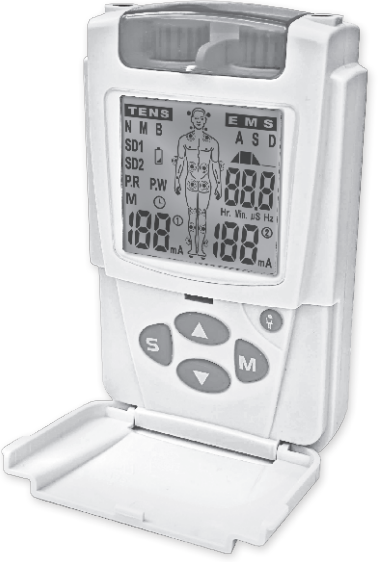
proactive™
Physiotherapy • Physiothérapie

alevia™

2-in-1 Physiotherapy Device



Model: 715-425

Instructions

Please read this manual thoroughly before using this device for the first time.

TABLE OF CONTENTS

INTRODUCTION **3**
What is pain? • What is TENS and how does it work? • What is EMS and how does it work? • Indications for use • Safety symbols used in this manual
SAFETY PRECAUTIONS AND WARNINGS **5**
General Precautions • Adverse reactions
CAUTION **8**
DEVICE OVERVIEW **9**
DISPLAY SYMBOLS **10**
INSTRUCTIONS FOR USE **11**
Prepare the Unit • Connect electrodes to lead wires • Connect lead wires to the device • Place electrodes on skin • Turn the device on • Select the therapy program (mode) and site • Set the pulse width and rate • Set the treatment time • Set the on time and relaxation time for EMS mode • Adjust the intensity for each channel and begin treatment • After treatment is finished • To consult the memory • To turn off the device • Low battery indicator
CLEANING AND MAINTENANCE **15**
Cleaning the device and accessories • Maintenance • Battery charging
THERAPY PROGRAMS **17**
TENS programs • EMS programs
SKIN CARE RECOMMENDATIONS **18**
TROUBLESHOOTING **19**
STORAGE **20**
DISPOSAL **20**
SYMBOLS **21**
EMC TABLES **22**
TECHNICAL SPECIFICATIONS **26**
LIMITED WARRANTY **26**

INTRODUCTION

This device can be used for pain relief and muscle stimulation. It provides two independent, controllable output channels. A pair of electrodes which can be connected to each output channel and the current's parameters and intensity level can be adjusted according to your needs.

1. What is pain?

Pain warns our body of injury to prevent additional damage. This sensation is important because without it, vital parts of our bodies might be injured without our knowledge. However, long-lasting, persistent (chronic) pain, once diagnosed serves no apparent purpose and reduces quality of life.

2. How does TENS work?

TENS (Transcutaneous Electrical Nerve Stimulation) refers to the transmission of small electrical pulses through the skin to the underlying peripheral nerves. The theory of TENS suggests two different modes of operation:

In **conventional (high frequency)** TENS, continuous mild electrical activity may block the pain signal traveling to the brain. If the pain signal does not get through to the brain, the pain is not “felt”.

In **low frequency** TENS, short bursts of electrical activity may stimulate the release of endorphins, the body's own pain-control substance. Ask your physician or therapist for more details. No matter what pain theory is used, TENS has been proven useful in pain management for many patients in helping to make their lives better.

3. What is EMS and how does it work?

In normal muscular activity, the central and peripheral nervous systems transmit electrical signals to the muscles, making them contract. EMS (Electrical muscle stimulation) uses an external source (the stimulator, via wires and electrodes) to achieve the same effect, creating involuntary muscle contractions. This can help improve and maintain muscle tone without actual physical activity and therefore prevent atrophy.

4. Indications for use

- TENS: The device is designed to be used for temporary relief of pain associated with sore and aching muscles in the shoulder, waist, back, neck, upper extremities (arm) and lower extremities (leg) due to strain from exercise or normal household work activities. And to be used for the symptomatic relief and management of chronic, intractable pain and relief of pain associated with arthritis.
- EMS: The device is designed to be used for stimulate healthy muscles in order to improve and facilitate muscle performance.

This device is recommended for:

- Symptomatic relief of chronic intractable pain, acute post traumatic pain or acute post surgical pain.
- Improving local blood circulation.
- Relief from muscle spasms.

SAFETY SYMBOLS USED IN THIS MANUAL	
⚠ WARNING	Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
⚠ CAUTION	Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury to the user or patient or damage to the device or other property.

Contraindications

This stimulator must not be used in combination with the following medical devices:

- Internally transplanted electronic medical devices, such as a pacemaker.
- Electronic life support equipment, such as respirators.
- Electronic medical devices attached to the body, such as electrocardiographs.

Using this stimulator with other electronic medical devices may cause erroneous operation of those devices.

SAFETY PRECAUTIONS AND WARNINGS

⚠ WARNING

DO NOT USE THIS DEVICE UNDER THESE CONDITIONS

Undiagnosed pain syndromes (until etiology is established)
• Cancerous lesions that are present in the treatment area
• Swollen, infected, inflamed areas or skin eruptions (e.g. phlebitis, thrombophlebitis, varicose veins, etc.) • Demand type implanted pacemaker or defibrillator • Epilepsy • Serious arterial circulatory problems in the lower limbs • Abdominal or inguinal hernia • Safety has not been established for use during pregnancy • Electrical stimulation is not effective on pain that is of central origin.

For external use only. The long-term effects of frequent electrical stimulation are unknown. Do not apply stimulation over the thyroid or carotid sinus regions, as this could disrupt breathing, cardiac frequency or blood pressure. Do not use while connected to high-frequency surgical equipment or near shortwave or microwave therapy equipment. Never use in environments with high humidity (ex.: bathroom). Never place the electrodes anywhere on the front of the thorax or transthoracically as it can increase the risk of ventricular fibrillation, cause cardiac arrhythmia and lead to cardiac arrest. Never place the electrodes in a way that would cause the current to flow through the head.
Do not place on your spine or backbone. Never use near the eyes, the genitals, the heart, or on areas which lack normal sensation. This stimulator should never be used by patients who are non compliant or are emotionally, cognitively or mentally impaired. Keep the stimulator out of reach of children.

4. General Precautions

- The patient is the intended operator.
- TENS is a symptomatic treatment and, as such, suppresses the sensation of pain.
- TENS is not a substitute for pain medications and other pain management therapies.
- TENS devices do not cure disease or injuries.
- Do not apply electrical muscle stimulation (EMS) over painful areas. If you have painful areas, you should consult with your physician before using this device.
- You may experience skin irritation or hypersensitivity due to the electrical stimulation or gel.
- If you have suspected or diagnosed heart disease and/or epilepsy you should follow precautions recommended by your physician.
- Use caution if you have a tendency to bleed internally, such as following an injury or fracture.
- Consult with your physician prior to using the device after a recent surgical procedure, because stimulation may disrupt the healing process.

• Use this device only with the Proactive™ lead wires, gel pads and Micro-USB cable.
• Do not use the device or an electrode if it is damaged. The continuous use of a damaged unit may cause injury or improper results.
• Do not adjust controls while operating machinery or vehicles. Never use the stimulator during any activity in which involuntary movement would represent a risk of injury.
• Do not use this device when in the bath or shower or while sleeping.
• Turn the stimulator off before applying or removing electrodes.

- Only use with ProActive™ lead wires and electrodes.
- Long-term stimulation at the same electrode site may cause skin irritation. Use only as prescribed by a physician.
- Never use in rooms where aerosols (sprays) are used or pure oxygen is being administered. Do not use it near highly flammable substances, gases or explosives.
- Apply the electrodes to clean, dry, and unbroken skin only. If you experience any skin irritation or redness after a session, do not continue stimulation in that area of the skin.
- Keep electrodes separate during treatment. Electrodes coming in contact with each other could result in improper stimulation or skin burns.
- Do not use to treat one region for extended periods of time (more than 30 minutes a session, up to 3 times/day) or muscles in that region may become exhausted and sore.
- The time required for the device to warm from the minimum storage temperature (-10°C) between use until the device is ready for use at ambient temperature (20 °C): about 2 hours.
- The time required for the device to cool from the maximum storage temperature (55°C) between use until the device is ready for use at ambient temperature (20 °C): about 2 hours.

5. Adverse reactions

Skin irritation or electrode burn under the electrodes. Allergic skin reaction to electrode gel may also occur.

You should stop using the device and consult with your physician if you experience adverse reactions from the device.

⚠ CAUTION

WARNINGS AND PRECAUTIONS REGARDING THE PADS

- Place the pads at least 1 inch apart on your skin. The pads should never touch each other.
- Always place the electrodes in accordance with illustrations provided. (Refer to the Pad Placement illustrations).
- Make sure the components are connected well and the pads are fixed on the part of the body you wish to treat or the therapy may not be effective.

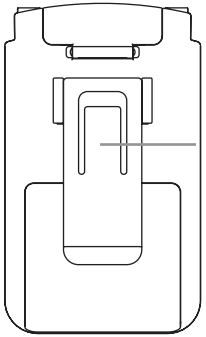
DO NOT USE YOUR PADS THIS WAY

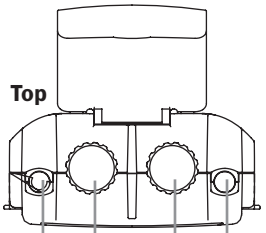
- Pad should not touch any metal object, such as a belt buckle or necklace.
- Do not share pads with another person. This may cause a skin irritation or infection. Pads are intended for use by one person.
- Do not leave pads attached to the skin after treatment.
- Pads should not be placed simultaneously on the soles of both feet.
- Pads should not be placed simultaneously on the calves of both legs.

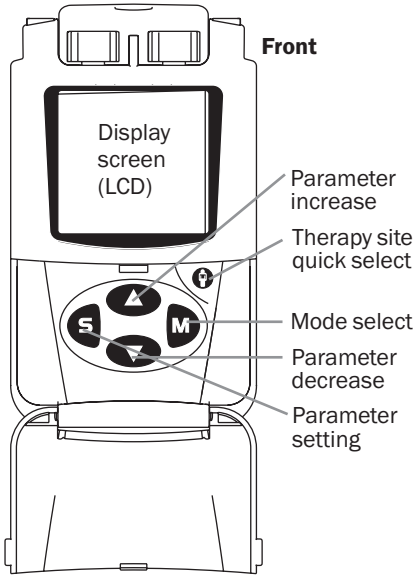
CAUTION WHILE USING THE STIMULATOR

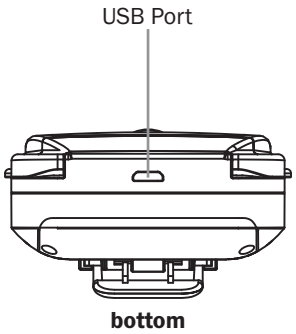
- If the stimulator is not functioning properly or you feel discomfort, immediately stop using the device.
- Do not use for any other purpose except for what it is intended for.
- Do not pull on the connect wire during treatment.
- Do not use the device while wearing electronic devices such as watches as this may damage the device.
- The size, shape and type of pads may affect the safety and effectiveness of electrical stimulation.
- The electrical performance characteristics of pads may affect the safety and effectiveness of electrical stimulation.
- Using pads that are too small or incorrectly applied, could result in discomfort or skin burns.

DEVICE OVERVIEW

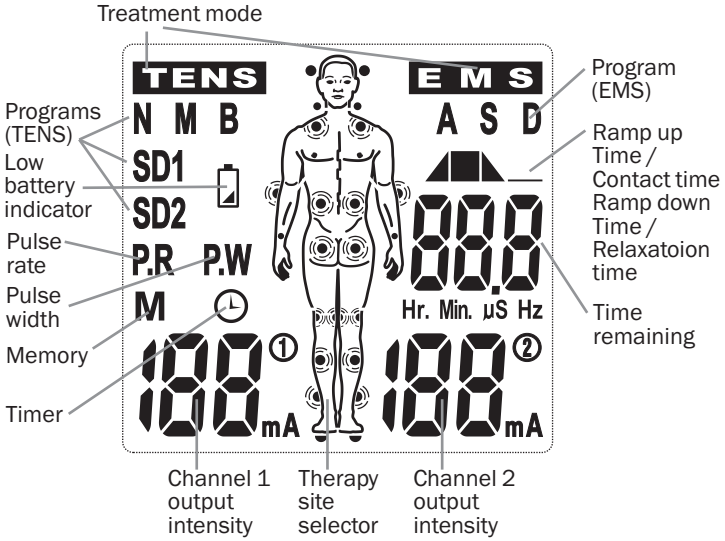








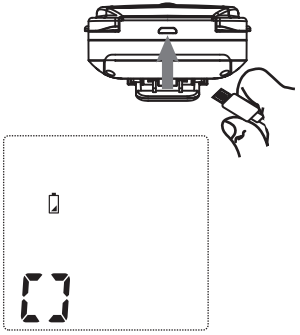
DISPLAY SYMBOLS



INSTRUCTIONS FOR USE

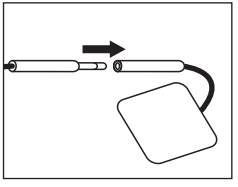
1. Prepare the Unit

Before use, charge the **Alevia™** with the enclosed USB cable. It can be plugged into a computer's USB port or into a wall socket using a adaptor (5v 300 mAh adaptor not included). When battery is fully charged the LCD battery indicator will stop flashing.
Charging time: 3 hours



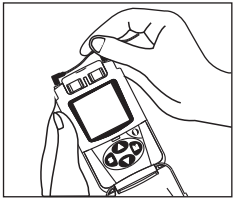
2. Connect electrodes to lead wires

Insert the lead wire connector into the electrodes connector, ensuring that no bare metal remains exposed.



3. Connect lead wires to the device

This device has 2 output channels, which can be used simultaneously (with 2 electrode pairs) or individually (1 channel with 1 electrode pair). After making sure that the device is turned off, insert the wire plugs into the sockets at the top of the unit.
Caution: Always use the lead wires supplied with this unit.



4. Place electrodes on skin

Ensure that the skin surface where the electrodes will be placed is clean and dry. The electrodes should be placed firmly and evenly on the skin to ensure good contact.

Caution:

- Always wash and dry the treatment area. Do not apply any creams or gels as this may reduce the adhesion of the gel pads.
- Do not turn the device on when the electrodes are not applied to the treatment area. Never adjust, reposition or remove the electrodes while the device is still on.
- Always use this device with 4 cm self-adhesive electrodes, or larger. If they seem to have lost their adhesive properties, replace with new ProActive™ electrodes.

Important note: Electrode positioning can be one of the most important parameters in achieving success with TENS therapy.

5. Turn the device on

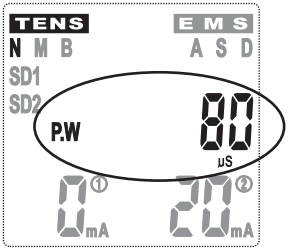
Carefully read the contraindications and safety information in this manual before using for the first time. Turn the intensity control for either channel 1 or 2 clockwise. The device will beep. Continue as described below before increasing output intensity.

6. Select the therapy program (mode) and site

Press **M** until the required mode (EMS or TENS) and body part are selected. The selected therapy mode will then flash on screen.

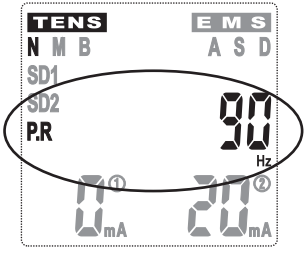
7. Set the pulse width and rate

Press **S button** to enter parameter setting mode, then use the arrow buttons to adjust the pulse width. Then press **S** again and use the arrow buttons to adjust the pulse rateto the value prescribed by your doctor or therapist.



8. Set the treatment time

Press **S**, then use the arrow buttons to adjust the treatment time.



9. Set the on time and relaxation time for EMS mode

Press **S**, then use the arrow buttons to first adjust the ramp up time to reach contraction gradually and smoothly. Press **S** again, then use the arrow buttons to secondly adjust the contraction time. Press **S** again, then use the arrow buttons to thirdly adjust the ramp down time to reach relaxation gradually and smoothly. Press **S** again, then use the arrow buttons to lastly adjust the relaxation time to reach relaxation gradually and smoothly. The ranges are adjustable from 1 to 60 seconds depending on the selected therapy.

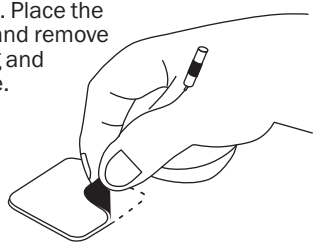
10. Adjust the intensity for each channel and begin treatment

Slowly turn the intensity control dials clockwise until you reach the prescribed setting. To further increase the intensity, turn the dials clockwise. To decrease the intensity or turn the device off, rotate the dials counterclockwise to the desired setting or to the "OFF" position. If treatment becomes uncomfortable, decrease the intensity to your comfort level and contact your doctor or therapist if the problem persists.

11. After treatment is finished

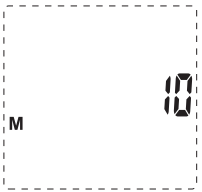
Once the treatment time has elapsed, turn the intensity control dials counterclockwise to the "OFF" position. Unplug the lead wires from the device.

To remove the electrodes, lift one edge and gently peel (do not pull on the lead wires because this may damage the electrodes). Place the electrodes on the liner and remove the lead wire by twisting and pulling at the same time.



12. To consult the memory

With the unit shut off, press and hold **M** and turn one intensity control knob to enter into memory mode. An **M** will be displayed on the screen.
NOTE: The maximum number of records is 30, after which the oldest one will be deleted.



Use the arrow keys to navigate between records and **S** to switch between data within one record. To clear the memory, press the quick select button.

13. To turn off the device

Rotate both intensity controls to "0".

14. Low battery indicator

When the indicator flashes, charge the battery as soon as possible. However, the device will continue to operate for about one hour.

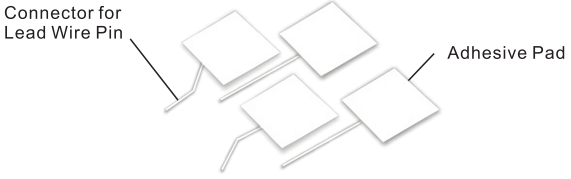
CLEANING AND MAINTENANCE

1. Stimulator

Wipe the stimulator with a soft, slightly moistened cloth. If a more thorough cleaning is needed, you can also moisten the cloth with mild soapy water. Do not submerge the device or expose it to a large amount of water. Do not use any chemical cleaners or abrasive agents to clean it. After use, put the stimulator in its storage bag in a cool, dry place to protect it.

2. Electrodes

- Use the device only with the leads and electrodes provided with this device or sold under the ProActive brand.
- It is recommended to use at minimum 4 cm self-adhesive electrodes.
- Inspect your electrodes before every use and replace as needed. Reusing electrodes too many times may cause slight skin irritation, low adhesion or ineffective stimulation.
- Between uses, store the electrodes in a resealable bag in a cool dry place. It may be helpful, between applications, to moisten their adhesive surface with a few drops of water (be careful not to over-saturate) and then let them air-dry to help them last longer.
- If electrodes seem to have lost their adhesive properties, replace with new ProActive™ electrodes.



Reusable, self-adhesive electrodes

3. Cleaning the electrode cords

Clean the electrode cords by wiping them with a damp cloth.

4. Maintenance

- Do not attempt any repairs to the device or any of its accessories. Contact us at 1-800-363-2381 for repair information.
- The manufacturer will not be held responsible for the results of maintenance or repairs by unauthorized persons.
- Check the device before each use for signs of wear and/or damage. Replace worn items (electrodes, lead wires) as required.

5. Battery charging

Turn off the device if you plug-in the USB cable for charging. Never turn on the device when the USB cable is plugged in because this could cause an electrical shock, damage the device, or the power supply.

- Only use the Micro-USB cable which is provided with your Alevia™ device.
- Please charge the unit fully before beginning each session. If the charge is not complete at the beginning of a program, the battery may become depleted before the end of your session. You cannot use the unit while it is charging.
- Fully charge the battery of the unit at least every 6 months if the unit will not be used for a long time.

THERAPY PROGRAMS

Program		Time	Rate	Width	Wave description
TENS	Normal	30	100Hz	200µs	Continuous
	Mod.	30	100Hz	200µs	First 0.5 sec.: pulse width at 50% setting. Next 0.5 sec.: pulse rate at 50% setting and width at 100% setting.
	Burst	30	100Hz	200µs	9 pulses/burst, 2 bursts/sec.
	SD1 (Strength duration 1)	30	100Hz	120 ~ 200µs	Set intensity goes from 100% to 60% then back to 100% while set pulse goes from 60% to 100% and back to 60%, over 10-second cycles.
	SD2 (Strength duration 2)	30	100Hz	60 ~ 200µs	Set intensity goes from 100% to 30% then back to 100% while set pulse goes from 30% to 100% and back to 30%, over 10-second cycles.
	Shoulder	30	2 ~ 100Hz	100 ~ 200µs	12-second cycles, span: 50%. Rate stays in the 2-10Hz range for 1/3 of the cycle time as it modulates down to 2Hz and back up again.
	Neck	30	80Hz	180µs	Continuous
	Lower back	30	100Hz	250/ 150µs	1-second cycles, span: 60%. Modulated amplitude via pulse width 0.5 sec. at 100% of set intensity and 0.5 sec. at 50%.
	Elbow	30	2 ~ 100Hz	100/ 200µs	12-second cycles, span: 50% Rate stays in the 2-10Hz range for 1/3 of the cycle time as it modulates down to 2Hz and back up again.
	Knee	30	50Hz	200µs	6-second cycles (1 sec. up / 1 sec. down) then 6 seconds rest.
EMS	Alternate	30	50Hz	200µs	6-second cycles (1 sec. up / 1 sec. down) then 6 seconds rest.
	synchronous	30	50Hz	200µs	8-second cycles(2 sec. up / 2 sec. down) then 4 seconds rest.
	Delay	30	40Hz	200µs	11-second cycles (4 sec. up / 2 sec. down) then 15 sec. rest (1 sec. delay).

THERAPY PROGRAMS (CONTINUED)

Program		Time	Rate	Width	Wave description
EMS	Neck	30	20Hz	180µs	Continuous
	Abdomen	30	55Hz	250µs	10-second cycles (2 sec. up / 2 sec. down) then 8 seconds rest.
	Buttocks	30	50/3Hz	250µs/ 370µs	13-second cycles (1 sec. up / 2 sec. down) then 10 sec. rest.
	Leg	30	40/4Hz	200µs/ 350µs	13-second cycles (1 sec. up / 2 sec. down) then 10 sec. rest.
	Foot	30	55/5Hz	200µs/ 300µs	10-second cycles (2 sec. up / 2 sec. down) then 8 seconds rest.

SKIN CARE RECOMMENDATIONS

- Always clean the treatment area using a mild soap, rinse skin thoroughly and dry well before applying the electrodes and after removing them.
- Clip excess hair with scissors – do not shave the treatment area.
- Your doctor or therapist may recommend the use of a skin prep solution. Let it dry thoroughly before applying the electrodes.
- Avoid stretching the electrode over the skin as this could cause "pulling stress". Apply the electrode from the center outward to prevent this from happening.
- When removing the electrodes, pull in the direction of hair growth.
- Never apply the electrodes over irritated or broken skin.

TROUBLESHOOTING

If your device does not seem to be operating correctly, refer to the chart below to determine what may be wrong. Should none of these measures correct the problem, the device should be serviced.

Problem	Possible cause	Solution
Display fails to light up	Low battery	Battery may be low and needs to be charged
Weak or no stimulation	Electrodes are dried out or dirty	Replace and reconnect the electrodes
	Electrodes are improperly positioned	Reposition and reconnect the electrodes
	Old / worn / damaged lead wires	Replace the lead wires
Stimulation is uncomfortable	Intensity is too high	Decrease intensity
	Electrodes are too close together	Reposition the electrodes
	Damaged or worn electrodes or lead wires	Replace the lead wires
	Electrode active area is too small	Replace electrodes with ones that are 16 cm^2 (4 cm x 4 cm or 1.5" x 1.5") or larger
	The user instructions are not being followed	Please check the manual before use
Intermittent output	Program option in use	Some programs will seem intermittent. This is expected.
	Lead wires	1) Verify connection is secure and firmly in place
		2) Turn down the intensity. Rotate lead wires in socket 90°. If the problem persists, replace lead wire.
		3) If replacing the lead wire does not solve this problem, contact us at: 1-800-363-2381

Problem	Possible cause	Solution
Stimulation is ineffective	Improper electrode placement	Reposition electrode
	Unknown	Contact your doctor
The skin becomes red and / or you feel a stabbing pain	Repetitive use of electrodes on the same site	Reposition the electrodes. If at any time you feel pain or discomfort, stop use immediately
	Electrodes aren't applied on the skin properly	Ensure the electrodes are attached securely to the skin
	The electrodes are dirty	Clean the electrode pads with a damp, lint-free cloth or replace with new electrodes. Clean the electrode cord according to the description in the user manual
	The surface of the electrode is scratched	Replace with a new electrode
Output current stops during therapy	The electrode pads come off the skin	Turn off the device and attach the electrode firmly to the skin
	A cable is disconnected	Turn off the device and connect the cable
	Battery is low	Charge the battery

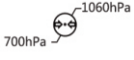
STORAGE

- Store the device in a cool dry place and protect it against heat, sunshine, and moisture.
- Never place any heavy objects on the device.

DISPOSAL

Please dispose of the device in accordance with the directive 2012/19/EU WEEE (Waste Electrical and Electronic Equipment). Contact your local distributor for information regarding disposal of the unit and accessories.

SYMBOLS

	Dispose of in accordance with EC Regulations on Waste Electrical and Electronic Equipment (WEEE)
	Type BF applied part
	Refer to instruction manual
SN	Serial number
	Transportation and storage temperature from -10℃ to 55℃
	Transportation and storage humidity limits from 10% to 90%
	Transportation and storage atmospheric pressure limits from 700 hPa to 1060 hPa
	Date of manufacture
	Manufacturer

IMPORTANT INFORMATION REGARDING ELECTROMAGNETIC COMPATIBILITY (EMC)

- This device should not be used adjacent to or stacked with other equipment and that if adjacent or stacked use is necessary, this device should be observed to verify normal operation in the configuration in which it will be used.
- Use of accessories other than those specified or provided by the manufacturer of this device could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation.
- Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the device, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.
- When the operating environment is relatively dry, strong electromagnetic interference usually occurs. At this time, this device may be affected as follows:
  - The device stops output - The device turns off - The device restarts

The above will not affect the basic safety and essential performance of the device, and the user can use it according to the instructions. If you want to avoid this, please use it according to the environment requirements specified in the manual.

Table 1

Declaration - Electromagnetic Emission		
The device is intended for use in the electromagnetic environment specified below. The customer or the user of device should assure that it is used in such an environment.		
Emmission Test	**Compliance**	**Electromagnetic Environment - Guidance**
RF emissions CISPR 11	Group 1	The device uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class B	The device is suitable for domestic and in establishments directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Not applicable	
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Not applicable	

Table 2

Declaration - Electromagnetic Immunity

The device is intended for use in the electromagnetic environment specified below. The customer or the user of 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	± 8 kV contact ± 2 kV, ± 4 kV ± 8 kV, ± 15 kV air	± 8 kV contact ± 2 kV, ± 4 kV ± 8 kV, ± 15 kV air	Floors should be wood, concrete or ceramic tie. 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 ± 1 kV for input/ output lines	Not applicable	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	± 0.5 kV, 1 kV line(s) to lines ± 0.5 kV, 1 kV, ± 2 kV, line(s) to earth	Not applicable	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	0 % UT; 0.5 cycle At 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315° 0 % UT; 1 cycle and 70 % UT; 25/30 cycles Single phase: at 0° 0 % UT; 250/300 cycles	Not applicable	Main 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) Imagnetic field IEC 61000-4-8	30A/m	30A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.

NOTE: UT is the a.c. mains voltage prior to application of the test level.

Table 3

Declaration - Electromagnetic Immunity

The device is intended for use in the electromagnetic environment specified below.The customer or the user of device should assure that it is used in such an environment.

Immunity Test	IEC 60601 Test level	Compliance level	Electromagnetic Environment Guidance
Conducted RF IEC 61000-4-6	3V 0.15 MHz to 80MHz 6 V in ISM and amateur radio bands between 0.15 MHz and 80 MHz	Not applicable	Portable and mobile RF communications equipment should be used no closer to any part of device, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. **Recommended separation distance:** $d = 1.2\sqrt{P}$ 150 KHz to 80 MHz $d = 1.2\sqrt{P}$ 80 MHz to 800 MHz $d = 2.3\sqrt{P}$ 80 MHz to 2.7 GHz Where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in meters (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, a should be less than the compliance level in each frequency range. Interference may occur in the vicinity of equipment marked with the following symbol: 
Radiated RF IEC 61000-4-3	10 V/m 80 MHz to 2.7 GHz	10 V/m	

NOTE 1: At 80 MHz and 800 MHz, 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.

a Field strengths from fixed RF transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which device is used exceeds the applicable RF compliance level above, device should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating device.

b Over the frequency range 0.15 MHz to 80 MHz, field strengths should be less than 3 V/m.

Table 4

Recommended separation distances between portable and mobile RF communications equipment and device

The device is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of device can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and 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		
	0.15 MHz to 80 MHz $d = 1.2\sqrt{P}$	80 MHz to 800 MHz $d = 1.2\sqrt{P}$	80 MHz to 2.7 GHz $d = 2.3\sqrt{P}$
0.01			
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	7.3

For transmitters rated at a maximum output power not listed above, the recommended separation distance d in meters (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 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.

TECHNICAL SPECIFICATIONS

- Channel: Two isolated channels
- Power supply: 3.7Vd.c., 500mAh
- Suggested charger: I/P: 100-240V~, 50/60Hz, 0.2A.O/P: 5V d.c., 300mA. charging: 5V d.c., 300mA
- Waveform: Asymmetrical biphasic square waveform
- Pulse duration: Adjustable, from 50 to 350μs.
- Pulse frequency: Adjustable, from 2 to 100Hz
- Treatment time: 5 to 60 minutes
- Amplitude: 0-40V(Vpp)(Large output 40V±10% at 500 ohm)
- Operating conditions: 0 °C to 40 °C with a relative humidity of 30% - 75%, atmospheric pressure from 700 hpa to 1060 hpa
- Storage conditions: -10 °C to 55 °C with a relative humidity of 10%~90%, atmospheric pressure from 700 hpa to 1060 hpa
- Dimensions: 110 x 65 x 30.2 mm
- Weight: Including battery: 107 g
- Expected service life of device: 3 years, 26,280 hours
- Expected service life of electrode: 30 times
- Classification: Internally powered equipment, continuous operation

LIMITED WARRANTY

A.M.G. Medical Inc. warrants the stimulator to be free from defects in material and workmanship for a period of one (1) year, to be proven by means of the sales receipt or invoice. This warranty is valid for the original purchaser only. Any alterations, abuse, misuse or accidental damage voids this warranty. Repairs under warranty do not extend the warranty period. For service under warranty, call us at: 1-800-363-2381, between 8:30 AM and 5 PM EST.

- The following is excluded under the warranty:
  - A) All damage which has arisen due to improper treatment, e.g. nonobservance of the user instructions.
  - B) All damage which is due to repairs or tampering by the customer or unauthorized third parities.
  - C) Damage which has arisen during transport from the manufacturer to the consumer or during transport to the service centre.
  - D) Accessories which are subject to normal wear and tear.
- Liability for direct or indirect consequential losses caused by the unit are excluded even if the damage to the unit is accepted as a warranty claim.

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