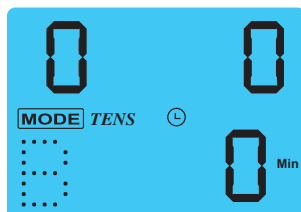
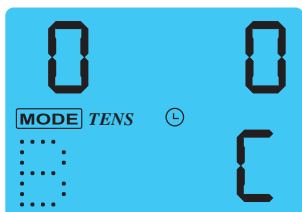
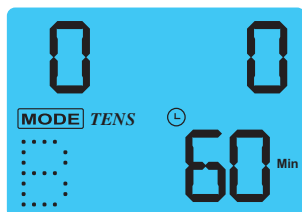
d. Set Pulse Rate

Pulse rate is adjustable from 2Hz to 150 Hz . Press "SET" control to enter this menu, then press " " or " " to adjust the setting. Unless otherwise instructed, set the pulse rate to the 70-120 Hz range.



e. Set Timer

The treatment time is adjustable between 5 - 60 minutes and Continue(C). Press "SET" control to enter this menu, then press " " or " " to adjust the setting. The liquid crystal will show the balance treatment time after the stimulation is started. Output will be terminated when time is up. Turn off the unit when the output is off.



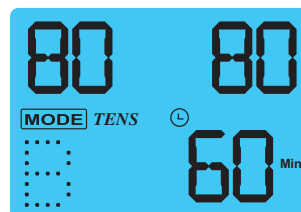
f. Adjust Intensity

There are 99 steps within the intensity range.

Set the desired level by pressing the

" " or " " controls. Press the

"Lock" button to prevent accidental changes.



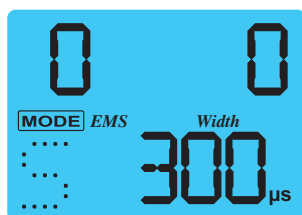
ADJUSTING THE CONTROLS FOR EMS



10. Steps to Set a EMS Program

The settings can be adjusted according to the following steps.

- a. Turn on the Power
- b. Select a Mode

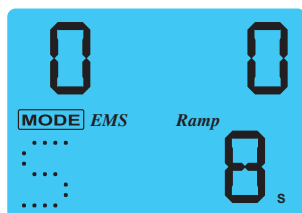
Select a mode by pressing the "Mode" control. The mode you selected will show up on the top of liquid crystal display. There are 3 modes of your option including - C(Constant), S(Synchronous), A(Alternate). When an EMS mode is selected, it shows "EMS" on the liquid crystal display.



After a mode is selected, always press "Set" to enter next setting, and press "  " or "  " to adjust its value. The settings will be stored immediately after selected.

- c. Set Ramp Time

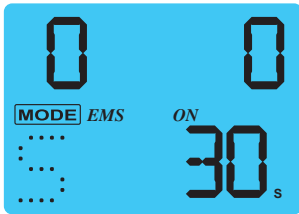
The ramp time controls the time taken to reach maximum and the time taken to fall to zero in order to make the contraction more comfortable. The ramp time is adjustable between 1 - 8 seconds.



ADJUSTING THE CONTROLS FOR EMS

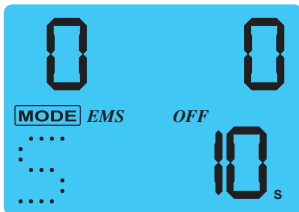
d. Set On Time

The On Time controls the length of stimulation. By pressing the "Set" control, the contraction time can be adjusted. Both channels' stimulation is cycled on and off by the contraction and relaxation settings. The range is adjustable from 2 seconds to 90 seconds. The total "ON" time must be at least twice the "Ramp" time.





e. Set Off Time

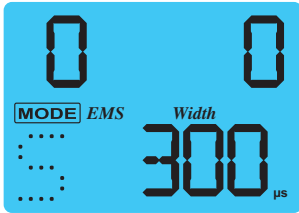
The Off Time controls the length of relaxation. By pressing the "SET" control, the relaxation time can be adjusted. Both channels' stimulation is cycled on and off by the contraction and relaxation settings. The range is adjustable from 2 seconds to 90 seconds. In Alternate mode, the OFF Time should be equal or more than the ON Time. (OFF TIME ON TIME)





ADJUSTING THE CONTROLS FOR EMS

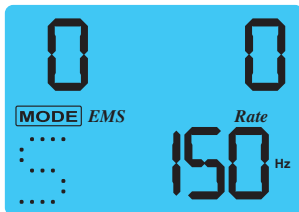
f. Set Pulse Width

Pulse Width is adjustable from 50 μ s to 300 μ s. Press "SET" control to enter this menu, then press " " or " " to adjust the setting. If no instructions regarding the pulse width are given in therapy, set the control to the suggested 70-120 μ s setting



g. Set Pulse Rate

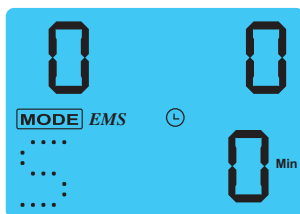
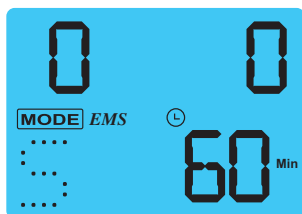
Pulse rate is adjustable from 2Hz to 150 Hz . Press "SET" control to enter this menu, then press " " or " " to adjust the setting. Unless otherwise instructed, set the pulse rate to the 70-120 Hz range



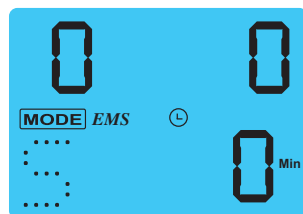
ADJUSTING THE CONTROLS FOR EMS

h. Set Timer

The treatment time is adjustable between 5 - 60 minutes and Continue(C). Press "SET" control to enter this menu, then press "Increment" or "Decrement" to adjust the setting. The liquid crystal will show the balance treatment time after the stimulation is started. Output will be terminated when time is up. Turn off the unit when the output is off.



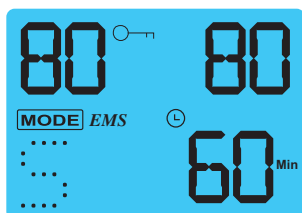
Continuous



End of Treatment

i. Adjust Intensity

There are 99 steps within the intensity range. Set the desired level by pressing the "▲" or "▼" controls. Press the "Lock" button to prevent accidental changes.



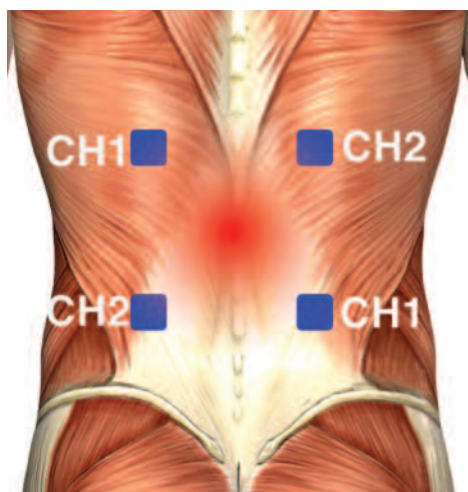
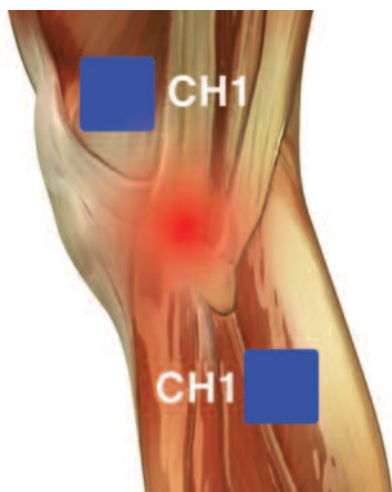
HELPFUL TIPS FOR SUCCESSFUL TENS TREATMENT

Once you have familiarised yourself with the controls and features of your TENS device, it is important to place the TENS electrodes in a position which gives the most pain relief. This may take 3 or 4 attempts to find the most suitable position, for maximum pain relief.

If you are using two electrodes, place the electrodes directly onto the painful area at a position where you feel the pain starts and where it finishes. You may now position the electrodes around the painful area to locate the most suitable position for maximum pain relief.

The alternative method is to use four electrodes surrounding the painful area see examples.

The complete area between the electrodes will now be treated when positioning the electrodes as shown.



EXAMPLES OF ELECTRODE PLACEMENT

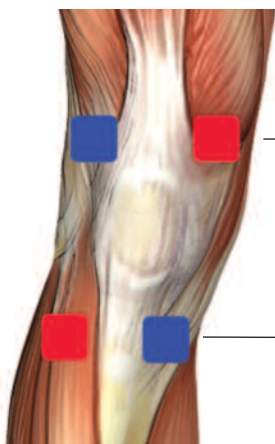
Here are three examples of electrode placement for knee pain. For best results, we recommend you try all variations as shown.



TENS using one channel vertical pad placement



TENS using one channel horizontal pad placement



Red squares represents placement of electrode Channel 1

Blue squares represents Placement of electrode Channel 2

TENS using both channels

TENS ELECTRODE PLACEMENT

Frozen Shoulder



Primary Placement

Suggested Programmes

P1, P5, P12

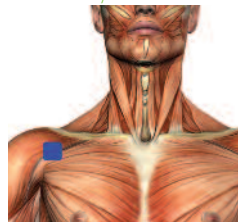
Shoulder Pain



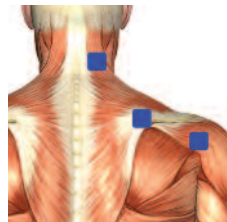
Primary Placement

Suggested Programmes

P1, P5, P12



Alternative Placement



Degenerative Arthritis: Cervical and Lumbar



Primary Placement

Suggested Programmes

P1, P3, P8, P11



Alternative Placement

Chronic Hip Pain



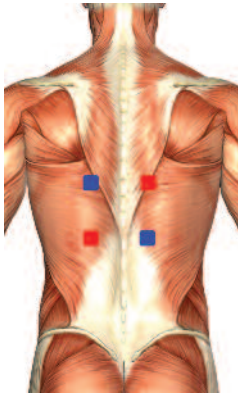
Primary Placement

Suggested Programmes

P1, P11, P12

TENS ELECTRODE PLACEMENT

Lower Back Pain

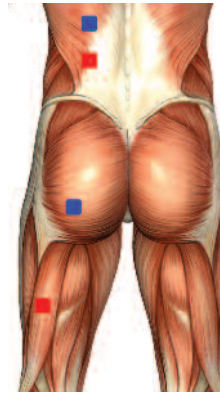


Primary Placement

Suggested Programmes

P1, P3

Hip Neuralgia

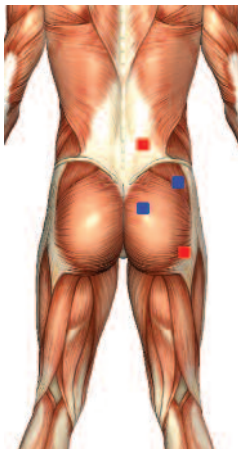


Primary Placement

Suggested Programmes

P12,P11

Phantom Limb, Lower Extremity

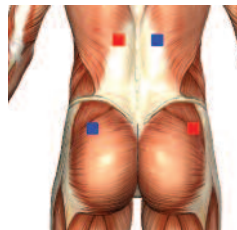


Primary Placement

Suggested Programmes

P12

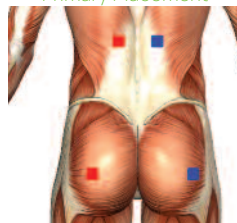
Sciatica



Primary Placement

Suggested Programmes

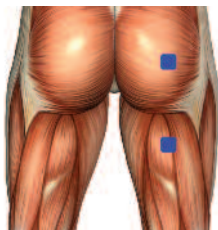
P1, P2, P3



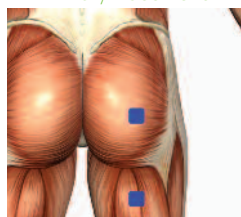
Alternative Placement

TENS ELECTRODE PLACEMENT

Low Extremity Pain



Primary Placement



Primary Placement

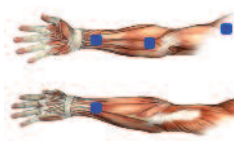


Alternative Placement

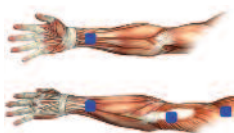
Suggested Programmes

P6, P12

Wrist Pain



Primary Placement



Alternative Placement

Suggested Programmes

P1, P12

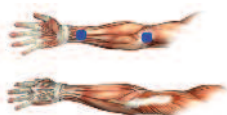
Carpal Tunnel Syndrome



Primary Placement

Suggested Programmes

P6



Alternative Placement

Degenerative Arthritis - Knee Pain

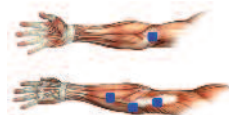


Primary Placement

Suggested Programmes

P4, P12

Elbow & Forearm Pain



Primary Placement

Suggested Programmes

P9, P6

TENS ELECTRODE PLACEMENT

Lower Leg Pain



Primary Placement



Alternative Placement

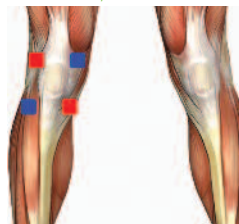
Suggested Programmes

P4, P6, P12

Knee Pain - Post-Op



Primary Placement

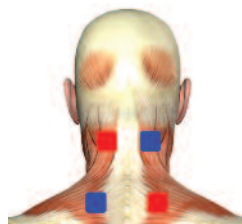


Alternative Placement

Suggested Programmes

P4, P6, P12

Cervical Placement



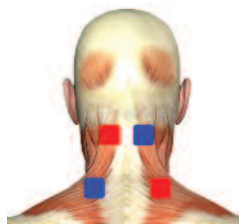
Primary Placement



Alternative Placement

Suggested Programmes

P8



Primary Placement



Alternative Placement

Suggested Programmes

P8

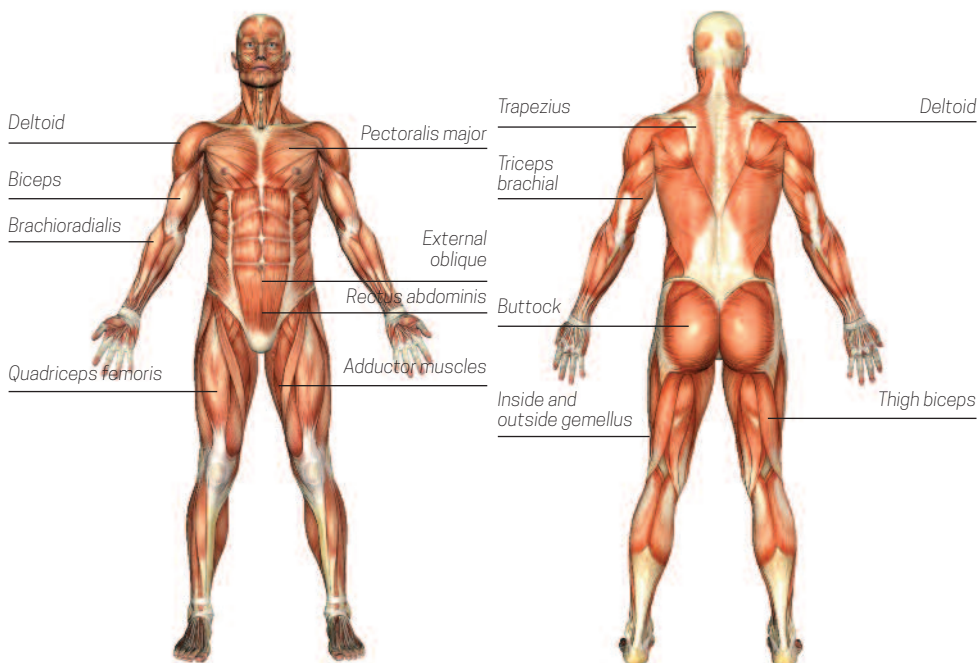
Chronic Cervical Strain

MUSCLE STIMULATORS & MASSAGE PROGRAMMES

These 12 individual electronic muscle stimulator (E.M.S) programmes P13 - P24 have been clinically proven for the treatment of:

1. Muscle Re-Education
2. Muscle Training
3. Muscle Strengthening
4. Muscle Toning & Massage

Please refer to the electrode placement charts provided for electrode placement guidelines.



MUSCLE STIMULATOR & MASSAGE PROGRAMMES

Programmes P13 - P16

Muscle Training & Muscle Re-Education Programmes

Choose from one of the programmes 13, 14, 15 or 16

Suitable Conditions

These programmes can be used for muscle training, prevention of muscle atrophy. Please follow the electrode placement chart for individual muscles shown on pages 24 to 27.

Programmes P17 - P20

Muscle Strengthening & Muscle Re-Education Programmes

Choose from one of the programmes 17, 18, 19 or 20

Suitable Conditions

These programmes can be used for building stamina and strength. Muscle re-education. Please follow the electrode placement chart for individual muscles shown on pages 24 to 27.

Programmes P21 - P24

Muscle Toning & Massage Programmes

Choose from one of the programmes 21, 22, 23 or 24

Suitable Conditions

This programme stimulates the muscles with comfortable sensations which helps to tone and decrease any muscular tension. Please follow the electrode placement chart for individual muscles shown on pages 24 to 27.

ELECTRODE PLACEMENT

Arms

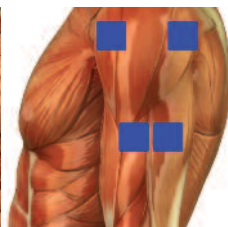


Biceps

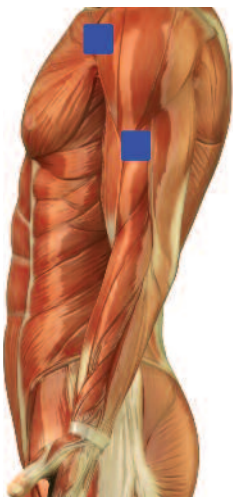


This position is useful for muscle training and for gaining volume using the devices' muscle strengthening programmes. But it is equally very useful for diminishing the effects of lactic acid (substances manufactured by the muscles after sporting exertion and that result in pain during the following few hours).

Deltoid



Deltoid & Anterior Fascia



ELECTRODE PLACEMENT

Deltoid Posterior Fascia



Latissimus



Thigh

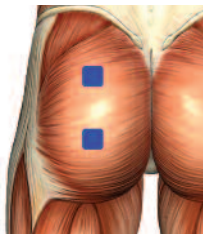


Internal Thigh

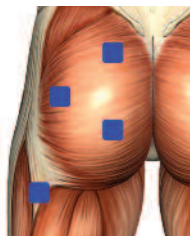


ELECTRODE PLACEMENT

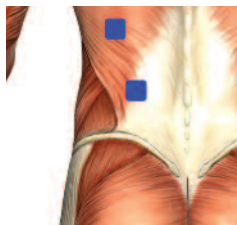
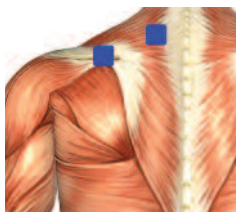
Gluteals



This position is ideal for shaping the gluteal muscle.



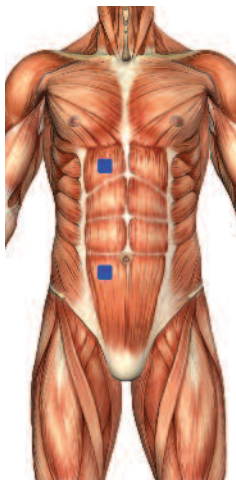
The Trapezius Muscles and Dorsals



The Legs and Calves



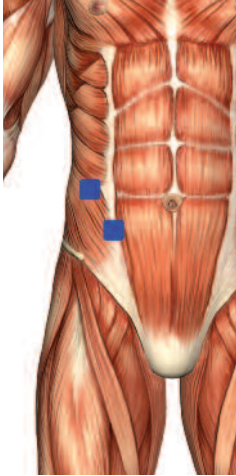
The Abdominals



It is the abdominal muscle which, when electro-stimulated, will make a six-pack appear.

ELECTRODE PLACEMENT

The Abdominals



These muscles are very difficult and painful to work on. So, go on, the electrodes positioned like this will allow you to work on your muscles

The Pectorals



BE SURE to follow the positioning.

DO NOT POSITION ON THE HEART AREA !

LIMITED WARRANTY

Med-Fit UK Ltd warrants to the initial Purchaser ("Purchaser") (and to no other person) that the product with the exclusion of accessories such as chargers, rechargeable batteries, electrodes, lead wires, self-adhesive electrodes and the component parts thereof, distributed or manufactured for one year from the initial date of purchase from Med-Fit UK Ltd ("the Warranty Period").

Accessories including, but not limited to chargers, rechargeable batteries, electrodes, lead wires and adhesive electrodes are excluded from the warranty and sold "AS IS" because their structure is such that they may be easily damaged before or during use.

Limited of Liabilities and Disclaimer of Warranties

Med-Fit UK Ltd sole obligation in the case of any breach of its warranties set forth in the paragraph above, shall be, at Med-Fit UK Ltd option, to repair or replace the Product without charge to Purchaser or to refund the purchase price of the Product. In order to recover under this Warranty, Purchaser must send Med-Fit UK Ltd written notice of the defect (setting forth the problem in reasonable detail) prior to expiration of the Warranty Period, and within 30 days of discovery of the defect.

Skin Patch Test

It is recommended that you carry out a patch test before applying your first treatment. To do this, remove one electrode from the packaging and place on a part of your body which is both visible and easy to inspect.

After 30 minutes, remove the electrode and inspect the area for any redness or irritations. If no change is noticed, proceed with your first TENS treatment following the User Guide and Instructions provided. If skin irritation has been noticed, we recommended the use of sensitive gel electrodes.

ELECTRODE INSTRUCTIONS

Turn Stimulator OFF before applying or removing electrodes

Application

1. Skin site must be very clean and dry. Dirty, flaky or oily skin will prevent electrodes from adhering to the skin. If necessary, trim excess hair with scissors. If skin is oily wipe down with an alcohol or electrode skin prep prior to application. Be sure to wash hands before handling electrodes.
2. Remove electrodes from bag and reseal bag to protect remaining electrodes.
3. Grasping a tiny edge of the electrode, peel and remove electrode from the protective plastic liner. Save liner for electrode storage.
4. Place electrode onto skin treatment site (as recommended by your clinician) by firmly applying from the centre of the electrode to the outer edges. Adhesion improves when electrodes reach skin temperature.
5. If gel appears oversaturated with excessive moisture or perspiration, allow the electrode to air-dry in a refrigerator with the gel side facing up until the gel regains its tack. If the gel appears dry, try adding a few drops of water to the gel and allow to rest in a dust-free environment until the gel regains its tack.

Removal and storage

1. Lift a corner of the electrode and slowly peel the electrode off the skin, touching the adhesive gel as little as possible.
2. Place the electrodes back onto the saved protective plastic liner.
3. While grasping the electrodes connector with one hand, use the other hand to gently twist and disconnect the lead wire pin from the electrode connector. .
4. Return the electrodes back into the storage bag and reseal tightly to prevent dry-out.
5. Store at room or cool temperature and keep out of direct sunlight.
6. The life of the electrode varies depending on skin conditions, amount of use, storage and climate. Electrode life may be extended by carefully following the application, removal, and storage instructions.

Caution

1. DO NOT place electrodes on broken skin. If skin irritation develops discontinue use. Consult physician. Replace electrodes when they do not adhere or when treatment becomes uncomfortable.
2. DO NOT use unit while driving or operating machinery
3. DO NOT wear electrodes when showering, bathing or swimming
4. DO NOT apply electrodes across the head or across the heart or on the front of your neck.
5. Keep electrodes separated during treatment
6. Using stimulation electrodes that are small or incorrectly applied could result in discomfort or skin burns.

SAFETY-TECHNICAL CONTROLS

For safety reasons, review the following checklist before using your EM6300A Digital TENS/EMS

1. Check the device for external damage.
 - deformation of the housing.
 - damaged or defective output sockets.
3. Check the usability of accessories.
 - patient cable undamaged
 - electrodes undamaged.

Please consult your distributor if there are any problems with device and accessories.

MALFUNCTIONS

Should any malfunctions occur while using the EM6300A Digital TENS/EMS, check

- check the cable is correctly connected to the device. The cables should be inserted completely into the sockets.

CONFORMITY TO SAFETY STANDARDS

The EM6300A Digital TENS/EMS devices are in compliance with the following standards:

EN 60601-1-2: 2007 Medical electrical equipment -

Part 1-2: General requirements for basic safety and essential performance














-Collateral standard: Electromagnetic compatibility

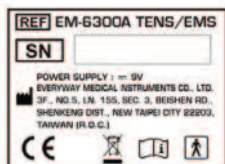
-Requirements and tests

EN 60601-1:2006 Medical electrical equipment

Part 1: General requirements for basic safety and essential performance

GRAPHIC SYMBOLS

	Degree of Electrical Protection BF
	Timer
	Increment
	Decrement
	Consult instructions for use
	Manufacturer
	Serial number
	Lock
	Low battery
	Pause
	DC current (DC Power source)
	Comply with MDD 93/42/EEC requirement as amended by 2007/47/EC. Notify body det norske veritas (DNV)
	Power



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

The Premier Plus TENS Programmes P1-P12

NO	PROGRAMME	FREQUENCY	PULSE WIDTH
1	Conventional TENS - Ideal for first applications of TENS for both acute and long term pain CONDITIONS Neck, Shoulder, Elbow Pain, Rheumatic Pain, Lumbago, Hip Pain, Osteoarthritic Pain in the knee	80Hz	180µs
2	Burst TENS - Most effective for radiating pain if arms and legs and deep muscular pain CONDITIONS Osteoarthritic Pain in the Knee, Sciatica Central Pain	2Hz	180µs
3	Modulated TENS - Pain relief with a massage effect CONDITIONS Neck, Shoulder, Elbow Pain, Rheumatic Pain, Lumbago, Menstrual Pain, Hip Pain, Osteoarthritic Pain in the knee	80Hz	70-180µs
4	Mixed Frequency TENS CONDITIONS Osteoarthritic Pain in the knee, Neck Pain, Shoulder Pain, Menstrual Pain, Central Pain Lumbago	15Hz/2Hz	180µs
5	Fixed Frequency TENS - Effective programmes for long term use with reduced accommodation factor CONDITIONS Osteoarthritic Pain in the knee, Neck Pain, Shoulder Pain Menstrual Pain, Central Pain Lumbago	80Hz/2Hz	180µs
6	Conventional TENS - Ideal for muscle pain for both acute and long term pain CONDITIONS Neck, Shoulder, Elbow Pain, Rheumatic Pain, Lumbago, Hip Pain, Osteoarthritic Pain in the knee	10Hz	180µs
7	Migraine/Headaches - Reduced pulse width ideal for treating nerve rich areas CONDITIONS Tension Type Headache, Facial Pain, Neck Pain, Postherpetic Neuralgia	80Hz	60µs
8	70% Rate Modulation over 10 seconds CONDITIONS Neck, Shoulder, Elbow Pain, Rheumatic Pain, Lumbago, Menstrual Pain, hip Pain, Osteoarthritic Pain in the Knee	10Hz	200µs
9	90% Rate Modulation over 10 seconds CONDITIONS Neck, Shoulder, Elbow Pain, Rheumatic Pain, Lumbago, Menstrual Pain, hip Pain, Osteoarthritic Pain in the Knee	50Hz	250µs
10	Mixed Frequency long term use programme. Ideal for treating chronic pain over long periods example 5+ hours CONDITIONS Neck, Shoulder, Elbow Pain, Rheumatic Pain, Lumbago, Menstrual Pain, hip Pain, Osteoarthritic Pain in the Knee	5-125Hz	120µs
11	Modulation Rate & width over 6 seconds CONDITIONS Neck, Shoulder, Elbow Pain, Rheumatic Pain, Lumbago, Menstrual Pain, hip Pain, Osteoarthritic Pain in the Knee	2-100Hz	260-150µs
12	Modulation Rate over 6 seconds CONDITIONS Neck, Shoulder, Elbow Pain, Rheumatic Pain, Lumbago, Menstrual Pain, hip Pain, Osteoarthritic Pain in the Knee	80<->7Hz	260µs

The Premier Plus EMS Programmes P13-P24

NO	PROGRAMME	SYN/ALT	Rate (Hz)	Width (s)	Ramp (sec)	On Time (sec)	Off Time (sec)	Timer (min)
13	ACL repair/joint protection back muscle	SYNCHRONOUS	35	300	3	8	24	20
14	Spasm small muscle	SYNCHRONOUS	80	300	3	10	5	20
15	Spasm Postoperative	SYNCHRONOUS	80	250	2	8	4	20
16	Arthroscope	SYNCHRONOUS	25	200	2	6	30	15
17	Disuse atrophy	SYNCHRONOUS	35	300	2	5	15	30
18	Shoulder Subluxation	SYNCHRONOUS	50	300	5	15	50	15
19	Range of motion mules re-education of hips	SYNCHRONOUS	40	250	3	6	21	30
20	Muscle training	SYNCHRONOUS	50	250	2	10	10	20
21	Muscle training	SYNCHRONOUS	50	250	2	14	14	20
22	Muscle training	SYNCHRONOUS	35	400	2	10	10	20
23	Muscle training	ALTERNATE	50	250	2	10	10	20
24	Muscle training	ALTERNATE	50	250	2	14	14	20

TECHNICAL SPECIFICATIONS

The technical specification details of EM6300A are as follows:

MECHANISM	TECHNICAL DESCRIPTION
01 Channel	Dual, isolated between channels
02 Pulse Amplitude	Adjustable, 0-100 mA peak into 500 ohm load each channel.
03 Wave Form	Asymmetrical Bi-Phasic Square Pulse
04 Voltage	0 to 50V (Load: 500 ohm)
05 Power source	Lithium Battery
06 Size	11.8cm(L) x 6cm(W) x 3.1cm(H)
07 Weight	150 grams with battery.
08 Timer	Adjustable, from 1 to 60 minutes or Continuous. Adjustable in 1 minute each step from 1 to 15 minutes, and 5 minutes each step from 15 to 60 minutes. Treatment time countdown automatically.
09 Low Battery Indicator	A low battery indicator will show up when the battery is low.
10 Operating Condition	Temperature: 10°~40°C Relative Humidity: 30%~75% Atmosphere Pressure: 700Hpa~1013Hpa
11 Remark	There may be up to a +/-5% tolerance of all parameters and +/-20% tolerance of output amplitude & voltage.

EMC INFORMATION

The device complies with current EMC regulations.

The radio frequency emissions of the device are extremely low and in all probability do not cause any interference with other devices in the proximity. It is recommended that you do not place the device on top of or close to other electronic devices.

Guidance and manufacturer's declaration - electromagnetic emissions			
The device is intended for use in the electromagnetic environment specified below. The customer or the user of the device should assure that it is used in such an environment.			
Emissions test	Compliance	Electromagnetic environment - guidance	
RF emissions CISPR 11	Group 1	The device must emit electromagnetic energy in order to perform its intended function. Nearby electronic equipment may be affected.	
RF emissions CISPR 11	Class B	The device is suitable for use in all establishments other than domestic those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.	
Harmonic emissions IEC 61000-3-2	Class C		
Voltage fluctuations / flicker emissions IEC 61000-3-3	Complies		
Guidance and manufacturer's declaration - electromagnetic immunity			
The device is intended for use in the electromagnetic environment specified below. The customer or the user of the device should assure that it is used in such an environment.			
IMMUNITY test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
Electrostatic discharge (ESD) IEC 61000-4-2	± 6 kV contact ± 8 kV air	± 6 kV contact ± 8 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30 % .
Electrical fast transient/burst IEC 61000-4-4	± 2 kV for power supply lines	± 2 kV for power supply lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	± 1 kV line(s) to line(s) and neutral <5 % U_T	± 1 kV line(s) to line(s) and neutral	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	(>95 % dip in U_T) for 0,5 cycle 40 % U_T (60 % dip in U_T) for 5 cycles 70 % U_T (30 % dip in U_T) for 25 cycles <5 % U_T (>95 % dip in U_T) for 5 s 3 A/m	<5 % U_T (>95 % dip in U_T) for 0,5 cycle 40 % U_T (60 % dip in U_T) for 5 cycles 70 % U_T (30 % dip in U_T) for 25 cycles <5 % U_T (>95 % dip in U_T) for 5 s	Mains power quality should be that of a typical commercial or hospital environment. If the user of the device requires continued operation during power mains interruptions, it is recommended that the device be powered from an uninterruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8		Not applicable	Not applicable
NOTE U_T is the a.c. mains voltage prior to application of the test level.			

EMC INFORMATION

Recommended separation distances between portable and mobile RF communications equipment and the device			
The device is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the device can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the device as recommended below, according to the maximum output power of the communications equipment.			
Rated maximum output power of transmitter W	Separation distance according to frequency of transmitter m		
	150KHz bis 800MHz $d = 1,2\sqrt{P}$	80MHz bis 800MHz $d = 1,2\sqrt{P}$	80MHz bis 2.5GHz $d = 2,3\sqrt{P}$
0,01	0,12	0,12	0,23
0,1	0,38	0,38	0,73
1	1,2	1,2	2,3
10	3,8	3,8	7,3
100	12	12	23
For transmitters rated at a maximum output power not listed above, the recommended separation distance in metres (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.			
NOTE 1 At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.			
NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.			



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